



High transmission speed for large volumes of data

RFID SYSTEM HF (13.56 MHz) BIS M

The RFID system BIS M supports global ISO standards and scores with a high transmission speed for large volumes of data. Through various combination options of data carriers and read/write heads, the system can be used for a variety of applications. The system is ideal, for example, in close-range parts tracking or for applications in production control such as palletizing or recording data on the workpiece.

Features

- 4-pin standard wiring and IO-Link components
- In combination with passive data carriers of average ranges up to a max. of 400 mm
- Seamless integration in applications through global RFID standards ISO 15693 and ISO 14443A
- All bus systems commonly used on a global basis available
- Easy, fast commissioning
- Balluff high-speed components (up to eight times faster than ISO 15693)
- Customer-specific developments
- A variety of accessories for an easy integration available at all places of use



	BISO18Y BIS M-113-03/L
Product Group	HF (13.56 MHz)
Dimension	Ø 4.35 x 3.6 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 15693
User data, read/write	112 Byte
Storage temperature	-40...85 °C
Storage temperature temporary	—
Ambient temperature	-40...85 °C
Housing material	Epoxy-resin/fiberglass PVC
Protection degree	IPx8
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE
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Suitable read/write head with max. read/write working distance

Installation	flush in metal*	on metal	metal-free (clear zone)
BIS M-302			
BIS M-305			
BIS M-402-xxx-002			
BIS M-402-xxx-007			
BIS M-410			
BIS M-411			
BIS M-449		0-5.5	0-6
BIS M-451			
BIS VM-330			
BIS VM-343-401			
BIS VM-346-401			
BIS VM-348-401			
BIS VM-349-401		0-5.5	0-6

Dimensions in mm
* Installation on request



	BISO00C BIS M-116-03/A	BISO00E BIS M-116-08/A	BISO00YL BIS M-130-03/L
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 6 x 1 mm	Ø 6 x 1 mm	Ø 7.9 x 4.9 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	EEPROM	EEPROM	EEPROM
Supported data carrier types	DIN ISO 15693	DIN ISO 14443	DIN ISO 15693
User data, read/write	112 Byte	160 Byte	112 Byte
Storage temperature	-20...90 °C	-20...90 °C	-40...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	0...50 °C	0...50 °C	-20...85 °C
Housing material	Epoxy-resin/fiberglass	Epoxy-resin/fiberglass	ABS, black
Protection degree	IP67	IP67	IP68
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE	CE	CE
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Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal*	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
			0-7			0-7			
		0-4	0-7.5						0-9
			0-3			0-3			
									0-17
									0-20
	0-2	0-3	0-4.5				0-2	0-5.5	0-6
	1.3-2.5	0-4	0-6.5						
	0-2	0-3	0-4.5				0-2	0-5.5	0-6
			0-3.5			0-3.5	0-3	0-6	0-6.5
			0-3.5			0-3.5	0-3	0-6	0-6.5
	0-2	0-3	0-5						
	1.3-2.5	0-4	0-6.5						



	BISO00YJ BIS M-130-10/L
Product Group	HF (13.56 MHz)
Dimension	Ø 7.9 x 4.9 mm
Antenna type	round
UID serial number, read-only	4 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 14443
User data, read/write	736 Byte
Storage temperature	-40...85 °C
Storage temperature temporary	—
Ambient temperature	-20...85 °C
Housing material	ABS, black
Protection degree	IP68
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE
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Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-302			
BIS M-304			
BIS M-305			
BIS M-307		0-7	0-5
BIS M-400-xxxx-001			
BIS M-400-xxxx-002			
BIS M-400-xxxx-401			
BIS M-402-xxxx-002			0-4.5
BIS M-402-xxxx-004			
BIS M-404-xxxx-401			
BIS M-408-045-001			0-6.5
BIS M-410			0-6
BIS M-411			0-6.5
BIS M-414	0-1	0-3	0-2
BIS M-449			
BIS VM-305			
BIS VM-306			
BIS VM-307	0-7		0-5
BIS VM-330	0-1	0-3	0-2
BIS VM-332			
BIS VM-333			
BIS VM-343-401	0-1.5	0-4	0-2.5
BIS VM-344-401			
BIS VM-345-401			
BIS VM-346-401	0-1.5	0-4	0-2.5
BIS VM-348-401			
BIS VM-349-401			

Dimensions in mm



	BISO00YK BIS M-130-07/L	BISO1A0 BIS M-122-21/A	BISO0048 BIS M-122-01/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 7.9 x 4.9 mm	Ø 10 x 4.5 mm	Ø 10 x 4.5 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	4 Byte
Memory type	EEPROM	EEPROM	EEPROM
Supported data carrier types	DIN ISO 15693	—	DIN ISO 14443
User data, read/write	992 Byte	32 Byte	752 Byte
Storage temperature	-40...85 °C	-25...85 °C	-25...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-20...85 °C	-25...70 °C	-25...70 °C
Housing material	ABS, black	PA 12, PU potting	PA 12, PU potting
Protection degree	IP68	IP67	IP67
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) flush in metal
Approval/Conformity	CE	CE	CE
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Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
				0-5.5		0-7.5	0-5		0-7
				0-3.5		0-5.5	0-4		0-5
				0-3.5		0-5.5	0-4		0-5
		0-8	0-10	0-3.5		0-5.5	0-4		0-5
				0-5.5		0-11.5			0-9.5
				0-3.5		0-4.5	0-4		0-5
						0-7.5			
			0-9	0-3.5		0-6.5	0-4		0-5
				0-3.5		0-6.5	0-4		0-5
				0-2	0-4	0-4.5			
					0-7.5	0-9.5			
	0-2	0-4	0-4.5	0-2	0-3.5	0-4			
				0-4.5	0-6.5	0-6.5			
				0-3.5		0-5.5	0-4		0-5
				0-3.5		0-4			
	0-8		0-10	0-3.5		0-5.5	0-4		0-5
	0-2	0-4	0-4.5	0-2	0-3.5	0-4			
				0-3	0-5	0-5.5			
						0-8.5			
	0-2.5	0-5	0-5	0-2	0-3	0-3.5			
					0-7.5				
	0-2.5	0-5	0-5	0-2	0-3	0-3.5			
				0-3.5		0-5.5			
				0-4.5	0-6.5	0-6.5			



	BISO04A BIS M-122-02/A
Product Group	HF (13.56 MHz)
Dimension	Ø 10 x 4.5 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693
User data, read/write	2000 Byte
Storage temperature	-25...85 °C
Storage temperature temporary	—
Ambient temperature	-25...70 °C
Housing material	PA 12, PU potting
Protection degree	IP67
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE
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Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-302	0-6		0-9
BIS M-304	0-5		0-7
BIS M-305	0-5		0-7
BIS M-307	0-5		0-7
BIS M-400-xxx-001	0-7		0-13
BIS M-400-xxx-002	0-5		0-6
BIS M-400-xxx-401			0-9
BIS M-402-xxx-002	0-5		0-8
BIS M-402-xxx-004	0-5		0-8
BIS M-404-xxx-401	0-3.5	0-5.5	0-6
BIS M-405-xxx-001			
BIS M-408-045-001		0-9	0-11
BIS M-414	0-3.5	0-5	0-5.5
BIS M-449	0-6	0-8	0-8
BIS VM-300			
BIS M-302			
BIS M-304			
BIS VM-305			0-7
BIS VM-306	0-5		
BIS VM-307	0-5		0-7
BIS VM-330	0-3.5	0-5	0-5.5
BIS VM-332	0-4.5	0-6.5	0-7
BIS VM-333			0-10
BIS VM-343-401	0-3.5	0-4.5	0-5
BIS VM-344-401			
BIS VM-345-401		0-9	0-1
BIS VM-346-401	0-3.5	0-4.5	0-5
BIS VM-348-401	0-5		0-7
BIS VM-349-401	0-6	0-8	0-8

Dimensions in mm
* Installation on request



	BISO19C BIS M-1R1-02/L	BISO040 BIS M-105-01/A	BISO042 BIS M-105-02/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 10.1 x 4.5 mm	Ø 11.98 x 6 mm	Ø 11.98 x 6 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	4 Byte	8 Byte
Memory type	FRAM	EEPROM	FRAM
Supported data carrier types	DIN ISO 15693	DIN ISO 14443	DIN ISO 15693
User data, read/write	2000 Byte	752 Byte	2000 Byte
Storage temperature	-25...85 °C	-25...85 °C	-25...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...85 °C	-25...70 °C	-25...70 °C
Housing material	PEEK, GF30	Epoxy resin-glass fiber, GF	Epoxy resin-glass fiber, GF
Protection degree	IP68	IP67	IP67
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE	CE	CE
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Installation	flush in metal	on metal	metal-free (clear zone)*	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
						0-9			0-11
	0-7	0-8		0-5		0-7	0-6		0-9
	0-6.5	0-7		0-5		0-5	0-6		0-7
				0-4		0-6	0-4		0-8
				0-4		0-6	0-6		0-8
						0-7			0-11
				0-5		0-6	0-5		0-9
									0-13
									0-6
				0-4		0-6	0-4		0-8
				0-4		0-6	0-6		0-8
						0-7	0-6	0-8	0-8.5
								0-11	0-13
							0-5	0-6	0-6.5
							0-7	0-9.5	0-10
						0-9			0-11
	0-7	0-8							
	0-6.5	0-7							
				0-4		0-6	0-6		0-8
				0-5		0-6	0-6		0-8
				0-4		0-6	0-6		0-8
							0-5	0-6	0-6.5
							0-6	0-8	0-13
							0-4	0-5	0-5.5
									0-11
							0-4	0-5	0-5.5
							0-5		0-7
							0-7	0-9.5	0-10

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	BISO00YH BIS M-131-10/L
Product Group	HF (13.56 MHz)
Dimension	Ø 12 x 6.4 mm
Antenna type	round
UID serial number, read-only	4 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 14443
User data, read/write	736 Byte
Storage temperature	-40...85 °C
Storage temperature temporary	—
Ambient temperature	-20...85 °C
Housing material	ABS
Protection degree	IP68
Installation	metal-free (clear zone) on metal flush in metal
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Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-301			
BIS M-302			
BIS M-304			
BIS M-305			
BIS M-307			
BIS M-340		0-8	0-10
BIS M-371-000-A01			
BIS M-372-000-A01			
BIS M-373-000-A01			
BIS M-400-xxx-001			
BIS M-400-xxx-002			
BIS M-400-xxx-401			
BIS M-401			
BIS M-402-xxx-002			0-9
BIS M-402-xxx-004			
BIS M-404-xxx-401			
BIS M-405-xxx-001			
BIS M-408-045-001			0-13
BIS M-410			0-12
BIS M-411			0-13
BIS M-451	0-2	0-4	0-4.5
BIS VM-300			
BIS VM-301			
BIS M-302			
BIS M-304			
BIS VM-305			
BIS VM-307			
BIS VM-332			
BIS VM-333			
BIS VM-344-401			
BIS VM-345-401			
BIS VM-348-401			
BIS VM-349-401			
BIS M-371-000-A01			
BIS M-372-000-A01			
BIS M-373-000-A01			
BIS M-410			0-5
BIS M-411			

Dimensions in mm, * Installation on request



	BISO19E BIS M-1R2-02/L	BISO0044 BIS M-110-02/L	BISO00YF BIS M-132-03/L
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 15.3 x 4.5 mm	Ø 20 x 2.8 mm	Ø 24.9 x 4.8 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	EEPROM
Supported data carrier types	DIN ISO 15693	DIN ISO 15693	DIN ISO 15693
User data, read/write	2000 Byte	2000 Byte	112 Byte
Storage temperature	-25...85 °C	-25...85 °C	-40...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...85 °C	-25...85 °C	-20...85 °C
Housing material	PEEK, GF30	PA 6	ABS, black
Protection degree	IP68	IP68	IP68
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal	metal-free (clear zone)
Approval/Conformity	CE	CE	CE
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Installation	flush in metal	on metal	metal-free (clear zone)*	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
						0-22			
						0-32			
	0-11	0-12				0-16			
	0-10	0-10				0-14			
						0-13			
						0-13			
						0-90			
						0-70			0-100
						0-115			0-160
									0-160
						0-20			
						0-15			
						0-18			
						0-30			
						0-15			
						0-15			
						0-10			
						0-20			
						0-23			
									0-48
						0-45			0-80
					0-5	0-12			
					0-22				
					0-32				
	0-11	0-12							
	0-10	0-10							
					0-13				
					0-13				
					0-10				
					0-18				
					0-22				
					0-22				
					0-12				
				0-5	0-12				
									0-100
									0-160
									0-160
									0-48
									0-80

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	BIS00YC BIS M-132-10/L
Product Group	HF (13.56 MHz)
Dimension	Ø 24.9 x 4.8 mm
Antenna type	round
UID serial number, read-only	4 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 14443
User data, read/write	736 Byte
Storage temperature	-40...85 °C
Storage temperature temporary	—
Ambient temperature	-20...85 °C
Housing material	ABS, black
Protection degree	IP68
Installation	metal-free (clear zone)
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Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-301			
BIS M-302			
BIS M-304			
BIS M-340			
BIS M-371-000-A01			
BIS M-372-000-A01			
BIS M-400-xxx-001			
BIS M-400-xxx-002			
BIS M-400-xxx-401			
BIS M-401			
BIS M-402-xxx-002			
BIS M-402-xxx-004			
BIS M-404-xxx-401			
BIS M-405-xxx-001			
BIS M-406-045-001			
BIS M-408-045-001			
BIS M-410			0-15
BIS M-411			0-26
BIS M-449			
BIS M-4006-001			
BIS M-4008-001			
BIS VM-300			
BIS VM-301			
BIS VM-332			
BIS VM-333			
BIS VM-344-401			
BIS VM-345-401			
BIS VM-349-401			
BIS M-410			0-15
BIS M-411			0-26

Dimensions in mm
* Installation on request



	BIS0143 BIS M-128-03/L	BIS003Y BIS M-101-01/L	BIS0045 BIS M-111-02/L
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 26 x 6 mm	Ø 30 x 1 mm	Ø 30 x 2.8 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	4 Byte	8 Byte
Memory type	EEPROM	EEPROM	FRAM
Supported data carrier types	DIN ISO 15693	DIN ISO 14443	DIN ISO 15693
User data, read/write	112 Byte	752 Byte	2000 Byte
Storage temperature	-25...85 °C	-25...85 °C	-25...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...70 °C	-25...70 °C	-25...85 °C
Housing material	Epoxy-resin/fiberglass	Epoxy resin-glass fiber, GF	PA 6
Protection degree	IP67	IP67	IP68
Installation	metal-free (clear zone)	metal-free (clear zone)	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE	CE	CE
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Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
						0-22			0-28
						0-34			0-45
						0-16			0-20
						0-14			
									0-140
									0-120
									0-175
			0-27			0-20			0-28
						0-15			0-20
			0-21						0-21
						0-28			0-40
						0-14			0-18
						0-15			
			0-13						
						0-12			0-28
									0-28
			0-26						
									0-67
									3-13
									0-52
									0-52
						0-15	0-28	0-18	0-10
						0-15	0-45	0-30	
			0-13				0-21		
			0-21				0-28	0-18	0-10
							0-28		
							3-13		



	BISO0Y8 BIS M-134-10/L
Product Group	HF (13.56 MHz)
Dimension	Ø 49.8 x 5.3 mm
Antenna type	round
UID serial number, read-only	4 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 14443
User data, read/write	736 Byte
Storage temperature	-40...85 °C
Storage temperature temporary	—
Ambient temperature	-20...85 °C
Housing material	ABS, black
Protection degree	IP68
Installation	metal-free (clear zone)
Approval/Conformity	CE
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Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-301			
BIS M-302			
BIS M-304			
BIS M-305			
BIS M-307			
BIS M-340			
BIS M-341			
BIS M-371-000-A01			
BIS M-372-000-A01			
BIS M-373-000-A01			
BIS M-400-xxx-001			
BIS M-400-xxx-002			
BIS M-400-xxx-401			
BIS M-401			
BIS M-402-xxx-002			
BIS M-402-xxx-004			
BIS M-404-xxx-401			
BIS M-405-xxx-001			
BIS M-406-045-001			
BIS M-408-045-001			
BIS M-410			0-32
BIS M-411			0-56
BIS M-414			
BIS M-449			
BIS M-4006-001			
BIS M-4008-001			
BIS VM-300			
BIS VM-301			
BIS VM-305			
BIS VM-307			
BIS VM-330			
BIS VM-332			
BIS VM-333			
BIS VM-341-001			
BIS VM-341-401			
BIS VM-343-401			
BIS VM-344-401			
BIS VM-345-401			
BIS VM-346-401			
BIS VM-349-401			
Dimensions in mm			



	BISO03Z BIS M-102-01/L	BISO046 BIS M-112-02/L	BISO0NW BIS M-143-02/A-M8
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 50 x 1 mm	Ø 50 x 3.3 mm	Ø 22 x 21 mm
Antenna type	round	round	round
UID serial number, read-only	4 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	FRAM
Supported data carrier types	DIN ISO 14443	DIN ISO 15693	DIN ISO 15693
User data, read/write	752 Byte	2000 Byte	2000 Byte
Storage temperature	-25...85 °C	-25...85 °C	-25...95 °C
Storage temperature temporary	—	140 °C 1x100 h, -40 °C...90 °C 1x1000 h	—
Ambient temperature	-25...70 °C	-25...85 °C	-25...70 °C
Housing material	Epoxy resin-glass fiber, GF	PA 6	Steel, data carrier: PA 12-GF30
Protection degree	IP67	IP68	IP68, IPx9K
Installation	metal-free (clear zone)	metal-free (clear zone)	on metal
Approval/Conformity	CE	CE	CE
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Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
			0-32			0-44			0-13
			0-45			0-70			0-13
			0-20			0-30			
			0-18						0-12
									0-12
						0-170			
						35-90			0-23
						0-150			
						0-235			
						0-270			
			0-28			0-38			0-13
			0-18			0-28			0-12
						0-30			0-13
						0-60			0-16
									0-9
									0-9
									0-9.5
			0-28			0-38			0-13
						0-38			
						0-40			0-13
									0-7
									0-10
						0-80			0-18
						0-80			0-18
						0-44			0-13
			0-32			0-70			
			0-45						
									0-12
									0-12
									0-7
									0-9.5
									0-13
						0-30			0-23
						35-90			
						0-100			
									0-7.5
						0-44			0-13
						0-45			0-16
									0-7.5
									0-10



	BISO100 BIS M-143-02/A-M8-SA2
Product Group	HF (13.56 MHz)
Dimension	Ø 21 x 21 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693
User data, read/write	2000 Byte
Storage temperature	-25...95 °C
Storage temperature temporary	—
Ambient temperature	-25...70 °C
Housing material	Steel, data carrier: PA 12-GF30
Protection degree	IP68, IPx9K
Installation	on metal
Approval/Conformity	CE
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Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300		0-13	
BIS M-302		0-13	
BIS M-305		0-12	
BIS M-307		0-12	
BIS M-341		0-23	
BIS M-400-xxx-001		0-13	
BIS M-400-xxx-002		0-12	
BIS M-400-xxx-401		0-13	
BIS M-401		0-16	
BIS M-402-xxx-002		0-9	
BIS M-402-xxx-004		0-9	
BIS M-404-xxx-401		0-9.5	
BIS M-405-xxx-001		0-13	
BIS M-408-045-001		0-13	
BIS M-414		0-7	
BIS M-449		0-10	
BIS M-4006-001		0-18	
BIS M-4008-001		0-18	
BIS VM-300		0-13	
BIS VM-305		0-12	
BIS VM-307		0-12	
BIS VM-330		0-7	
BIS VM-332		0-9.5	
BIS VM-333		0-13	
BIS VM-341-001		0-23	
BIS VM-343-401		0-7.5	
BIS VM-344-401		0-13	
BIS VM-345-401		0-16	
BIS VM-346-401		0-7.5	
BIS VM-349-401		0-10	

Dimensions in mm



	BISO0NU BIS M-143-02/A-M6	BISO0M8 BIS M-140-02/A-M8	BISO0M9 BIS M-140-02/A-M6
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 21 x 21 mm	Ø 22 x 31 mm	Ø 22 x 31 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	FRAM
Supported data carrier types	DIN ISO 15693	DIN ISO 15693	DIN ISO 15693
User data, read/write	2000 Byte	2000 Byte	2000 Byte
Storage temperature	-25...95 °C	-25...95 °C	-25...95 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C
Housing material	Steel, data carrier: PA 12-GF30	Steel, data carrier: PA 12-GF30	Steel, data carrier: PA 12-GF30
Protection degree	IP68, IPx9K	IP68, IPx9K	IP68, IPx9K
Installation	on metal	on metal	on metal
Approval/Conformity	CE	CE	CE
Productview	Page 120	Page 120	Page 120

	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
		0-13			0-22			0-22	
		0-13			0-17			0-17	
		0-12			0-17			0-17	
		0-12			0-16			0-16	
		0-23			0-46			0-46	
		0-13			0-22			0-22	
		0-12							
		0-13							
		0-16			0-32			0-32	
		0-9							
		0-9							
		0-9.5							
		0-13			0-22			0-22	
		0-13			0-22			0-22	
		0-7			0-9			0-9	
		0-10			0-13			0-13	
		0-18							
		0-18							
		0-13			0-22			0-22	
		0-12			0-17			0-17	
		0-12			0-16			0-16	
		0-7							
		0-9.5							
		0-13							
		0-23			0-46			0-46	
		0-7.5							
		0-13			0-22			0-22	
		0-16							
		0-7.5							
		0-10							



	BISO119 BIS M-142-20/A-M8-GY
Product Group	HF (13.56 MHz)
Dimension	Ø 22 x 26 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693
User data, read/write	8192 Byte
Storage temperature	-25...95 °C
Storage temperature temporary	—
Ambient temperature	-25...70 °C
Housing material	Steel, data carrier: PA 12-GF30 gray
Protection degree	IP68, IPx9K
Installation	on metal
Approval/Conformity	CE
Productview	Page 120

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-301			
BIS M-302			
BIS M-304			
BIS M-305			
BIS M-341			
BIS M-371-000-A01		0-50	
BIS M-372-000-A01		0-65	
BIS M-373-000-A01		0-65	
BIS M-400-xxx-001			
BIS M-400-xxx-002			
BIS M-400-xxx-401			
BIS M-401			
BIS M-404-xxx-401			
BIS M-405-xxx-001			
BIS M-410			
BIS M-449			
BIS M-458-045-001			
BIS M-4006-001		0-38	
BIS M-4006-002			
BIS M-4008-001		0-38	
BIS VM-300			
BIS VM-301			
BIS VM-305			
BIS VM-332			
BIS VM-333			
BIS VM-341-001			
BIS VM-341-401		0-40	
BIS VM-343-401		0-7.5	
BIS VM-344-401			
BIS VM-345-401		0-22	
BIS VM-346-401		0-7.5	
BIS VM-349-401			

Dimensions in mm
* Installation on request



	BISO04E BIS M-125-01/L	BISO043 BIS M-108-02/L	BISO11F BIS M-108-11/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	30 x 6 x 30 mm	32 x 11 x 52 mm	32 x 11 x 52 mm
Antenna type	round	round	round
UID serial number, read-only	4 Byte	8 Byte	8 Byte
Memory type	EEPROM	FRAM	FRAM
Supported data carrier types	DIN ISO 14443	DIN ISO 15693	DIN ISO 15693 (High Memory)
User data, read/write	752 Byte	2000 Byte	8192 Byte
Storage temperature	-25...85 °C	-25...85 °C	-25...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C
Housing material	PBT	PBT, GF	PBT, GF
Protection degree	IP67	IP67	IP67
Installation	metal-free (clear zone) on metal	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal
Approval/Conformity	CE	CE	CE
Productview	Page 120	Page 121	Page 121

Installation	flush in metal	on metal*	metal-free (clear zone)*	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
				0-16		0-30			
						0-45			
				0-12		0-20			
				0-10		0-18			
				0-11		0-17			
				0-50		20-60			
						0-110			
						0-160			
						0-185			
				0-16		0-28			
				0-12		0-20			
				0-13	0-15	0-21			
						0-40			
				0-6	0-8	0-11	0-5	0-6	0-6.5
				0-16		0-28			
						0-40			
				0-7	0-9.5	0-13			
				10-19	0-32	0-52	11-18	0-28	0-36
				10-19	0-32	0-52	11-18	0-28	0-36
				0-16		0-30			
						0-45			
				0-11		0-17			
				0-6	0-8	0-11	0-5	0-6	0-6.5
				0-13	0-15	0-21			
				14-25		20-60			
				14-20	0-36	0-64	11-20	0-30	0-42
				0-16		0-30		0-15	0-18
						0-28			0-18
				0-7	0-9.5	0-13			

Do you need more details? Our Product Finder at www.balluff.com provides you with product-specific information, including technical drawings, data sheets, user guides and more for each individual product. All items are available for download.



	BIS0111 BIS M-108-20/A
Product Group	HF (13.56 MHz)
Dimension	32 x 11 x 52 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693
User data, read/write	8192 Byte
Storage temperature	-25...85 °C
Storage temperature temporary	—
Ambient temperature	-25...70 °C
Housing material	PBT, GF
Protection degree	IP67
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE
Productview	Page 121

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-301			0-45
BIS M-371-000-A01			0-100
BIS M-372-000-A01			0-150
BIS M-373-000-A01			0-150
BIS M-400-xxx-401	0-13	0-15	0-21
BIS M-404-xxx-401			
BIS M-4006-001			
BIS M-4008-001	11-18	0-28	0-36
BIS VM-301			0-50
BIS VM-332			
BIS VM-333	0-13	0-15	0-21
BIS VM-341-401			
BIS VM-344-401	0-16		0-30
BIS VM-345-401			0-28
Dimensions in mm			



	BIS011E BIS M-108-13/A	BIS011A BIS M-108-14/A	BIS0139 BIS M-108-15/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	32 x 11 x 52 mm	32 x 11 x 52 mm	32 x 11 x 52 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	FRAM
Supported data carrier types	DIN ISO 15693 (High Memory)	DIN ISO 15693 (High Memory)	DIN ISO 15693 (High Memory)
User data, read/write	32768 Byte	65536 Byte	131072 Byte
Storage temperature	-25...85 °C	-25...85 °C	-25...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C
Housing material	PBT, GF	PBT, GF	PBT, GF
Protection degree	IP67	IP67	IP67
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE	CE	CE
Productview	Page 121	Page 121	Page 121

Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
	0-5	0-6	0-6.5	0-5	0-6	0-6.5	0-5	0-6	0-6.5
	11-18	0-28	0-36	11-18	0-28	0-36	11-18	0-28	0-36
	11-18	0-28	0-36	11-18	0-28	0-36	11-18	0-28	0-36
	0-5	0-6	0-6.5	0-5	0-6	0-6.5	0-5	0-6	0-6.5
	11-20	0-30	0-42	11-20	0-30	0-42	11-20	0-30	0-42
		0-15	0-18		0-15	0-18		0-15	0-18



	BIS00Y5 BIS M-135-03/L
Product Group	HF (13.56 MHz)
Dimension	51.5 x 6.4 x 51.5 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 15693
User data, read/write	112 Byte
Storage temperature	-40...85 °C
Storage temperature temporary	—
Ambient temperature	-20...85 °C
Housing material	ABS, black
Protection degree	IP68
Installation	metal-free (clear zone)
Approval/Conformity	CE
Productview	Page 121

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-371-000-A01			10-205
BIS M-372-000-A01			0-300
BIS M-373-000-A01			0-340
BIS M-400-xxx-001			0-50
BIS M-408-045-001			0-48
BIS M-410			0-68
BIS M-411			0-110
BIS M-371-000-A01			10-205
BIS M-372-000-A01			0-300
BIS M-373-000-A01			0-340
BIS M-400-xxx-001			0-50
BIS M-408-045-001			0-48
BIS M-410			0-68
BIS M-411			0-110

Dimensions in mm



	BIS00Y3 BIS M-135-07/L	BIS00Y6 BIS M-135-02/L	BIS00W9 BIS M-136-03/L
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	51.5 x 6.4 x 51.5 mm	51.5 x 6.4 x 51.5 mm	52 x 11.5 x 128 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	EEPROM	FRAM	EEPROM
Supported data carrier types	DIN ISO 15693	DIN ISO 15693	DIN ISO 15693
User data, read/write	992 Byte	2000 Byte	112 Byte
Storage temperature	-40...85 °C	-40...85 °C	-40...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-20...85 °C	-20...85 °C	-20...85 °C
Housing material	ABS, black	ABS, black	ABS, black
Protection degree	IP68	IP68	IP68
Installation	metal-free (clear zone)	metal-free (clear zone)	metal-free (clear zone)
Approval/Conformity	CE	CE	CE
Productview	Page 121	Page 121	Page 121

	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
						25-140			15-210
						0-230			0-350
						0-230			0-370
			23-46			0-60			
			11-75			0-100			
						25-140			15-210
						0-230			0-350
						0-230			0-370
			23-46			0-60			
			11-75			0-100			



	BIS00Y9 BIS M-133-02/A	
Product Group	HF (13.56 MHz)	
Dimension	Ø 30 x 9.7 mm	
Antenna type	round	
UID serial number, read-only	8 Byte	
Memory type	FRAM	
Supported data carrier types	DIN ISO 15693	
User data, read/write	2000 Byte	
Storage temperature	-40...130 °C	
Storage temperature temporary	—	
Ambient temperature	-40...85 °C	
Housing material	PA, black	
Protection degree	IP67	
Installation	metal-free (clear zone) on metal	
Approval/Conformity	CE	
Productview	Page 121	

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)	
BIS M-300				
BIS M-340				
BIS M-351				
BIS M-371-000-A01			0-70	
BIS M-372				
BIS M-400-xxx-001				
BIS M-408-045-001				
BIS M-410			0-32	
BIS M-411			38-52	
BIS M-451				
BIS M-458-045-001				
BIS M-4006-001			0-55	
BIS M-4006-002				
BIS M-4008-001		0-45	0-55	
BIS M-4008-002				
BIS VM-300				
BIS VM-343-401				
BIS VM-344-401				
BIS VM-346-401				
BIS VM-351-001				
BIS VM-351-401				
BIS M-410			0-32	
BIS M-411			38-52	
BIS M-4006-001			0-55	
BIS M-4008-001		0-45	0-55	

Dimensions in mm
** Combined with metal mounting plate BAM012M



	BIS00LC BIS M-107-03/L-H200	BIS004F BIS M-150-02/A	BIS004H BIS M-151-02/A
	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
	22 x 6.5 x 40 mm	22 x 6.5 x 40 mm	22 x 6.5 x 40 mm
	round	Rod	Rod
	8 Byte	8 Byte	8 Byte
	EEPROM	FRAM	FRAM
	DIN ISO 15693	DIN ISO 15693	DIN ISO 15693
	112 Byte	2000 Byte	2000 Byte
	-25...85 °C	—	—
	200 °C 1x1000 h	-25...130 °C 1x1000 h	-25...130 °C 1x1000 h
	-25...70 °C	-25...70 °C	-25...70 °C
	PPS, GF40, with EP potting	PPS, GF40, with EP potting	PPS, GF40, with EP potting
	IP67	IP67	IP67
	metal-free (clear zone) on metal	metal-free (clear zone) on metal	metal-free (clear zone) on metal
	CE	CE	CE
	Page 121	Page 121	Page 121

	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)**
		0-13	0-27						
			0-100		0-65	0-65		0-65	0-65
		0-13	0-27						
		0-12	0-25						
					0-65	0-65		0-65	0-65
					0-42	0-42		0-38	0-38
					0-60	0-60		0-65	0-65
					0-60	0-60		0-65	0-65
		0-13	0-13		0-27	0-27			
					0-7	0-7			
		0-13	0-13		0-27	0-27			
					0-7	0-7			
					0-65	0-65		0-65	0-65
					0-52	0-52		0-52	0-52



	BISO11M BIS M-155-11/A
Product Group	HF (13.56 MHz)
Dimension	22 x 9.7 x 40 mm
Antenna type	Rod
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693 (High Memory)
User data, read/write	8192 Byte
Storage temperature	—
Storage temperature temporary	-25...130 °C 1x1000 h
Ambient temperature	-25...70 °C
Housing material	PPS, GF40, with EP potting
Protection degree	—
Installation	metal-free (clear zone) on metal
Approval/Conformity	CE
Productview	Page 121

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)**
BIS M-4006-002		0-42	0-42
BIS M-4008-002		0-42	0-42
BIS VM-351-401		0-50	0-50
BIS VM-355-401		0-34	0-34

Dimensions in mm

** Combined with metal mounting plate BAM012M



	BISO117 BIS M-155-20/A	BISO12J BIS M-156-11/A	BISO112 BIS M-156-20/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	22 x 9.7 x 40 mm	22 x 9.7 x 40 mm	22 x 9.7 x 40 mm
Antenna type	Rod	Rod	Rod
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	FRAM
Supported data carrier types	DIN ISO 15693	DIN ISO 15693 (High Memory)	DIN ISO 15693
User data, read/write	8192 Byte	8192 Byte	8192 Byte
Storage temperature	—	—	—
Storage temperature temporary	-25...130 °C 1x1000 h	-25...130 °C 1x1000 h	-25...130 °C 1x1000 h
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C
Housing material	PPS, GF40, with EP potting	PPS, GF40, with EP potting	PPS, GF40, with PU potting
Protection degree	—	—	—
Installation	metal-free (clear zone) on metal	metal-free (clear zone) on metal	metal-free (clear zone) on metal
Approval/Conformity	CE	CE	CE
Productview	Page 121	Page 122	Page 122

Installation	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)**
		0-68	0-68		0-42	0-42		0-68	0-68
		0-68	0-68		0-42	0-42		0-68	0-68
		0-75	0-75		0-42	0-42		0-70	0-70
		0-45	0-45		0-30	0-30		0-45	0-45



	BIS011Z BIS M-155-13/A	
Product Group	HF (13.56 MHz)	
Dimension	22 x 9.7 x 40 mm	
Antenna type	Rod	
UID serial number, read-only	8 Byte	
Memory type	FRAM	
Supported data carrier types	DIN ISO 15693 (High Memory)	
User data, read/write	32768 Byte	
Storage temperature	—	
Storage temperature temporary	-25...130 °C 1x1000 h	
Ambient temperature	-25...70 °C	
Housing material	PPS, GF40, with EP potting	
Protection degree	—	
Installation	metal-free (clear zone) on metal	
Approval/Conformity	CE	
Productview	Page 121	

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)**	
BIS M-4006-002		0-42	0-42	
BIS M-4008-002		0-42	0-42	
BIS VM-351-401		0-50	0-50	
BIS VM-355-401		0-34	0-34	

Dimensions in mm

** Combined with metal mounting plate BAM012M



	BIS012K BIS M-156-13/A	BIS011N BIS M-155-14/A	BIS012L BIS M-156-14/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	22 x 9.7 x 40 mm	22 x 9.7 x 40 mm	22 x 9.7 x 40 mm
Antenna type	Rod	Rod	Rod
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	FRAM
Supported data carrier types	DIN ISO 15693 (High Memory)	DIN ISO 15693 (High Memory)	DIN ISO 15693 (High Memory)
User data, read/write	32768 Byte	65536 Byte	65536 Byte
Storage temperature	—	—	—
Storage temperature temporary	-25...130 °C 1x1000 h	-25...130 °C 1x1000 h	-25...130 °C 1x1000 h
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C
Housing material	PPS, GF40, with EP potting	PPS, GF40, with EP potting	PPS, GF40, with EP potting
Protection degree	—	—	—
Installation	metal-free (clear zone) on metal	metal-free (clear zone) on metal	metal-free (clear zone) on metal
Approval/Conformity	CE	CE	CE
Productview	Page 122	Page 121	Page 122

	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)**
		0-42	0-42		0-42	0-42		0-42	0-42
		0-42	0-42		0-42	0-42		0-42	0-42
		0-42	0-42		0-50	0-50		0-42	0-42
		0-30	0-30		0-34	0-34		0-30	0-30



	BISO13C BIS M-155-15/A
Product Group	HF (13.56 MHz)
Dimension	22 x 9.7 x 40 mm
Antenna type	Rod
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693 (High Memory)
User data, read/write	131072 Byte
Storage temperature	—
Storage temperature temporary	-25...130 °C 1x1000 h
Ambient temperature	-25...70 °C
Housing material	PPS, GF40, with EP potting
Protection degree	—
Installation	metal-free (clear zone) on metal
Approval/Conformity	CE
Productview	Page 121

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)**
BIS M-351			
BIS M-451			
BIS M-458-045-001			
BIS M-4006-002		0-42	0-42
BIS M-4008-002		0-42	0-42
BIS VM-351-001			
BIS VM-351-401		0-50	0-50
BIS VM-355-401		0-34	0-34

Dimensions in mm

** Combined with metal mounting plate BAM012M



	BISO13F BIS M-156-15/A	BISO0P3 BIS M-153-02/A	BISO11W BIS M-153-11/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	22 x 9.7 x 40 mm	40 x 22 x 80 mm	40 x 22 x 80 mm
Antenna type	Rod	Rod	Rod
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	FRAM
Supported data carrier types	DIN ISO 15693 (High Memory)	DIN ISO 15693	DIN ISO 15693 (High Memory)
User data, read/write	131072 Byte	2000 Byte	8192 Byte
Storage temperature	—	-25...85 °C	-25...85 °C
Storage temperature temporary	-25...130 °C 1x1000 h	—	—
Ambient temperature	-25...70 °C	-25...85 °C	-25...85 °C
Housing material	PPS, GF40, with EP potting	POM	POM
Protection degree	—	—	—
Installation	metal-free (clear zone) on metal	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal
Approval/Conformity	CE	CE	CE
Productview	Page 122	Page 122	Page 122

	flush in metal	on metal	metal-free (clear zone)**	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
						0-100			
						0-100			
						0-54			
		0-42	0-42			0-100			0-55
		0-42	0-42			0-100			0-55
				0-100				0-60	
		0-42	0-42	0-100	0-100				
		0-30	0-30	0-60	0-60			0-36	



	BIS011Y BIS M-153-13/A
Product Group	HF (13.56 MHz)
Dimension	40 x 22 x 80 mm
Antenna type	Rod
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693 (High Memory)
User data, read/write	32768 Byte
Storage temperature	-25...85 °C
Storage temperature temporary	—
Ambient temperature	-25...85 °C
Housing material	POM
Protection degree	—
Installation	metal-free (clear zone) on metal
Approval/Conformity	CE
Productview	Page 122

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-371-000-A01			
BIS M-372-000-A01			
BIS M-373-000-A01			
BIS M-400-xxx-001			
BIS M-402-xxx-002			
BIS M-401			
BIS M-402-xxx-002			
BIS M-411			
BIS M-4006-001			
BIS M-4006-002			0-55
BIS M-4008-001			
BIS M-4008-002			0-55
BIS VM-300			
BIS VM-344-401			
BIS VM-345-401			
BIS VM-351-401		0-60	
BIS VM-355-401		0-36	

** Combined with metal mounting plate BAM012M



	BIS011U BIS M-153-14/A	BIS013E BIS M-153-15/A	BIS00YE BIS M-132-03/L-HT
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	40 x 22 x 80 mm	40 x 22 x 80 mm	Ø 24.9 x 4.8 mm
Antenna type	Rod	Rod	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	FRAM	FRAM	EEPROM
Supported data carrier types	DIN ISO 15693 (High Memory)	DIN ISO 15693 (High Memory)	DIN ISO 15693
User data, read/write	65536 Byte	131072 Byte	112 Byte
Storage temperature	-25...85 °C	-25...85 °C	-40...220 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...85 °C	-25...85 °C	-40...85 °C
Housing material	POM	POM	PPS
Protection degree	—	—	IP68
Installation	metal-free (clear zone) on metal	metal-free (clear zone) on metal	metal-free (clear zone)
Approval/Conformity	CE	CE	CE, Ecolab
Productview	Page 122	Page 122	Page 119

Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
									0-30
									0-100
									0-145
									0-155
									0-30
									0-24
									0-50
									0-20
									0-70
									0-60
						0-55			0-60
						0-55			0-60
									0-30
									0-30
									0-34
		0-60			0-60				
		0-36			0-36				



	BISO00YA BIS M-132-10/L-HT
Product Group	HF (13.56 MHz)
Dimension	Ø 24.9 x 4.8 mm
Antenna type	round
UID serial number, read-only	4 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 14443
User data, read/write	736 Byte
Storage temperature	-40...220 °C
Storage temperature temporary	—
Ambient temperature	-40...85 °C
Housing material	PPS
Protection degree	IP68
Installation	metal-free (clear zone)
Approval/Conformity	CE, Ecolab
Productview	Page 119

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-371-000-A01			0-40
BIS M-372-000-A01			0-30
BIS M-373-000-A01			
BIS M-400-xxx-001			
BIS M-401			0-24
BIS M-406-045-001			0-24
BIS M-408-045-001			
BIS M-410			0-15
BIS M-411			0-22
BIS M-4006-001			
BIS M-4008-001			
BIS VM-300			
BIS VM-341-401			
BIS VM-344-401			
BIS VM-345-401			
BIS M-371-000-A01			0-40
BIS M-372-000-A01			0-30
BIS M-400-xxx-001			
BIS M-406-045-001			
BIS M-410			0-15
BIS M-411			0-22

Dimensions in mm



	BISO00Y7 BIS M-134-10/L-HT	BISO18P BIS M-137-10/L-HT	BISO00Y4 BIS M-135-03/L-HT
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 49.8 x 5.3 mm	Ø 49.8 x 5.3 mm	51.5 x 6.4 x 51.5 mm
Antenna type	round	round	round
UID serial number, read-only	4 Byte	4 Byte	8 Byte
Memory type	EEPROM	EEPROM	EEPROM
Supported data carrier types	DIN ISO 14443	DIN ISO 14443	DIN ISO 15693
User data, read/write	736 Byte	736 Byte	112 Byte
Storage temperature	-40...220 °C	-40...220 °C	-40...220 °C
Storage temperature temporary	—	—	—
Ambient temperature	-40...85 °C	-40...85 °C	-40...85 °C
Housing material	PPS	PPS	PPS
Protection degree	IP68	IP68	IP68
Installation	metal-free (clear zone)	metal-free (clear zone)	metal-free (clear zone)
Approval/Conformity	CE, Ecolab	CE	CE, Ecolab
Productview	Page 119	Page 122	Page 121

	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
									0-42
									10-205
									0-300
									0-340
			0-24			0-24			0-42
									0-75
			0-24			0-24			0-42
									0-48
			0-36			0-36			0-70
			0-60			0-60			0-125
									0-90
									0-90
									0-42
									0-120
									0-42
									0-52
			0-24			0-24			
			0-24			0-24			
			0-36			0-36			
			0-60			0-60			



	BISO18R BIS M-138-03/L-HT
Product Group	HF (13.56 MHz)
Dimension	51.5 x 6.4 x 51.5 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 15693
User data, read/write	112 Byte
Storage temperature	-40...220 °C
Storage temperature temporary	—
Ambient temperature	-40...85 °C
Housing material	PPS
Protection degree	IP68
Installation	metal-free (clear zone)
Approval/Conformity	CE
Productview	Page 122

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			0-42
BIS M-371-000-A01			10-205
BIS M-372-000-A01			0-300
BIS M-373-000-A01			0-340
BIS M-400-xxx-001			0-42
BIS M-401			0-75
BIS M-406-045-001			0-42
BIS M-408-045-001			0-48
BIS M-410			0-70
BIS M-411			0-125
BIS M-4006-001			0-90
BIS M-4008-001			0-90
BIS VM-300			0-42
BIS VM-341-401			0-120
BIS VM-344-401			0-42
BIS VM-345-401			0-52
Dimensions in mm			



	BISO0Y2 BIS M-135-07/L-HT	BISO18T BIS M-138-07/L-HT	BISO0Y1 BIS M-136-03/L-HT
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	51.5 x 6.4 x 51.5 mm	51.5 x 6.4 x 51.5 mm	52 x 11.5 x 128 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	EEPROM	EEPROM	EEPROM
Supported data carrier types	DIN ISO 15693	DIN ISO 15693	DIN ISO 15693
User data, read/write	992 Byte	992 Byte	112 Byte
Storage temperature	-40...220 °C	-40...220 °C	-40...220 °C
Storage temperature temporary	—	—	—
Ambient temperature	-40...85 °C	-40...85 °C	-40...85 °C
Housing material	PPS	PPS	PPS
Protection degree	IP68	IP68	IP68
Installation	metal-free (clear zone)	metal-free (clear zone)	metal-free (clear zone)
Approval/Conformity	CE, Ecolab	CE	CE, Ecolab
Productview	Page 121	Page 122	Page 121

	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
			0-42						
			10-205			10-135			
			0-300			0-190			
			0-340			0-215			
			0-42						
			0-75						
			0-42						
			0-48						
			0-70						
			0-125			23-46			
			0-90			11-75			
			0-90			0-65			0-95
			0-42			0-65			0-95
			0-120						
			0-42						
			0-52						



	BIS00NZ BIS M-191-02/A
Product Group	HF (13.56 MHz)
Dimension	24 x 21 x 24 mm
Antenna type	Rod
UID serial number, read-only	8 Byte
Memory type	FRAM
Supported data carrier types	DIN ISO 15693
User data, read/write	2000 Byte
Storage temperature	-25...85 °C
Storage temperature temporary	—
Ambient temperature	-25...70 °C
Housing material	PBT, PU potted
Protection degree	IP67
Installation	metal-free (clear zone)
Approval/Conformity	CE
Productview	Page 122

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-352			0-22
BIS M-401			
BIS M-458-045-001			0-25
BIS M-4006-002			0-55
BIS M-4008-002			0-55
BIS VM-301			
BIS VM-351-401			0-25
BIS VM-352			0-17
BIS VM-355-401			0-15
Dimensions in mm			



	BIS0180 BIS M-127-02/A-SA1	BIS0047 BIS M-120-01/L	BIS0176 BIS M-127-02/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	40 x 23 x 28 mm	54 x 0.76 x 85.6 mm	93 x 43.3 x 57.2 mm
Antenna type	round	round	round
UID serial number, read-only	8 Byte	4 Byte	8 Byte
Memory type	FRAM	EEPROM	FRAM
Supported data carrier types	DIN ISO 15693	DIN ISO 14443	DIN ISO 15693
User data, read/write	2000 Byte	752 Byte	2000 Byte
Storage temperature	-25...85 °C	-25...70 °C	-25...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C
Housing material	PA 12 Cast aluminum	PVC	PA 12 Cast aluminum
Protection degree	IP67	IP67	IP67
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone)	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE	CE	CE
Productview	Page 122	Page 122	Page 122

Installation	Combined with BIS018E	flush in metal	on metal	metal-free (clear zone)	Combined with BIS0189
				0-50	
				0-50	
				0-50	



	BISO17F BIS M-157-17/A
Product Group	HF (13.56 MHz)
Dimension	Ø 2.12 x 12 mm
Antenna type	Rod
UID serial number, read-only	8 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 15693
User data, read/write	208 Byte
Storage temperature	-25...85 °C
Storage temperature temporary	120 °C 1x100 h, -40 °C...90 °C 1x1000 h, 140 °C 1x10 h
Ambient temperature	-25...85 °C
Housing material	Glass, transparent
Protection degree	IP68
Installation	metal-free (clear zone)
Approval/Conformity	CE
Productview	Page 123

Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)
BIS M-300			
BIS M-301			
BIS M-351			
BIS M-352			0-17
BIS M-371-000-A01			
BIS M-400-xxx-001			
BIS M-400-xxx-002			
BIS M-401			
BIS M-402-xxx-002			
BIS M-406-045-001			
BIS M-451			
BIS M-458-045-001			
BIS M-4006-002			
BIS M-4008-002			
BIS VM-300			
BIS VM-301			
BIS VM-344-401			
Dimensions in mm			



	BISO0M2 BIS M-152-03/A	BISO0L8 BIS M-106-03/L	BISO0KM BIS M-115-03/A
Product Group	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Dimension	Ø 4 x 22.2 mm	Ø 18 x 15 mm	25 x 3 x 65 mm
Antenna type	Rod	round	round
UID serial number, read-only	8 Byte	8 Byte	8 Byte
Memory type	EEPROM	EEPROM	EEPROM
Supported data carrier types	DIN ISO 15693	DIN ISO 15693	DIN ISO 15693
User data, read/write	112 Byte	112 Byte	112 Byte
Storage temperature	-25...85 °C	10...126 °C	-30...60 °C
Storage temperature temporary	120 °C 1x100 h, -40 °C...90 °C 1x1000 h	—	—
Ambient temperature	-25...85 °C	10...70 °C	-25...50 °C
Housing material	Glass, transparent	Glass	Epoxy-resin/fiberglass PVC
Protection degree	IP68	IP68	IP65
Installation	metal-free (clear zone)	metal-free (clear zone)	metal-free (clear zone)
Approval/Conformity	CE	CE	CE
Productview	Page 123	Page 123	Page 123

Installation	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)	flush in metal	on metal	metal-free (clear zone)
						0-32			0-18
									0-38
			0-30						
			0-17						
									0-85
									0-24
									0-17
									0-44
									0-14
									0-18
			0-30						
			0-18						
			0-35						
			0-35						
						0-32			0-18
									0-18



	BISO0N5 BIS M-115-07/A-SA1
Product Group	HF (13.56 MHz)
Dimension	25 x 3 x 65 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 15693
User data, read/write	992 Byte
Storage temperature	-30...60 °C
Storage temperature temporary	—
Ambient temperature	-25...50 °C
Housing material	Epoxy-resin/fiberglass PVC
Protection degree	IP65
Installation	metal-free (clear zone)
Approval/Conformity	CE
Productview	Page 123

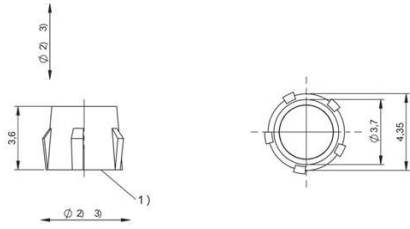
Suitable read/write head with max. read/write working distance

Installation	flush in metal	on metal	metal-free (clear zone)*
BIS M-405 Dimensions in mm * Installation on request			



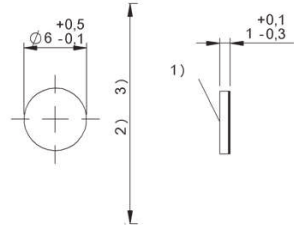
	BISO12H BIS M-1L4-03/L-D018
Product Group	HF (13.56 MHz)
Dimension	1 x 20 x 20 mm
Antenna type	round
UID serial number, read-only	8 Byte
Memory type	EEPROM
Supported data carrier types	DIN ISO 15693
User data, read/write	112 Byte
Storage temperature	-20...80 °C
Storage temperature temporary	—
Ambient temperature	0...50 °C
Housing material	PET, transparent
Protection degree	IP20
Installation	metal-free (clear zone) on metal
Approval/Conformity	CE
Productview	Page 123

Installation	flush in metal	on metal*	metal-free (clear zone)
			0-18



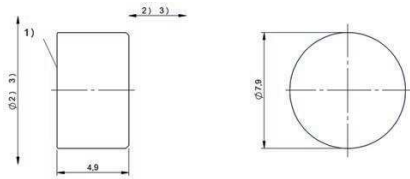
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO18Y



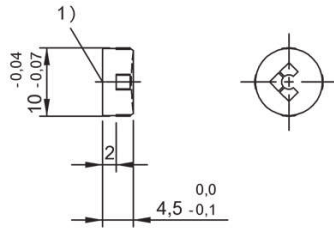
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO00UC, BISO00UE



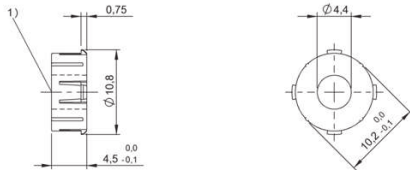
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO00YL, BISO00YJ, BISO00YK



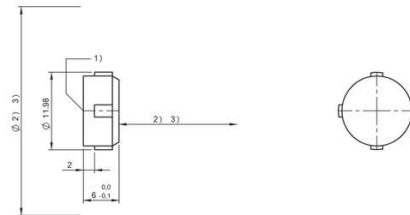
1) Sensing surface

BISO10A0, BISO0048, BISO004A



1) Sensing surface

BISO19C



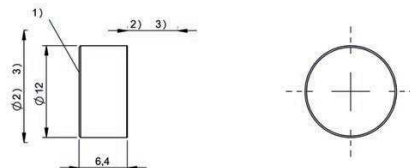
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO0040



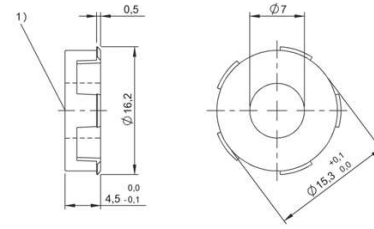
1) Sensing surface

BISO0042



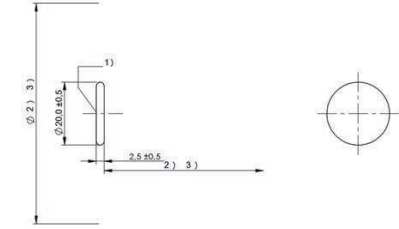
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO00YH



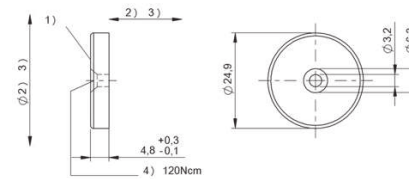
1) Sensing surface

BISO19E



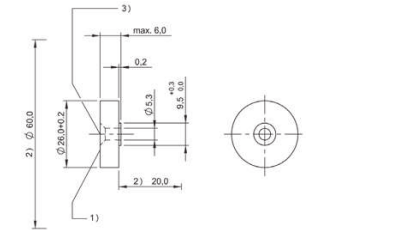
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO0044



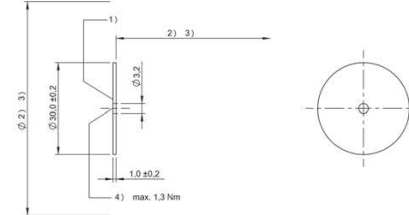
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

BISO00YF, BISO00YC, BISO00YE, BISO00YA



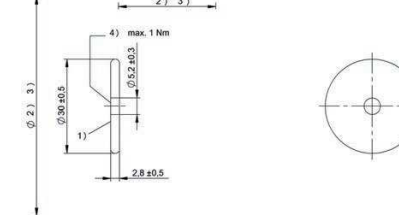
1) Sensing surface, 2) Clear zone, 3) Tightening torque max. 2.5 Nm

BISO143



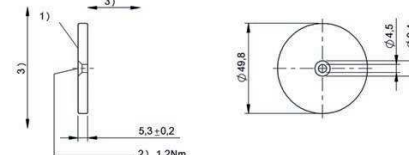
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

BISO003Y



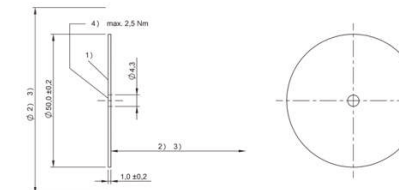
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

BISO0045



1) Sensing surface, 2) Tightening torque, 3) see R/W head table

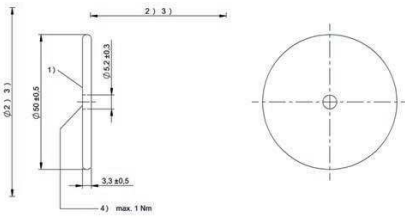
BISO00Y8, BISO00Y7



1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

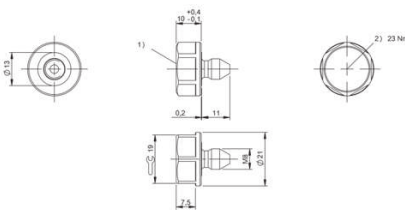
BISO003Z

120 I RFID I HF (13.56 MHz)



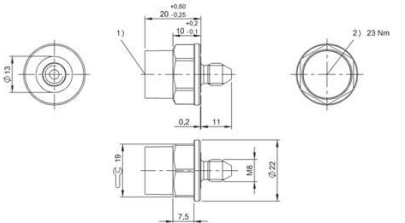
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

BISO046



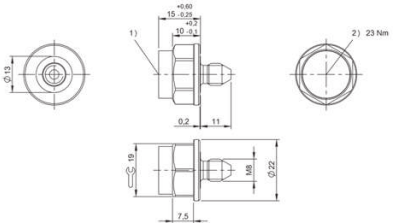
1) Sensing surface, 2) Tightening torque

BISO100



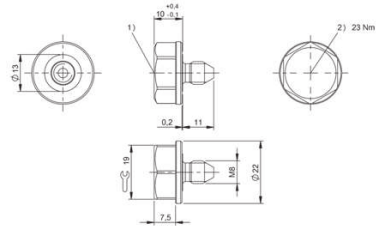
1) Sensing surface, 2) Tightening torque

BISO008



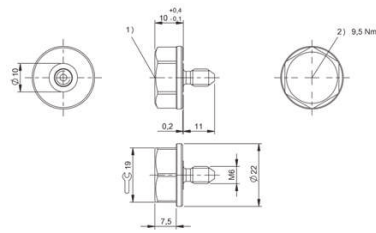
1) Sensing surface, 2) Tightening torque

BISO119



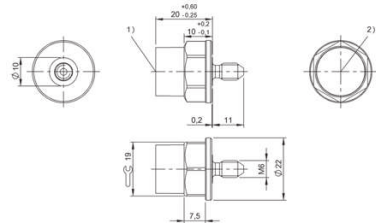
1) Sensing surface, 2) Tightening torque

BISO0NW



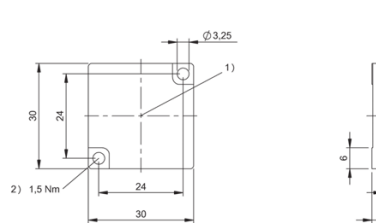
1) Sensing surface, 2) Tightening torque

BISO0NU



1) Sensing surface, 2) Tightening torque

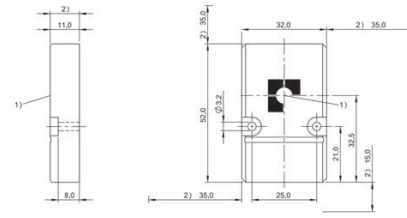
BISO0M9



1) Sensing surface, 2) Tightening torque

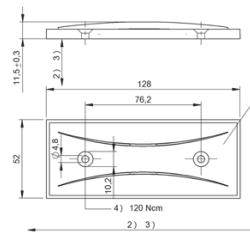
BISO04E

HF data carriers (13.56 MHz) | 121



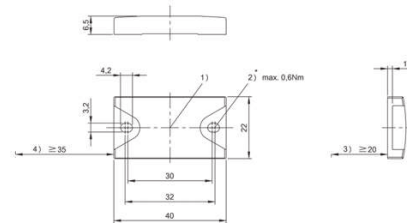
1) Sensing surface, 2) Clear zone

BISO043, BISO11F, BISO111, BISO11E, BISO11A, BISO139



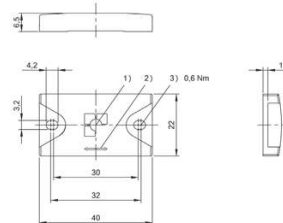
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

BISO0W9, BISO0Y1



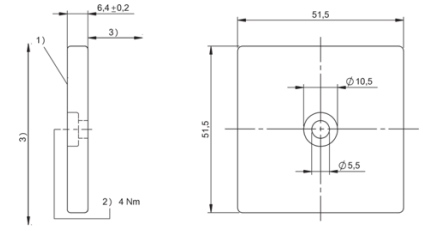
1) Sensing surface, 2) Tightening torque, 3) Clear zone, 4) Clear zone surrounding

BISO0LC



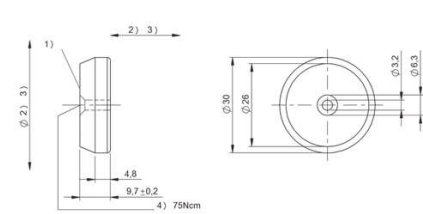
1) Sensing surface, 2) Read/write axis, 3) Tightening torque

BISO04H



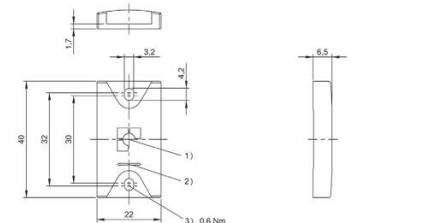
1) Sensing surface, 2) Tightening torque, 3) see R/W head table

BISO005, BISO0Y3, BISO0Y6, BISO0Y4, BISO0Y2



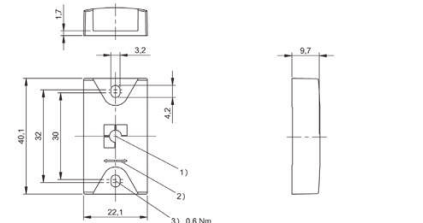
1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head, 4) Tightening torque

BISO0Y9



1) Sensing surface, 2) Read/write axis, 3) Tightening torque

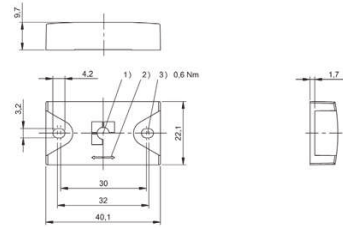
BISO04F



1) Sensing surface, 2) Read/write axis, 3) Tightening torque

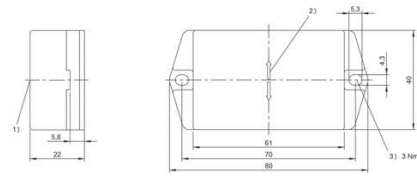
BISO11M, BISO117, BISO11Z, BISO11N, BISO13C

122 I RFID I HF (13.56 MHz)



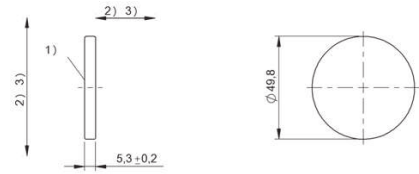
1) Sensing surface, 2) Read/write axis, 3) Tightening torque

BISO12J, BISO112, BISO12K, BISO12L, BISO13F



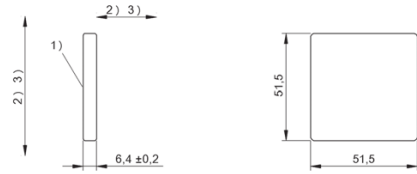
1) Sensing surface, 2) Read/write axis, 3) Tightening torque

BISO0P3, BISO11W, BISO11Y, BISO11U, BISO13E



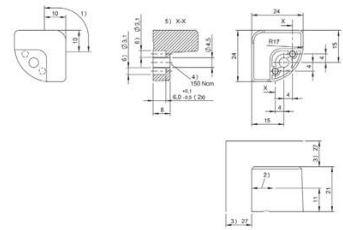
1) Sensing surface, 2) Clear zone, 3) see R/W head table

BISO18P



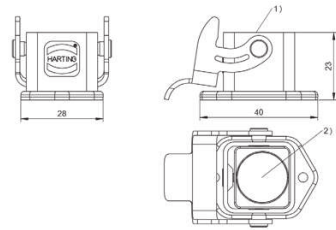
1) Sensing surface, 2) Clear zone, 3) see R/W head table

BISO18R, BISO18T



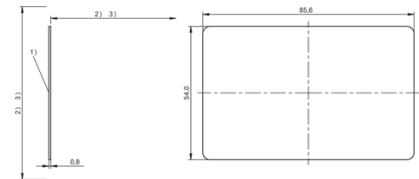
1) Read/write range, 2) Read/write axis, 3) Clear zone, 4) Tightening torque, 5) Cut-out, 6) see remarks

BISO0NZ



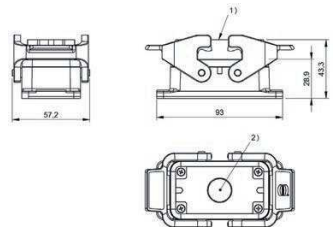
1) Sensing surface, 2) Data carrier

BISO180



1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

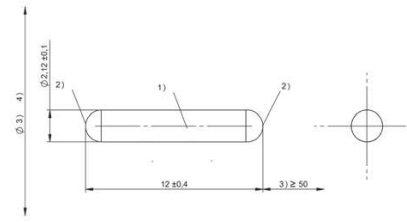
BISO047



1) Sensing surface, 2) Data carrier

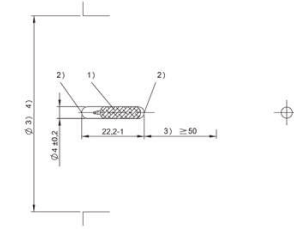
BISO176

HF data carriers (13.56 MHz) | 123



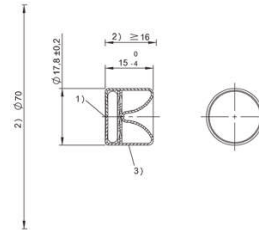
1) Sensing surface parallel, 2) Sensing surface axial, 3) Clear zone, 4) see corresponding R/W head

BISO17F



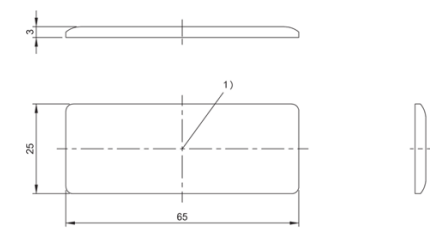
1) Sensing surface parallel, 2) Sensing surface axial, 3) Clear zone, 4) see corresponding R/W head

BISO0M2



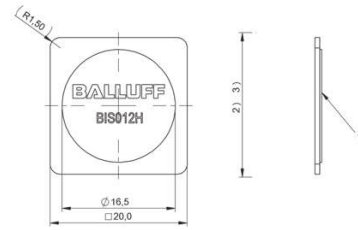
1) Sensing surface, 2) Clear zone, 3) Glass

BISO0L8



1) Sensing surface

BISO0KM, BISO0N5



1) Sensing surface, 2) Clear zone, 3) see corresponding R/W head

BISO12H

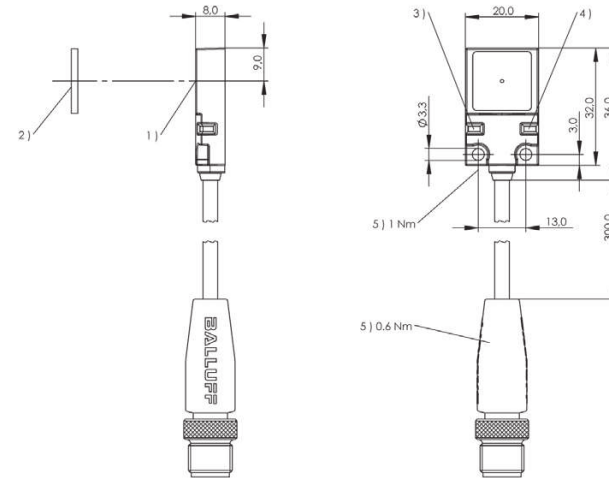


For processor units BIS V-6...	BISO197 BIS VM-349-401-34
Product Group	HF (13.56 MHz)
Dimension	20 x 8 x 32 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Zinc, die-cast
Ambient temperature	0...80 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL Listed

Appropriate data carrier

	BIS0042			BIS0043			BIS0044			BIS0045			BIS018Y		
Data carrier distance to metal	>20	>0	>0	>20	>0	>0	>25	>0	>25				>20	>0	
Data carrier clear zone	>100	>100	>0	>100	>100	>0	>100	>100	>100				>100	>100	
Working distance for writing	0-10	0-9.5	0-7	0-13	0-9.5	0-7	0-12	0-5	3-13				0-6	0-5.5	
Working distance for reading	0-10	0-9.5	0-7	0-13	0-9.5	0-7	0-12	0-5	3-13				0-6	0-5.5	
Offset at distance															
	0	±5	±5	±5	±9	±8	±7	±5					0	±5	±4
	2	±5	±5	±5	±9	±8	±7	±5					2	±5	±4
	4	±5	±5	±4.5	±9	±8	±6	±7	±4	±9			2.5	±4	±3.5
	5	±4.5	±4	±4	±9	±7	±5	±7	±2	±9			3	±4	±3.5
	6	±4.5	±4	±4	±8	±7	±5	±6		±8			4	±4	±3.5
	7	±4.5	±4	±2	±8	±7	±1.5	±6		±8			5	±4	±2
	8	±4.5	±4		±8	±7		±6		±8			5.5	±2	±2
	9	±2	±2		±8	±4		±6		±8			6	±2	
	9.5	±2	±2		±8	±4		±6		±8			6.5		
	10	±1			±8			±6		±8			7		
	12				±3			±3		±3			8		
	13				±3					±3			9		
	15												9.5		
	20												10		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) LED (Power), 4) LED (CPI), 5) Tightening torque

	BIS00UC			BIS004A			BIS00NU BIS00NW BIS0100		
	>20	>0	>0	>20	>0	>0	>0		
	>100	>100	>0	>100	>100	>0	>100		
	0-6.5	0-4	1.3-2.5	0-8	0-8	0-6	0-10		
	0-6.5	0-4	1.3-2.5	0-8	0-8	0-6	0-10		
	±4	±4		±5	±4.5	±4	±6		
	±4	±4	±2	±5	±4.5	±4	±6		
	±3	±3	±0.5	±5	±4.5	±3	±6		
	±3	±3		±5	±4.5	±3	±6		
	±3	±2		±5	±4.5	±3	±6		
	±3			±4	±4	±3	±5		
	±2			±4	±4	±2	±5		
	±2			±4	±4	±2	±5		
	±2			±4	±4		±5		
				±4	±4		±5		
				±2	±2		±5		
							±3		
							±3		
							±3		

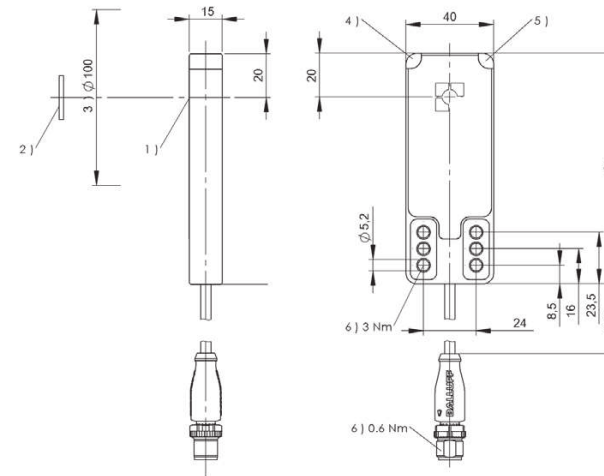


For processor units BIS V-6...	BISO133 BIS VM-345-401-34
Product Group	HF (13.56 MHz)
Dimension	40 x 15 x 105 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Zinc, die-cast
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS0043 BIS0111	BIS011F BIS011E BIS011A BIS0139	BIS004A	BIS00YE	BIS00Y4		BIS0044	BIS0045	BIS0046		BIS0119	BIS00NU BIS00NW BIS0100	
Data carrier distance to metal	>50	>50	>10	>0	>25	>50	>50	>0	>50		>0	>0	
Data carrier clear zone	>200	>200	>60	>60	>100	>200	>200	>200	>200		>100	>100	
Working distance for writing	0-28	0-18	0-11	0-9	0-34	0-52	0-22	0-5	0-28	0-45	0-22	0-16	
Working distance for reading	0-28	0-18	0-11	0-9	0-34	0-52	0-22	0-5	0-28	0-45	0-22	0-16	
Offset at distance													
	0 ±16	±14	±8	±8	±20	±30	0	±14	±7	±16	±26	0 ±13	±10
	4 ±16	±14	±8	±8	±20	±30	4	±14	±6	±16	±26	5 ±13	±10
	8 ±16	±14	±7	±6	±20	±30	5	±14	±3	±16	±26	10 ±13	±9
	9 ±16	±14	±7	±4	±20	±30	10	±14		±16	±26	13 ±10	±8
	10 ±16	±14	±7		±20	±30	15	±12		±14	±26	16 ±10	±4
	11 ±14	±11	±4		±18	±30	18	±10		±14	±26	18 ±10	
	15 ±14	±11			±18	±30	20	±10		±14	±26	20 ±10	
	18 ±14	±5			±18	±30	22	±6		±12	±24	22 ±6	
	22 ±12				±15	±28	24			±12	±24	24	
	25 ±12				±15	±28	28			±9	±24	28	
	28 ±9				±15	±28	30				±24	30	
	32				±8	±28	31				±24	31	
	35					±28	35				±24	35	
	40					±28	40				±24	40	
	42					±24	43				±15	43	
	45					±24	45				±15	45	
	48					±24	48					48	
	50					±24	52					52	
	52					±10	60					60	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque

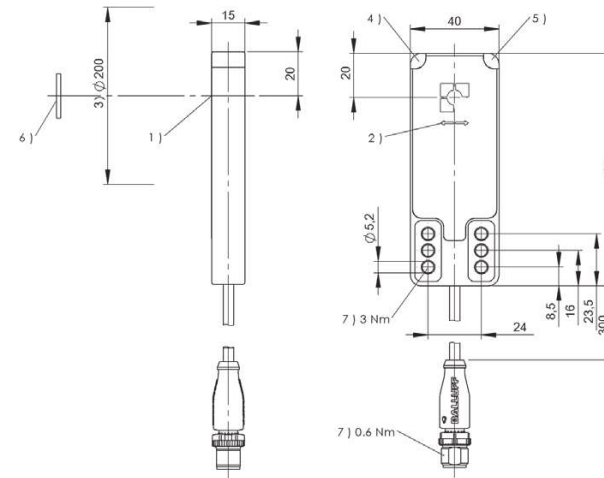


For processor units BIS V-6...	BISO131 BIS VM-355-401-54
Product Group	HF (13.56 MHz)
Dimension	40 x 15 x 105 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Zinc, die-cast
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2				BIS00P3			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>240	>240	>240	>240		
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>480	>480	>480	>480		
Data carrier clear zone C									>50	>50	>50	>50	>0	>0		
Metallic mounting surface 40 x 22 mm	0-45	0-45			0-45	0-45										
Metallic mounting surface > 200 x 200 mm			0-45	0-45			0-45	0-45								
Working distance for writing	0-45	0-45	0-45	0-45	0-45	0-45	0-45	0-45	0-25	0-25	0-60	0-60	0-60	0-60		
Working distance for reading	0-45	0-45	0-45	0-45	0-45	0-45	0-45	0-45	0-25	0-25	0-60	0-60	0-60	0-60		
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
	0	±50	±24	±50	±24	±24	±50	±24	0	±32	±16	±80	±36	±80	±36	
	5	±50	±24	±50	±24	±24	±50	±24	5	±32	±16	±80	±36	±80	±36	
	12	±50	±24	±50	±24	±24	±50	±24	10	±32	±16	±80	±36	±80	±36	
	15	±50	±24	±50	±24	±24	±50	±24	13	±30	±14	±80	±36	±80	±36	
	18	±50	±24	±50	±24	±24	±50	±24	15	±30	±14	±80	±36	±80	±36	
	20	±50	±24	±50	±24	±24	±50	±24	20	±30	±14	±80	±36	±80	±36	
	22	±40	±20	±40	±20	±20	±40	±20	25	±15	±8	±75	±30	±75	±30	
	25	±40	±20	±40	±20	±20	±40	±20	30			±75	±30	±75	±30	
	30	±40	±20	±40	±20	±20	±40	±20	36			±75	±30	±75	±30	
	32	±40	±20	±40	±20	±20	±40	±20	40			±75	±30	±75	±30	
	35	±40	±20	±40	±20	±20	±40	±20	42			±75	±30	±75	±30	
	40	±38	±18	±38	±18	±18	±38	±18	50			±75	±30	±75	±30	
	45	±20	±10	±20	±10	±10	±20	±10	52			±55	±25	±55	±25	
	50								60			±20	±10	±20	±10	
	52								75							
	60								83							
	65								100							

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Data carrier, 7) Tightening torque

BISO11W BISO11Y BISO11U BISO13E		BISO17F		BISO11M BISO11Z BISO11N BISO13C				BISO12J BISO12K BISO12L BISO13F				BISO117				BISO112				BISO0NZ			
>240	>240	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>27	>27		
>480	>480	>200	>200	>200	>200	>480	>480	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>27	>27		
>50	>50	>50	>50			>50	>50																
				0-34	0-34			0-30	0-30			0-45	0-45			0-45	0-45						
0-36	0-36	0-15	0-15	0-34	0-34	0-34	0-34	0-30	0-30	0-30	0-30	0-45	0-45	0-45	0-45	0-45	0-45	0-45	0-45	0-25	0-25		
X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
±50	±26	±20	±11	0	±38	±18	±40	±20	±40	±20	±40	0	±58	±24	±58	±24	±55	±20	±48	0	±30	±20	
±50	±26	±20	±11	5	±38	±18	±40	±18	±20	±40	±20	5	±58	±24	±58	±24	±55	±20	±48	5	±30	±20	
±50	±26	±17	±9	10	±38	±18	±40	±18	±20	±40	±20	10	±58	±24	±58	±24	±55	±20	±48	10	±30	±20	
±50	±26	±14	±7	15	±38	±18	±40	±17	±38	±17	±38	15	±58	±24	±58	±24	±55	±20	±48	15	±25	±15	
±50	±26	±8	±3	18	±35	±15	±40	±17	±38	±17	±38	20	±58	±24	±58	±24	±55	±20	±48	20	±15	±10	
±50	±26			20	±35	±15	±40	±17	±38	±17	±38	25	±53	±21	±53	±21	±50	±16	±38	25	±5	±5	
±40	±20			22	±35	±15	±35	±15	±30	±15	±30	30	±53	±21	±53	±21	±20	±50	±16	±38	27		
±35	±17			25	±35	±15	±35	±16	±7	±16	±7	35	±53	±21	±53	±21	±20	±50	±16	±38	35		
±20	±10			30	±27	±12	±35	±16	±7	±16	±7	40	±45	±18	±45	±18	±18	±40	±16	±38	40		
				34	±15	±8	±15	±8				45	±25	±12	±25	±12	±10	±20	±10	±20	42		
				36								50									50		
				39								54									57		
				42								56									60		
				50								60									65		
				52								70									70		
				60								75									75		
				65								80											

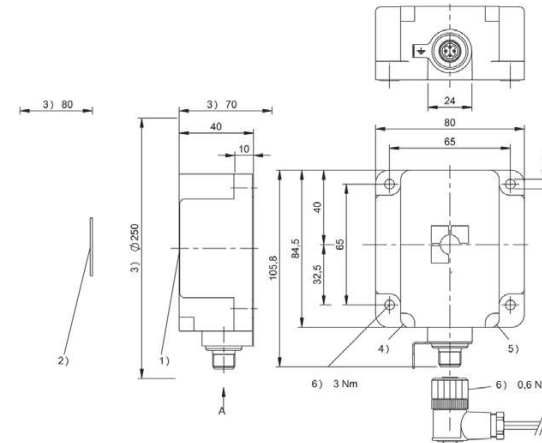


For processor units BIS V-6...	BISO000 BIS VM-301-001-S4
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 4-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO003Y	BISO003Z	BISO0043	BISO0044	BISO0045	BISO0046	BISO0047	BISO00L8	BISO111										
Data carrier distance to metal	>50	>10	>5	>50	>25	>10	>50	>20	>50	>30	>50	>30	>80	>1	0	>50			
Data carrier clear zone	>200	>60	>50	>200	>150	>150	>200	>60	>200	>100	>200	>100	>200	>100	>250	>70	>200		
Working distance for writing	0-34	0-20	0-15	0-45	0-43	0-35	0-45	8-22	0-32	0-20	0-45	0-30	0-70	0-45	0-50	0-32	0-32	0-50	
Working distance for reading	0-34	0-20	0-15	0-45	0-43	0-35	0-45	8-22	0-32	0-20	0-45	0-30	0-70	0-45	0-50	0-32	0-32	0-50	
Offset at distance																			
	0	±22	±18	±14	±30	±24	±18	±32	±20	±28	±20	±32	±22	±40	±25	±30	±30	±25	±30
	5	±22	±18	±14	±30	±24	±18	±32	±20	±28	±20	±32	±22	±40	±25	±30	±30	±25	±30
	9	±22	±18	±14	±30	±24	±18	±32	±20	±28	±18	±32	±22	±40	±25	±30	±30	±25	±30
	12	±22	±18	±10	±30	±24	±18	±32	±18	±24	±18	±32	±22	±40	±25	±30	±25	±25	±30
	15	±22	±18	±10	±30	±24	±18	±32	±18	±24	±15	±32	±20	±40	±25	±30	±25	±25	±30
	16	±22	±16	±8	±30	±24	±18	±32	±18	±24	±15	±32	±20	±40	±25	±30	±25	±25	±30
	18	±22	±16	±6	±30	±24	±18	±32	±16	±24	±12	±32	±18	±40	±25	±30	±25	±22	±30
	20	±22	±16	±4	±30	±24	±18	±32	±16	±24	±8	±32	±16	±40	±25	±30	±25	±22	±30
	22	±20	±10		±30	±24	±15	±25	±14	±20	±25	±14	±40	±22	±30	±25	±22	±25	
	25	±15	±10		±30	±24	±15	±25		±20	±25	±12	±40	±22	±30	±25	±22	±25	
	30	±15	±4		±30	±20	±12	±25		±12	±25	±10	±40	±22	±28	±20	±17	±25	
	32	±8			±30	±18	±8	±20		±12	±20		±40	±22	±24	±20	±17	±25	
	35	±4			±30	±16	±4	±20			±20		±40	±20	±22			±25	
	40				±24	±10		±20			±20		±40	±20	±18			±25	
	43				±20	±4		±12			±12		±35	±15	±14			±25	
	45				±16			±12			±12		±35	±12	±12			±25	
	50				±4								±35					±5	
	52												±35						
	60												±30						
	65												±30						
	70												±20						

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque

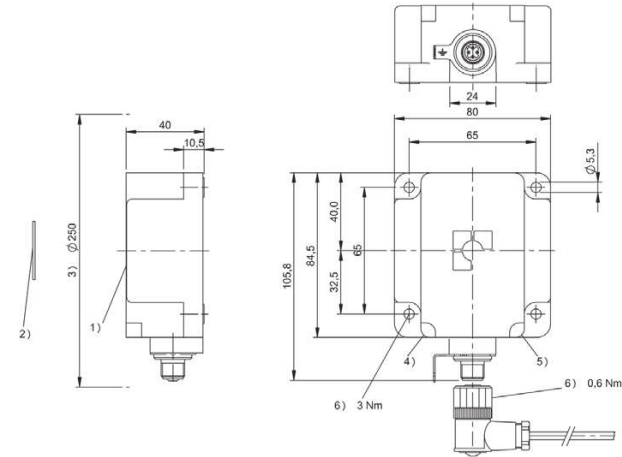


For processor units BIS V-6...	BIS0130 BIS VM-341-401-54
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0043		BIS011F BIS011E BIS011A BIS0139			BIS0046		BIS00Y4		BIS0119	
Data carrier distance to metal	>50	>0	>0	>50	>0	>0	>50	>50		>0	
Data carrier clear zone	>200	>200	>0	>200	>200	>0	>200	>200		>100	
Working distance for writing	0-64	0-36	14-20	0-42	0-30	11-20	0-100	0-120		0-40	
Working distance for reading	0-64	0-36	14-20	0-42	0-30	11-20	0-100	0-120		0-40	
Offset at distance											
	0	±40	±25		±30	±24		±50	±60	0	±30
	8	±40	±25		±30	±24		±50	±60	5	±30
	11	±40	±25		±30	±24	±25	±50	±60	10	±30
	14	±40	±25	±20	±30	±24	±25	±50	±60	12	±25
	16	±40	±25	±20	±30	±24	±9	±50	±60	15	±25
	18	±40	±25	±10	±30	±24	±9	±50	±60	16	±25
	20	±40	±25	±10	±30	±24	±9	±50	±60	18	±25
	25	±36	±22		±25	±20		±50	±60	20	±25
	30	±36	±22		±25	±10		±50	±60	22	±25
	36	±36	±10		±25			±50	±60	25	±25
	40	±36			±25			±50	±60	30	±25
	42	±30			±5			±50	±60	32	±20
	50	±30						±50	±60	36	±20
	60	±30						±45	±55	40	±15
	64	±15						±45	±55	43	
	80							±45	±55	45	
	90							±45	±55	50	
	100							+20	±55	52	
	110									60	
	120									±40	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque

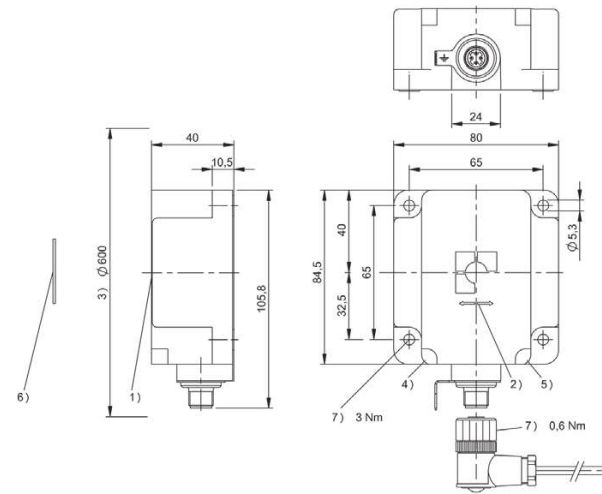


For processor units BIS V-6...	BIS012Z BIS VM-351-401-54
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2				BIS00P3							
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>240	>240	>240	>240	>200	>200	>200	>200		
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>480	>480	>480	>480	>200	>200	>200	>200		
Data carrier clear zone C									>50	>50	>50	>50	>0	>0						
Metallic mounting surface 40 x 22 mm	0-52	0-52			0-52	0-52														
Metallic mounting surface > 200 x 200 mm			0-52	0-52			0-52	0-52												
Working distance for writing	0-52	0-52	0-52	0-52	0-52	0-52	0-52	0-52	0-36	0-36	0-100	0-100	0-100	0-100						
Working distance for reading	0-52	0-52	0-52	0-52	0-52	0-52	0-52	0-52	0-36	0-36	0-100	0-100	0-100	0-100						
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y						
	0	±60	±25	±60	±25	±25	±60	±25	±60	0	±45	±23	±110	±50	±120	±50				
	5	±60	±25	±60	±25	±25	±60	±25	±60	5	±45	±23	±110	±50	±120	±50				
	12	±60	±25	±60	±25	±25	±60	±25	±60	10	±45	±23	±110	±50	±120	±50				
	15	±60	±25	±60	±25	±25	±60	±25	±60	15	±45	±23	±110	±50	±120	±50				
	18	±60	±25	±60	±25	±25	±60	±25	±60	20	±40	±20	±110	±50	±120	±50				
	20	±60	±25	±60	±25	±25	±60	±25	±60	25	±40	±20	±100	±50	±100	±50				
	22	±60	±25	±60	±25	±25	±60	±25	±60	30	±36	±18	±100	±50	±100	±50				
	25	±60	±25	±60	±25	±25	±60	±25	±60	36	±20	±10	±100	±50	±100	±50				
	30	±60	±25	±60	±25	±25	±60	±25	±60	40			±100	±50	±100	±50				
	32	±50	±25	±50	±25	±25	±50	±25	±50	45			±100	±50	±100	±50				
	35	±50	±25	±50	±25	±25	±50	±25	±50	50			±100	±50	±100	±50				
	40	±50	±20	±50	±20	±20	±50	±20	±50	60			±80	±35	±80	±35				
	45	±25	±20	±25	±20	±20	±25	±20	±25	70			±80	±35	±80	±35				
	50	±25	±20	±25	±20	±20	±25	±20	±25	80			±80	±35	±80	±35				
	52	±25	±8	±25	±8	±8	±25	±8	±25	90			±80	±35	±80	±35				
	60									100			±35	±15	±80	±35				
	65									110			±25	±15	±80	±35				

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Data carrier, 7) Tightening torque

BIS011W BIS011Y BIS011U BIS013E	BIS017F	BIS011M BIS011Z BIS011N BIS013C				BIS012J BIS012K BIS012L BIS013F				BIS0117				BIS0112				BIS00NZ								
>240	>240	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>27	>27	>27	>27			
>480	>480	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>27	>27	>27	>27			
>50	>50	>50	>50																							
				0-40	0-40			0-42	0-42					0-75	0-75			0-70	0-70							
						0-50	0-50			0-42	0-42							0-70	0-70			0-54	0-54			
0-60	0-60	0-25	0-25	0-40	0-40	0-50	0-50	0-42	0-42	0-42	0-42			0-75	0-75	0-70	0-70	0-70	0-70	0-70	0-70	0-54	0-54			
0-60	0-60	0-25	0-25	0-40	0-40	0-50	0-50	0-42	0-42	0-42	0-42			0-75	0-75	0-70	0-70	0-70	0-70	0-70	0-70	0-54	0-54			
X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y			
±70	±30	±35	±21	0	±50	±24	±55	±28	±25	±50	±25	±50	0	±85	±35	±80	±34	±34	±80	±30	±60	0	±70	±35	±40	±20
±70	±30	±35	±21	5	±50	±24	±55	±28	±25	±50	±25	±50	5	±85	±35	±80	±34	±34	±80	±30	±60	5	±70	±35	±40	±20
±70	±30	±35	±21	12	±50	±24	±55	±28	±25	±50	±25	±50	10	±85	±35	±80	±34	±34	±80	±30	±60	10	±70	±35	±40	±20
±70	±30	±33	±19	15	±50	±24	±55	±28	±25	±45	±25	±45	15	±85	±35	±80	±34	±34	±80	±30	±60	15	±70	±35	±30	±18
±70	±30	±23	±13	18	±50	±24	±55	±28	±22	±45	±22	±45	20	±85	±35	±80	±34	±34	±80	±30	±60	20	±70	±35	±30	±18
±60	±30	±7	±5	20	±50	±24	±55	±28	±22	±45	±22	±45	25	±85	±35	±75	±30	±30	±75	±25	±52	25	±60	±30	±25	±15
±60	±30			22	±40	±22	±50	±25	±22	±45	±22	±45	30	±85	±35	±75	±30	±30	±75	±25	±52	27	±60	±30		±5
±60	±30			25	±40	±22	±50	±25	±22	±45	±22	±45	35	±75	±30	±75	±30	±30	±75	±25	±52	35	±60	±30		
±60	±30			30	±40	±22	±50	±25	±19	±36	±19	±36	40	±75	±30	±75	±30	±30	±75	±25	±52	40	±60	±30		
±50	±25			32	±40	±22	±40	±20	±19	±36	±19	±36	45	±75	±30	±65	±27	±27	±65	±20	±45	45	±50	±25		
±50	±25			35	±40	±22	±40	±20	±19	±36	±19	±36	50	±75	±30	±65	±27	±27	±65	±20	±45	50	±50	±25		
±15	±10			40	±20	±10	±40	±20	±10	±18	±10	±18	54	±60	±25	±65	±27	±27	±65	±12	±22	57	±30	±15		
				42			±40	±20		±18	±10	±18	60	±60	±25	±65	±27	±27	±65			60				
				52			±20	±10					65	±60	±25	±40	±20	±20	±40			65				
				60									70	±60	±25	±40	±20	±20	±40			70				
				52									75	±40	±15							75				
				65									80													

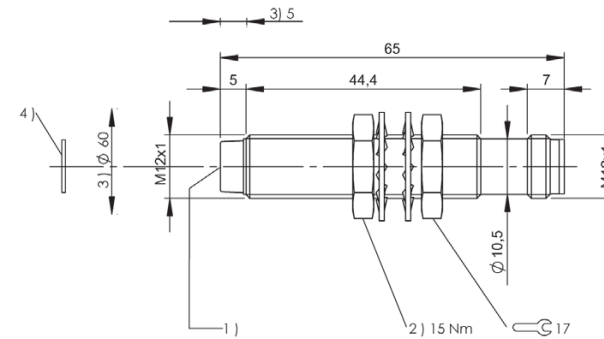


For processor units BIS V-6...	BISO13H BIS VM-348-401-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 12 x 65 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0042		BIS004A		BIS0044		BIS00UC		
Data carrier distance to metal	>50	>0	>50	>0	>50		>50	>0	>0
Data carrier clear zone	>200	>0	>200	>0	>200		>200	>200	>0
Working distance for writing	0-7	0-5	0-7	0-5	0-12		0-5	0-3	0-2
Working distance for reading	0-7	0-5	0-7	0-5	0-12		0-5	0-3	0-2
Offset at distance									
	0	±5	±3	±4.5	±3	±7	±4	±2.5	±2
	1	±5	±3	±4.5	±3	±7	±4	±2.5	±1
	2	±5	±3	±4.5	±3	±7	±4	±2	
	3	±4.5	±2.5	±4	±2.5	±7	±3	±1	
	4	±4.5	±2.5	±4	±2.5	±7	±3		
	5	±4.5	±1	±4	±1	±6	±1.5		
	6	±4.5		±4		±6			
	7	±2.5		±2		±6			
	8					±6			
	10					±3			
	12					±3			
	18								

Dimensions in mm



1) Sensing surface, 2) Tightening torque, 3) Clear zone, 4) Data carrier

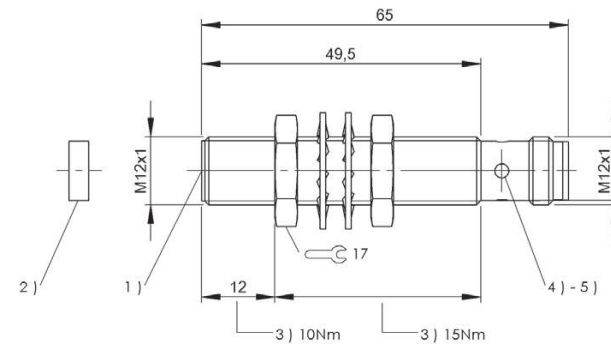


For processor units BIS V-6...	BISO15M BIS VM-330-401-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 12 x 65 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Brass, nuts brass with white bronze
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0042			BIS00UC			BIS004A			BIS00YL			BIS00YK			BIS00NU BIS00NW BIS0100		
Data carrier distance to metal	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0	>0
Data carrier clear zone	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>100	>0
Working distance for writing	0-6.5	0-6	0-5	0-4.5	0-3	0-2	0-5.5	0-5	0-3.5	0-6	0-5.5	0-2	0-4.5	0-4	0-2	0-7		
Working distance for reading	0-6.5	0-6	0-5	0-4.5	0-3	0-2	0-5.5	0-5	0-3.5	0-6	0-5.5	0-2	0-4.5	0-4	0-2	0-7		
Offset at distance																		
	0	±4	±3.5	±3.5	±2.5	±2.5	±2	±3	±3	±2.5	±3.5	±3.5	±2	±3.5	±3	±2	0	±4.5
	1	±4	±3.5	±3.5	±2.5	±2.5	±2	±3	±3	±2.5	±3.5	±3.5	±2	±3.5	±3	±2	2	±4.5
	2	±4	±3.5	±3.5	±2.5	±2	±1	±3	±3	±2.5	±3.5	±3.5	±1	±3.5	±3	±1	3	±4
	3	±3	±3	±2.5	±2	±1		±2	±2	±2	±3	±3		±3	±2		4	±4
	3.5	±3	±3	±2.5	±2			±2	±2	±1	±3	±3		±2	±1		5	±4
	4	±3	±3	±2.5	±2			±2	±2		±3	±3		±2	±1		7	±1.5
	4.5	±3	±3	±1.5	±1			±1	±1		±2	±2		±2			9	
	5	±3	±3	±1.5				±1	±1		±2	±2					10	
	5.5	±2	±2								±2	±2					15	
	6	±2	±2								±2						20	
	6.5	±2															25	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Tightening torque, 4) LED (CP), 5) LED (Power)

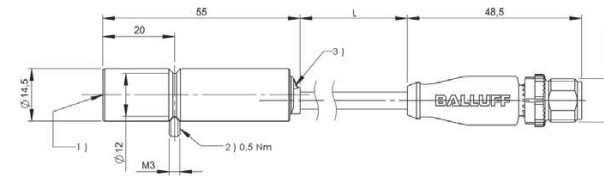


For processor units BIS V-6...	BISO13Z BIS VM-343-401-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 14.5 x 55 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pole, 0.30 m, PU
Housing material	Brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS0042			BIS000C BIS000E		BIS004A			BIS00YL			BIS00YK		
Data carrier distance to metal	>50	>0	>0	>50		>50	>0	>0	>50	>0	>0	>50	>0	>0
Data carrier clear zone	>200	>200	>0	>200		>200	>200	>0	>200	>200	>0	>200	>200	>0
Working distance for writing	0-5.5	0-5	0-4	0-3.5		0-5	0-4.5	0-3.5	0-6.5	0-6	0-3	0-5	0-5	0-2.5
Working distance for reading	0-5.5	0-5	0-4	0-3.5		0-5	0-4.5	0-3.5	0-6.5	0-6	0-3	0-5	0-5	0-2.5
Offset at distance														
	0	±3.5	±3	±2.5	±3		±3.5	±3	±2.5	±4	±3.5	±3	±3	±2.5
	1	±3.5	±3	±2.5	±3		±3.5	±3	±2.5	±4	±3.5	±3	±3	±2.5
	2	±3.5	±3	±2.5	±3		±3.5	±3	±2.5	±4	±3.5	±2	±3	±2
	2.5	±3	±2.5	±2	±2		±3	±2.5	±2	±3	±3	±1	±2.5	±2.5
	3	±3	±2.5	±2	±2		±3	±2.5	±1	±3	±3	±1	±2.5	±2.5
	3.5	±3	±2.5	±1	±1		±3	±2.5	±1	±3	±3		±2.5	±2.5
	4	±3	±2.5	±1			±3	±1.5		±3	±3		±2	±2
	4.5	±2	±1.5				±2	±1.5		±3	±3		±1	±1
	5	±2	±1.5				±2			±3	±3		±1	±1
	5.5	±2								±2	±2			
	6									±2	±2			
	6.5									±2				

Dimensions in mm



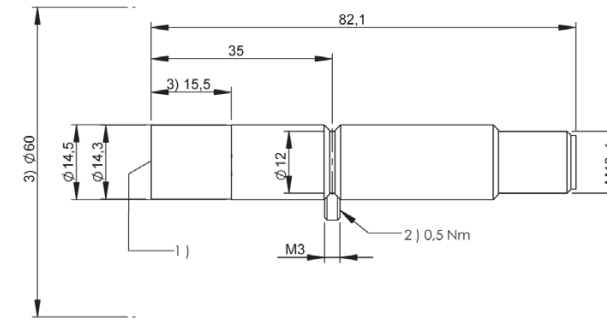
1) Sensing surface, 2) Tightening torque, 3) Function indicator

	BIS00LC	BIS0119	BIS00NU BIS00NW BIS0100
	>25	>0	>0
	>100	>100	>100
	0-7	0-7.5	0-7.5
	0-7	0-7.5	0-7.5
	0	±5	±5
	2	±4	±5
	4	±3.5	±4.5
	5	±3.5	±4
	6	±2	±4
	7	±2	±2.5
	7.5	±2.5	±2
	10		
	14		
	16		
	18		
	20		



For processor units BIS V-6...	BISO19U BIS VM-343-501/05-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 14.5 x 82.1 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory), LF 70/455 kHz
Connection	Male, 8-pin
Housing material	Brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carriers on request

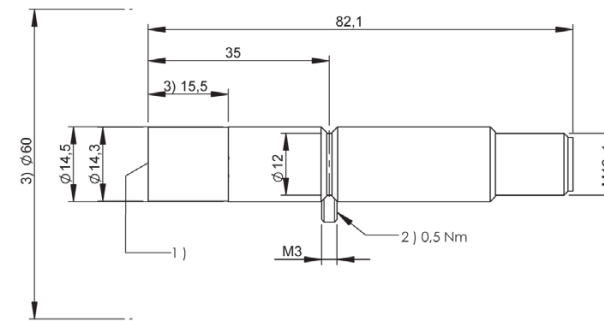


1) Sensing surface, 2) Tightening torque



For processor units BIS V-6...	BISO19W BIS VM-343-501/10-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 14.5 x 82.1 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory), LF 70/455 kHz
Connection	Male, 8-pin
Housing material	Brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carriers on request



1) Sensing surface, 2) Tightening torque

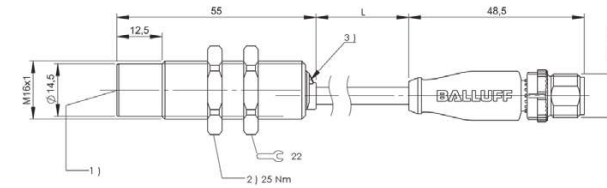


For processor units BIS V-6...	BISO140 BIS VM-346-401-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 16 x 55 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	0.30 m, PU
Housing material	Brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS0042			BIS000C BIS000E		BIS004A			BIS00YL			BIS00YK		
Data carrier distance to metal	>50	>0	>0	>50		>50	>0	>0	>50	>0	>0	>50	>0	>0
Data carrier clear zone	>200	>200	>0	>200		>200	>200	>0	>200	>200	>0	>200	>200	>0
Working distance for writing	0-5.5	0.5	0-4	0-3.5		0-5	0-4.5	0-3.5	0-6.5	0-6	0-3	0-5	0-5	0-2.5
Working distance for reading	0-5.5	0-5	0-4	0-3.5		0-5	0-4.5	0-3.5	0-6.5	0-6	0-3	0-5	0-5	0-2.5
Offset at distance														
	0	±3.5	±3	±2.5	±3	±3.5	±3	±2.5	±4	±3.5	±3	±3	±3	±2.5
	1	±3.5	±3	±2.5	±3	±3.5	±3	±2.5	±4	±3.5	±3	±3	±3	±2.5
	2	±3.5	±3	±2.5	±3	±3.5	±3	±2.5	±4	±3.5	±2	±3	±3	±2
	2.5	±3	±2.5	±2	±2	±3	±2.5	±2	±3	±3	±1	±2.5	±2.5	±1
	3	±3	±2.5	±2	±2	±3	±2.5	±1	±3	±3	±1	±2.5	±2.5	
	3.5	±3	±2.5	±1	±1	±3	±2.5	±1	±3	±3		±2.5	±2.5	
	4	±3	±2.5	±1		±3	±1.5		±3	±3		±2	±2	
	4.5	±2	±1.5			±2	±1.5		±3	±3		±1	±1	
	5	±2	±1.5			±2			±3	±3		±1	±1	
	5.5	±2							±2	±2				
	6								±2	±2				
	6.5								±2					

Dimensions in mm



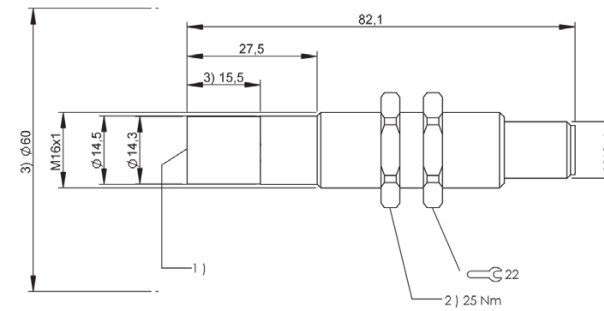
1) Sensing surface, 2) Tightening torque, 3) Function indicator

	BIS00LC	BIS0119	BIS00NU BIS00NW BIS0100	
	>25	>0	>0	
	>100	>100	>100	
	0-7	0-7.5	0-7.5	
	0-7	0-7.5	0-7.5	
	0	±4	±5	±5
	2	±4	±5	±5
	4	±3.5	±4	±4.5
	5	±3.5	±4	±4
	6	±2	±4	±4
	7	±2	±2.5	±2
	7.5		±2.5	±2
	10			
	14			
	16			
	18			
	20			



For processor units BIS V-6...	BISO19Y BIS VM-346-501/05-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 16 x 82.1 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory), LF 70/455 kHz
Connection	Male, 8-pin
Housing material	Brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carriers on request

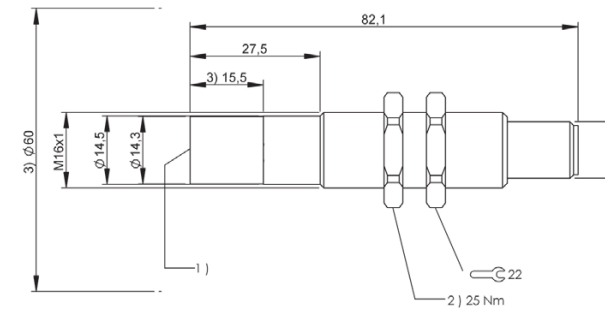


1) Sensing surface, 2) Tightening torque



For processor units BIS V-6...	BISO197 BIS VM-346-501/10-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 16 x 82.1 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory), LF 70/455 kHz
Connection	Male, 8-pin
Housing material	Brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carriers on request



1) Sensing surface, 2) Tightening torque

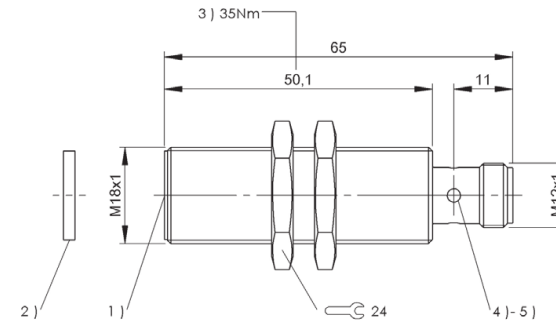


For processor units BIS V-6...	BISO15P BIS VM-332-401-34
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 65 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Brass, nuts brass with white bronze
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0042			BIS0043			BIS011F BIS011E BIS011A BIS0139			BIS004A			BIS0143	
Data carrier distance to metal	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0
Data carrier clear zone	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>100
Working distance for writing	0-8.5	0-8	0-6	0-11	0-8	0-6	0-6.5	0-6	0-5	0-7	0-6.5	0-4.5	0-13	
Working distance for reading	0-8.5	0-8	0-6	0-11	0-8	0-6	0-6.5	0-6	0-5	0-7	0-6.5	0-4.5	0-13	
Offset at distance														
	0	±5	±4	±8	±8	±7	±8	±8	±7	±4.5	±4	±3.5	±8	
	2	±5	±4	±8	±8	±7	±8	±8	±7	±4.5	±4	±3.5	±8	
	4	±4.5	±3	±8	±7	±6	±7	±6	±4	±3	±2.5	±8		
	4.5	±4.5	±3	±8	±7	±4	±7	±6	±3	±3.5	±3	±1.5	±8	
	5	±4.5	±3	±8	±7	±4	±7	±6	±3	±3.5	±3	±8		
	6	±4	±2	±7	±5	±1	±4	±3		±3.5	±2	±7		
	6.5	±4	±3	±7	±5		±4			±2	±2	±7		
	7	±4	±3	±7	±5					±2		±7		
	8	±2	±2	±7	±4							±7		
	8.5	±2		±7								±7		
	10			±7								±7		
	11			±4								±4		
	13											±4		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Tightening torque, 4) LED (CP), 5) LED (Power)

	BIS0044		BIS00NU BIS00NW BIS0100	
	>25	>0		
	>100	>100		
	0-10	0-9.5		
	0-10	0-9.5		
	0	±6	±5	
	2	±6	±5	
	4	±6	±5	
	5	±6	±5	
	6	±5	±4	
	7	±5	±4	
	8	±5	±4	
	9.5	±3	±2	
	10	±3		
	12			
	15			
	20			
	25			

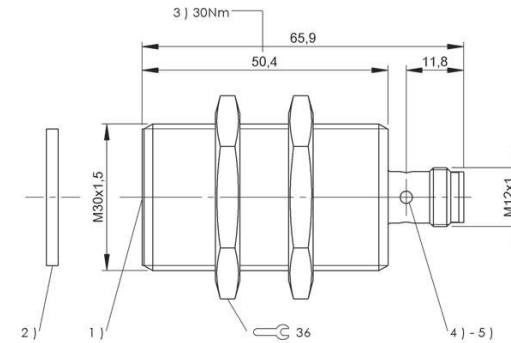


For processor units BIS V-6...	BISO15K BIS VM-333-401-34
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 65.9 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Brass, nuts brass with white bronze
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0042	BIS0043 BIS0111			BIS004A	BIS0143		BIS0044	BIS0045	
Data carrier distance to metal	>20	>25	>0	>0	>20	>20		>25	>25	
Data carrier clear zone	>100	>100	>100	>0	>100	>100		>100	>100	
Working distance for writing	0-13	0-21	0-15	0-13	0-10	0-21		0-18	0-21	
Working distance for reading	0-13	0-21	0-15	0-13	0-10	0-21		0-18	0-21	
Offset at distance										
	0	±8	±13	±10	±10	±7	±12	0	±9	±13
	5	±8	±13	±10	±10	±7	±12	5	±9	±13
	8	±8	±13	±10	±9	±6	±12	10	±9	±13
	10	±7	±13	±8	±8	±4	±12	13	±8	±12
	13	±4	±12	±8	±3		±11	15	±8	±12
	15		±12	±3			±11	16	±4	±11
	18		±11				±10	18	±4	±11
	20		±5				±5	20		±5
	21		±5				±5	21		±5
	25							25		
	30							30		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Tightening torque, 4) LED (CP), 5) LED (Power)

	BIS0046	BIS00NU BIS00NW BIS0100		BIS011A
	>50	>0		>20
	>150	>100		>100
	0-30	0-13		0-15
	0-30	0-13		0-15
	±20	±9	0	±11
	±20	±9	5	±11
	±20	±7	10	±10
	±18	±3	12	±8
	±18		13	±8
	±18		15	±4
	±18		18	
	±18		20	
	±16		21	
	±16		25	
	±8		30	

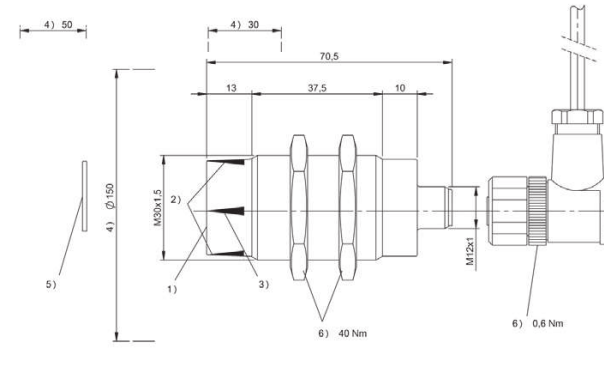


For processor units BIS V-6...	BISO0RF BIS VM-300-001-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 70.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 4-pin
Housing material	Brass, nuts brass with white bronze
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040		BIS0042		BIS0043		BIS0044				
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5		
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>100	>0	>100	>60	>50		
Working distance for writing	0-22	0-20	0-15	0-32	0-22	0-12	0-9	0-9	0-11	0-11	0-30	0-16	0-22	0-16	0-10		
Working distance for reading	0-22	0-20	0-15	0-32	0-22	0-12	0-9	0-9	0-11	0-11	0-30	0-16	0-22	0-16	0-10		
Offset at distance																	
	0	±15	±12	±8	±20	±15	±6	±7	±6	±10	±7	±18	±10	0	±14	±8	±7
	5	±15	±12	±8	±20	±15	±6	±7	±6	±8	±7	±18	±10	5	±14	±8	±7
	9	±15	±10	±6	±20	±15	±5	±2	±1	±5	±3	±18	±8	8	±12	±6	±2
	12	±15	±8	±4	±20	±15	±4					±16	±6	10	±12	±6	±2
	15	±15	±8	±4	±20	±12						±16	±6	12	±12	±5	
	16	±12	±6		±20	±10						±16	±4	15	±12	±4	
	18	±12	±6		±20	±8						±16	±6	16	±10		
	20	±12	±4		±20	±6						±16	±8	18	±10		
	22	±4			±18	±4						±14	±10	20	±10		
	25				±14							±14	±22	22	±6		
	30				±10							±10	±25	25			
	32				±4								±30	30			
	35												±32	32			
	40												±35	35			
	43												±40	40			
	45												±42	42			
	50												±44	44			

Dimensions in mm



1) Sensing surface, 2) LED (CP), 3) LED (Power), 4) Clear zone, 5) Data carrier, 6) Tightening torque

	BIS0045			BIS0046			BIS00YE		BIS00Y4		BIS00LC		BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100	
	>25	>10	>5	>50	>15	>10	>25	>0	>50			>25	>0	>0		>0
	>100	>60	>50	>150	>90	>70	>100	>100	>150			>100	>100	>100		>100
	0-28	0-18	0-10	0-44	0-25	0-15	0-30	0-8	0-42			0-27	0-13	0-22		0-13
	0-28	0-18	0-10	0-44	0-25	0-15	0-30	0-8	0-42			0-27	0-13	0-22		0-13
	±16	±10	±7	±25	±18	±15	±18	±8	±30			0	±16	±10	±13	±10
	±16	±10	±7	±25	±18	±15	±18	±6	±30			5	±16	±10	±13	±10
	±14	±8	±2	±25	±16	±12	±18	±3	±30			10	±16	±7	±13	±9
	±14	±8	±2	±25	±16	±12	±18		±30			13	±14	±5	±11	±5
	±14	±7		±24	±15	±10	±16		±28			15	±14	±11		
	±14	±6		±24	±14	±8	±16		±28			18	±14	±11		
	±14	±3		±24	±12		±16		±28			20	±14	±7		
	±14	±2		±24	±12		±16		±28			22	±12	±7		
				±24	±10		±16		±28			25	±12			
				±22	±8		±16		±24			27	±5			
				±22	±6		±16		±24			30				
				±22			±10		±24			32				
				±16					±24			35				
				±16					±24			40				
				±16					±5			43				
				±10					±5			45				
				±5								50				

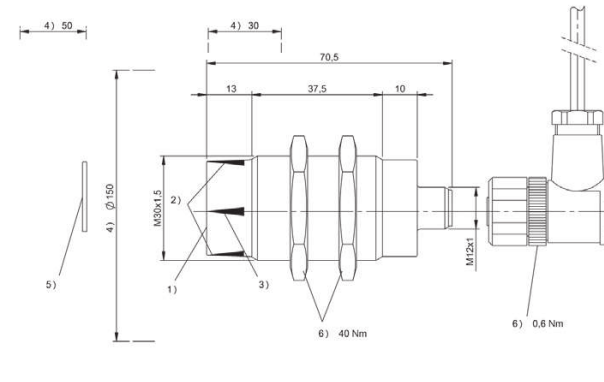


For processor units BIS V-6...	BISO132 BIS VM-344-401-34
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 70.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Male, 4-pin
Housing material	Brass, nuts nickel plated brass, nuts brass with white bronze
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0042		BIS00LC		BIS0043 BIS0111		BIS011F BIS011E BIS011A BIS0139		BIS0044			BIS0045				
Data carrier distance to metal	>20	>5	>25	>0	>25	>0	>25	>0	>25	>10	>5	>25	>10	>5		
Data carrier clear zone	>100	>100	>100	>100	>100	>0	>100	>100	>100	>60	>50	>100	>60	>50		
Working distance for writing	0-11	0-11	0-27	0-13	0-30	0-16	0-18	0-15	0-22	0-16	0-10	0-28	0-18	0-10		
Working distance for reading	0-11	0-11	0-27	0-13	0-30	0-16	0-18	0-15	0-22	0-16	0-10	0-28	0-18	0-10		
Offset at distance	0	±10	±7	±16	±10	±18	±10	±12	±11	0	±14	±8	±7	±16	±10	±7
	5	±8	±7	±16	±10	±18	±10	±12	±11	5	±14	±8	±7	±16	±10	±7
	9	±5	±3	±16	±7	±18	±8	±11	±10	8	±12	±6	±2	±14	±8	±2
	13			±14	±5	±16	±6	±10	±9	10	±12	±6	±2	±14	±8	±2
	15			±14		±16	±6	±10	±5	12	±12	±5		±14	±7	
	16			±14		±16	±4	±5		15	±12	±4		±14	±6	
	18			±14		±16		±5		16	±10	±2		±14	±3	
	20			±14		±16				18	±10			±14	±2	
	22			±12		±14				20	±10			±14		
	25			±12		±14				22	±6			±12		
	27			±5		±10				25				±12		
	32									30						
	35									32						
	40									35						
	43									40						
	45									42						
	50									44						

Dimensions in mm



1) Sensing surface, 2) LED (CP), 3) LED (Power), 4) Clear zone, 5) Data carrier, 6) Tightening torque

	BIS0046			BIS00YE			BIS00Y4			BIS00M9 BIS00M8			BIS00NW BIS0100		
	>50	>15	>10	>25	>0	>50				>0		>0			
	>150	>90	>70	>100	>100	>150				>100		>100			
	0-44	0-25	0-15	0-30	0-8	0-42				0-22		0-13			
	0-44	0-25	0-15	0-30	0-8	0-42				0-22		0-13			
	±25	±18	±15	±18	±8	±30				0	±13	±10			
	±25	±18	±15	±18	±6	±30				5	±13	±10			
	±25	±16	±12	±18	±3	±30				10	±13	±9			
	±25	±16	±12	±18		±30				12	±11	±5			
	±24	±15	±10	±16		±28				13	±11	±5			
	±24	±14	±8	±16		±28				15	±11				
	±24	±12		±16		±28				18	±11				
	±24	±12		±16		±28				20	±7				
	±24	±10		±16		±28				22	±7				
	±22	±8		±16		±24				28					
	±22	±6		±16		±24				30					
	±22			±10		±24				32					
	±16					±24				35					
	±16					±24				40					
	±16					±5				43					
	±10					±5				45					
	±5									50					

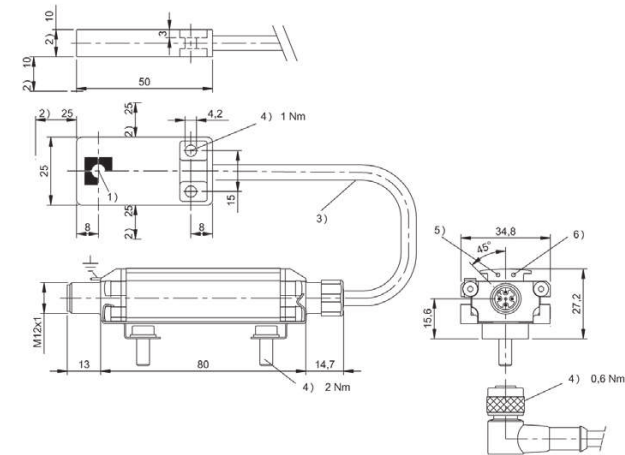


For processor units BIS V-6...	BIS00T9 BIS VM-305-001-S4
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, 4-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0040		BIS0042		BIS0044		BIS0048		BIS004A		BIS0043		BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100	
Data carrier distance to metal	>10	>0	>10	>0	>25		>10	>0	>10	>0	>25	>0	>0			>0
Data carrier clear zone	>60	>0	>60	>0	>80		>60	>0	>60	>0	>100	>0	>100			>100
Working distance for writing	0-6	0-4	0-8	0-6	0-13		0-5	0-4	0-7	0-5	0-17	0-11	0-17			0-12
Working distance for reading	0-6	0-4	0-8	0-6	0-13		0-5	0-4	0-7	0-5	0-17	0-11	0-17			0-12
Offset at distance	0	±3	±3	±4	±4	±6	±3	±3	±4	±3	0	±12	±8	±10		±7
	5	±2		±4	±2	±6	±2		±3	±2	5	±12	±8	±10		±7
	9					±4					8	±12	±6	±10		±6
	12					±2					10	±12	±6	±9		±6
	15										11	±8	±4	±9		±3
	16										12	±8		±9		±3
	18										15	±8		±4		±4
	20										17	±4		±4		±4

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) Tightening torque, 5) LED (Power), 6) LED (CP)

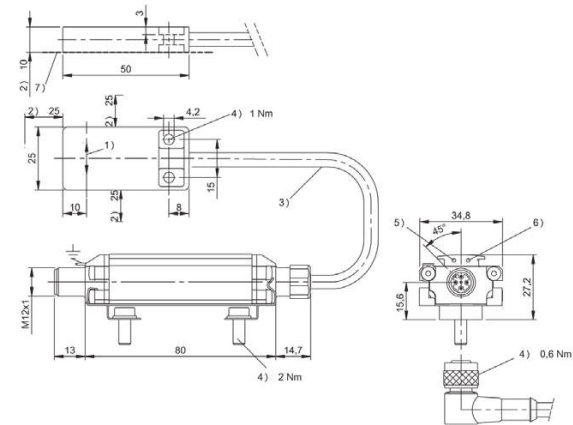


For processor units BIS V-6...	BISO0T6 BIS VM-352-001-S4
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 15693
Connection	Connector, 4-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO0NZ		BISO17F	
Data carrier clear zone A	>27	>27	>200	>200
Data carrier clear zone B	>27	>27	>200	>200
Data carrier clear zone C			>50	>50
Metallic mounting surface 40 x 22 mm				
Metallic mounting surface > 200 x 200 mm				
Working distance for writing	0-22	0-22	0-17	0-17
Working distance for reading	0-22	0-22	0-17	0-17
Offset at distance	X	Y	X	Y
	0 ±25 ±5		0 ±22 ±9	
	5 ±25 ±5		5 ±22 ±9	
	10 ±25 ±5		10 ±19 ±8	
	15 ±25 ±5		15 ±12 ±6	
	20 ±15 ±5		17 ±3 ±2	
	22 ±15 ±5		20	

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) Tightening torque, 5) LED (Power), 6) LED (CP), 7) Mounting on steel

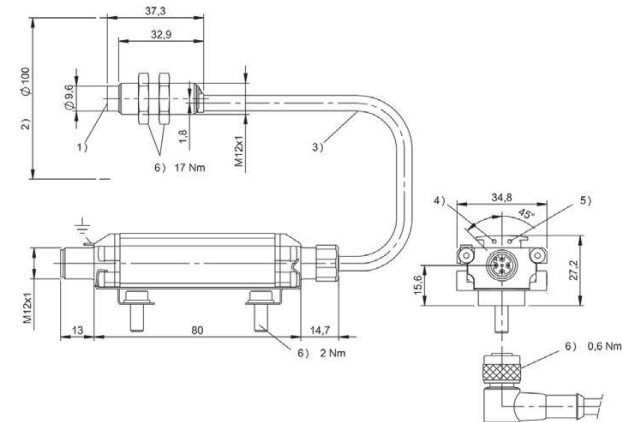


For processor units BIS V-6...	BISO007 BIS VM-306-001-S4
Produktgruppe	HF (13.56 MHz)
Abmessung	Ø 12 x 37.3 mm
Einbau	metallfrei (Freizone)
Antennenform	rund
Unterstützte Datenträgertypen	DIN ISO 14443, DIN ISO 15693
Anschluss	Stecker, 4-polig, 0.50 m, PU
Gehäusematerial	Messing, Interface Aluminium
Umgebungstemperatur	0...70 °C
Schutzart	IP67
Zulassung/Konformität	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0040	BIS0042	BIS0048	BIS004A
Data carrier distance to metal	>10	>10	>10	>10
Data carrier clear zone	>60	>60	>60	>60
Working distance for writing	0-5	0-6	0-4	0-5
Working distance for reading	0-5	0-6	0-4	0-5
Offset at distance				
	0 ±2	±2	±2	±2
	2 ±2	±2	±2	±2
	4 ±1	±1	±1	±1
	5 ±1	±1	±1	±1
	6	±1		

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED (Power), 5) LED (CP), 6) Tightening torque

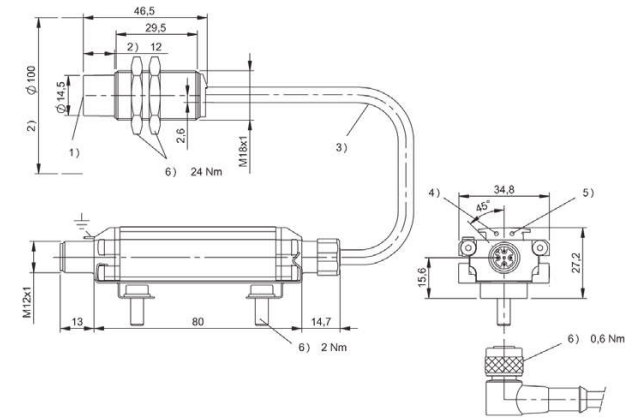


For processor units BIS V-6...	BIS00T8 BIS VM-307-001-54
Product Group	HF (13.56 MHz)
Dimension	Ø 12 x 37.3 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, 4-pin, 0.50 m, PU
Housing material	Brass, interface aluminum
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0040	BIS0042	BIS0044	BIS0048	BIS004A		BIS00YK	BIS00M9 BIS00M8	BIS00NU BIS00NW BIS0100					
Data carrier distance to metal	>10	>0	>10	>0	>25		>10	>0	>10	>0	>100	>100		
Data carrier clear zone	>60	>0	>60	>0	>80		>60	>0	>60	>0	>100	>100		
Working distance for writing	0-6	0-4	0-8	0-6	0-13		0-5	0-4	0-7	0-5	0-10	0-8	0-16	0-12
Working distance for reading	0-6	0-4	0-8	0-6	0-13		0-5	0-4	0-7	0-5	0-10	0-8	0-16	0-12
Offset at distance														
	0	±3	±3	±4	±4	±6		±3	±3	±4	±3			
	5	±2		±4	±2	±6		±2		±3	±2			
	9					±4								
	12					±2								
	15													
	16													
	18													
	20													

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED (Power), 5) LED (CP), 6) Tightening torque

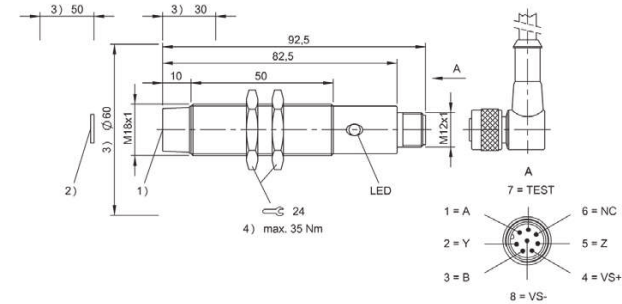


For processor units BIS M-60...	BISO057 BIS M-302-001-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 92.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040			BIS0042			BIS0048			BIS004A			BIS0043		
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0	>25	>0	
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	
Working distance for writing	0-16	0-15	0-10	0-20	0-18	0-10	0-7	0-5	0-9	0-6	0-7	0-5	0-9	0-6	0-20	0-12	0-20	0-12	0-20	0-12	
Working distance for reading	0-16	0-15	0-10	0-20	0-18	0-10	0-7	0-5	0-9	0-6	0-7	0-5	0-9	0-6	0-20	0-12	0-20	0-12	0-20	0-12	
Offset at distance	0	±10	±8	±4	±18	±14	±8	±5	±4	±5	±5	±4	±3	±4	±3	±14	±10				
	5	±10	±8	±4	±18	±14	±6	±4	±3	±5	±3.5	±3	±2	±3	±2	±12	±8				
	9	±10	±7	±2	±16	±12	±4			±3.5						±12	±6				
	12	±8	±6		±14	±8										±10	±4				
	15	±7	±4		±12	±6										±10					
	16	±4			±10	±4										±7					
	18				±8	±4										±7					
	20				±4											±5					
	22																				
	25																				
	30																				

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BIS0044			BIS0045			BIS0046			BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100	BIS00UC BIS00UE	BIS019C	BIS019E		
	>25	>10	>5	>25	>10	>5	>50	>25	>20	>0	>0	>10	>0	>0	>0	>0	
	>80	>50	>50	>80	>50	>50	>150	>90	>70	>100	>100	>60	>100	>0	>100	>0	
	0-16	0-12	0-8	0-20	0-12	0-5	0-30	0-22	0-12	0-17	0-13	0-7	0-8	0-7	0-12	0-11	
	0-16	0-12	0-8	0-20	0-12	0-5	0-30	0-22	0-12	0-17	0-13	0-7	0-8	0-7	0-12	0-11	
	±8	±6	±4	±12	±8	±7	±20	±16	±14	0	±10	±8	±4	±6	±4.5	±7	±6
	±8	±6	±4	±12	±8	±4	±20	±16	±14	5	±10	±8	±4	±6	±4.5	±7	±6
	±6	±5		±10	±6		±18	±16	±10	7	±10	±7	±4	±5.5	±4	±7	±6
	±4	±3		±10	±4		±18	±14	±6	8	±10	±7		±3	±2	±6.5	±5.5
	±4			±10			±18	±14		10	±9	±7		±3		±6.5	±5.5
	±3			±5			±16	±12		13	±9	±4				±6.5	±5.5
				±5			±16	±12		14	±9					±6.5	±3
							±12	±8		17	±4					±3	±3
							±12			22							
							±12			25							
							±8			30							

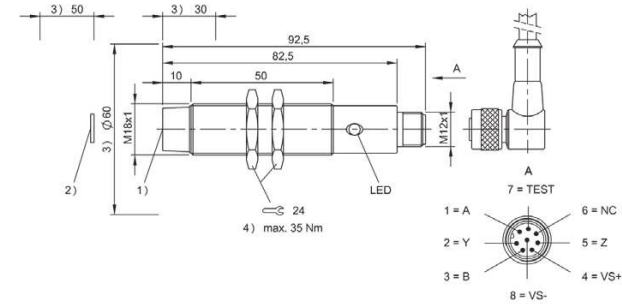


For processor unit BISO0EP	BISO059 BIS M-302-003-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 92.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO03Y			BISO03Z			BISO040		BISO042		BISO048		BISO04A		BISO043		
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0	
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	
Working distance for writing	0-16	0-15	0-10	0-20	0-18	0-10	0-7	0-5	0-9	0-6	0-7	0-5	0-9	0-6	0-20	0-12	
Working distance for reading	0-16	0-15	0-10	0-20	0-18	0-10	0-7	0-5	0-9	0-6	0-7	0-5	0-9	0-6	0-20	0-12	
Offset at distance																	
	0	±10	±8 ±4	±18 ±14	±8 ±5 ±4	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±5 ±4 ±3	±14 ±10		
	5	±10	±8 ±4	±18 ±14	±6 ±4 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±5 ±3.5 ±3	±12 ±8		
	9	±10	±7 ±2	±16 ±12	±4									±12 ±6			
	12	±8 ±6		±14 ±8										±10 ±4			
	15	±7 ±4		±12 ±6										±10			
	16	±4		±10 ±4										±7			
	18			±8 ±4										±7			
	20			±4										±5			
	22																
	25																
	30																

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BISO044			BISO045			BISO046			BISO0M9 BISO0M8		BISO0NU BISO0NW BISO100		BISO0UC BISO0UE		BISO19C		BISO19E	
	>25	>10	>5	>25	>10	>5	>50	>25	>20	>0	>0	>10	>0	>0	>0	>0	>0	>0	>0
	>80	>50	>50	>80	>50	>50	>150	>90	>70	>100	>100	>60	>100	>100	>0	>100	>0	>100	>0
	0-16	0-12	0-8	0-20	0-12	0-5	0-30	0-22	0-12	0-17	0-13	0-7	0-8	0-7	0-7	0-12	0-12	0-12	0-11
	0-16	0-12	0-8	0-20	0-12	0-5	0-30	0-22	0-12	0-17	0-13	0-7	0-8	0-7	0-7	0-12	0-12	0-12	0-11
	±8 ±6 ±4	±12 ±8 ±7	±20 ±16 ±14	0 ±10 ±8 ±4	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	8 ±10 ±9 ±7	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±8 ±6 ±4	±12 ±8 ±7	±20 ±16 ±14	0 ±10 ±8 ±4	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	8 ±10 ±9 ±7	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	7 ±10 ±8 ±6	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	8 ±10 ±9 ±7	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±4 ±3 ±2	±10 ±6 ±5	±18 ±14 ±6	10 ±9 ±8 ±6	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	10 ±9 ±8 ±6	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±4 ±3 ±2	±10 ±6 ±5	±18 ±14 ±6	10 ±9 ±8 ±6	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	10 ±9 ±8 ±6	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±12 ±8 ±6	±12 ±8 ±6	±12 ±8 ±6	13 ±9 ±8 ±6	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	13 ±9 ±8 ±6	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±12 ±8 ±6	±12 ±8 ±6	±12 ±8 ±6	14 ±9 ±8 ±6	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	14 ±9 ±8 ±6	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±12 ±8 ±6	±12 ±8 ±6	±12 ±8 ±6	17 ±4 ±3 ±2	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	17 ±4 ±3 ±2	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±12 ±8 ±6	±12 ±8 ±6	±12 ±8 ±6	22 ±3 ±2 ±1	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	22 ±3 ±2 ±1	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±12 ±8 ±6	±12 ±8 ±6	±12 ±8 ±6	25 ±3 ±2 ±1	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	25 ±3 ±2 ±1	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6
	±12 ±8 ±6	±12 ±8 ±6	±12 ±8 ±6	30 ±3 ±2 ±1	±6 ±5 ±4	±10 ±6 ±5	±18 ±14 ±6	±18 ±14 ±6	±18 ±14 ±6	30 ±3 ±2 ±1	±7 ±4	±6 ±4.5 ±4	±6 ±4.5 ±4	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6	±7 ±6 ±6

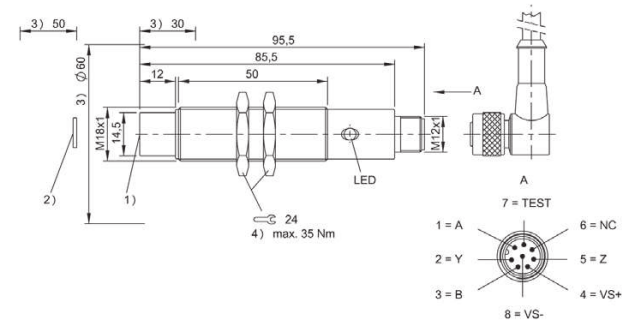


For processor units BIS M-60...	BISO05A BIS M-304-001-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 95.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040			BIS0042			BIS0048			BIS004A			BIS0043				
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0					
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0					
Working distance for writing	0-14	0-10	0-8	0-18	0-15	0-10	0-5	0-5	0-7	0-6	0-5	0-4	0-7	0-5	0-18	0-10							
Working distance for reading	0-14	0-10	0-8	0-18	0-15	0-10	0-5	0-5	0-7	0-6	0-5	0-4	0-7	0-5	0-18	0-10							
Offset at distance																							
	0	±10	±8	±4	±18	±14	±8	±5	±4	±5	±5	±4	±2	±4	±3	±14	±10						
	5	±10	±8	±4	±18	±14	±6	±4	±3	±5	±3.5	±3		±3	±2	±12	±8						
	9	±10	±7		±16	±12	±4			±3						±12	±6						
	12	±8			±14	±8										±10							
	15				±12	±6										±10							
	16				±10											±7							
	18				±8											±5							

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BIS0044			BIS019C			BIS019E		
	>25	>10	>5	>0	>0	>0	>0		
	>80	>50	>50	>100	>0	>100	>0		
	0-14	0-10	0-8	0-7	0-6.5	0-10	0-10		
	0-14	0-10	0-8	0-7	0-6.5	0-10	0-10		
	±8	±6	±4	0	±5	±5	±6.5	±6.5	
	±8	±6	±4	2	±5	±5	±6.5	±6.5	
	±6	±5		5	±4	±4	±6.5	±6.5	
	±4			6	±2	±2	±6	±6	
				7	±2		±6	±6	
				8			±6	±6	
				10			±2	±2	

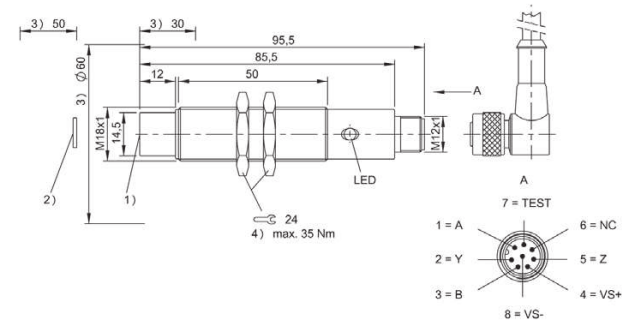


For processor unit BISO0EP	BISO08P BIS M-304-003-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 95.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040			BIS0042			BIS0048			BIS004A			BIS0043				
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0					
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0					
Working distance for writing	0-14	0-10	0-8	0-18	0-15	0-10	0-5	0-5	0-7	0-6	0-5	0-4	0-7	0-5	0-18	0-10							
Working distance for reading	0-14	0-10	0-8	0-18	0-15	0-10	0-5	0-5	0-7	0-6	0-5	0-4	0-7	0-5	0-18	0-10							
Offset at distance																							
	0	±10	±8	±4	±18	±14	±8	±5	±4	±5	±5	±4	±2	±4	±3	±14	±10						
	5	±10	±8	±4	±18	±14	±6	±4	±3	±5	±3.5	±3		±3	±2	±12	±8						
	9	±10	±7		±16	±12	±4			±3						±12	±6						
	12	±8			±14	±8										±10							
	15				±12	±6										±10							
	16				±10											±7							
	18				±8											±5							

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BIS0044			BIS019C			BIS019E		
	>25	>10	>5	>0	>0	>0	>0		
	>80	>50	>50	>100	>0	>100	>0		
	0-14	0-10	0-8	0-7	0-6.5	0-10	0-10		
	0-14	0-10	0-8	0-7	0-6.5	0-10	0-10		
	±8	±6	±4	0	±5	±5	±6.5	±6.5	
	±8	±6	±4	2	±5	±5	±6.5	±6.5	
	±6	±5		5	±4	±4	±6.5	±6.5	
	±4			6	±2	±2	±6	±6	
				7	±2		±6	±6	
				8			±6	±6	
				10			±2	±2	

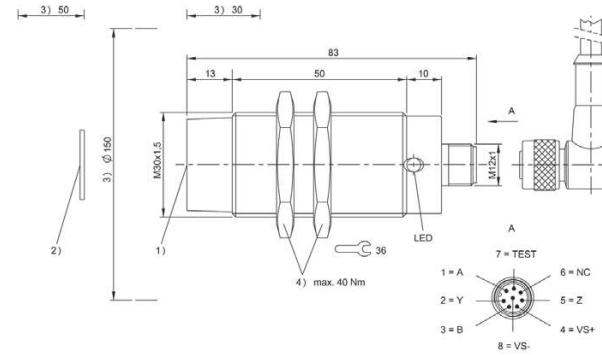


For processor units BIS M-60...	BIS0053 BIS M-300-001-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040			BIS0042			BIS0043			BIS0044				
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5					
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>100	>0	>100	>60	>50					
Working distance for writing	0-22	0-20	0-15	0-32	0-22	0-12	0-9	0-9	0-11	0-11	0-30	0-16	0-22	0-16	0-10					
Working distance for reading	0-22	0-20	0-15	0-32	0-22	0-12	0-9	0-9	0-11	0-11	0-30	0-16	0-22	0-16	0-10					
Offset at distance																				
	0	±15	±12	±8	±20	±15	±6	±7	±6	±10	±7	±18	±10	0	±14	±8	±7			
	5	±15	±12	±8	±20	±15	±6	±7	±6	±8	±7	±18	±10	5	±14	±8	±7			
	9	±15	±10	±6	±20	±15	±5	±2	±1	±5	±3	±18	±8	8	±12	±6	±2			
	12	±15	±8	±4	±20	±15	±4					±16	±6	10	±12	±6	±2			
	15	±15	±8	±4	±20	±12						±16	±6	12	±12	±5				
	16	±12	±6		±20	±10					±16	±4	15	±12	±4					
	18	±12	±6		±20	±8					±16		16	±10	±2					
	20	±12	±4		±20	±6					±16		18	±10						
	22	±4			±18	±4					±14		20	±10						
	25				±14						±14		22	±6						
	30				±10						±10		25							
	32				±4								30							
													32							
													35							
													40							
													42							

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BIS0045			BIS0046			BIS00Y4			BIS00Y4			BIS00LC			BIS00M9 BIS00M8			BIS00NU BIS00NW BIS0100		
	>25	>10	>5	>50	>15	>10	>25	>0	>50				>25	>0	>0	>0	>0				
	>100	>60	>50	>150	>90	>70	>100	>100	>150				>100	>100	>100	>100	>100				
	0-28	0-18	0-10	0-44	0-25	0-15	0-30	0-8	0-42				0-27	0-13	0-22	0-22	0-13				
	0-28	0-18	0-10	0-44	0-25	0-15	0-30	0-8	0-42				0-27	0-13	0-22	0-22	0-13				
	±16	±10	±7	±25	±18	±15	±18	±8	±30				0	±16	±10	±13					
	±16	±10	±7	±25	±18	±15	±18	±6	±30				5	±16	±10	±13					
	±14	±8	±2	±25	±16	±12	±18	±3	±30				10	±16	±7	±13					
	±14	±8	±2	±25	±16	±12	±18		±30				13	±14	±5	±11					
	±14	±7		±24	±15	±10	±16		±28				15	±14		±11					
	±14	±6		±24	±14	±8	±16		±28				18	±14		±11					
	±14	±3		±24	±12		±16		±28				20	±14		±7					
	±14	±2		±24	±12		±16		±28				22	±12		±7					
	±14			±24	±10		±16		±28				25	±12							
	±12			±22	±8		±16		±24				27	±5							
	±12			±22	±6		±16		±24												
				±22			±10		±24												
									±24												
									±24												
									±24												
									±24												
									±5												
									±5												

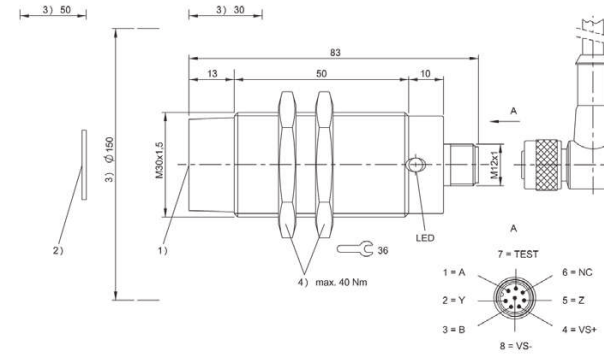


For processor unit BISO0EP	BISO054 BIS M-300-003-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	Brass, nuts nickel plated brass
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO03Y			BISO03Z			BISO040			BISO042			BISO043			BISO044		
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5			
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>100	>0	>100	>60	>50			
Working distance for writing	0-22	0-20	0-15	0-32	0-22	0-12	0-9	0-9	0-11	0-11	0-30	0-16	0-22	0-16	0-10			
Working distance for reading	0-22	0-20	0-15	0-32	0-22	0-12	0-9	0-9	0-11	0-11	0-30	0-16	0-22	0-16	0-10			
Offset at distance																		
	0	±15	±12	±8	±20	±15	±6	±7	±6	±10	±7	±18	±10	0	±14	±8	±7	
	5	±15	±12	±8	±20	±15	±6	±7	±6	±8	±7	±18	±10	5	±14	±8	±7	
	9	±15	±10	±6	±20	±15	±5	±2	±1	±5	±3	±18	±8	8	±12	±6	±2	
	12	±15	±8	±4	±20	±15	±4					±16	±6	10	±12	±6	±2	
	15	±15	±8	±4	±20	±12						±16	±6	12	±12	±5		
	16	±12	±6		±20	±10						±16	±4	15	±12	±4		
	18	±12	±6		±20	±8						±16		16	±10	±2		
	20	±12	±4		±20	±6						±16		18	±10			
	22	±4			±18	±4						±14		20	±10			
	25				±14							±14		22	±6			
	30				±10							±10		25				
	32				±4							30		30				

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BISO045			BISO046			BISO0YE			BISO0Y4			BISO0LC			BISO0M9 BISO0M8			BISO0NU BISO0NW BISO100		
	>25	>10	>5	>50	>15	>10	>25	>0	>50				>25	>0	>0	>0	>0				
	>100	>60	>50	>150	>90	>70	>100	>100	>150				>100	>100	>100	>100	>100				
	0-28	0-18	0-10	0-44	0-25	0-15	0-30	0-8	0-42				0-27	0-13	0-22			0-22	0-13		
	0-28	0-18	0-10	0-44	0-25	0-15	0-30	0-8	0-42				0-27	0-13	0-22			0-22	0-13		
	±16	±10	±7	±25	±18	±15	±18	±8	±30				0	±16	±10	±13			±13	±10	
	±16	±10	±7	±25	±18	±15	±18	±6	±30				5	±16	±10	±13			±13	±10	
	±14	±8	±2	±25	±16	±12	±18	±3	±30				10	±16	±7	±13			±13	±9	
	±14	±8	±2	±25	±16	±12	±18		±30				13	±14	±5	±11			±11	±5	
	±14	±7		±24	±15	±10	±16		±28				15	±14		±11			±11		
	±14	±6		±24	±14	±8	±16		±28				18	±14		±11			±11		
	±14	±3		±24	±12		±16		±28				20	±14		±7			±7		
	±14	±2		±24	±10		±16		±28				22	±12		±7			±7		
	±14			±24	±12		±16		±28				25	±12							
	±12			±22	±8		±16		±24				27	±5							
	±12			±22	±6		±16		±24												
				±22			±10		±24												

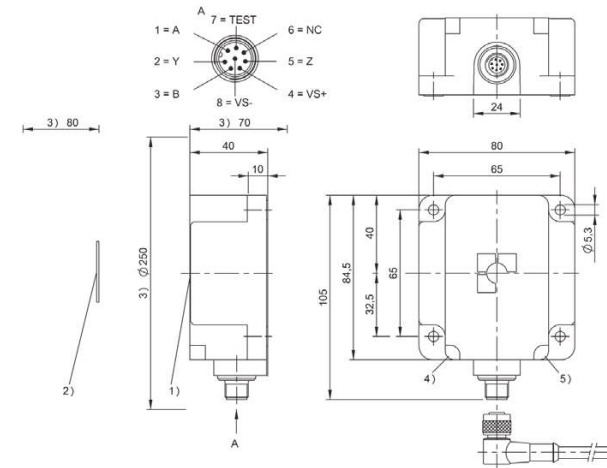


For processor units BIS M-60...	BIS0055 BIS M-301-001-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y		BIS003Z		BIS0043 BIS0111		BIS0044		BIS0045		BIS0046		BIS0047		BIS00L8	
Data carrier distance to metal	>50	>10	>5	>50	>25	>10	>50	>20	>50	>30	>50	>30	>80	>1	0	
Data carrier clear zone	>200	>60	>50	>200	>150	>150	>200	>60	>200	>100	>200	>100	>250	>70	>70	
Working distance for writing	0-34	0-20	0-15	0-45	0-43	0-35	0-45	8-22	0-32	0-20	0-45	0-30	0-70	0-45	0-50	0-32
Working distance for reading	0-34	0-20	0-15	0-45	0-43	0-35	0-45	8-22	0-32	0-20	0-45	0-30	0-70	0-45	0-50	0-32
Offset at distance	0	±22	±18	±14	±30	±24	±18	±32	±20	±28	±20	±32	±22	±40	±25	±30
	5	±22	±18	±14	±30	±24	±18	±32	±20	±28	±20	±32	±22	±40	±25	±30
	9	±22	±18	±14	±30	±24	±18	±32	±20	±28	±18	±32	±22	±40	±25	±30
	12	±22	±18	±10	±30	±24	±18	±32	±18	±24	±18	±32	±22	±40	±25	±30
	15	±22	±18	±10	±30	±24	±18	±32	±18	±24	±15	±32	±20	±40	±25	±30
	16	±22	±16	±8	±30	±24	±18	±32	±18	±24	±15	±32	±20	±40	±25	±30
	18	±22	±16	±6	±30	±24	±18	±32	±16	±24	±12	±32	±18	±40	±25	±30
	20	±22	±16	±4	±30	±24	±18	±32	±16	±24	±8	±32	±16	±40	±25	±30
	22	±20	±10		±30	±24	±15	±25	±14	±20		±25	±14	±40	±22	±30
	25	±15	±10		±30	±24	±15	±25		±20		±25	±12	±40	±22	±30
	30	±15	±4		±30	±20	±12	±25		±12		±25	±10	±40	±22	±28
	32	±8			±30	±18	±8	±20		±20		±20		±40	±22	±24
	35	±4			±30	±16	±4	±20				±20		±40	±20	±22
	40				±24	±10		±20				±20		±40	±20	±18
	43				±20	±4		±12				±12		±35	±15	±14
	45				±16			±12				±12		±35	±12	±12
	50				±4							±35		±4		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (TP)

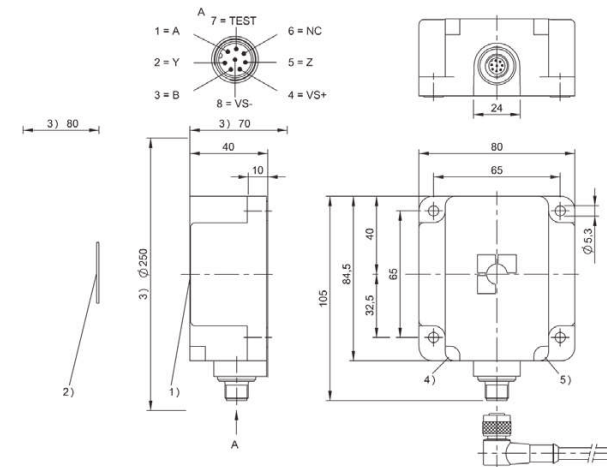


For processor unit BIS00EP	BIS0056 BIS M-301-003-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y	BIS003Z	BIS0043 BIS0111	BIS0044	BIS0045	BIS0046	BIS0047	BIS00L8		
Data carrier distance to metal	>50	>10	>5	>50	>20	>50	>30	>80	>1	0
Data carrier clear zone	>200	>60	>50	>200	>150	>200	>100	>200	>100	>250
Working distance for writing	0-34	0-20	0-15	0-45	0-43	0-35	0-45	8-22	0-32	0-20
Working distance for reading	0-34	0-20	0-15	0-45	0-43	0-35	0-45	8-22	0-32	0-20
Offset at distance										
	0	±22	±18	±14	±30	±24	±18	±32	±20	±28
	5	±22	±18	±14	±30	±24	±18	±32	±20	±28
	9	±22	±18	±14	±30	±24	±18	±32	±20	±28
	12	±22	±18	±10	±30	±24	±18	±32	±18	±24
	15	±22	±18	±10	±30	±24	±18	±32	±18	±24
	16	±22	±16	±8	±30	±24	±18	±32	±18	±24
	18	±22	±16	±6	±30	±24	±18	±32	±16	±24
	20	±22	±16	±4	±30	±24	±18	±32	±16	±24
	22	±20	±10		±30	±24	±15	±25	±14	±20
	25	±15	±10		±30	±24	±15	±25	±20	±25
	30	±15	±4		±30	±20	±12	±25	±12	±20
	32	±8			±30	±18	±8	±20	±12	±20
	35	±4			±30	±16	±4	±20		±20
	40				±24	±10		±20		±20
	43				±20	±4		±12		±12
	45				±16			±12		±12
	50				±4					±4

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (TP)

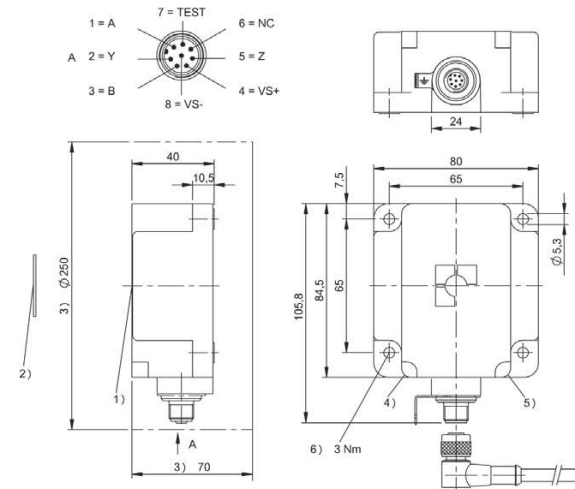


For processor units BIS M-60...	BIS00M6 BIS M-341-001-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0046	BIS0043	BIS00M9 BIS00M8	BIS00NU BIS00NW BIS0100
Data carrier distance to metal	>50	>50 >0	>0	>0
Data carrier clear zone	>200	>200 >0	>100	>100
Working distance for writing	35-90	20-60 0-50	0-46	0-23
Working distance for reading	35-90	20-60 0-50	0-46	0-23
Offset at distance				
0		±30	0 ±33	±25
5		±30	5 ±33	±25
9		±30	10 ±33	±25
12		±30	12 ±33	±20
15		±30	16 ±33	±20
16		±30	20 ±30	±20
18		±30	23 ±30	±10
20		±35 ±30	25 ±30	
22		±35 ±30	30 ±30	
25		±35 ±30	35 ±24	
30		±35 ±30	40 ±24	
35 ±55		±30 ±20	46 ±8	
40 ±55		±30 ±20	50	
45 ±55		±30 ±20	55	
50 ±55		±30 ±20	60	
60 ±55		±30	65	
70 ±40			70	
80 ±40			80	
90 ±20			90	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (TP)

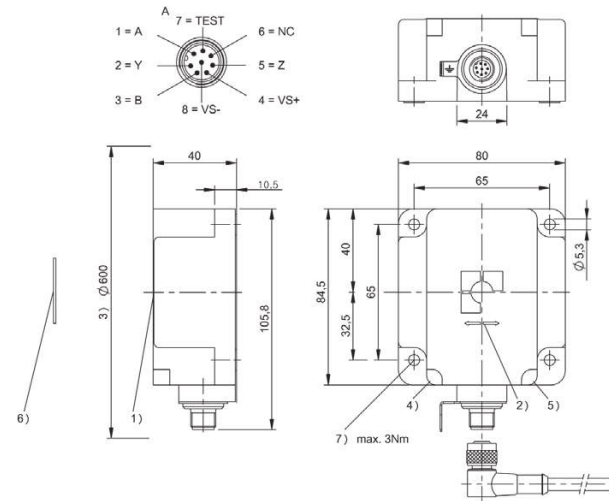


For processor units BIS M-60...	BISO05C BIS M-351-001-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2				BIS00P3			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>10	>10	>240	>240	>240	>240
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>50	>50	>480	>480	>480	>480
Data carrier clear zone C									>50	>50	>2	>2	>50	>50	0	0
Metallic mounting surface 40 x 22 mm	0-52	0-52			0-52	0-52										
Metallic mounting surface > 200 x 200 mm			0-65	0-65			0-65	0-65								
Working distance for writing	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100	0-90	0-90
Working distance for reading	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100	0-90	0-90
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
0	±60	±25	±65	±26	±25	±60	±26	±65	±35	±20			±100	±20	±100	±20
5	±60	±25	±65	±26	±25	±60	±26	±65	±35	±20			±100	±20	±100	±20
12	±60	±25	±65	±25	±25	±60	±25	±65	±35	±20			±100	±20	±100	±20
15	±60	±25	±65	±25	±25	±60	±25	±65	±35	±20	±35	±15	±100	±20	±100	±20
18	±60	±25	±65	±25	±25	±60	±25	±65	±35	±20	±35	±15	±100	±20	±100	±20
20	±60	±25	±65	±25	±25	±60	±25	±65	±20	±12	±28	±15	±80	±20	±80	±20
22	±60	±25	±65	±25	±25	±60	±25	±65	±20	±12	±28	±15	±80	±20	±80	±20
25	±60	±25	±65	±25	±25	±60	±25	±65					±80	±20	±80	±20
30	±60	±25	±65	±25	±25	±60	±25	±65					±80	±20	±80	±20
32	±50	±25	±65	±25	±25	±50	±25	±65					±80	±20	±80	±20
35	±50	±25	±65	±25	±25	±50	±25	±65					±80	±20	±80	±20
40	±50	±20	±50	±25	±20	±50	±25	±50					±65	±20	±65	±20
45	±25	±20	±50	±25	±20	±25	±25	±50					±65	±20	±65	±20
50	±25	±20	±50	±25	±20	±25	±25	±50					±65	±20	±65	±20
52	±25	±8	±25	±25	±8	±25	±25	±25					±50	±20	±50	±20
60													±40	±20		
65			±25	±10			±10	±25								

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Data carrier on steel, 7) Tightening torque

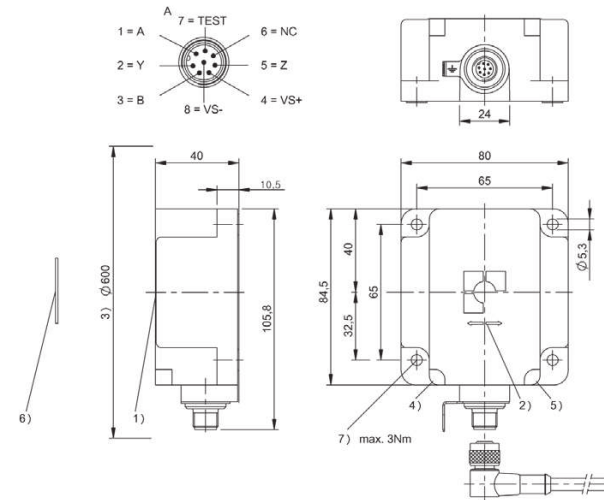


For processor unit BIS00EP	BIS00KU BIS M-351-003-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Male, 8-pin
Housing material	PBT
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2				BIS00P3			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>10	>10	>240	>240	>240	>240
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>50	>50	>480	>480	>480	>480
Data carrier clear zone C									>50	>50	>2	>2	>50	>50	0	0
Metallic mounting surface 40 x 22 mm	0-52	0-52			0-52	0-52										
Metallic mounting surface > 200 x 200 mm			0-65	0-65			0-65	0-65								
Working distance for writing	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100	0-90	0-90
Working distance for reading	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100	0-90	0-90
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
0	±60	±25	±65	±26	±25	±60	±26	±65	±35	±20			±100	±20	±100	±20
5	±60	±25	±65	±26	±25	±60	±26	±65	±35	±20			±100	±20	±100	±20
12	±60	±25	±65	±25	±25	±60	±25	±65	±35	±20			±100	±20	±100	±20
15	±60	±25	±65	±25	±25	±60	±25	±65	±35	±20	±35	±15	±100	±20	±100	±20
18	±60	±25	±65	±25	±25	±60	±25	±65	±35	±20	±35	±15	±100	±20	±100	±20
20	±60	±25	±65	±25	±25	±60	±25	±65	±20	±12	±28	±15	±80	±20	±80	±20
22	±60	±25	±65	±25	±25	±60	±25	±65	±20	±12	±28	±15	±80	±20	±80	±20
25	±60	±25	±65	±25	±25	±60	±25	±65					±80	±20	±80	±20
30	±60	±25	±65	±25	±25	±60	±25	±65					±80	±20	±80	±20
32	±50	±25	±65	±25	±25	±50	±25	±65					±80	±20	±80	±20
35	±50	±25	±65	±25	±25	±50	±25	±65					±80	±20	±80	±20
40	±50	±20	±50	±25	±20	±50	±25	±50					±65	±20	±65	±20
45	±25	±20	±50	±25	±20	±25	±25	±50					±65	±20	±65	±20
50	±25	±20	±50	±25	±20	±25	±25	±50					±65	±20	±65	±20
52	±25	±8	±25	±25	±8	±25	±25	±25					±50	±20	±50	±20
60			±25	±10		±10	±25						±40	±20		
65			±25	±10		±10	±25									

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Data carrier on steel, 7) Tightening torque

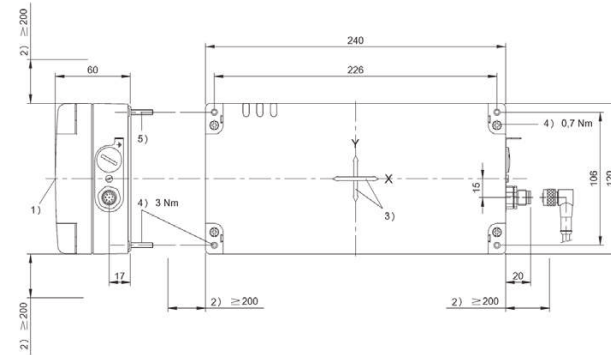


For processor units BIS M-60...	BISO006 BIS M-340-001-S115
Product Group	HF (13.56 MHz)
Dimension	120 x 60 x 240 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 15693
Connection	Male, 8-pin
Housing material	PC
Ambient temperature	0...55 °C
Protection degree	IP65
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS00LC		BIS0044		BIS0045		BIS0046							
Data carrier clear zone A	>240	>240	>25	>25	>50	>10								
Data carrier clear zone B	>480	>480	>100	>100	>150	>150								
Data carrier clear zone C	>120	>10	>0	>0	>0	>0								
Metallic mounting surface 40 x 22 mm														
Metallic mounting surface > 200 x 200 mm														
Montage mit BIS Z-HW-002 auf Metall		30-75	30-75											
Working distance for writing	0-100	0-100	30-75	30-75	0-90	0-90	0-140	0-140	0-170	0-170	0-90	0-90		
Working distance for reading	0-100	0-100	30-75	30-75	0-90	0-90	0-140	0-140	0-170	0-170	0-90	0-90		
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
	0	±50	±100		0	±30	±65	±55	±75	±60	±85	±30	±85	
	5	±50	±100		10	±30	±65	±55	±75	±60	±85	±30	±85	
	10	±50	±100		20	±30	±65	±55	±75	±60	±85	±30	±85	
	20	±50	±100		30	±30	±65	±55	±75	±60	±85	±30	±85	
	30	±50	±100	±35	±90	40	±30	±65	±55	±75	±60	±85	±30	±85
	40	±50	±100	±35	±85	50	±30	±65	±55	±75	±60	±85	±30	±80
	50	±50	±95	±30	±80	60	±30	±65	±55	±75	±60	±85	±30	±70
	60	±50	±90	±25	±80	70	±30	±65	±55	±75	±60	±85	±30	±55
	70	±50	±90	±25	±75	80	±30	±55	±55	±75	±60	±85	±24	±30
	75	±45	±85	±25	±70	90	±25	±40	±55	±75	±60	±85	±1	±1
	80	±45	±85			100			±55	±75	±60	±85		
	90	±45	±80			120			±55	±75	±60	±85		
	100	±40	±75			140			±50	±65	±60	±85		
	110					160				±55	±75			

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Read/write axis, 4) Tightening torque, 5) 4x screws M4 DIN 912

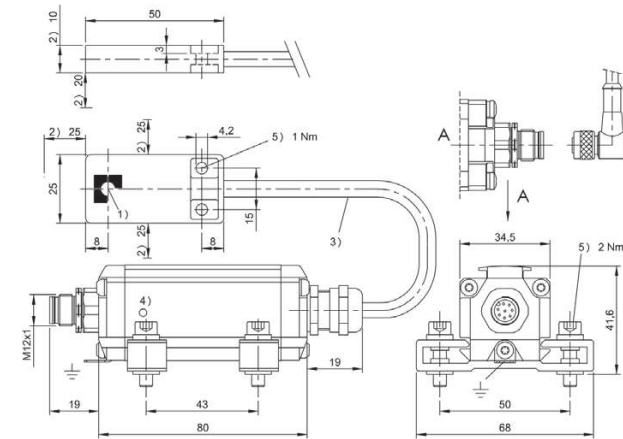


For processor units BIS M-60...	BISO0NK BIS M-305-001-S115
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Plug, 8-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BISO040		BISO042		BISO044		BISO048		BISO04A		BISO043		BISO0M9 BISO0M8		BISO0NU BISO0NW BISO100		BISO0UC	
Data carrier distance to metal	>10	>0	>10	>0	>25	>10	>0	>10	>0	>25	>0	>0	>0	>100	>100	>100	>10	>0
Data carrier clear zone	>60	>0	>60	>0	>80	>60	>0	>60	>0	>100	>0	>100	>100	>100	>100	>100	>60	>60
Working distance for writing	0-6	0-4	0-8	0-6	0-13	0-5	0-4	0-7	0-5	0-17	0-11	0-17	0-17	0-12	0-12	0-12	0-7.5	0-4
Working distance for reading	0-6	0-4	0-8	0-6	0-13	0-5	0-4	0-7	0-5	0-17	0-11	0-17	0-17	0-12	0-12	0-12	0-7.5	0-4
Offset at distance																		
	0	±3	±3	±4	±4	±6	±3	±3	±4	±3	0	±12	±8	±10	±7	0	±5	±3.5
	5	±2		±4	±2	±6	±2		±3	±2	5	±12	±8	±10	±7	2	±5	±3.5
	9					±4					8	±12	±6	±10	±6	3	±4	±3
	12				±2						10	±12	±6	±9	±6	4	±4	±1
	15										11	±8	±4	±9	±3	5	±4	
	16										12	±8		±9	±3	6	±4	
	18										15	±8		±4		7.5	±1.5	
	20										17	±4		±4		10		

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque

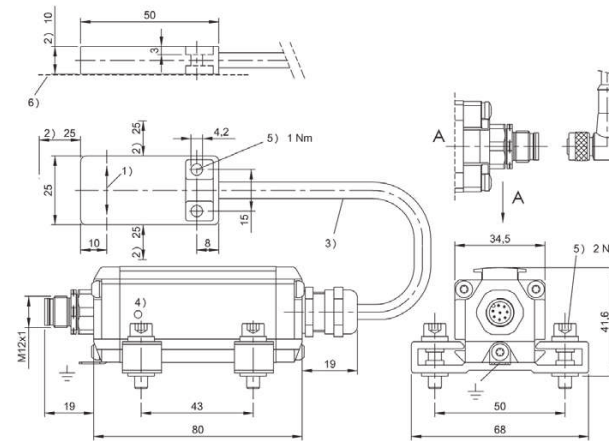


For processor units BIS M-60...	BISO00Y BIS M-352-001-S115
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Plug, 8-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BISO00NZ		BISO17F		BISO0M2					
Data carrier clear zone A	>27	>27	>200	>200	>200	>200	>200	>200		
Data carrier clear zone B	>27	>27	>200	>200	>200	>200	>200	>200		
Data carrier clear zone C			>50	>50	>50	>50	>0	>0		
Metallic mounting surface 40 x 22 mm										
Metallic mounting surface > 200 x 200 mm										
Working distance for writing	0-22	0-22	0-17	0-17	0-17	0-17	0-20	0-20		
Working distance for reading	0-22	0-22	0-17	0-17	0-17	0-17	0-20	0-20		
Offset at distance	X	Y	X	Y	X	Y	X	Y		
	0	±25	±5	0	±22	±9	±22	±10	±25	±12
	5	±25	±5	5	±22	±9	±22	±10	±25	±12
	10	±25	±5	10	±19	±8	±20	±9	±25	±12
	15	±25	±5	15	±12	±6	±16	±7	±22	±10
	20	±15	±5	17	±3	±2	±5	±3	±18	±8
	22	±15	±5	20					±8	±4

Dimensions in mm



1) Read/write axis, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque, 6) Mounting on steel

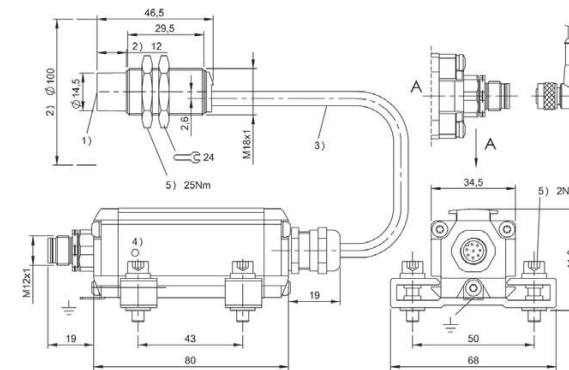


For processor units BIS M-60...	BISO0P2 BIS M-307-001-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 46.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Plug, 8-pin, 0.50 m, PU
Housing material	Brass, interface aluminum
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS0040		BIS0042		BIS0044		BIS0048		BIS004A		BIS00YK		BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100	
Data carrier distance to metal	>10	>0	>10	>0	>25	>10	>0	>10	>0	>10	>0	>10	>0	>100	>0	>100
Data carrier clear zone	>60	>0	>60	>0	>80	>60	>0	>60	>0	>60	>0	>60	>0	>100	>0	>100
Working distance for writing	0-6	0-4	0-8	0-6	0-13	0-5	0-4	0-7	0-5	0-10	0-8	0-16	0-16	0-12	0-12	0-12
Working distance for reading	0-6	0-4	0-8	0-6	0-13	0-5	0-4	0-7	0-5	0-10	0-8	0-16	0-16	0-12	0-12	0-12
Offset at distance	0	±3	±3	±4	±4	±6	±3	±3	±4	±3	0	±7	±5	±9	±7	±7
	5	±2		±4	±2	±6	±2		±4	±2	5	±7	±5	±9	±7	±7
	9					±4					7	±6	±4	±9	±6	±6
	12					±2					8	±6	±2	±9	±6	±6
	15										10	±3		±8	±6	±6
	16										12			±8	±3	±3
	18										14			±8		
	20										16			±3		

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque



For processor units BIS M-62... For processor units BIS V-6... with BIS014N	BISO0WM BIS M-371-000-A01
Product Group	HF (13.56 MHz)
Dimension	113.4 x 42.4 x 118 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, RCA
Housing material	PA
Ambient temperature	-20...50 °C
Protection degree	IP65
Approval/Conformity	CE

Appropriate data carrier

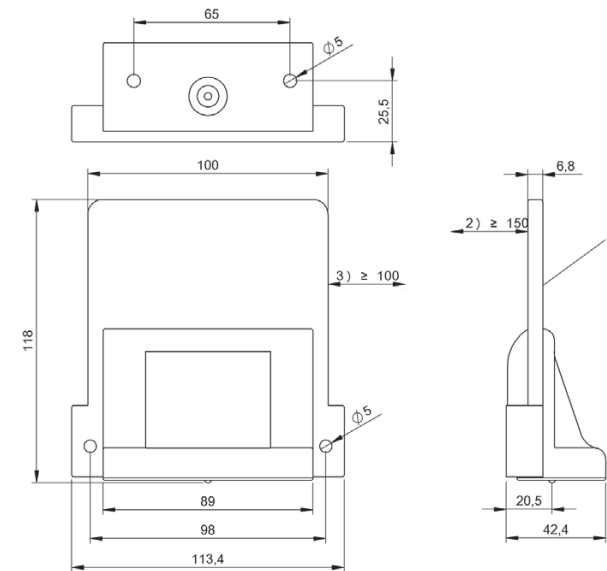
	BIS0043	BIS0111	BIS0044	BIS0045	BIS0046		BIS0119		BIS00YF
Data carrier distance to metal	>40	>40	>40	>40	>40		>0		>25
Data carrier clear zone	>230	>230	>220	>230	>250		>120		>230
Working distance for writing	0-110	0-100	0-70	0-120	0-150		0-50		0-100
Working distance for reading	0-110	0-100	0-70	0-120	0-150		0-50		0-100
Offset at distance									
	0 ±40	±40	±40	±40	±40		0 ±30		0 ±75
	20 ±40	±40	±40	±40	±40		5 ±30		20 ±75
	40 ±40	±40	±40	±40	±40		15 ±30		30 ±75
	60 ±40	±40	±40	±40	±40		28 ±30		40 ±75
	70 ±40	±40	±25	±40	±40		35 ±30		50 ±70
	100 ±40	±25		±40	±40		50 ±20		70 ±70
	110 ±25			±40	±40				100 ±25
	120 ±25			±25	±40				
	150				±25				

Dimensions in mm

Appropriate data carrier

	BIS00YE	BIS00YA	BIS00Y9		BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y2
Data carrier distance to metal	>25	>25	>40		>40	>40	>40	>40
Data carrier clear zone	>230	>230	>230		>250	>250	>250	>250
Working distance for writing	0-100	0-40	0-70		25-140	10-205	10-205	10-135
Working distance for reading	0-100	0-40	0-70		25-140	10-205	10-205	10-135
Offset at distance								
	0 ±75	±30	±40		50 ±75	±75	±75	±75
	20 ±75	±30	±40		75 ±75	±75	±75	±75
	30 ±75	±30	±40		100 ±75	±75	±75	±75
	40 ±75	±20	±40		120 ±75	±75	±75	±75
	50 ±70		±40		135 ±75	±75	±75	±25
	70 ±70		±25		140 ±25	±75	±75	
	100 ±25				190 ±75	±75	±75	
					205 ±25	±25	±25	

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Clear zone surrounding



For processor units BIS M-62... For processor units BIS V-6... with BIS014N	BISO0WL BIS M-372-000-A01
Product Group	HF (13.56 MHz)
Dimension	200 x 42.4 x 218 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, RCA
Housing material	PA
Ambient temperature	-20...50 °C
Protection degree	IP65
Approval/Conformity	CE

Appropriate data carrier

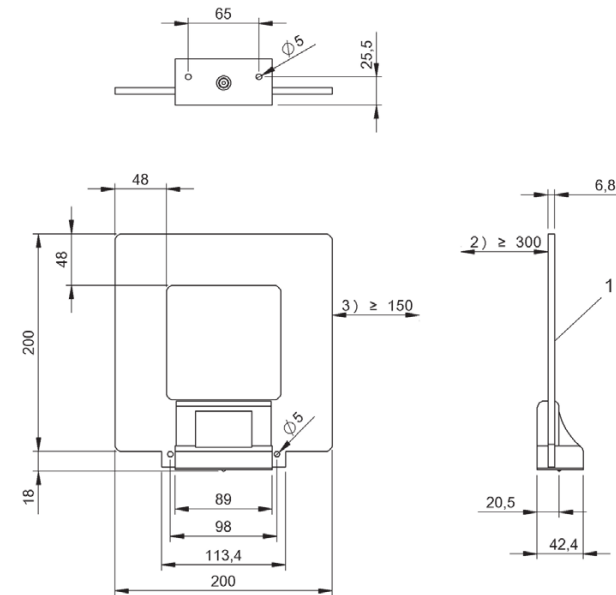
	BIS0043	BIS0111	BIS0044	BIS0045	BIS0046		BIS0119		BIS00YF
Data carrier distance to metal	>45	>45	>45	>45	>45		>0		>45
Data carrier clear zone	>430	>430	>420	>430	>450		>420		>430
Working distance for writing	0-160	0-150	0-115	0-175	0-235		0-65		0-160
Working distance for reading	0-160	0-150	0-115	0-175	0-235		0-65		0-160
Offset at distance									
	0 ±75	±75	±50	±75	±75		0 ±50		0 ±100
	25 ±75	±75	±50	±75	±75		20 ±50		20 ±100
	50 ±75	±75	±50	±75	±75		37 ±50		30 ±100
	80 ±75	±75	±50	±75	±75		65 ±30		40 ±100
	100 ±75	±75	±50	±75	±75		80		60 ±100
	115 ±75	±75	±30	±75	±75		100		90 ±100
	135 ±75	±75		±75	±75		115		115 ±50
	150 ±75	±50		±75	±75				130 ±50
	160 ±50			±75	±75				145 ±50
	175			±50	±75				160 ±25

Dimensions in mm

Appropriate data carrier

	BIS00YE	BIS00YA	BIS00Y9		BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y2
Data carrier distance to metal	>45	>45	>45		>45	>45	>45	>45
Data carrier clear zone	>430	>430	>430		>450	>450	>450	>450
Working distance for writing	0-145	0-30	0-115		0-230	0-300	0-300	0-190
Working distance for reading	0-145	0-30	0-115		0-230	0-300	0-300	0-190
Offset at distance								
	0 ±100	±50	±75		0 ±100	±100	±100	±100
	20 ±100	±50	±75		50 ±100	±100	±100	±100
	30 ±100	±30	±75		100 ±100	±100	±100	±100
	40 ±100		±75		150 ±100	±100	±100	±100
	60 ±100		±75		190 ±100	±100	±100	±50
	90 ±100		±75		230 ±50	±100	±100	
	115 ±50		±50		250	±100	±100	
	130 ±50				300	±50	±50	
	145 ±25							
	160							

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Clear zone surrounding

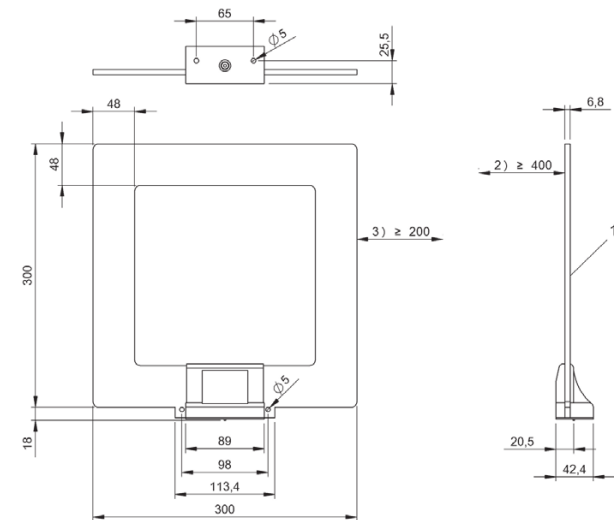


For processor units BIS M-62... For processor units BIS V-6... with BIS014N	BIS00WK BIS M-373-000-A01
Product Group	HF (13.56 MHz)
Dimension	300 x 42.4 x 318 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, RCA
Housing material	PA
Ambient temperature	-20...50 °C
Protection degree	IP65
Approval/Conformity	CE

Appropriate data carrier

	BIS00YF	BIS00YE	BIS00Y5	BIS00Y4	BIS00W9
Working distance for writing	0-195	0-185	0-320	0-355	0-360
Working distance for reading	0-195	0-185	0-320	0-355	0-360

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Clear zone surrounding

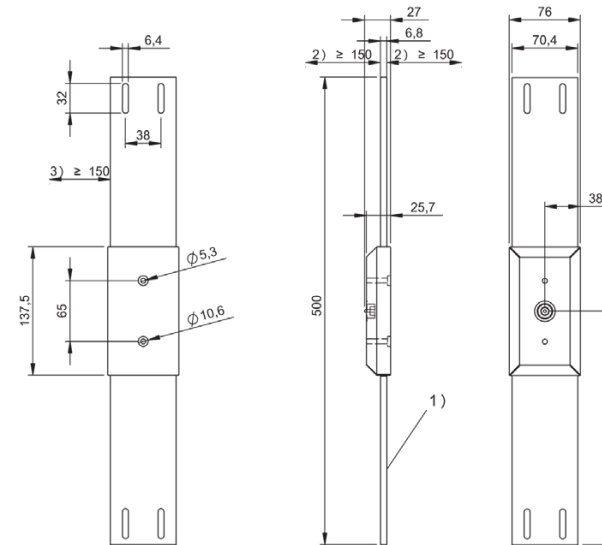


For processor units BIS M-62... For processor units BIS V-6... with BIS014N	BISO0WN BIS M-370-000-A02
Product Group	HF (13.56 MHz)
Dimension	500 x 27 x 76 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, RCA
Housing material	PA
Ambient temperature	-20...50 °C
Protection degree	IP65
Approval/Conformity	CE

Appropriate data carrier

	BIS00Y7	BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y2	BIS00Y1
Working distance for writing	0-48	10-95	0-135	0-130	15-95	0-100
Working distance for reading	0-48	10-95	0-135	0-130	15-95	0-100

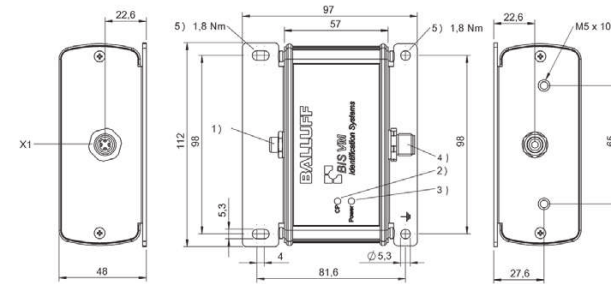
Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Clear zone surrounding



For antennas BIS M-37...	BIS014N BIS VM-920
Product Group	HF (13.56 MHz)
Dimension	112 x 48 x 97 mm
Connection	Male, 4-pin
Housing material	Aluminum
Ambient temperature	-20...50 °C
Protection degree	IP65
Approval/Conformity	CE



1) Antenna connection, 2) LED (CP), 3) LED (Power), 4) Read head connection X1, 5) Tightening torque



For read/write heads BIS VM (HF 13.56 MHz), BIS VL (LF 125 kHz) and BIS VU (UHF 860/960 MHz) *	BIS013U BIS V-6108-048-C002	
Product Group	Multi-Frequency Processors (BIS V)	
Interface	Profinet I/O (IRT), 2 port Switch	
Supported RFID technologies	LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	
Number of connectable R/W heads / antennas	4	
Operating voltage Ub	24 V DC LPS Class 2	
Housing material	Zinc, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL Listed	
Connection	2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 5-pole	
Productview	Page 226	

* Use adapter **BISOFCCK** to connect read/write heads **BIS C (LF 70/455 kHz)**.



BIS013W BIS V-6108-048-C102	BIS00T3 BIS V-6102-019-C001	BIS012E BIS V-6102-019-C101
Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)
Profinet I/O (IRT), 2 port Switch	Profibus DP Slave, galvanically isolated	Profibus DP Slave, galvanically isolated
LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)
4	4	4
24 V DC LPS Class 2	24 V DC LPS Class 2	24 V DC LPS Class 2
Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
0...60 °C	0...60 °C	0...60 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL Listed	CE, UL Listed	CE, UL Listed
2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 5-pole	M12x1-Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded 7/8"-Male, 5-pole	M12x1-Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded 7/8"-Male, 5-pole
Page 226	Page 226	Page 226

210 | RFID | HF (13.56 MHz)



For read/write heads BIS VM (HF 13.56 MHz), BIS VL (LF 125 kHz) and BIS VU (UHF 860/960 MHz) *	BISO186 BIS V-6107-039-0005	
Product Group	Multi-Frequency Processors (BIS V)	
Interface	Ethernet TCP/IP, USB	
Supported RFID technologies	LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	
Number of connectable R/W heads / antennas	4	
Operating voltage Ub	24 V DC LPS Class 2	
Housing material	Zinc, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL Listed	
Connection	M12x1-Female, 4-pole, D-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 5-pole	
Productview	Page 227	

* Use adapter **BISOFCX** to connect read/write heads **BIS C (LF 70/455 kHz)**.

HF processor units (13.56 MHz) | 211



BISO18J BIS V-6107-039-0006	BISO187 BIS V-6107-039-C105	BISO18K BIS V-6107-039-C106
Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)
Ethernet TCP/IP, USB	Ethernet TCP/IP, USB	Ethernet TCP/IP, USB
LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)
4	4	4
24 V DC LPS Class 2	24 V DC LPS Class 2	24 V DC LPS Class 2
Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
0...60 °C	0...60 °C	0...60 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL Listed	CE, UL Listed	CE, UL Listed
M12x1-Female, 4-pole, D-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 4-pole	M12x1-Female, 4-pole, D-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 5-pole	M12x1-Female, 4-pole, D-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 4-pole
Page 227	Page 227	Page 227

212 | RFID | HF (13.56 MHz)



For read/write heads BIS VM (HF 13.56 MHz), BIS VL (LF 125 kHz) and BIS VU (UHF 860/960 MHz) *	BIS012F BIS V-6106-034-C002	
Product Group	Multi-Frequency Processors (BIS V)	
Interface	Ethernet/IP	
Supported RFID technologies	LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	
Number of connectable R/W heads / antennas	4	
Operating voltage Ub	24 V DC LPS Class 2	
Housing material	Zinc, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL Listed	
Connection	2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 5-pole	
Productview	Page 228	

* Use adapter **BISOFCX** to connect read/write heads **BIS C (LF 70/455 kHz)**.

HF processor units (13.56 MHz) | 213



BIS0122 BIS V-6106-034-C004	BIS014C BIS V-6106-034-C102	BIS0146 BIS V-6106-034-C104
Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)
Ethernet/IP	Ethernet/IP	Ethernet/IP
LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)
4	4	4
24 V DC LPS Class 2	24 V DC LPS Class 2	24 V DC LPS Class 2
Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
0...60 °C	0...60 °C	0...60 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL Listed	CE, UL Listed	CE, UL Listed
2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 4-pole	2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 5-pole	2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 4-pole
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For read/write heads BIS VM (HF 13.56 MHz), BIS VL (LF 125 kHz) and BIS VU (UHF 860/960 MHz) *	BISO009 BIS V-6110-063-C002	
Product Group	Multi-Frequency Processors (BIS V)	
Interface	EtherCAT	
Supported RFID technologies	LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	
Number of connectable R/W heads / antennas	4	
Operating voltage Ub	24 V DC LPS Class 2	
Housing material	Zinc, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL Listed	
Connection	2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 5-pole	
Productview	Page 229	

* Use adapter **BISOFCX** to connect read/write heads **BIS C (LF 70/455 kHz)**.



BISO147 BIS V-6110-063-C102	BISO10P BIS V-6111-073-C003	BISO14E BIS V-6111-073-C103
Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)
EtherCAT	CC-Link	CC-Link
LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM), UHF 860/960 MHz (BIS VU)	LF 125 kHz (BIS VL), HF 13.56 MHz (BIS VM)	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), HF 13.56 MHz (BIS VM)
4	4	4
24 V DC LPS Class 2	24 V DC LPS Class 2	24 V DC LPS Class 2
Zinc, die-cast	Zinc, die-cast	Zinc, die-cast
0...60 °C	0...60 °C	0...60 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL Listed	CE, UL Listed	CE, UL Listed
2x M12x1-Female, 4-pole, D-coded 7/8"-Male, 5-pole	M12x1-Male, 5-pole, A-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 5-pole	M12x1-Male, 5-pole, A-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 5-pole
Page 229	Page 229	Page 229

216 | RFID | HF (13.56 MHz)



For read/write heads BIS M-3xx-001...	BIS00N1 BIS M-6000-007-050-00-ST15	
Product Group	HF (13.56 MHz)	
Interface	RS232	
Supported RFID technologies	HF 13.56 MHz (BIS M)	
Number of connectable R/W heads / antennas	2	
Operating voltage Ub	19.2...28.8 VDC	
Housing material	ABS	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, cULus	
Connection	Male, 4-pole Male, 5-pole	
Productview	Page 230	

HF processor units (13.56 MHz) | 217



BIS00J0 BIS M-6000-007-050-00-ST24	BIS00L7 BIS M-6008-048-050-06-ST23	BIS00KZ BIS M-6028-048-050-06-ST22
HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
RS232	Profinet I/O (IRT), Profinet I/O (IRT) 2 port Switch	Profinet
HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)
2	2	2
19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC
ABS	ABS	Aluminum, die-cast
0...60 °C	0...60 °C	0...60 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Male, 5-pole, B-coded Male, 5-pole	Female, 4-pole, D-coded M12x1-Female, 4-pole, D-coded Male, 5-pole	2x RJ45-Female, 8-pole Male, 5-pole
Page 230	Page 231	Page 231



For read/write heads BIS M-3xx-001...	BIS00TW BIS M-6028-048-050-06-ST28	
For read/write heads BIS M-3xx-003...		
Product Group	HF (13.56 MHz)	
Interface	Profinet	
Supported RFID technologies	HF 13.56 MHz (BIS M)	
Number of connectable R/W heads / antennas	2	
Operating voltage Ub	19.2...28.8 VDC	
Housing material	Aluminum, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	Female, 4-pole, D-coded M12x1-Female, 4-pole, D-coded Male, 5-pole	
Productview	Page 232	



	BIS00EW BIS M-6002-019-050-03-ST11	BIS00FO BIS M-6022-019-050-03-ST14	
			BIS00EP BIS M-407-039-003-06-S115
HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated	Ethernet TCP/IP	
HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)	
2	2	1	
19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC	
ABS	Aluminum, die-cast	Aluminum	
0...60 °C	0...60 °C	0...60 °C	
IP65 with connector	IP65 with connector	IP67 with connector	
CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	
Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded Male, 5-pole	Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded Male, 5-pole	Female, 4-pole, D-coded Male, 5-pole	
Page 232	Page 233	Page 233	



For read/write heads BIS M-3xx-001...	BIS00F2 BIS M-6026-034-050-06-ST19	
Product Group	HF (13.56 MHz)	
Interface	Ethernet/IP	
Supported RFID technologies	HF 13.56 MHz (BIS M)	
Number of connectable R/W heads / antennas	2	
Operating voltage Ub	19.2...28.8 VDC	
Housing material	Aluminum, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	Female, 4-pole, D-coded Male, 5-pole	
Productview	Page 234	



BIS00EY BIS M-6003-025-050-03-ST12	BIS00F1 BIS M-6023-025-050-03-ST13	BIS00LY BIS M-699-052-050-03-ST11
HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
DeviceNet galvanically isolated	DeviceNet galvanically isolated	CC-Link
HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)
2	2	2
19.2...28.8 VDC	19.2...28.8 VDC	21.6...26.4 VDC Supports only LPS/Class 2
ABS	Aluminum, die-cast	Aluminum, die-cast
0...60 °C	0...60 °C	0...55 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, CLPA, UL-FILE E227256, Vol.X1, BIS
Male, 5-pole Female, 5-pole Male, 5-pole	Male, 5-pole Female, 5-pole Male, 5-pole	Male, 5-pole Female, 5-pole Male, 5-pole
Page 234	Page 235	Page 235



For read/write heads BIS M-37x-000...	BISO00J BIS M-620-068-A01-00-S115	
Product Group	HF (13.56 MHz)	
Interface	RS232	
Supported RFID technologies	HF 13.56 MHz (BIS M)	
Number of connectable R/W heads / antennas	1	
Operating voltage Ub	19.2...28.8 VDC	
Housing material	Aluminum	
Ambient temperature	-20...50 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	M12x1 connector, 8-pin	
Productview	Page 236	



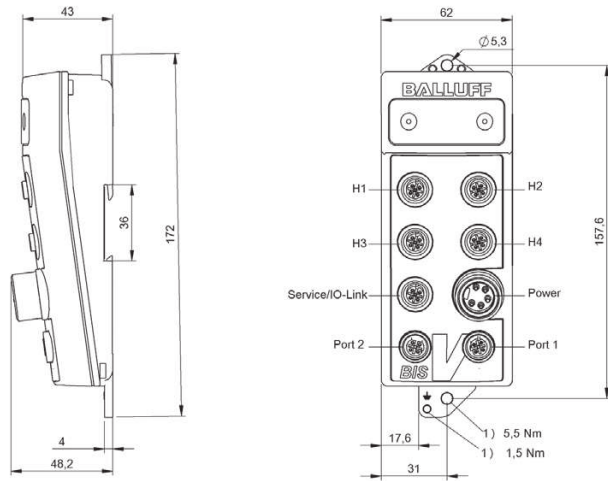
BISO00ZH BIS M-620-068-A01-00-ST29	BISO11P BIS M-628-075-A01-03-ST34	BISO00ZF BIS M-622-070-A01-03-ST33
HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
RS232	Profinet galvanically isolated	Profibus DP Slave galvanically isolated
HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)
1	1	1
19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC
Aluminum	Aluminum	Aluminum
-20...50 °C	-20...50 °C	-20...50 °C
IP65 with connector	IP65 with connector	IP65 with connector
CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
M12x1 connector, 8-pin	2x M12x1-Female, 4-pole, D-coded M12x1-Male, 5-pole	M12x1-Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded M12x1-Male, 5-pole
Page 236	Page 237	Page 237



For read/write heads BIS M-37x-000...	BIS00ZC BIS M-626-069-A01-06-ST31	
Product Group	HF (13.56 MHz)	
Interface	Industrial Ethernet/Ethernet TCP/IP/MODBUS TCP	
Supported RFID technologies	HF 13.56 MHz (BIS M)	
Number of connectable R/W heads / antennas	1	
Operating voltage Ub	19.2...28.8 VDC	
Housing material	Aluminum	
Ambient temperature	-20...50 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	M12x1-Female, 4-pole, D-coded M12x1-Male, 5-pole	
Productview	Page 238	

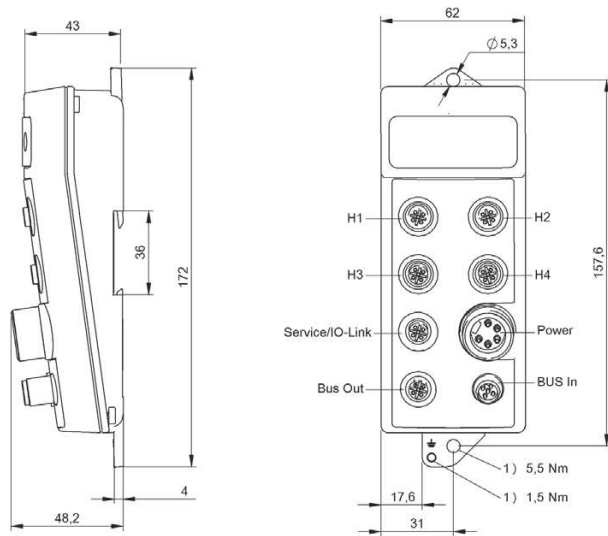


	BIS00ZA BIS M-626-069-A01-06-ST32	BIS00ZE BIS M-623-071-A01-03-ST30	
	HF (13.56 MHz)	HF (13.56 MHz)	
	Industrial Ethernet/Ethernet TCP/IP/MODBUS TCP	DeviceNet galvanically isolated	
	HF 13.56 MHz (BIS M)	HF 13.56 MHz (BIS M)	
	1	1	
	19.2...28.8 VDC	19.2...28.8 VDC	
	Aluminum	Aluminum	
	-20...50 °C	-20...50 °C	
	IP65 with connector	IP65 with connector	
	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	
	M12x1-Female, 4-pole, D-coded M12x1-Male, 5-pole	M12x1-Male, 5-pole M12x1-Male, 8-pole	
	Page 238	Page 239	



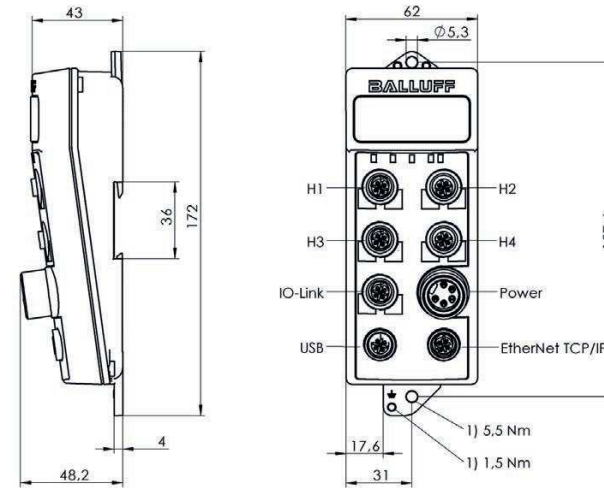
1) Tightening torque

BIS013U, BIS013W



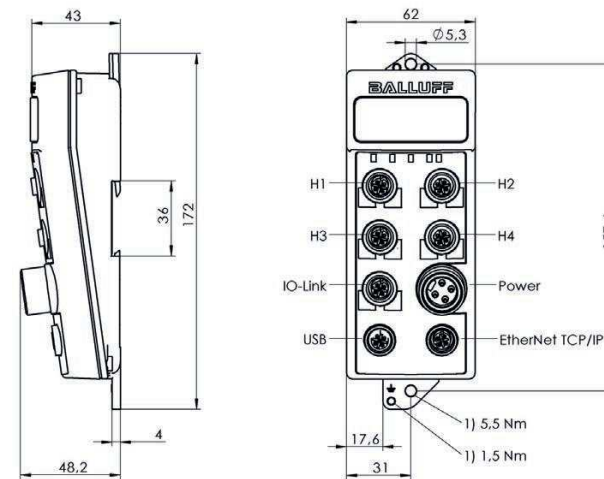
1) Tightening torque

BIS00T3, BIS012E



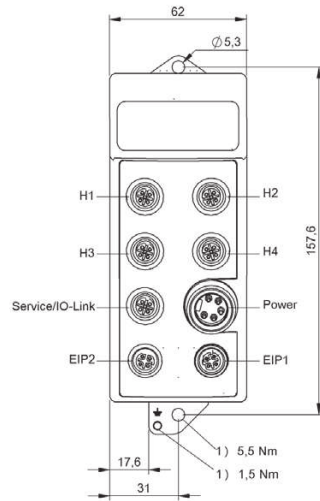
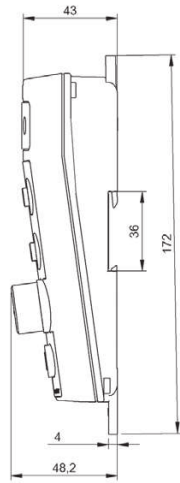
1) Tightening torque

BIS0186, BIS0187

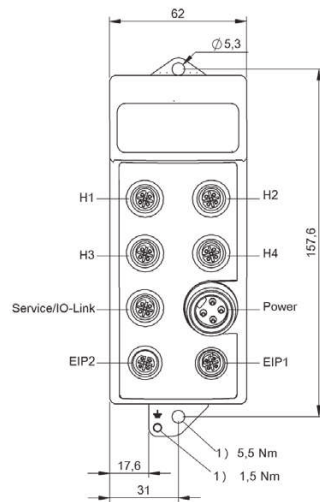
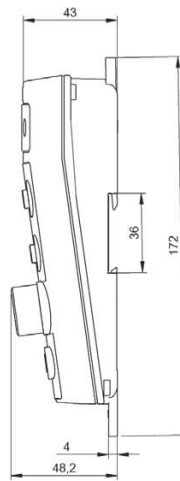


1) Tightening torque

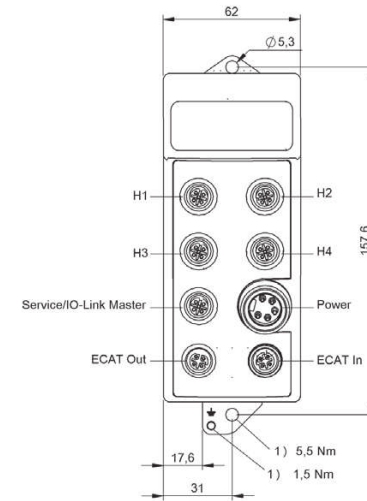
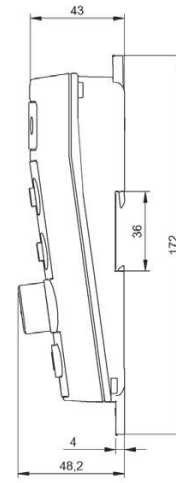
BIS018J, BIS018K



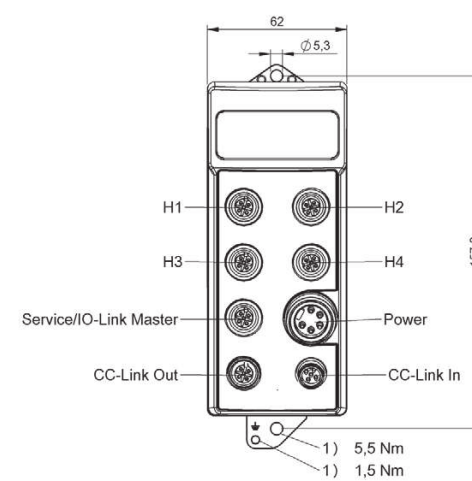
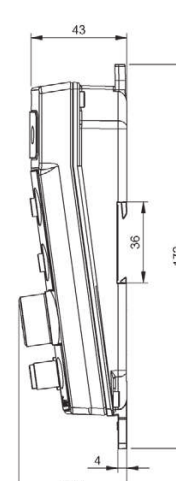
1) Tightening torque
BIS012F, BIS014C



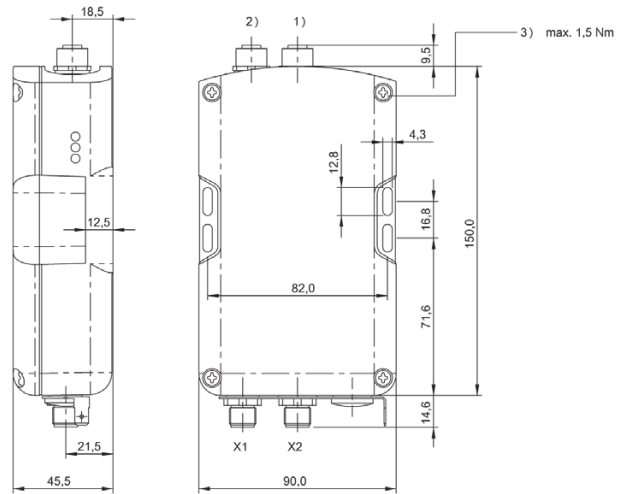
1) Tightening torque
BIS0122, BIS0146



1) Tightening torque
BIS0009, BIS0147

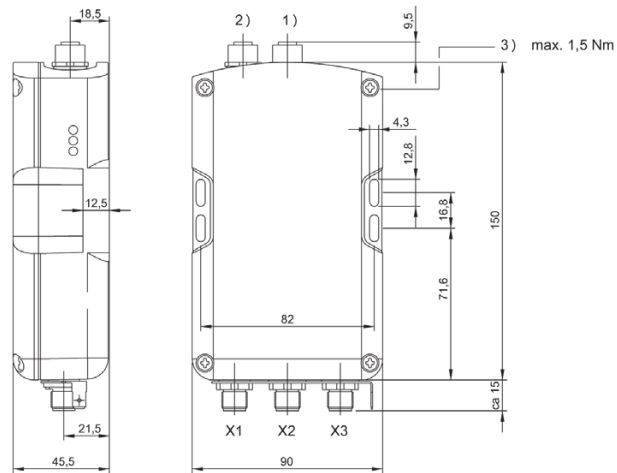


1) Tightening torque
BIS010P, BIS014E



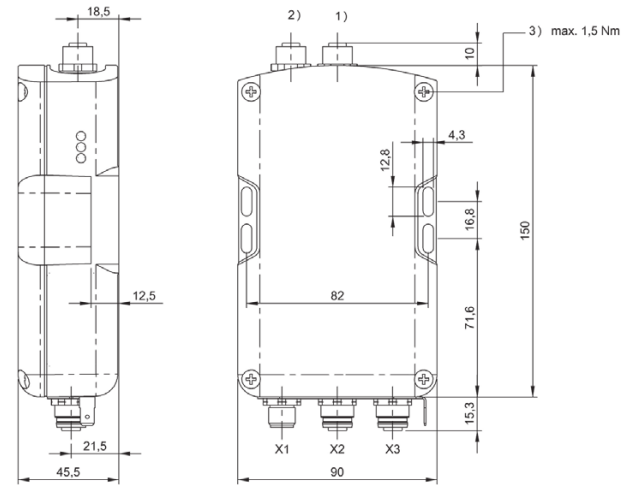
1) Head 1, 2) Head 2, 3) Tightening torque

BISO0N1



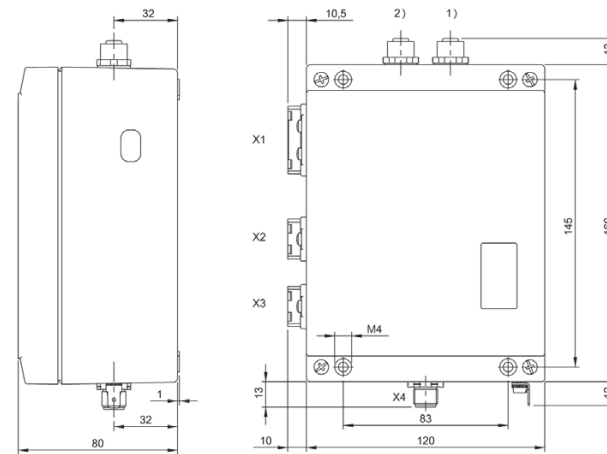
1) Head 1, 2) Head 2, 3) Tightening torque

BISO0J0



1) Head 1, 2) Head 2, 3) Tightening torque

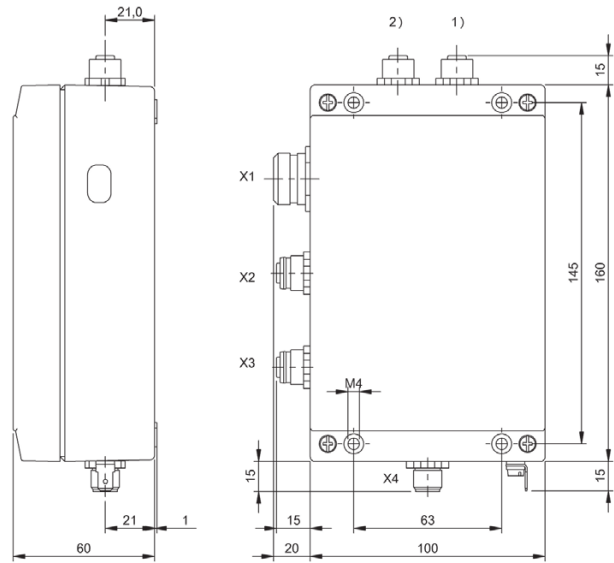
BISO0L7



1) Head 1, 2) Head 2

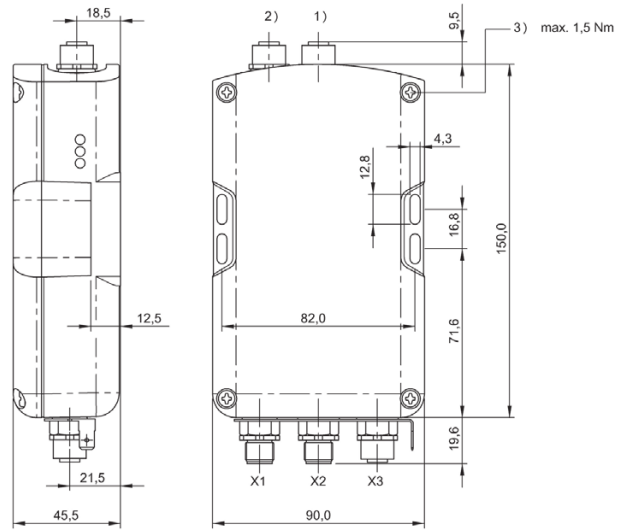
BISO0KZ

232 | RFID | HF (13.56 MHz)



1) Head 1, 2) Head 2

BISO0TW

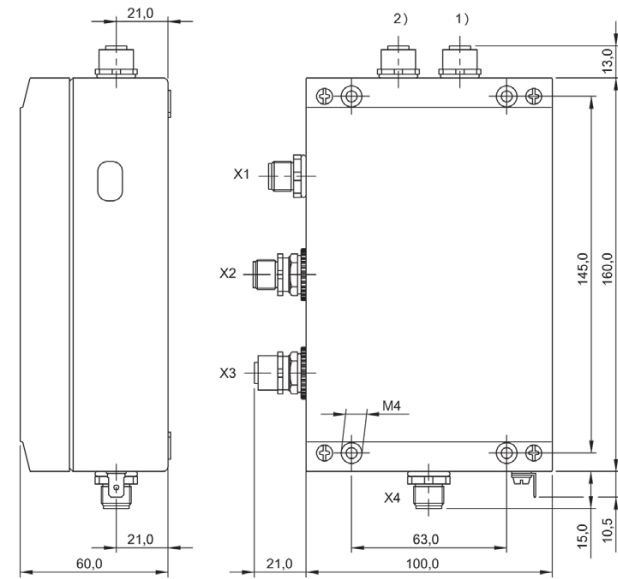


1) Head 1, 2) Head 2, 3) Tightening torque

BISO0EW

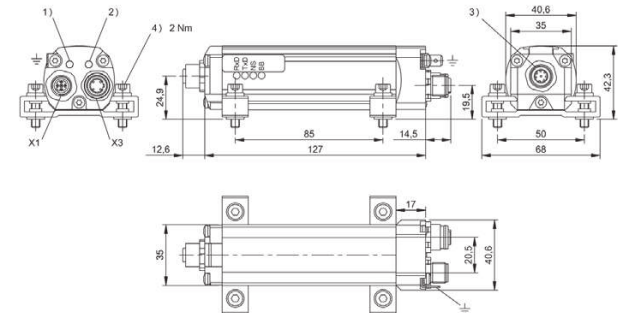
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HF processor units (13.56 MHz) | 233



1) Head 1, 2) Head 2

BISO0FO



1) LED1 Ethernet Status, 2) LED2 Ethernet Status, 3) Head, 4) Tightening torque

BISO0EP

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Sensors

RFID

Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

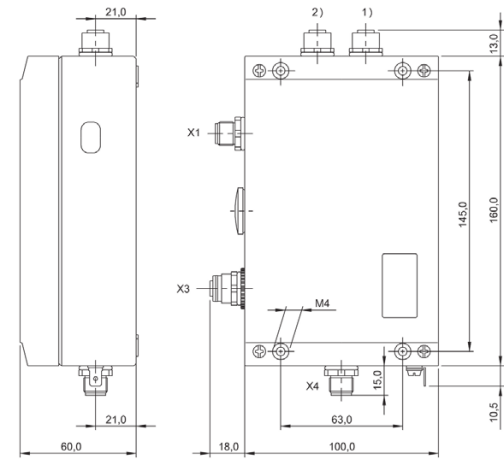
Safety

Industrial Networking

Power Supplies

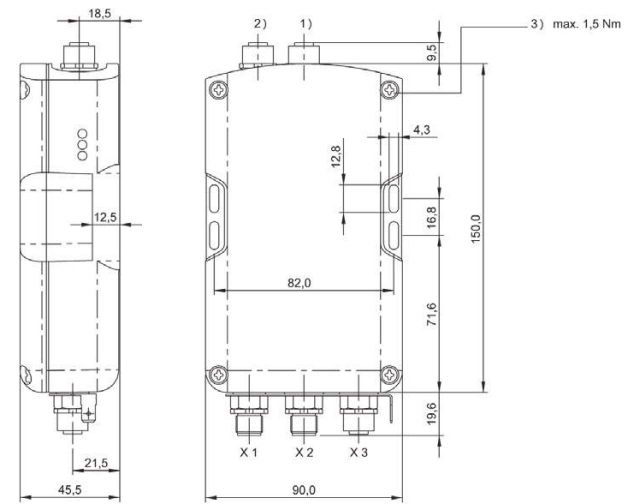
Connectivity

Accessories



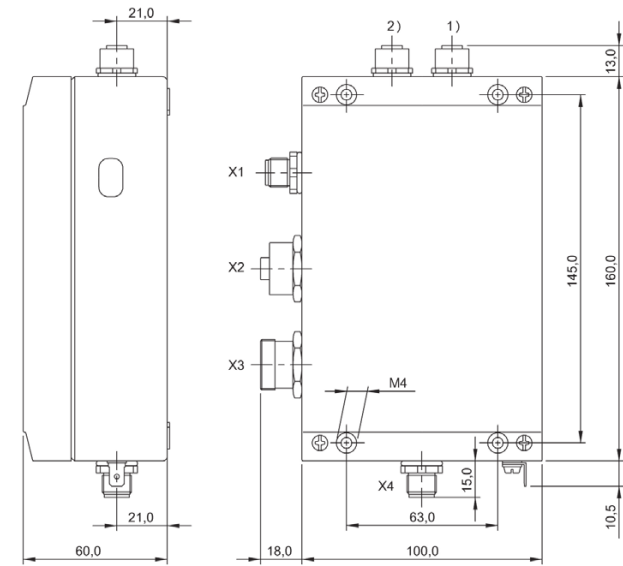
1) Head 1, 2) Head 2

BISOOF2



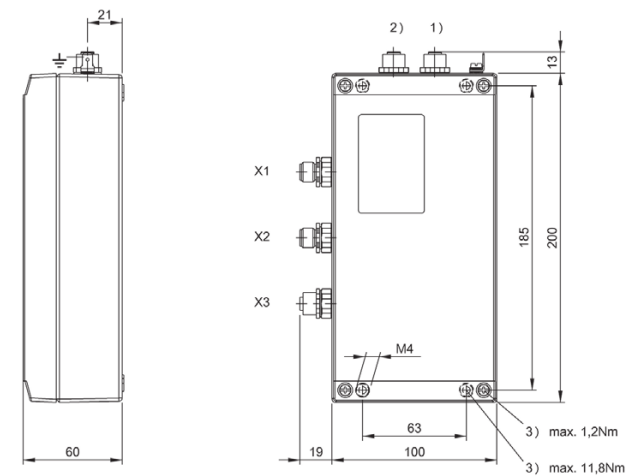
1) Head 1, 2) Head 2, 3) Tightening torque

BIS00EY



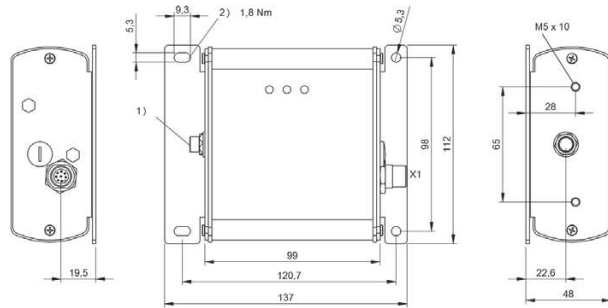
1) Head 1, 2) Head 2

BISOOF1



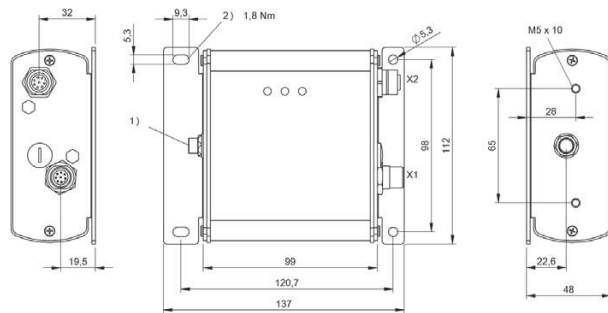
1) Head 1, 2) Head 2, 3) Tightening torque

BIS00LY



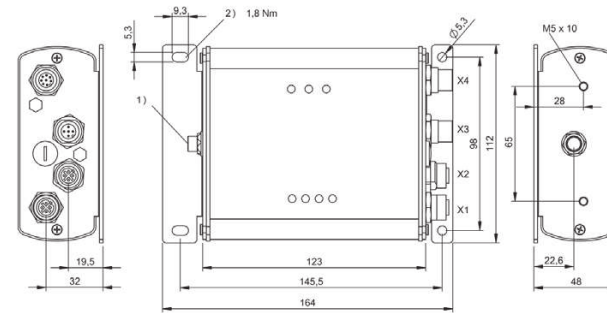
1) Antenna, 2) Tightening torque

BISO0ZJ



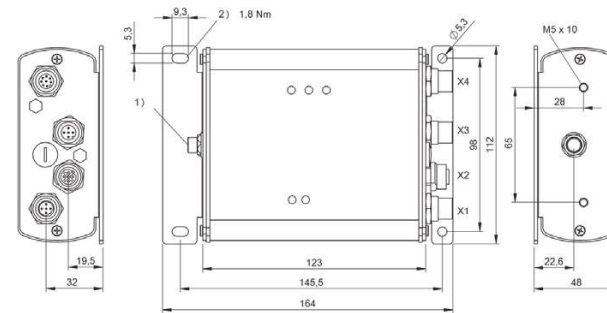
1) Antenna, 2) Tightening torque

BISO0ZH



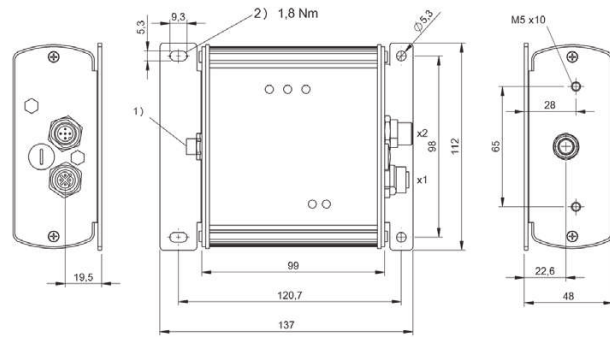
1) Antenna

BISO11P



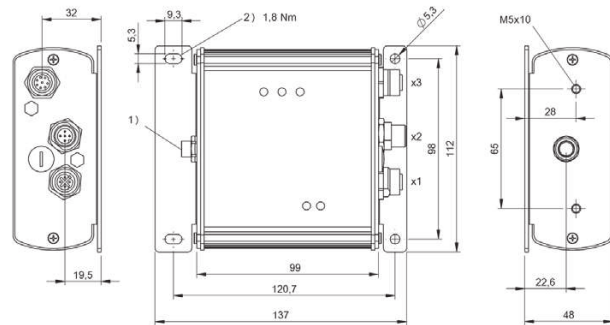
1) Antenna, 2) Tightening torque

BISO0ZF



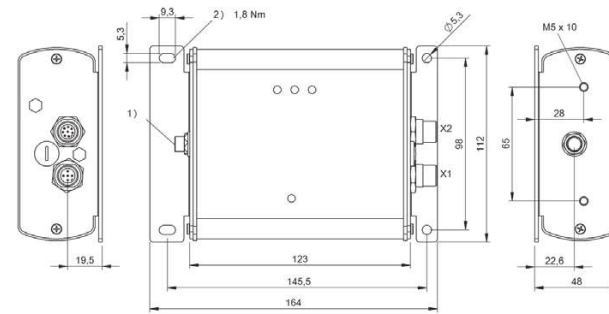
1) Antenna, 2) Tightening torque

BISO0ZC



1) Antenna, 2) Tightening torque

BISO0ZA



1) Antenna, 2) Tightening torque

BISO0ZE

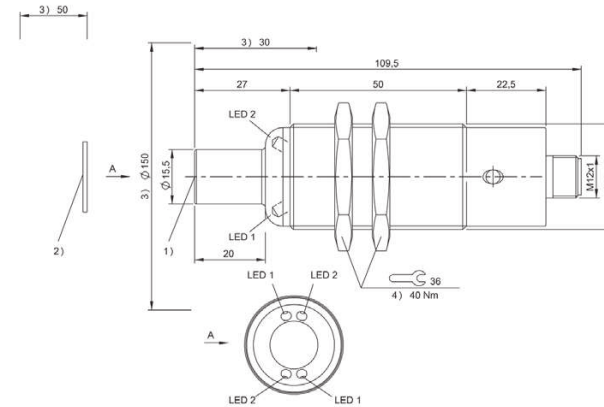


	BISO00EK BIS M-400-007-002-00-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 109.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	Brass, nuts nickel plated brass
Interface	RS232
Operating voltage Ub	19.2...26.4 VDC
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO003Y			BISO003Z			BISO0040		BISO0042		BISO0048		BISO004A		BISO0043	
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0
Working distance for writing	0-15	0-12	0-9	0-18	0-18	0-10	0-6	0-5	0-9	0-5	0-5	0-4	0-6	0-5	0-20	0-12
Working distance for reading	0-15	0-12	0-9	0-18	0-18	0-10	0-6	0-5	0-9	0-5	0-5	0-4	0-6	0-5	0-20	0-12
Offset at distance	0	±9	±6	±4	±16	±12	±4	±5	±4	±6	±4	±4	±3	±4	±3	±14
	5	±9	±6	±4	±16	±12	±4	±4	±2	±6	±2	±3	±3	±2	±14	±8
	9	±8	±4	±2	±12	±10	±2		±2					±12	±6	
	12	±6	±2		±8	±5								±10	±4	
	15	±4			±8	±5								±10		
	16				±7	±3								±7		
	18				±6	±2								±7		
	20													±7		
	22															
	25															

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BISO0044			BISO0045			BISO0046			BISO00YE		BISO00NU BISO00NW BISO0100	
	>25	>15	>5	>25	>10	>5	>50	>25	>20	>25	>20	>25	>0
	>80	>50	>50	>80	>50	>50	>150	>90	>70	>100	>70	>100	>100
	0-15	0-10	0-6	0-20	0-12	0-5	0-28	0-18	0-10	0-24	0-10	0-24	0-12
	0-15	0-10	0-6	0-20	0-12	0-5	0-28	0-18	0-10	0-24	0-10	0-24	0-12
	±8	±6	±4	±12	±8	±7	±20	±14	±14	0	±14	±7	±7
	±8	±6	±4	±12	±8	±4	±20	±14	±14	5	±14	±7	±7
	±6	±5		±10	±6		±18	±14	±10	10	±14	±6	±6
	±4			±10	±4		±18	±12	±6	12	±12	±2	±2
	±4			±10			±18	±12		15	±12		
							±16	±10		20	±12		
							±7	±16	±8	24	±6		
							±7	±16		30			
								±12		35			
								±12		40			

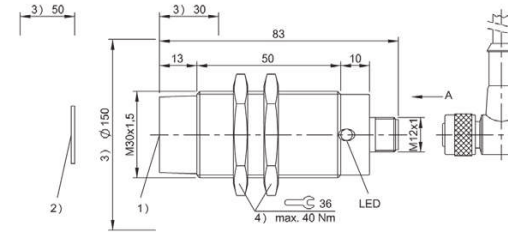


	BISO00EJ BIS M-400-007-001-00-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	Brass, nuts nickel plated brass
Interface	RS232
Operating voltage Ub	19.2...26.4 VDC
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BISO003Y			BISO003Z			BISO0040		BISO0042		BISO0043		BISO0044			BISO0045				
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5	>25	>10	>5		
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>0	>100	>60	>50	>100	>60	>50			
Working distance for writing	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8	0-28	0-18	0-10		
Working distance for reading	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8	0-28	0-18	0-10		
Offset at distance	0																			
	5	±14	±10	±6	±20	±15	±6	±7	±6	±9	±6	±16	±10	0	±12	±8	±6	±16	±10	±7
	9	±14	±10	±6	±20	±15	±6	±7	±6	±8	±6	±16	±10	2	±12	±8	±5	±16	±10	±7
	12	±14	±8	±4	±20	±15	±3			±5		±14	±8	5	±12	±8	±5	±16	±10	±7
	15	±10	±4	±2	±20	±13	±2					±14	±6	7	±10	±6	±4	±14	±8	±2
	16	±10	±2		±20	±10						±14	±6	8	±10	±6	±2	±14	±8	±2
	18	±8			±18	±3						±14	±4	9	±10	±6		±14	±8	±2
	20	±6			±16							±14		10	±8	±4		±14	±7	±1
	22	±5			±15							±14		12	±8	±4		±14	±7	
	25				±15							±12		13	±8	±2		±14	±6	
	30				±10							±12		15	±8	±2		±14	±6	
	32											16	±5	16	±5			±14	±3	
	35											18	±5	18	±5			±14	±2	
	40											20	±5	20	±5			±14		
	43											22		22				±12		
	45											25		25				±12		
	50											27		27				±6		
	52											28		28				±6		
	60											30		30						
	65											35		35						
	70											38		38						
												45		45						

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BISO0046		BISO0048		BISO004A		BISO00LC		BISO00M9 BISO00M8		BISO00NU BISO00NW BISO100		BISO143		BISO00YE		BISO00Y7		BISO00Y5		BISO00Y4	
	>50	>15	>10	>20	>20	>0	>25	>0	>0	>0			>25	>25	>0	>25	>50	>50				
	>150	>90	>70	>100	>100	>0	>100	>100	>100	>100			>100	>100	>100	>100	>150	>150				
	0-38	0-25	0-15	0-9.5	0-13	0-7	0-27	0-13	0-22	0-13			0-27	0-30	0-8	0-24	0-50	0-42				
	0-38	0-25	0-15	0-9.5	0-13	0-7	0-27	0-13	0-22	0-13			0-27	0-30	0-8	0-24	0-50	0-42				
	±22	±16	±13	±9	±10	±7	0	±16	±10	±13	±10		0	±18	±18	±8	±18	±30	±30			
	±22	±16	±13	±9	±10	±7	5	±16	±10	±13	±10		5	±18	±18	±8	±18	±30	±30			
	±22	±16	±13	±8	±10	±6	10	±16	±7	±13	±9		7	±18	±18	±6	±18	±30	±30			
	±22	±14	±10	±7	±8	±1	13	±14	±5	±11	±5		8	±18	±18	±3	±18	±30	±30			
	±22	±14	±10	±1	±8		15	±14		±11			10	±18	±18		±18	±30	±30			
	±22	±14	±10	±1	±8		18	±14		±11			15	±16	±18		±16	±30	±28			
	±20	±13	±8		±8		20	±14		±7			20	±16	±18		±16	±30	±28			
	±20	±13	±8		±3		22	±12		±7			24	±10	±16		±5	±25	±24			
	±20	±12	±6		±3		25	±12					25	±10	±16			±25	±24			
	±20	±12	±6				27	±5					27	±5	±5			±25	±24			
	±20	±10					30						30		±5			±25	±24			
	±20	±10					32						35					±25	±24			
	±20	±8					35						40					±25	±5			
	±20	±6					40						42					±5	±5			
	±20	±4					43						45					±5				
	±16						45						50									
	±16						50						40									
	±16						52						42									
	±10						60						45									
	±5						65						50									
							70						55									

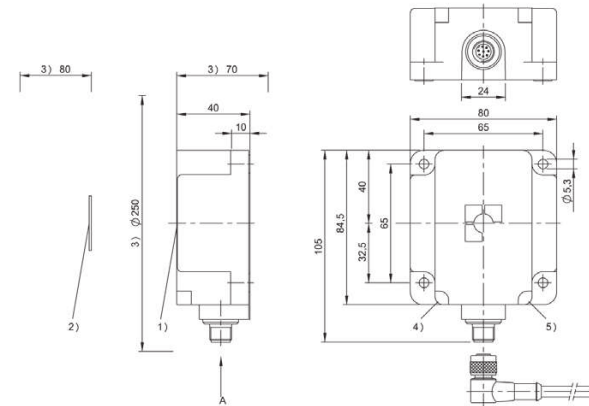


	BISO0EM BIS M-401-007-001-00-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	PBT
Interface	RS232
Operating voltage Ub	19.2...26.4 VDC
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0047	BIS0043		BIS0044		BIS0045		BIS0046	
Data carrier distance to metal	>50	>25	>10	>50	>25	>10	>80	>50	>20	>50	>30	>50	>30	>50	>30
Data carrier clear zone	>200	>150	>150	>200	>150	>150	>250	>200	>60	>200	>100	>200	>100	>200	>100
Working distance for writing	0-28	0-25	0-20	0-45	0-40	0-34	0-50	0-40	0-18	0-30	0-18	0-40	0-25	0-60	0-35
Working distance for reading	0-28	0-25	0-20	0-45	0-40	0-34	0-50	0-40	0-18	0-30	0-18	0-40	0-25	0-60	0-35
Offset at distance															
0	±22	±18	±12	±30	±24	±16	±30	±30	±16	±25	±18	±30	±20	±35	±25
5	±22	±18	±12	±30	±24	±16	±30	±30	±16	±25	±18	±30	±20	±35	±25
9	±22	±18	±10	±30	±24	±16	±30	±30	±16	±25	±15	±30	±20	±35	±25
12	±22	±16	±8	±30	±24	±14	±30	±25	±16	±20	±15	±25	±20	±35	±25
15	±22	±16	±8	±30	±24	±14	±30	±25	±16	±20	±12	±25	±18	±35	±25
16	±20	±15	±6	±30	±20	±12	±30	±25	±16	±20	±12	±25	±18	±35	±25
18	±20	±13	±4	±30	±20	±10	±30	±25	±14	±20	±8	±25	±16	±35	±25
20	±20	±12	±2	±30	±20	±10	±30	±25	±10	±20	±10	±25	±14	±35	±25
22	±16	±8		±24	±18	±8	±30	±20	±15	±20	±12	±25	±12	±35	±22
25	±12	±4		±24	±18	±8	±30	±20	±15	±20	±10	±20	±10	±35	±22
30				±24	±15	±6	±28	±20	±10	±20	±10	±20	±10	±35	±22
32				±20	±12	±4	±24	±15	±10	±15	±10	±15	±10	±35	±22
35				±20	±10		±22	±15		±15	±15	±15	±15	±35	±20
40				±15	±5		±18	±15			±15		±15	±35	
43							±14							±25	
45							±12							±25	
50							±4							±25	
52														±25	
60														±25	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (TP)

	BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100		BIS00YE		BIS00Y4	
	>0	>0			>50	>50		
	>100	>100			>200	>200		
	0-32	0-16			0-50	0-75		
	0-32	0-16			0-50	0-75		
	±25	±24			0	±30		±50
	±25	±24			5	±30		±50
	±25	±20			10	±30		±50
	±25	±14			15	±30		±50
	±25	±4			20	±30		±50
	±25	±4			25	±28		±50
	±25				30	±28		±50
	±25				35	±28		±50
	±20				40	±28		±50
	±20				45	±10		±45
	±15				50	±10		±45
	±15				55			±45
					60			±45
					65			±35
					70			±35
					75			±35
					80			
					85			
					90			

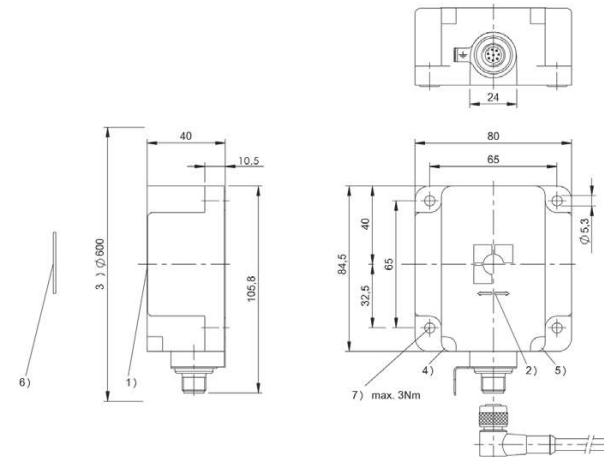


	BISO00R BIS M-451-007-001-00-S115
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	PBT
Interface	RS232
Operating voltage Ub	19.2...26.4 VDC
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO04F				BISO04H				BISO0M2				BISO0P3			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>10	>10	>240	>240		
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>50	>50	>480	>480		
Data carrier clear zone C									>50	>50	>2	>2	>50	>50		
Metallic mounting surface 40 x 22 mm	0-52	0-52			0-52	0-52										
Metallic mounting surface > 200 x 200 mm			0-65	0-65			0-65	0-65								
Working distance for writing	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100		
Working distance for reading	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100		
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
	0	±60	±25	±65	±26	±25	±60	±26	±65	0	±35	±20		±60	±20	
	5	±60	±25	±65	±26	±25	±60	±26	±65	5	±35	±20		±60	±20	
	12	±60	±25	±65	±25	±25	±60	±25	±65	10	±35	±20		±60	±20	
	15	±60	±25	±65	±25	±25	±60	±25	±65	15	±35	±20	±35	±15	±60	±20
	18	±60	±25	±65	±25	±25	±60	±25	±65	20	±35	±20	±35	±15	±60	±20
	20	±60	±25	±65	±25	±25	±60	±25	±65	25	±20	±12	±28	±15	±60	±20
	22	±60	±25	±65	±25	±25	±60	±25	±65	30	±20	±12	±28	±15	±60	±20
	25	±60	±25	±65	±25	±25	±60	±25	±65	35				±60	±20	
	30	±60	±25	±65	±25	±25	±60	±25	±65	40				±60	±20	
	32	±50	±25	±65	±25	±25	±50	±25	±65	45				±60	±20	
	35	±50	±25	±65	±25	±25	±50	±25	±65	50				±60	±20	
	40	±50	±20	±50	±25	±20	±50	±25	±50	60				±60	±20	
	45	±25	±20	±50	±25	±20	±25	±25	±50	70				±60	±20	
	50	±25	±20	±50	±25	±20	±25	±25	±50	80				±60	±20	
	52	±25	±8	±25	±25	±8	±25	±25	±25	90				±40	±20	
	60			±25	±10		±10	±25		100				±40	±20	
	65			±25	±10		±10	±25								

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Data carrier on steel, 7) Tightening torque

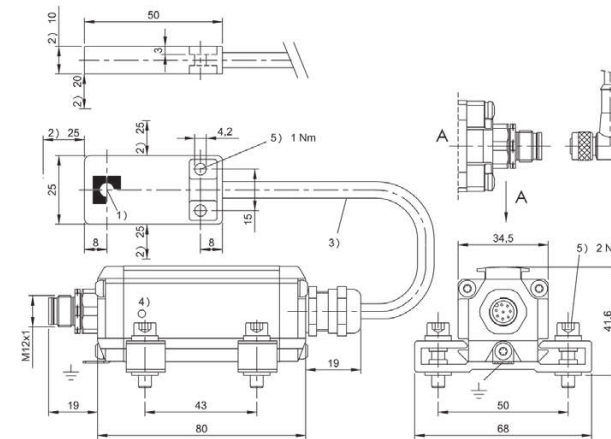


	BISO0RU BIS M-402-007-004-00-S115
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Interface	RS232
Operating voltage Ub	19.2...26.4 VDC
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS0040		BIS0042		BIS0044		BIS0048		BIS004A		BIS00NU BIS00NW BIS0100		BIS003Y	
Data carrier distance to metal	>10	>0	>10	>0	>25		>10	>0	>10	>0	>0		>25	
Data carrier clear zone	>60	>0	>60	>0	>80		>60	>0	>60	>0	>100		>100	
Working distance for writing	0-6	0-4	0-8	0-6	0-15		0-5	0-4	0-8	0-5	0-9		0-15	
Working distance for reading	0-6	0-4	0-8	0-6	0-15		0-5	0-4	0-8	0-5	0-9		0-15	
Offset at distance														
	0	±4	±3	±5	±4	±8		±4	±3	±4	±4	0	±6	±11
	5	±2		±5	±2	±8		±2		±4	±2	5	±6	±11
	9					±6						7	±6	±9
	12					±4						9	±4	±9
	15					±4						12		±9
	16											15		±5

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque

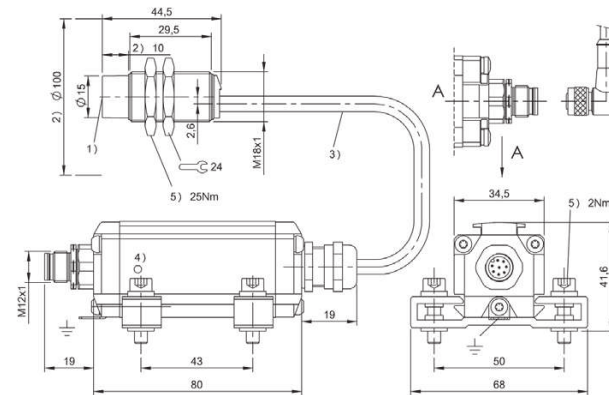


	BISO00EN BIS M-402-007-002-00-S115
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 44.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin, 0.50 m, PU
Housing material	Brass, interface aluminum
Interface	RS232
Operating voltage Ub	19.2...26.4 VDC
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Appropriate data carrier

	BIS0040		BIS0042		BIS0048		BIS004A		BIS0044		BIS003Y		BIS0045	
Data carrier distance to metal	>10	>0	>10	>0	>10	>0	>10	>0	>25		>25	>25		
Data carrier clear zone	>60	>0	>60	>0	>60	>0	>60	>0	>80		>100	>100		
Working distance for writing	0-6	0-4	0-8	0-6	0-5	0-4	0-8	0-5	0-15		0-14	0-18		
Working distance for reading	0-6	0-4	0-8	0-6	0-5	0-4	0-8	0-5	0-15		0-14	0-18		
Offset at distance														
	0	±3	±3	±4	±3	±3	±2	±4	±3	±7	0	±10	±12	
	5	±2		±3	±2	±2		±3	±2	±7	5	±10	±12	
	9									±5	10	±9	±11	
	12									±3	14	±5	±10	
	15									±3	15		±10	
	16										18		±5	

Dimensions in mm



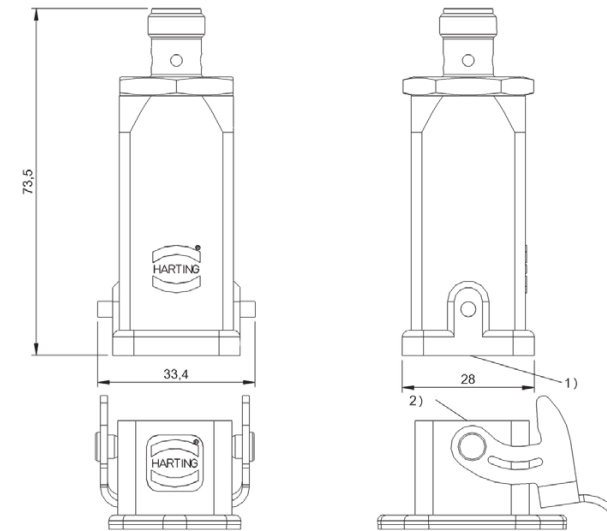
1) Sensing surface, 2) Clear zone, 3) Cable length, 4) LED function indicator, 5) Tightening torque

	BIS00YL	BIS00YK	BIS00YE	BISO0NU BISO0NW BISO100
	>25	>25	>25	>0
	>100	>100	>100	>100
	0-9	0-9	0-20	0-9
	0-9	0-9	0-20	0-9
	±6	±6	±12	±6
	±6	±6	±12	±6
	±5	±5	±12	±6
	±1	±1	±12	±4
			±12	
			±10	



IO-Link, 10 bytes process data length	BISO18E BIS M-404-045-401-07-S4-SA1
Product Group	HF (13.56 MHz)
Dimension	28 x 60 x 33.4 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Connector, M12x1 connector, 4-pin
Housing material	Die casting Brass nickel plated, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210

Use with data carrier **BISO180** only



1) Sensing surface, 2) Data carrier



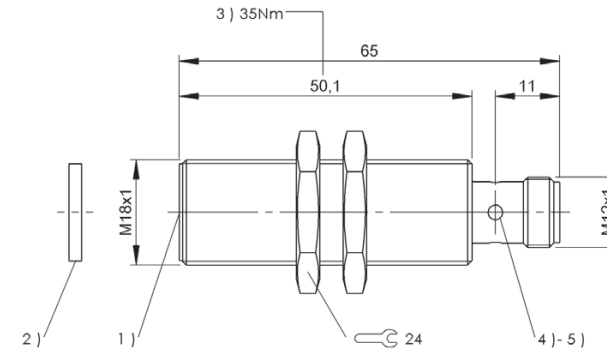
IO-Link, 10 bytes process data length	BISO15R BIS M-404-045-401-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 65 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Connector, M12x1 connector, 4-pin
Housing material	Brass, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage U _b	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210

Use with **IO-Link master** only

Appropriate data carrier

	BIS0042			BIS0043			BIS011F BIS011E BIS011A BIS0139			BIS004A			BIS0143	
Data carrier distance to metal	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0	>0	>20	>0
Data carrier clear zone	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>100	>0	>100	>0
Working distance for writing	0-8.5	0-8	0-6	0-11	0-8	0-6	0-6.5	0-6	0-5	0-6	0-5.5	0-3.5	0-13	
Working distance for reading	0-8.5	0-8	0-6	0-11	0-8	0-6	0-6.5	0-6	0-5	0-6	0-5.5	0-3.5	0-13	
Offset at distance														
	0	±5	±5	±4	±8	±8	±7	±8	±8	±7	±4.5	±4	±3.5	±8
	2	±5	±5	±4	±8	±8	±7	±8	±8	±7	±4.5	±4	±3	±8
	3.5	±4.5	±4	±3	±8	±7	±6	±7	±7	±6	±4	±3	±1.5	±8
	4	±4.5	±4	±3	±8	±7	±6	±7	±7	±6	±4	±3		±8
	4.5	±4.5	±4	±3	±8	±7	±4	±7	±6	±3	±3.5	±3		±8
	5	±4.5	±4	±3	±8	±7	±4	±7	±6	±3	±3.5	±2		±8
	5.5	±4	±3	±2	±7	±5	±1	±4	±3		±2	±2		±7
	6	±4	±3	±2	±7	±5	±1	±4	±3		±2			±7
	6.5	±4	±3		±7	±5		±4						±7
	7	±4	±3		±7	±5								±7
	8	±2	±2		±7	±4								±7
	8.5	±2			±7									±7
	10				±7									±7
	11				±4									±4
	13													±4

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Tightening torque, 4) LED (CP), 5) LED (Power)

	BIS0044	BIS00NU BIS00NW BIS0100	
	>25	>0	
	>100	>100	
	0-10	0-9.5	
	0-10	0-9.5	
	0	±6	±5
	2	±6	±5
	4	±6	±5
	5	±6	±5
	6	±5	±4
	7	±5	±4
	8	±5	±4
	9.5	±3	±2
	10	±3	
	12		
	15		
	20		
	25		
	30		
	35		



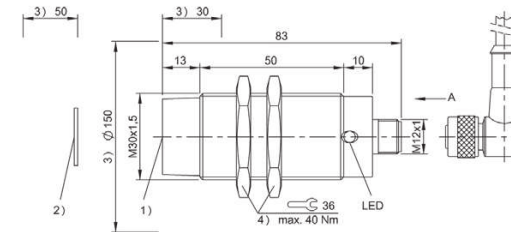
IO-Link, 10 bytes process data length	BISO0LH BIS M-400-045-001-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Brass, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Use with **IO-Link master** only

Appropriate data carrier

	BISO03Y			BISO03Z			BISO040		BISO042		BISO043		BISO044			BISO045				
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5	>25	>10	>5		
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>100	>0	>100	>60	>50	>100	>60	>50		
Working distance for writing	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8	0-28	0-18	0-10		
Working distance for reading	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8	0-28	0-18	0-10		
Offset at distance	0																			
	5	±14	±10	±6	±20	±15	±6	±7	±6	±9	±6	±16	±10	0	±12	±8	±6	±16	±10	±7
	9	±14	±10	±6	±20	±15	±6	±7	±6	±8	±6	±16	±10	2	±12	±8	±5	±16	±10	±7
	12	±14	±8	±4	±20	±15	±3			±5		±14	±8	5	±12	±8	±5	±16	±10	±7
	15	±10	±4	±2	±20	±13	±2					±14	±6	7	±10	±6	±4	±14	±8	±2
	16	±10	±2		±20	±10						±14	±6	8	±10	±6	±2	±14	±8	±2
	18	±8			±18	±3						±14	±4	9	±10	±6		±14	±8	±2
	20	±6			±16							±14		10	±8	±4		±14	±7	±1
	22	±5			±15							±14		12	±8	±4		±14	±7	
	25				±15							±12		13	±8	±2		±14	±6	
	30				±10							±12		15	±8	±2		±14	±6	
	32											±16	±5	16	±5			±14	±3	
	35											±18	±5	18	±5			±14	±2	
	40											±20	±5	20	±5			±14		
	43											±22		22				±12		
	45											±20		25				±12		
	50											±27		27				±6		
	52											±16		28				±6		
	60											±30		30						
	65											±35		35						
	70											±38		38						
												±45		45						

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BISO046		BISO048		BISO04A		BISO0LC		BISO0M9 BISO0M8		BISO0NU BISO0NW BISO100		BISO143		BISO0YE		BISO0Y7		BISO0Y5		BISO0Y4	
	>50	>15	>10	>20		>20	>0	>25	>0	>0		>0		>25	>25	>0	>25	>50	>50			
	>150	>90	>70	>100		>100	>0	>100	>100	>100		>100		>100	>100	>100	>100	>150	>150			
	0-38	0-25	0-15	0-9.5		0-13	0-7	0-27	0-13	0-22		0-13		0-27	0-15	0-30	0-8	0-24	0-50	0-42		
	0-38	0-25	0-15	0-9.5		0-13	0-7	0-27	0-13	0-22		0-13		0-27	0-30	0-8	0-24	0-50	0-42			
	±22	±16	±13	±9		±10	±7	0	±16	±10	±13		±10	0	±18	±18	±8	±18	±30	±30		
	±22	±16	±13	±9		±10	±7	5	±16	±10	±13		±10	5	±18	±18	±8	±18	±30	±30		
	±22	±16	±13	±8		±10	±6	10	±16	±7	±13		±9	7	±18	±18	±6	±18	±30	±30		
	±22	±14	±10	±7		±8	±1	13	±14	±5	±11		±5	8	±18	±18	±3	±18	±30	±30		
	±22	±14	±10	±1		±8		15	±14		±11			10	±18	±18		±18	±30	±30		
	±22	±14	±10	±1		±8		18	±14		±11			15	±16	±18		±16	±30	±28		
	±20	±13	±8			±8		20	±14		±7			20	±16	±18		±16	±30	±28		
	±20	±13	±8			±3		22	±12		±7			24	±10	±16		±5	±25	±24		
	±20	±12	±6			±3		25	±12					25	±10	±16			±25	±24		
	±20	±12	±6					27	±5					27	±5				±25	±24		
	±20	±10						30						30		±5			±25	±24		
	±20	±10						32						35					±25	±24		
	±20	±8						35						40					±25	±5		
	±20	±6						40						42					±5	±5		
	±20	±4						43						45					±5			
	±16							45						50					±5			
	±16							50						40								
	±16							52						42								
	±10							60						45								
	±5							65						50								
								70						55								



IO-Link, 10 bytes process data length	BIS015T BIS M-400-045-401-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 65.9 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	Connector, M12x1 connector, 4-pin
Housing material	Brass, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage U _b	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210

Use with **IO-Link master** only

Appropriate data carrier

	BIS0042	BIS0043 BIS0111		BIS004A	BIS0143		BIS0044	BIS0045	BIS0046	
Data carrier distance to metal	>20	>25	>0	>0	>20	>20	>25	>25	>50	
Data carrier clear zone	>100	>100	>100	>0	>100	>100	>100	>100	>150	
Working distance for writing	0-13	0-21	0-15	0-13	0-9	0-21	0-18	0-21	0-30	
Working distance for reading	0-13	0-21	0-15	0-13	0-9	0-21	0-18	0-21	0-30	
Offset at distance										
	0 ±8	±13	±10	±10	±7	±12	0 ±9	±13	±20	
	5 ±8	±13	±10	±10	±7	±12	5 ±9	±13	±20	
	8 ±8	±13	±10	±9	±6	±12	10 ±9	±13	±20	
	9 ±7	±13	±8	±8	±4	±12	13 ±8	±12	±18	
	10 ±7	±13	±8	±8		±12	15 ±8	±12	±18	
	13 ±4	±12	±8	±3		±11	16 ±4	±11	±18	
	15	±12	±3			±11	18 ±4	±11	±18	
	18	±11				±10	20	±5	±18	
	20	±5				±5	21	±5	±16	
	21	±5				±5	25		±16	
	30						30		±8	

Dimensions in mm

	BIS00NU BIS00NW BIS0100
	>0
	>100
	0-13
	0-13
	±9
	±9
	±7
	±3



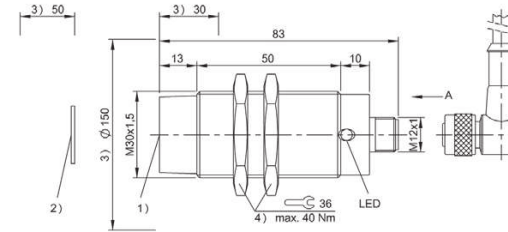
IO-Link, 32 bytes process data length	BISO108 BIS M-400-072-001-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Brass, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Use with **IO-Link master** only

Appropriate data carrier

	BISO03Y			BISO03Z			BISO040		BISO042		BISO043		BISO044			BISO045				
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5	>25	>10	>5		
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>100	>0	>100	>60	>50	>100	>60	>50		
Working distance for writing	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8	0-28	0-18	0-10		
Working distance for reading	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8	0-28	0-18	0-10		
Offset at distance	0																			
	5	±14	±10	±6	±20	±15	±6	±7	±6	±9	±6	±16	±10	0	±12	±8	±6	±16	±10	±7
	9	±14	±10	±6	±20	±15	±6	±7	±6	±8	±6	±16	±10	2	±12	±8	±5	±16	±10	±7
	12	±14	±8	±4	±20	±15	±3			±5		±14	±8	5	±12	±8	±5	±16	±10	±7
	15	±10	±4	±2	±20	±13	±2					±14	±6	7	±10	±6	±4	±14	±8	±2
	16	±10	±2		±20	±10						±14	±6	8	±10	±6	±2	±14	±8	±2
	18	±8			±18	±3						±14	±4	9	±10	±6		±14	±8	±2
	20	±6			±16							±14		10	±8	±4		±14	±7	±1
	22	±5			±15							±14		12	±8	±4		±14	±7	
	25				±15							±12		13	±8	±2		±14	±6	
	30				±10							±12		15	±8	±2		±14	±6	
	32													16	±5			±14	±3	
	35													18	±5			±14	±2	
	40													20	±5			±14		
	43													22				±12		
	45													25				±12		
	50													27				±6		
	52													28				±6		
	60													30						
	65													35						
	70													38						
														45						

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BISO046		BISO048		BISO04A		BISO0LC		BISO0M9 BISO0M8		BISO0NU BISO0NW BISO100		BISO143		BISO0YE		BISO0Y7		BISO0Y5		BISO0Y4		
	>50	>15	>10	>20	>20	>0	>25	>0	>0	>0	>0		>25	>25	>0	>25	>50	>50					
	>150	>90	>70	>100	>100	>0	>100	>100	>100	>100	>100		>100	>100	>100	>100	>150	>150					
	0-38	0-25	0-15	0-9.5	0-13	0-7	0-27	0-13	0-22	0-13	0-13		0-27	0-30	0-8	0-24	0-50	0-42					
	0-38	0-25	0-15	0-9.5	0-13	0-7	0-27	0-13	0-22	0-13	0-13		0-27	0-30	0-8	0-24	0-50	0-42					
	±22	±16	±13	±9	±10	±7	0	±16	±10	±13	±10		0	±18	±18	±8	±18	±30	±30				
	±22	±16	±13	±9	±10	±7	5	±16	±10	±13	±10		5	±18	±18	±8	±18	±30	±30				
	±22	±16	±13	±8	±10	±6	10	±16	±7	±13	±9		7	±18	±18	±6	±18	±30	±30				
	±22	±14	±10	±7	±8	±1	13	±14	±5	±11	±5		8	±18	±18	±3	±18	±30	±30				
	±22	±14	±10	±1	±8		15	±14		±11			10	±18	±18		±18	±30	±30				
	±22	±14	±10	±1	±8		18	±14		±11			15	±16	±18		±16	±30	±28				
	±20	±13	±8		±8		20	±14		±7			20	±16	±18		±16	±30	±28				
	±20	±13	±8		±3		22	±12		±7			24	±10	±16		±5	±25	±24				
	±20	±12	±6		±3		25	±12					25	±10	±16			±25	±24				
	±20	±12	±6				27	±5					27	±5	±5			±25	±24				
	±20	±10					30						30					±25	±24				
	±20	±10					32						35					±25	±24				
	±20	±8					35						40					±25	±5				
	±20	±6					40						42					±5	±5				
	±20	±4					43						45					±5					
	±16						45						50					±5					
	±16						50						40										
	±16						52						42										
	±10						60						45										
	±5						65						50										
							70						55										



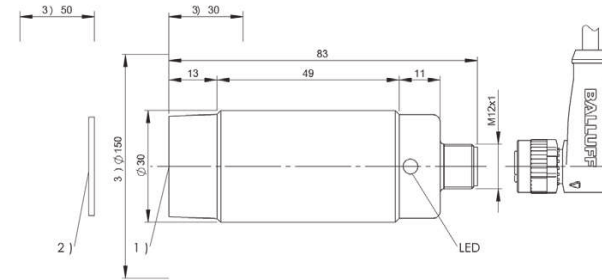
IO-Link, 10 bytes process data length	BISO157 BIS M-406-045-001-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Stainless steel (1.4404), Adapter PA 6
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP68
Approval/Conformity	CE, Ecolab, UL-FILE E227256, Vol.X1, BIS, FCC, IC

Use with **IO-Link master** only

Appropriate data carrier

	BISO046		BISO0Y7		BISO0Y4
Data carrier distance to metal	>50	>15	>10	>50	>50
Data carrier clear zone	>150	>90	>70	>150	>150
Working distance for writing	0-38	0-25	0-15	0-24	0-42
Working distance for reading	0-38	0-25	0-15	0-24	0-42
Offset at distance					
	0	±22	±16	±13	±18
	5	±22	±16	±13	±18
	9	±22	±14	±10	±18
	12	±20	±13	±8	±16
	15	±20	±12	±6	±16
	18	±20	±10		±16
	20	±20	±8		±16
	22	±20	±6		±5
	24	±20	±4		±5
	25	±20	±4		±5
	30	±16			±5
	35	±10			±20
	38	±10			±5
	42				±5

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone



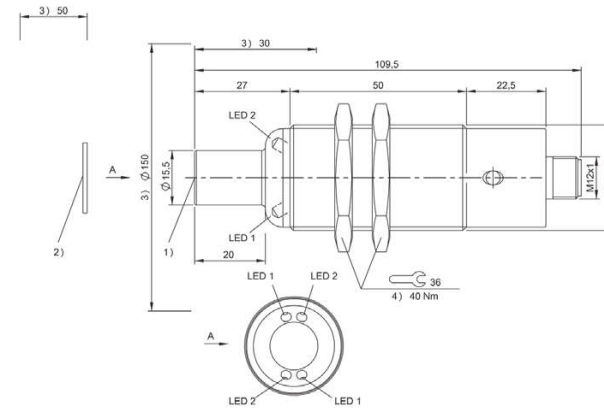
IO-Link, 10 bytes process data length	BIS00LJ BIS M-400-045-002-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 109.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Brass, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040			BIS0042			BIS0048			BIS004A			BIS0043			
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0				
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0				
Working distance for writing	0-15	0-12	0-9	0-18	0-18	0-10	0-6	0-5	0-9	0-5	0-5	0-4	0-6	0-5	0-20	0-12						
Working distance for reading	0-15	0-12	0-9	0-18	0-18	0-10	0-6	0-5	0-9	0-5	0-5	0-4	0-6	0-5	0-20	0-12						
Offset at distance																						
	0	±9	±6	±4	±16	±12	±4	±5	±4	±6	±4	±4	±3	±4	±3	±14	±10					
	5	±9	±6	±4	±16	±12	±4	±4	±2	±6	±2	±3		±3	±2	±14	±8					
	9	±8	±4	±2	±12	±10	±2									±12	±6					
	12	±6	±2		±8	±5										±10	±4					
	15	±4			±8	±5										±10						
	16				±7	±3										±7						
	18				±7	±3										±7						
	20				±6	±2										±7						
	22																					
	25																					

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BIS0044			BIS0045			BIS0046			BIS004E			BIS00NU BIS00NW BIS0100		
	>25	>15	>5	>25	>10	>5	>50	>25	>20	>25	>10	>5	>0	>0	
	>80	>50	>50	>80	>50	>50	>150	>90	>70	>100	>50	>20	>100	>50	
	0-15	0-10	0-6	0-20	0-12	0-5	0-28	0-18	0-10	0-24	0-12	0-5	0-12	0-5	
	0-15	0-10	0-6	0-20	0-12	0-5	0-28	0-18	0-10	0-24	0-12	0-5	0-12	0-5	
	±8	±6	±4	±12	±8	±7	±20	±14	±14	0	±14	±7			
	±8	±6	±4	±12	±8	±4	±20	±14	±14	5	±14	±7			
	±6	±5		±10	±6		±18	±14	±10	10	±14	±6			
	±4			±10	±4		±18	±12	±6	12	±12	±2			
	±4			±10			±18	±12		15	±12				
							±16	±10		20	±12				
							±7	±8		24	±6				
							±16			30					
							±7			35					
							±12			40					
							±12								



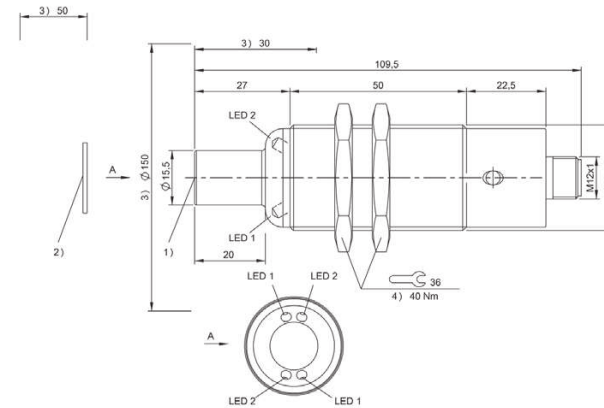
IO-Link, 32 bytes process data length	BIS0104 BIS M-400-072-002-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 30 x 109.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Brass, nuts nickel plated brass
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040			BIS0042			BIS0048			BIS004A			BIS0043			
Data carrier distance to metal	>25	>10	>5	>50	>25	>10	>10	>0	>10	>0	>10	>0	>10	>0	>10	>0	>25	>0				
Data carrier clear zone	>60	>50	>50	>60	>50	>50	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0	>60	>0				
Working distance for writing	0-15	0-12	0-9	0-18	0-18	0-10	0-6	0-5	0-9	0-5	0-5	0-4	0-6	0-5	0-20	0-12						
Working distance for reading	0-15	0-12	0-9	0-18	0-18	0-10	0-6	0-5	0-9	0-5	0-5	0-4	0-6	0-5	0-20	0-12						
Offset at distance																						
	0	±9	±6	±4	±16	±12	±4	±5	±4	±6	±4	±4	±3	±4	±3	±14	±10					
	5	±9	±6	±4	±16	±12	±4	±4	±2	±6	±2	±3		±3	±2	±14	±8					
	9	±8	±4	±2	±12	±10	±2									±12	±6					
	12	±6	±2		±8	±5										±10	±4					
	15	±4			±8	±5										±10						
	16				±7	±3										±7						
	18				±6	±2										±7						
	20															±7						
	22																					
	25																					

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque

	BIS0044			BIS0045			BIS0046			BIS004E			BIS00NU BIS00NW BIS0100	
	>25	>15	>5	>25	>10	>5	>50	>25	>20		>25	>0		
	>80	>50	>50	>80	>50	>50	>150	>90	>70		>100	>100		
	0-15	0-10	0-6	0-20	0-12	0-5	0-28	0-18	0-10		0-24	0-12		
	0-15	0-10	0-6	0-20	0-12	0-5	0-28	0-18	0-10		0-24	0-12		
	±8	±6	±4	±12	±8	±7	±20	±14	±14		0	±14		±7
	±8	±6	±4	±12	±8	±4	±20	±14	±14		5	±14		±7
	±6	±5		±10	±6		±18	±14	±10		10	±14		±6
	±4			±10	±4		±18	±12	±6		12	±12		±2
	±4			±10			±18	±12			15	±12		
				±7			±16	±10			20	±12		
				±7			±16	±8			24	±6		
							±16				30			
							±12				35			
							±12				40			



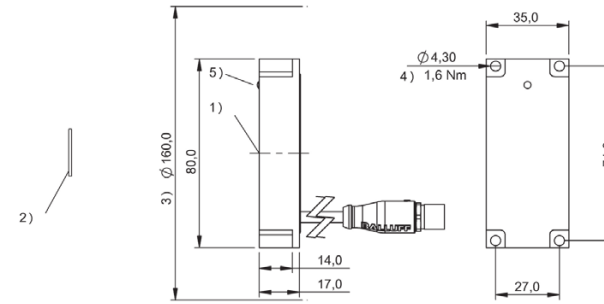
IO-Link, 10 bytes process data length	BISO12N BIS M-405-045-001-07-S4
Product Group	HF (13.56 MHz)
Dimension	35 x 17 x 80 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.30 m
Housing material	ABS
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0040		BIS0042		BIS0043		BIS0044		
Data carrier distance to metal	>25	>10	>5	>50	>15	>10	>20	>5	>20	>5	>25	>0	>25	>10	>5
Data carrier clear zone	>100	>60	>50	>150	>90	>70	>100	>100	>100	>100	>100	>0	>100	>60	>50
Working distance for writing	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8
Working distance for reading	0-20	0-15	0-12	0-28	0-20	0-12	0-7	0-6	0-11	0-7	0-28	0-16	0-20	0-15	0-8
Offset at distance	0	±14	±10	±6	±20	±15	±6	±7	±6	±9	±6	±16	±10	±12	±8
5	±14	±10	±6	±20	±15	±6	±7	±6	±8	±6	±16	±10	±12	±8	±5
9	±14	±8	±4	±20	±15	±3			±5		±14	±8	±10	±6	
12	±10	±4	±2	±20	±13	±2					±14	±6	±8	±4	
15	±10	±2		±20	±10						±14	±6	±8	±2	
16	±8			±18	±3						±14	±4	±5		
18	±6			±16							±14		±5		
20	±5			±15							±14		±5		
22				±15							±12				
25				±10							±12				
30															
32															
35															

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque, 5) LED Power

	BIS0045			BIS0046			BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100		BIS012H	
	>25	>10	>5	>50	>15	>10	>0	>0	>25			
	>100	>60	>50	>150	>90	>70	>100	>100	>100			
	0-28	0-18	0-10	0-38	0-25	0-15	0-22	0-13	0-18			
	0-28	0-18	0-10	0-38	0-25	0-15	0-22	0-13	0-18			
	±16	±10	±7	±22	±16	±13	0	±13	±10		±11	
	±16	±10	±7	±22	±16	±13	5	±13	±10			
	±14	±8	±2	±22	±14	±10	10	±13	±9			
	±14	±7		±20	±13	±8	13	±11	±5			
	±14	±6		±20	±12	±6	15	±11				
	±14	±3		±20	±10		18	±11				
	±14	±2		±20	±10		20	±7				
	±14			±20	±8		22	±7				
	±12			±20	±6		25					
	±12			±20	±4		28					
				±16			30					
				±10			32					
				±10			35					

270 I RFID I HF (13.56 MHz)

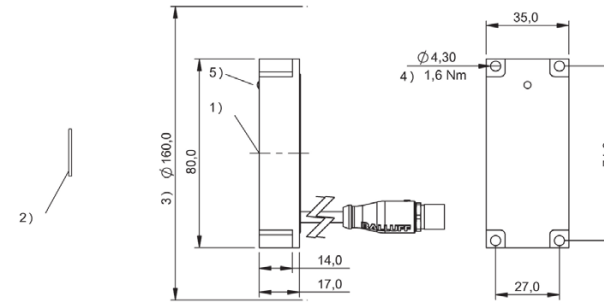


IO-Link, 10 bytes process data length	BISO155 BIS M-405-045-008-07-S4
Product Group	HF (13.56 MHz)
Dimension	35 x 17 x 80 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.30 m
Housing material	ABS
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier on request

HF read/write heads (13.56 MHz) with integrated processor unit I 271



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Tightening torque, 5) LED Power



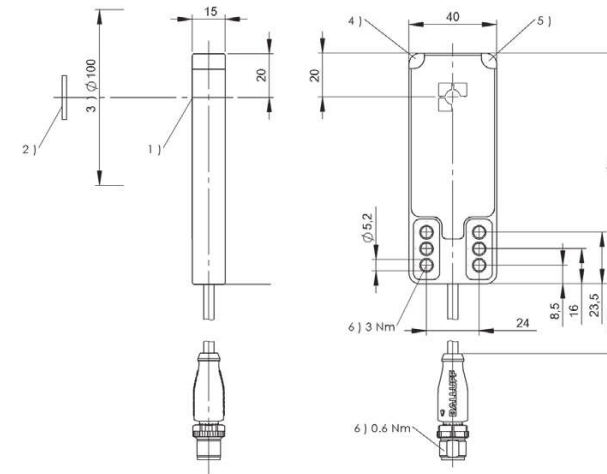
IO-Link, 10 bytes process data length	BISO14J BIS M-408-045-001-07-S4
Product Group	HF (13.56 MHz)
Dimension	40 x 15 x 105 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Zinc, die-cast
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210

Use with **IO-Link master** only

Appropriate data carrier

	BIS0042		BIS004A		BIS0044		BIS0045		BIS0143		BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100	
Data carrier distance to metal	>10	>0	>10	>0	>25	>25	>25				>0		>0	
Data carrier clear zone	>60	>60	>60	>60	>100	>100	>100				>100		>100	
Working distance for writing	0-13	0-11	0-11	0-9	0-23	0-28	0-26				0-22		0-13	
Working distance for reading	0-13	0-11	0-11	0-9	0-23	0-28	0-26				0-22		0-13	
Offset at distance	0	±10	±8	±8	±8	±15	±16	±15	0	±13		±10		
	4	±10	±8	±8	±8	±15	±15	±15	5	±13		±10		
	5	±10	±8	±8	±7	±15	±16	±15	10	±13		±9		
	6	±9	±7	±7	±7	±15	±16	±15	13	±11		±5		
	7	±9	±7	±7	±6	±15	±16	±15	15	±11				
	8	±9	±7	±7	±6	±15	±16	±15	18	±11				
	9	±9	±7	±7	±3	±15	±16	±15	20	±7				
	10	±7	±4	±4		±15	±16	±15	22	±7				
	11	±7	±4	±4		±12	±15	±13	25					
	13	±4				±12	±15	±13	28					
	15					±12	±15	±13	30					
	20					±12	±15	±13	32					
	23					±5	±10	±5	35					
	25						±10	±5	40					
	26						±5	±5	43					
	28							±5	45					

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque

	BIS00YK	BIS0046	BIS00Y5	BIS00Y4	BIS00LC
	>10	>25	>50	>50	>25 >0
	>60	>100	>200	>200	>100 >100
	0-13	0-40	0-48	0-48	0-25 0-12
	0-13	0-40	0-48	0-48	0-25 0-12
	0	±9	±25	±26	±30 ±15 ±10
	5	±9	±25	±26	±30 ±15 ±10
	10	±8	±25	±26	±30 ±15 ±8
	12	±4	±25	±26	±30 ±13 ±2
	13	±4	±25	±26	±30 ±13
	15		±25	±26	±30 ±13
	18		±25	±26	±30 ±13
	20		±25	±26	±30 ±13
	25		±23	±24	±25 ±5
	30		±20	±24	±25
	36		±20	±24	±25
	40		±10	±24	±25
	45			±5	±10
	48			±5	±10
	55				
	60				



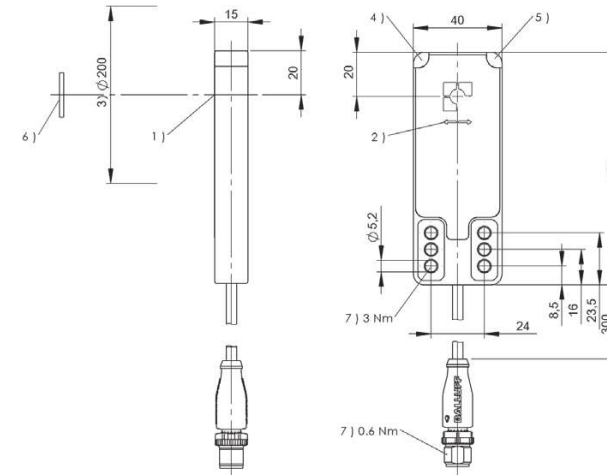
IO-Link, 10 bytes process data length	BISO14K BIS M-458-045-001-07-S4
Product Group	HF (13.56 MHz)
Dimension	40 x 15 x 105 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	Zinc, die-cast
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210

Use with **IO-Link master** only

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2		BIS00P3		BIS00NZ				
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>240	>240	>240	>240	>27	>27	
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>480	>480	>480	>480	>27	>27	
Data carrier clear zone C									>50	>50	>50	>50	>0	>0			
Metallic mounting surface 40 x 22 mm	0-38	0-38			0-38	0-38											
Metallic mounting surface > 200 x 200 mm			0-42	0-42			0-34	0-34									
Working distance for writing	0-38	0-38	0-42	0-42	0-38	0-38	0-34	0-34	0-18	0-18	0-54	0-54	0-54	0-54	0-25	0-25	
Working distance for reading	0-38	0-38	0-42	0-42	0-38	0-38	0-34	0-34	0-18	0-18	0-54	0-54	0-54	0-54	0-25	0-25	
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	
	0	±43	±18	±45	±21	±20	±40	±17	±35	0	±22	±12	±60	±30	±60	±30	±30
	5	±43	±18	±45	±21	±20	±40	±17	±35	5	±22	±12	±60	±30	±60	±30	±30
	10	±43	±18	±45	±21	±20	±40	±17	±35	10	±21	±10	±60	±30	±60	±30	±30
	15	±40	±17	±43	±20	±18	±35	±15	±33	15	±16	±8	±55	±27	±55	±27	±25
	20	±40	±17	±43	±20	±18	±35	±15	±33	16	±5	±2	±55	±27	±55	±27	±15
	30	±35	±15	±40	±18	±15	±30	±13	±28	18	±5	±2	±55	±27	±55	±27	±5
	34	±18	±5	±24	±12	±5	±10	±5	±10	30			±55	±27	±55	±27	
	38	±18	±5	±24	±12	±5	±10			35			±50	±25	±50	±25	
	40			±24	±12					40			±50	±25	±50	±25	
	42			±15	±8					45			±35	±17	±35	±17	
	50									50			±35	±17	±35	±17	
	60									54			±15	±7	±15	±7	

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Data carrier, 7) Tightening torque



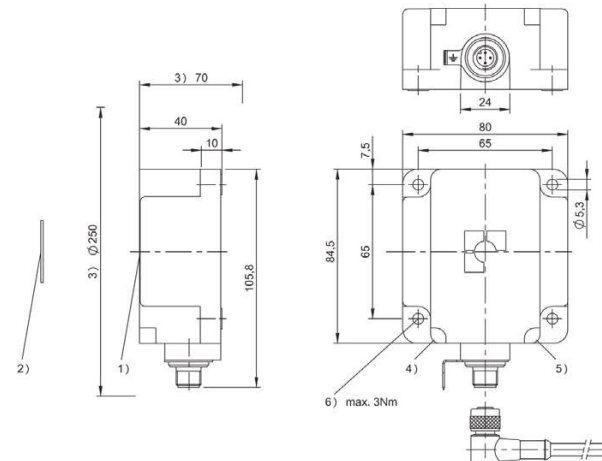
IO-Link, 10 bytes process data length	BISO0LK BIS M-401-045-001-07-54
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	PBT
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0047		BIS0043		BIS0044		BIS0045		BIS0046	
Data carrier distance to metal	>50	>25	>10	>50	>25	>10	>80	>50	>20	>50	>30	>50	>30	>50	>30	
Data carrier clear zone	>200	>150	>150	>200	>150	>150	>250	>200	>60	>200	>100	>200	>100	>200	>100	
Working distance for writing	0-28	0-25	0-20	0-45	0-40	0-34	0-50	0-40	0-18	0-30	0-18	0-40	0-25	0-60	0-35	
Working distance for reading	0-28	0-25	0-20	0-45	0-40	0-34	0-50	0-40	0-18	0-30	0-18	0-40	0-25	0-60	0-35	
Offset at distance	0	±22	±18	±12	±30	±24	±16	±30	±16	±25	±18	±30	±20	±35	±25	
	5	±22	±18	±12	±30	±24	±16	±30	±16	±25	±18	±30	±20	±35	±25	
	9	±22	±18	±10	±30	±24	±16	±30	±16	±25	±15	±30	±20	±35	±25	
	12	±22	±16	±8	±30	±24	±14	±30	±25	±16	±20	±15	±25	±20	±35	
	15	±22	±16	±8	±30	±24	±14	±30	±25	±16	±20	±12	±25	±18	±35	
	16	±20	±15	±6	±30	±20	±12	±30	±25	±16	±20	±12	±25	±18	±35	
	18	±20	±13	±4	±30	±20	±10	±30	±25	±14	±20	±8	±25	±16	±35	
	20	±20	±12	±2	±30	±20	±10	±30	±25	±14	±20	±8	±25	±14	±35	
	22	±16	±8		±24	±18	±8	±30	±20	±15	±20	±12	±35	±22		
	25	±12	±4		±24	±18	±8	±30	±20	±15	±20	±10	±35	±22		
	30				±24	±15	±6	±28	±20	±10	±20		±35	±22		
	32				±20	±12	±4	±24	±15	±10			±15	±35	±22	
	35				±20	±10		±22	±15				±15	±35	±20	
	40				±15	±5		±18	±15				±15	±35		
	43				±8			±14						±25		
	45				±5			±12						±25		
	50							±4						±25		
	52													±25		
	60													±25		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Tightening torque

	BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100		BIS00YE		BIS00Y4	
	>0	>0	>0	>0	>50	>50		
	>100	>100	>200	>200	>200	>200		
	0-32	0-16	0-40	0-50	0-50	0-75		
	0-32	0-16		0-50	0-50	0-75		
	±25	±24	0	±30	±50	±50		
	±25	±24	5	±30	±50	±50		
	±25	±20	10	±30	±50	±50		
	±25	±14	15	±30	±50	±50		
	±25	±4	20	±30	±50	±50		
	±25	±4	25	±28	±50	±50		
	±25		30	±28	±50	±50		
	±25		35	±28	±50	±50		
	±20		40	±28	±50	±50		
	±20		45	±10	±45	±45		
	±15		50	±10	±45	±45		
	±15		55		±45	±45		
			60		±45	±45		
			65		±35	±35		
			70		±35	±35		
			75		±35	±35		
			80					
			85					
			90					



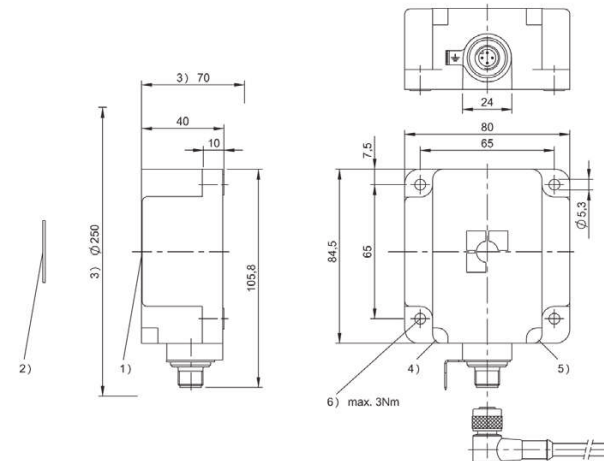
IO-Link, 32 bytes process data length	BIS0102 BIS M-401-072-001-07-54
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	PBT
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS003Y			BIS003Z			BIS0047		BIS0043		BIS0044		BIS0045		BIS0046	
Data carrier distance to metal	>50	>25	>10	>50	>25	>10	>80		>50	>20	>50	>30	>50	>30	>50	>30
Data carrier clear zone	>200	>150	>150	>200	>150	>150	>250		>200	>60	>200	>100	>200	>100	>200	>100
Working distance for writing	0-28	0-25	0-20	0-45	0-40	0-34	0-50		0-40	0-18	0-30	0-18	0-40	0-25	0-60	0-35
Working distance for reading	0-28	0-25	0-20	0-45	0-40	0-34	0-50		0-40	0-18	0-30	0-18	0-40	0-25	0-60	0-35
Offset at distance																
	0	±22	±18	±12	±30	±24	±16	±30	±30	±16	±25	±18	±30	±20	±35	±25
	5	±22	±18	±12	±30	±24	±16	±30	±30	±16	±25	±18	±30	±20	±35	±25
	9	±22	±18	±10	±30	±24	±16	±30	±30	±16	±25	±15	±30	±20	±35	±25
	12	±22	±16	±8	±30	±24	±14	±30	±25	±16	±20	±15	±25	±20	±35	±25
	15	±22	±16	±8	±30	±24	±14	±30	±25	±16	±20	±12	±25	±18	±35	±25
	16	±20	±15	±6	±30	±20	±12	±30	±25	±16	±20	±12	±25	±18	±35	±25
	18	±20	±13	±4	±30	±20	±10	±30	±25	±14	±20	±8	±25	±16	±35	±25
	20	±20	±12	±2	±30	±20	±10	±30	±25	±14	±20	±8	±25	±14	±35	±25
	22	±16	±8		±24	±18	±8	±30	±20	±15	±20	±12	±35	±22		
	25	±12	±4		±24	±18	±8	±30	±20	±15	±20	±10	±35	±22		
	30				±24	±15	±6	±28	±20	±10	±20		±35	±22		
	32				±20	±12	±4	±24	±15	±10			±35	±22		
	35				±20	±10		±22	±15				±35	±20		
	40				±15	±5		±18	±15				±35			
	43							±14					±25			
	45							±12					±25			
	50							±4					±25			
	52												±25			
	60												±25			

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Tightening torque

	BIS00M9 BIS00M8		BIS00NU BIS00NW BIS0100		BIS00YE		BIS00Y4	
	>0	>0	>0	>0	>50	>50		
	>100	>100	>200	>200	>200	>200		
	0-32	0-16	0-40	0-50	0-50	0-75		
	0-32	0-16			0-50	0-75		
	±25	±24	0	±30		±50		
	±25	±24	5	±30		±50		
	±25	±20	10	±30		±50		
	±25	±14	15	±30		±50		
	±25	±4	20	±30		±50		
	±25	±4	25	±28		±50		
	±25		30	±28		±50		
	±25		35	±28		±50		
	±20		40	±28		±50		
	±20		45	±10		±45		
	±15		50	±10		±45		
	±15		55			±45		
			60			±45		
			65			±35		
			70			±35		
			75			±35		
			80					
			85					
			90					



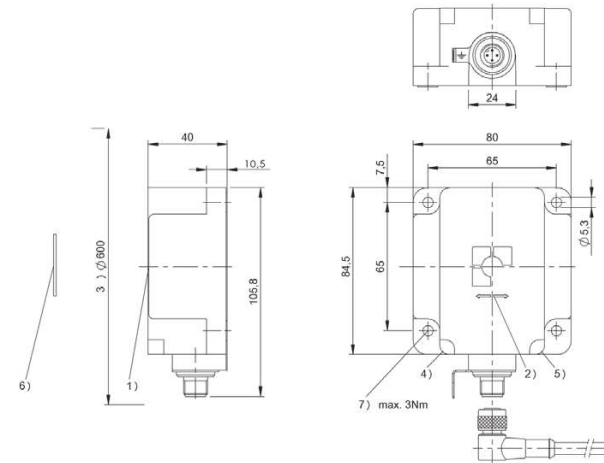
IO-Link, 10 bytes process data length	BISO0LM BIS M-451-045-001-07-54
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	PBT
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2				BIS00P3			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>10	>10	>240	>240		
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>50	>50	>480	>480		
Data carrier clear zone C									>50	>50	>2	>2	>50	>50		
Metallic mounting surface 40 x 22 mm	0-52	0-52			0-52	0-52										
Metallic mounting surface > 200 x 200 mm			0-65	0-65			0-65	0-65								
Working distance for writing	0-52	0-52	0-65	0-65	0-52	0-65	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100		
Working distance for reading	0-52	0-52	0-65	0-65	0-52	0-65	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100		
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
	0	±60	±25	±65	±26	±25	±60	±26	±65	0	±35	±20		±60	±20	
	5	±60	±25	±65	±26	±25	±60	±26	±65	5	±35	±20		±60	±20	
	12	±60	±25	±65	±25	±25	±60	±25	±65	10	±35	±20		±60	±20	
	15	±60	±25	±65	±25	±25	±60	±25	±65	15	±35	±20	±35	±15	±60	±20
	18	±60	±25	±65	±25	±25	±60	±25	±65	20	±35	±20	±35	±15	±60	±20
	20	±60	±25	±65	±25	±25	±60	±25	±65	25	±20	±12	±28	±15	±60	±20
	22	±60	±25	±65	±25	±25	±60	±25	±65	30	±20	±12	±28	±15	±60	±20
	25	±60	±25	±65	±25	±25	±60	±25	±65	35					±60	±20
	30	±60	±25	±65	±25	±25	±60	±25	±65	40					±60	±20
	32	±50	±25	±65	±25	±25	±50	±25	±65	45					±60	±20
	35	±50	±25	±65	±25	±25	±50	±25	±65	50					±60	±20
	40	±50	±20	±50	±25	±20	±50	±25	±50	60					±60	±20
	45	±25	±20	±50	±25	±20	±25	±25	±50	70					±60	±20
	50	±25	±20	±50	±25	±20	±25	±25	±50	80					±60	±20
	52	±25	±8	±25	±25	±8	±25	±25	±25	90					±40	±20
	60			±25	±10			±10	±25	100					±40	±20
	65			±25	±10			±10	±25							

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Data carrier on steel, 7) Tightening torque



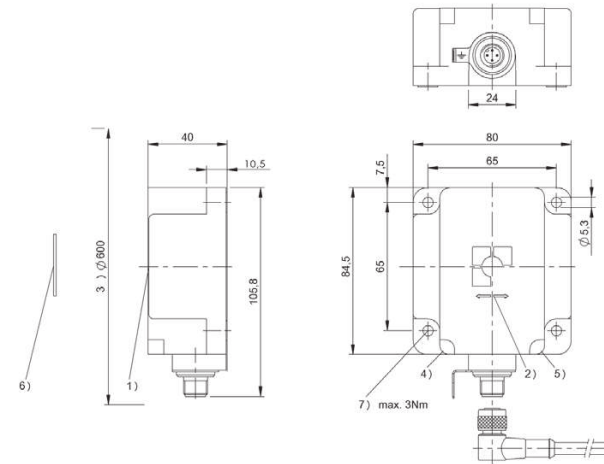
IO-Link, 32 bytes process data length	BISO103 BIS M-451-072-001-07-54
Product Group	HF (13.56 MHz)
Dimension	80 x 40 x 84.5 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin
Housing material	PBT
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, FCC Part 15, IC RSS-210, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2				BIS00P3			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>10	>10	>240	>240		
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>50	>50	>480	>480		
Data carrier clear zone C									>50	>50	>2	>2	>50	>50		
Metallic mounting surface 40 x 22 mm	0-52	0-52			0-52	0-52										
Metallic mounting surface > 200 x 200 mm			0-65	0-65	0-65	0-65	0-65	0-65								
Working distance for writing	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100		
Working distance for reading	0-52	0-52	0-65	0-65	0-52	0-52	0-65	0-65	0-30	0-30	15-30	15-30	0-100	0-100		
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
	0	±60	±25	±65	±26	±25	±60	±26	±65	0	±35	±20		±60	±20	
	5	±60	±25	±65	±26	±25	±60	±26	±65	5	±35	±20		±60	±20	
	12	±60	±25	±65	±25	±25	±60	±25	±65	10	±35	±20		±60	±20	
	15	±60	±25	±65	±25	±25	±60	±25	±65	15	±35	±20	±35	±15	±60	±20
	18	±60	±25	±65	±25	±25	±60	±25	±65	20	±35	±20	±35	±15	±60	±20
	20	±60	±25	±65	±25	±25	±60	±25	±65	25	±20	±12	±28	±15	±60	±20
	22	±60	±25	±65	±25	±25	±60	±25	±65	30	±20	±12	±28	±15	±60	±20
	25	±60	±25	±65	±25	±25	±60	±25	±65	35					±60	±20
	30	±60	±25	±65	±25	±25	±60	±25	±65	40					±60	±20
	32	±50	±25	±65	±25	±25	±50	±25	±65	45					±60	±20
	35	±50	±25	±65	±25	±25	±50	±25	±65	50					±60	±20
	40	±50	±20	±50	±25	±20	±50	±25	±50	60					±60	±20
	45	±25	±20	±50	±25	±20	±25	±25	±50	70					±60	±20
	50	±25	±20	±50	±25	±20	±25	±25	±50	80					±60	±20
	52	±25	±8	±25	±25	±8	±25	±25	±25	90					±40	±20
	60			±25	±10		±10	±25		100					±40	±20
	65			±25	±10		±10	±25								

Dimensions in mm



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) LED (Power), 5) LED (TP), 6) Data carrier on steel, 7) Tightening torque



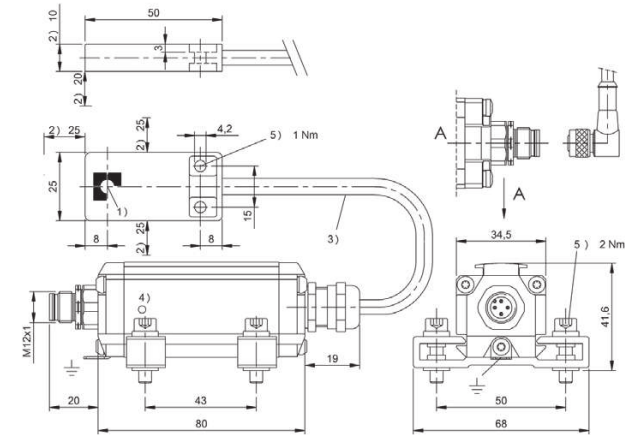
IO-Link, 10 bytes process data length	BISO0M1 BIS M-402-045-004-07-S4
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS0040		BIS0042		BIS0044		BIS0048		BIS004A		BIS00NU BIS00NW BIS0100		BIS003Y	
Data carrier distance to metal	>10	>0	>10	>0	>25		>10	>0	>10	>0		>0		>25
Data carrier clear zone	>60	>0	>60	>0	>80		>60	>0	>60	>0		>100		>100
Working distance for writing	0-6	0-4	0-8	0-6	0-15		0-5	0-4	0-8	0-5		0-9		0-15
Working distance for reading	0-6	0-4	0-8	0-6	0-15		0-5	0-4	0-8	0-5		0-9		0-15
Offset at distance														
	0	±4	±3	±5	±4	±8		±4	±3	±4	±4	0	±6	±11
	5	±2		±5	±2	±8		±2		±4	±2	5	±6	±11
	9					±6						7	±6	±9
	12					±4						9	±4	±9
	15					±4						12		±9
	16											15		±5

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque



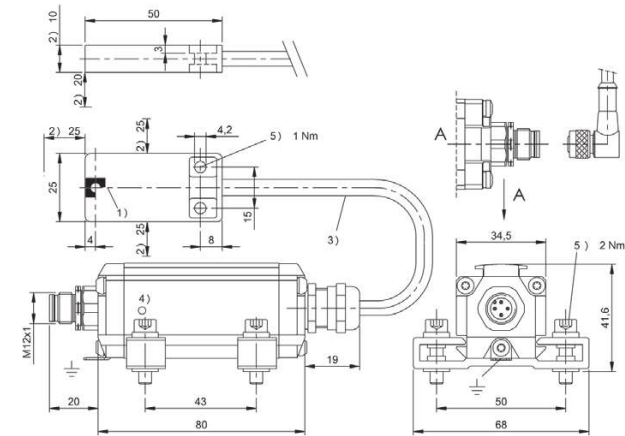
IO-Link, 10 bytes process data length	BISO126 BIS M-402-045-007-07-54
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BISO0UC	BISO0UE
Data carrier distance to metal	>10	
Data carrier clear zone	>60	
Working distance for writing	0-3	
Working distance for reading	0-3	
Offset at distance		
	0 ±5	
	1 ±5	
	2 ±5	
	3 ±2	
	15	
	16	

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque



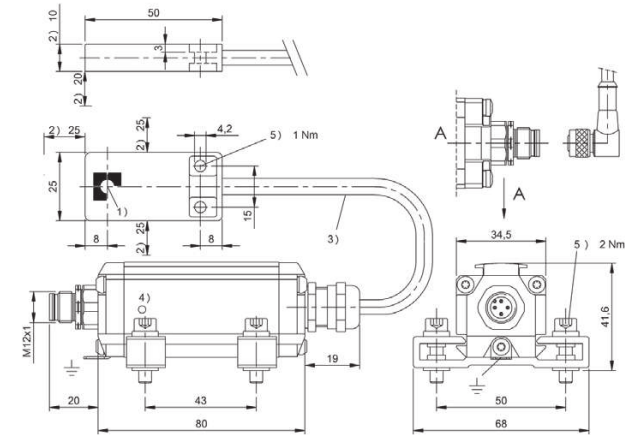
IO-Link, 32 bytes process data length	BISO106 BIS M-402-072-004-07-S4
Product Group	HF (13.56 MHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.50 m, PU
Housing material	ABS, GF16, interface aluminum
Interface	IO-Link
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS0040		BIS0042		BIS0044		BIS0048		BIS004A		BIS00NU BIS00NW BIS0100		BIS003Y	
Data carrier distance to metal	>10	>0	>10	>0	>25		>10	>0	>10	>0	>0		>25	
Data carrier clear zone	>60	>0	>60	>0	>80		>60	>0	>60	>0	>100		>100	
Working distance for writing	0-6	0-4	0-8	0-6	0-15		0-5	0-4	0-8	0-5	0-9		0-15	
Working distance for reading	0-6	0-4	0-8	0-6	0-15		0-5	0-4	0-8	0-5	0-9		0-15	
Offset at distance														
	0	±4	±3	±5	±4	±8	±4	±3	±4	±4	0	±6		±11
	5	±2		±5	±2	±8	±2		±4	±2	5	±6		±11
	9					±6					7	±6		±9
	12					±4					9	±4		±9
	15					±4					12			±9
	16										15			±5

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque



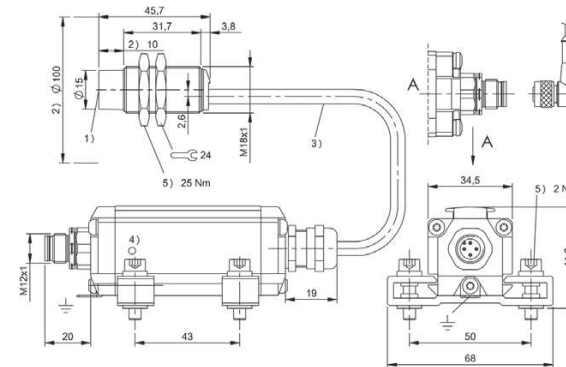
IO-Link, 10 bytes process data length	BISO0LW BIS M-402-045-002-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 45.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.50 m, PU
Housing material	Brass, interface aluminum
Interface	IO-Link 1.1
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS0040		BIS0042		BIS0048		BIS004A		BIS0044		BIS003Y		BIS0045		
Data carrier distance to metal	>10	>0	>10	>0	>10	>0	>10	>0	>25		>25		>25		
Data carrier clear zone	>60	>0	>60	>0	>60	>0	>60	>0	>80		>100		>100		
Working distance for writing	0-6	0-4	0-8	0-6	0-5	0-4	0-8	0-5	0-15		0-14		0-18		
Working distance for reading	0-6	0-4	0-8	0-6	0-5	0-4	0-8	0-5	0-15		0-14		0-18		
Offset at distance	0	±3	±3	±4	±3	±2	±4	±3	±7		0	±10	±12		
	5	±2		±3	±2	±2		±3	±2	±7		5	±10	±12	
	9									±5		10	±9	±11	
	12									±3		14	±5	±10	
	15									±3		15		±10	
	16											18		±5	

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque

	BIS00YL	BIS00YK	BIS00YE	BIS00NU BIS00NW BIS0100
	>25	>25	>25	>0
	>100	>100	>100	>100
	0-9	0-9	0-20	0-9
	0-9	0-9	0-20	0-9
	±6	±6	±12	±6
	±6	±6	±12	±6
	±5	±5	±12	±6
	±1	±1	±12	±4
			±12	
			±10	



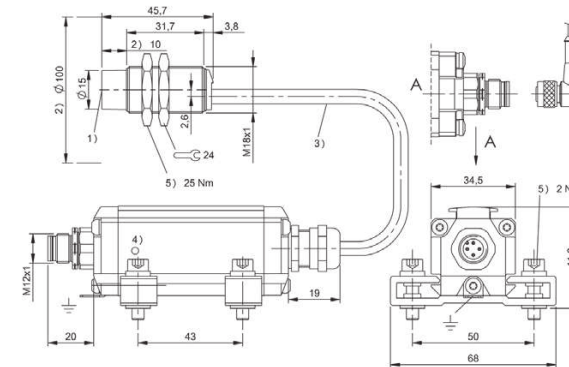
IO-Link, 32 bytes process data length	BISO105 BIS M-402-072-002-07-S4
Product Group	HF (13.56 MHz)
Dimension	Ø 18 x 45.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 4-pin, 0.50 m, PU
Housing material	Brass, interface aluminum
Interface	IO-Link
Operating voltage Ub	18...30 VDC Supports only LPS/Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Use with **IO-Link master** only

Appropriate data carrier

	BIS0040		BIS0042		BIS0048		BIS004A		BIS0044		BIS003Y		BIS0045	
Data carrier distance to metal	>10	>0	>10	>0	>10	>0	>10	>0	>25		>25		>25	
Data carrier clear zone	>60	>0	>60	>0	>60	>0	>60	>0	>80		>100		>100	
Working distance for writing	0-6	0-4	0-8	0-6	0-5	0-4	0-8	0-5	0-15		0-14		0-18	
Working distance for reading	0-6	0-4	0-8	0-6	0-5	0-4	0-8	0-5	0-15		0-14		0-18	
Offset at distance	0	±3	±3	±4	±3	±2	±4	±3	±7		0	±10	±12	
	5	±2		±3	±2	±2		±3	±2		±7	5	±10	±12
	9										±5	10	±9	±11
	12										±3	14	±5	±10
	15										±3	15		±10
	16										18			±5

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) Cable length see text, 4) LED function indicator, 5) Tightening torque

	BIS00YL	BIS00YK	BIS00YE	BIS00NU BIS00NW BIS0100
	>25	>25	>25	>0
	>100	>100	>100	>100
	0-9	0-9	0-20	0-9
	0-9	0-9	0-20	0-9
	±6	±6	±12	±6
	±6	±6	±12	±6
	±5	±5	±12	±6
	±1	±1	±12	±4
			±12	
			±10	

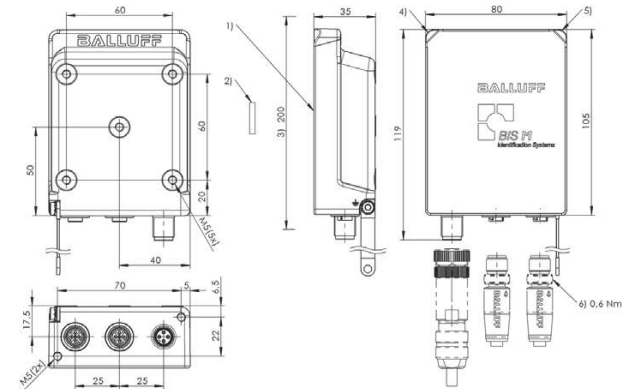


	BISO179 BIS M-4008-048-001-ST4
Product Group	HF (13.56 MHz)
Dimension	80 x 35 x 119 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	2x M12x1-Female, 4-pole, D-coded M12x1-Male, 4-pole, A-coded
Housing material	Zinc, die-cast
Interface	Profinet I/O (IRT), Profinet I/O (IRT) 2 port Switch
Operating voltage Ub	24 V DC LPS Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE

Appropriate data carrier

	BISO043			BISO11F BISO11E BISO11A BISO139			BISO045		BISO046		BISO119		BISO00NU BISO00NW BISO100	
Data carrier distance to metal	>50	>0	>0	>50	>0	>0	>50	>50	>0	>0	>0	>0	>0	>0
Data carrier clear zone	>200	>200	>0	>200	>200	>0	>200	>200	>100	>100				
Working distance for writing	0-52	0-32	10-19	0-36	0-28	11-18	0-52	0-80	0-38	0-18				
Working distance for reading	0-52	0-32	10-19	0-36	0-28	11-18	0-52	0-80	0-38	0-18				
Offset at distance	0	±32	±25		±27	±22		±32	±42	0	±27		±22	
	5	±32	±25		±27	±22		±32	±42	5	±27		±22	
	10	±32	±25	±20	±27	±22		±32	±42	10	±27		±20	
	11	±32	±22	±20	±25	±20	±18	±32	±42	15	±25		±18	
	12	±32	±22	±20	±25	±20	±18	±32	±42	18	±25		±10	
	16	±32	±22	±15	±25	±20	±15	±32	±42	20	±25			
	17	±32	±22	±15	±25	±20	±2	±32	±42	25	±22			
	18	±32	±22	±8	±25	±20	±2	±32	±42	30	±22			
	19	±32	±22	±8	±25	±20		±32	±42	35	±10			
	20	±32	±22		±25	±20		±32	±42	38	±10			
	25	±28	±15		±22	±15		±28	±42	40				
	28	±28	±15		±22	±1		±28	±42	45				
	30	±28	±15		±22			±28	±42	50				
	32	±28	±10		±5			±28	±38	55				
	36	±28			±5			±28	±38	60				
	40	±28						±28	±38	65				
	50	±12						±12	±38	70				
	52	±6						±6	±38	75				
	65								±38	80				
	75								±20	85				
	80								±5	90				

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque

	BISO00YE		BISO00Y9		BISO00Y4		BISO00Y2	
	>50	>50	>0	>50	>50	>50	>50	
	>200	>200	>200	>200	>200	>200	>200	
	0-60	0-55	0-45	0-90	0-65	0-65	0-65	
	0-60	0-55	0-45	0-90	0-65	0-65	0-65	
	0	±35	±32	±27	±50	±36	±36	
	10	±35	±32	±27	±50	±36	±36	
	20	±35	±32	±27	±50	±36	±36	
	30	±30	±30	±25	±50	±33	±33	
	40	±30	±30	±20	±45	±33	±33	
	45	±20	±24	±5	±45	±25	±25	
	50	±20	±24		±45	±25	±25	
	55	±20	±10		±45	±25	±25	
	60	±10			±45	±25	±25	
	65				±30	±10	±10	
	70				±30			
	75				±30			
	80				±30			
	85				±20			
	90				±20			
	100							
	110							
	120							
	130							
	140							
	150							

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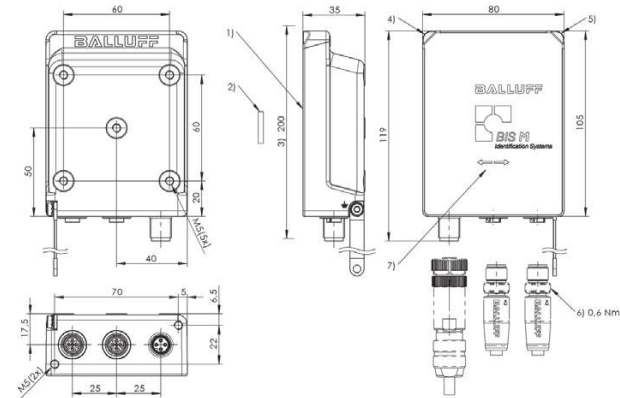


	BIS017A BIS M-4008-048-002-ST4
Product Group	HF (13.56 MHz)
Dimension	80 x 35 x 119 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	Rod
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	2x M12x1-Female, 4-pole, D-coded M12x1-Male, 4-pole, A-coded
Housing material	Zinc, die-cast
Interface	Profinet I/O (IRT), Profinet I/O (IRT) 2 port Switch
Operating voltage Ub	24 V DC LPS Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE

Appropriate data carrier

	BIS004F				BIS004H				BIS00M2		BIS00P3				BIS011W BIS011Y BIS011U BIS013E			
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>240	>240	>240	>240	>240	>240		
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>480	>480	>480	>480	>480	>480		
Data carrier clear zone C									>50	>50	>50	>50	>0	>0	>50	>50		
Metallic mounting surface 40 x 22 mm	0-65	0-65			0-65	0-65												
Metallic mounting surface > 200 x 200 mm			0-60	0-60			0-45	0-45										
Working distance for writing	0-65	0-65	0-60	0-60	0-65	0-65	0-45	0-45	0-35	0-35	0-100	0-100	0-100	0-100	0-55	0-55		
Working distance for reading	0-65	0-65	0-60	0-60	0-65	0-65	0-45	0-45	0-35	0-35	0-100	0-100	0-100	0-100	0-55	0-55		
Offset at distance																		
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y		
0	±70	±30	±65	±30	±30	±70	±25	±50	0	±44	±22	0	±100	±40	±100	±40	±65	±30
5	±70	±30	±65	±30	±30	±70	±25	±50	5	±44	±22	5	±100	±40	±100	±40	±65	±30
10	±70	±30	±65	±30	±30	±70	±25	±50	10	±44	±22	10	±100	±40	±100	±40	±65	±30
15	±70	±30	±65	±30	±30	±70	±25	±50	15	±40	±20	20	±100	±40	±100	±40	±65	±30
20	±70	±30	±65	±30	±30	±70	±25	±50	20	±40	±20	25	±100	±40	±100	±40	±60	±25
25	±65	±25	±60	±25	±25	±65	±20	±40	25	±32	±18	30	±100	±40	±100	±40	±60	±25
30	±65	±25	±60	±25	±25	±65	±20	±40	30	±32	±18	40	±100	±40	±100	±40	±60	±25
35	±65	±25	±60	±25	±25	±65	±20	±40	35	±10	±3	50	±80	±35	±80	±35	±30	±20
40	±65	±25	±60	±25	±25	±65	±15	±30	40			55	±80	±35	±80	±35	±20	±10
45	±40	±20	±40	±20	±20	±40	±5	±5	45			60	±80	±35	±80	±35		
50	±40	±20	±40	±20	±20	±40			50			70	±80	±35	±80	±35		
55	±40	±20	±40	±20	±20	±40			55			75	±80	±35	±80	±35		
60	±40	±20	±20	±10	±20	±40			60			80	±80	±35	±80	±35		
65	±20	±10			±10	±20			80			95	±55	±25	±55	±25		
70									95			100	±30	±10	±30	±10		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque, 7) Read/write axis

	BIS011M BIS011Z BIS011N BIS013C				BIS012J BIS012K BIS012L BIS013F				BIS0117				BIS0112				BIS00NZ							
	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>27	>27	>27	>27
	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>27	>27	>27	>27
	0-42	0-42			0-42	0-42	0-42	0-42	0-68	0-68			0-68	0-68			0-58	0-58			0-30	0-30		
	0-42	0-42	0-42	0-42	0-42	0-42	0-42	0-42	0-68	0-68	0-68	0-68	0-68	0-68	0-58	0-58	0-55	0-55	0-30	0-30				
	0-42	0-42	0-42	0-42	0-42	0-42	0-42	0-42	0-68	0-68	0-68	0-68	0-68	0-68	0-58	0-58	0-55	0-55	0-30	0-30				
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
0	±45	±25	±45	±25	±25	±45	±45	±25	0	±75	±32	±75	±32	±75	±32	±60	±28	0	±65	±28	±44	±24		
5	±45	±25	±45	±25	±25	±45	±45	±25	5	±75	±32	±75	±32	±75	±32	±60	±28	5	±65	±28	±44	±24		
10	±45	±25	±45	±25	±25	±45	±45	±25	10	±75	±32	±75	±32	±75	±32	±60	±28	10	±65	±28	±44	±24		
15	±45	±25	±45	±25	±25	±45	±45	±25	15	±75	±32	±75	±32	±75	±32	±60	±28	15	±65	±28	±38	±21		
20	±45	±25	±45	±25	±25	±45	±45	±25	20	±75	±32	±75	±32	±75	±32	±60	±28	20	±65	±28	±38	±21		
25	±30	±18	±30	±18	±18	±30	±30	±18	25	±70	±28	±70	±28	±70	±28	±55	±25	25	±55	±25	±25	±15		
30	±30	±18	±30	±18	±18	±30	±30	±18	30	±70	±28	±70	±28	±70	±28	±55	±25	30	±55	±25	±8	±5		
35	±30	±18	±30	±18	±18	±30	±30	±18	35	±70	±28	±70	±28	±70	±28	±55	±25	35	±55	±25				
40	±20	±10	±20	±10	±10	±20	±20	±10	40	±70	±28	±70	±28	±70	±28	±55	±25	40	±55	±25				
42	±10	±5	±10	±5	±5	±10	±10	±5	45	±50	±25	±50	±25	±50	±25	±35	±18	45	±40	±20				
45									50	±50	±25	±50	±25	±50	±25	±35	±18	50	±40	±20				
50									55	±50	±25	±50	±25	±50	±25	±35	±18	55	±5	±5				
55									58	±50	±25	±50	±25	±50	±25	±15	±5	60						
60									65	±50	±25	±50	±25	±50	±25			65						
65									68	±20	±10	±20	±10	±20	±10			70						

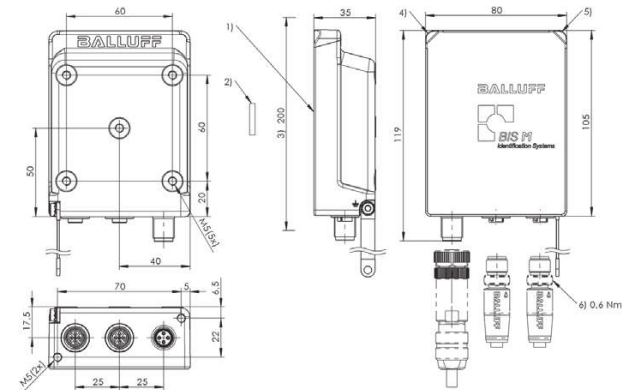


	BISO18A BIS M-4006-034-001-ST4
Product Group	HF (13.56 MHz)
Dimension	80 x 35 x 119 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	2x M12x1-Female, 4-pole, D-coded M12x1-Male, 4-pole
Housing material	Zinc, die-cast
Interface	Ethernet/IP, Ethernet/IP 2 port Switch
Operating voltage Ub	24 V DC LPS Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE

Appropriate data carrier

	BIS0043			BIS011F BIS011E BIS011A BIS0139			BIS0045			BIS0046			BIS0119			BIS00NU BIS00NW BIS0100		
Data carrier distance to metal	>50	>0	>0	>50	>0	>0	>50			>50			>0			>0		
Data carrier clear zone	>200	>200	>0	>200	>200	>0	>200			>200			>100			>100		
Working distance for writing	0-52	0-32	10-19	0-36	0-28	11-18	0-52			0-80			0-38			0-18		
Working distance for reading	0-52	0-32	10-19	0-36	0-28	11-18	0-52			0-80			0-38			0-18		
Offset at distance	0	±32	±25		±27	±22		±32		±42			0	±27		±22		
	5	±32	±25		±27	±22		±32		±42			5	±27		±22		
	10	±32	±25	±20	±27	±22		±32		±42			10	±27		±20		
	11	±32	±22	±20	±25	±20	±18	±32		±42			15	±25		±18		
	12	±32	±22	±20	±25	±20	±18	±32		±42			18	±25		±10		
	16	±32	±22	±15	±25	±20	±15	±32		±42			20	±25				
	17	±32	±22	±15	±25	±20	±2	±32		±42			25	±22				
	18	±32	±22	±8	±25	±20	±2	±32		±42			30	±22				
	19	±32	±22	±8	±25	±20		±32		±42			35	±10				
	20	±32	±22		±25	±20		±32		±42			38	±10				
	25	±28	±15		±22	±15		±28		±42			40					
	28	±28	±15		±22	±1		±28		±42			45					
	30	±28	±15		±22			±28		±42			50					
	32	±28	±10		±5			±28		±38			55					
	36	±28			±5			±28		±38			60					
	40	±28						±28		±38			65					
	50	±12						±12		±38			70					
	52	±6						±6		±38			75					

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque

	BIS00YE			BIS00Y9			BIS00Y4			BIS00Y2		
	>50	>50	>0	>50	>200	>200	>50	>200	>200	>50	>200	>200
	0-60	0-55	0-45	0-90	0-65	0-65	0-60	0-55	0-45	0-90	0-65	0-65
	0	±35	±32	±27	±50	±36	0	±35	±32	±27	±50	±36
	10	±35	±32	±27	±50	±36	10	±35	±32	±27	±50	±36
	20	±35	±32	±27	±50	±36	20	±35	±32	±27	±50	±36
	30	±30	±30	±25	±50	±33	30	±30	±30	±25	±50	±33
	40	±30	±30	±20	±45	±33	40	±30	±30	±20	±45	±33
	45	±20	±24	±5	±45	±25	45	±20	±24	±5	±45	±25
	50	±20	±24		±45	±25	50	±20	±24		±45	±25
	55	±20	±10		±45	±25	55	±20	±10		±45	±25
	60	±10			±45	±25	60	±10			±45	±25
	65				±30	±10	65				±30	±10
	70				±30		70				±30	
	75				±30		75				±30	
	80				±30		80				±30	
	85				±20		85				±20	
	90				±20		90				±20	
	100						100					
	110						110					
	120						120					

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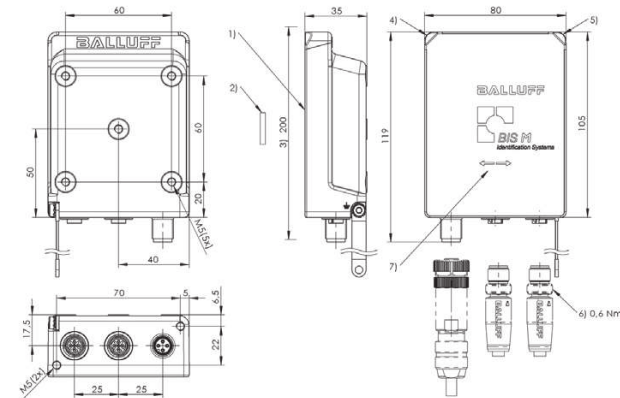


	BIS018C BIS M-4006-034-002-ST4
Product Group	HF (13.56 MHz)
Dimension	80 x 35 x 119 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	Rod
Supported data carrier types	DIN ISO 15693, DIN ISO 15693 (High Memory)
Connection	2x M12x1-Female, 4-pole, D-coded M12x1-Male, 4-pole
Housing material	Zinc, die-cast
Interface	Ethernet/IP, Ethernet/IP 2 port Switch
Operating voltage Ub	24 V DC LPS Class 2
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE

Appropriate data carrier

	BIS004F		BIS004H		BIS00M2		BIS00P3		BIS011W BIS011Y BIS011U BIS013E		
Data carrier clear zone A	>200	>200	>200	>200	>200	>200	>200	>200	>240	>240	
Data carrier clear zone B	>200	>200	>200	>200	>200	>200	>200	>200	>480	>480	
Data carrier clear zone C	>200	>200	>200	>200	>200	>200	>200	>200	>50	>50	
Metallic mounting surface 40 x 22 mm	0-65	0-65			0-65	0-65					
Metallic mounting surface > 200 x 200 mm			0-60	0-60			0-45	0-45			
Working distance for writing	0-65	0-65	0-60	0-60	0-65	0-65	0-45	0-45	0-35	0-35	
Working distance for reading	0-65	0-65	0-60	0-60	0-65	0-65	0-45	0-45	0-100	0-100	
Offset at distance	X	Y	X	Y	X	Y	X	Y	X	Y	
0	±70	±30	±65	±30	±30	±70	±25	±50	0	±44	±22
5	±70	±30	±65	±30	±30	±70	±25	±50	5	±44	±22
10	±70	±30	±65	±30	±30	±70	±25	±50	10	±44	±22
15	±70	±30	±65	±30	±30	±70	±25	±50	15	±40	±20
20	±70	±30	±65	±30	±30	±70	±25	±50	20	±40	±20
25	±65	±25	±60	±25	±25	±65	±20	±40	25	±32	±18
30	±65	±25	±60	±25	±25	±65	±20	±40	30	±32	±18
35	±65	±25	±60	±25	±25	±65	±20	±40	35	±10	±3
40	±65	±25	±60	±25	±25	±65	±15	±30	40		
45	±40	±20	±40	±20	±20	±40	±5	±5	45		
50	±40	±20	±40	±20	±20	±40			50		
55	±40	±20	±40	±20	±20	±40			55		
60	±40	±20	±20	±10	±20	±40			60		
65	±20	±10			±10	±20			80		
70									95		
75									100		
80									110		
									120		

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) LED (Power), 5) LED (CP), 6) Tightening torque, 7) Read/write axis

	BIS011M BIS011Z BIS011N BIS013C		BIS012J BIS012K BIS012L BIS013F		BIS0117		BIS0112		BIS00NZ													
	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200												
	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200												
	0-42	0-42			0-42	0-42			0-68	0-68												
			0-42	0-42			0-42	0-42														
	0-42	0-42	0-42	0-42	0-42	0-42	0-42	0-42	0-68	0-68												
									0-68	0-68												
	X	Y	X	Y	X	Y	X	Y	X	Y												
0	±45	±25	±45	±25	±25	±45	±45	±25	0	±75	±32	±75	±32	±75	±32	±60	±28	0	±65	±28	±44	±24
5	±45	±25	±45	±25	±25	±45	±45	±25	5	±75	±32	±75	±32	±75	±32	±60	±28	5	±65	±28	±44	±24
10	±45	±25	±45	±25	±25	±45	±45	±25	10	±75	±32	±75	±32	±75	±32	±60	±28	10	±65	±28	±44	±24
15	±45	±25	±45	±25	±25	±45	±45	±25	15	±75	±32	±75	±32	±75	±32	±60	±28	15	±65	±28	±38	±21
20	±45	±25	±45	±25	±25	±45	±45	±25	20	±75	±32	±75	±32	±75	±32	±60	±28	20	±65	±28	±38	±21
25	±30	±18	±30	±18	±18	±30	±30	±18	25	±70	±28	±70	±28	±70	±28	±55	±25	25	±55	±25	±25	±15
30	±30	±18	±30	±18	±18	±30	±30	±18	30	±70	±28	±70	±28	±70	±28	±55	±25	30	±55	±25	±8	±5
35	±30	±18	±30	±18	±18	±30	±30	±18	35	±70	±28	±70	±28	±70	±28	±55	±25	35	±55	±25		
40	±20	±10	±20	±10	±10	±20	±20	±10	40	±70	±28	±70	±28	±70	±28	±55	±25	40	±55	±25		
42	±10	±5	±10	±5	±5	±10	±10	±5	42	±50	±25	±50	±25	±50	±25	±35	±18	45	±40	±20		
45									45	±50	±25	±50	±25	±50	±25	±35	±18	50	±40	±20		
50									50	±50	±25	±50	±25	±50	±25	±35	±18	55	±5	±5		
55									55	±50	±25	±50	±25	±50	±25	±35	±18	60				
60									60	±50	±25	±50	±25	±50	±25	±35	±18	65				
65									65	±20	±10	±20	±10	±20	±10			70				
70									70									75				
75									75													
80									80													

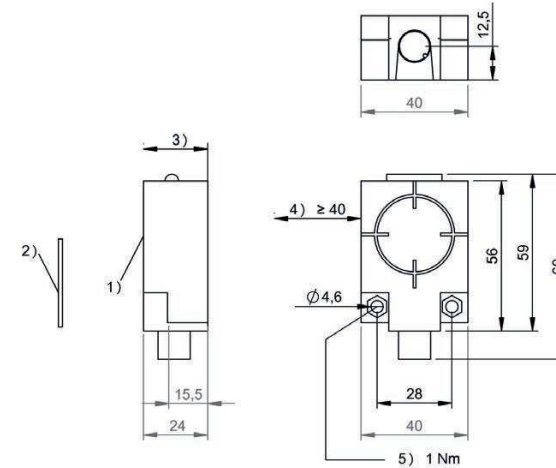


	BISO004 BIS M-410-068-001-09-S72
Product Group	HF (13.56 MHz)
Dimension	40 x 24 x 56 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 5-pin
Housing material	PC, with PU potting
Interface	USB 2.0
Operating voltage Ub	5 V DC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO00YL	BISO00YK	BISO00YH	BISO00YF	BISO00YE	BISO00YC	BISO00YA
Data carrier distance to metal	>10	>10	>10	>25	>25	>25	>25
Data carrier clear zone	>60	>60	>60	>100	>100	>100	>100
Working distance for writing	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Working distance for reading	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Offset at distance							
	0 ±15	±12	±10	±30	±25	0 ±15	±15
	2 ±15	±12	±10	±30	±25	5 ±15	±15
	4 ±15	±12	±7.5	±30	±25	10 ±12	±12
	5 ±15	±12	±5	±30	±25	15 ±8	±8
	10 ±14	±10		±30	±25	20	
	12 ±12	±5		±25	±20	25	
	15 ±12			±25	±20	30	
	17 ±7			±25	±20	32	
	20			±25	±20	36	
	25			±25	±20	40	
	30			±25	±20	45	
	35			±20	±12	50	
	40			±20	±12	55	
	45			±12		60	
	48			±12		65	
	75					68	
	80					75	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

	BISO00Y9	BISO00Y8	BISO00Y7	BISO00Y6	BISO00Y5	BISO00Y4	BISO00Y3	BISO00Y2	BISO0043
	>25	>50	>50	>50	>50	>50	>50	>50	>25
	>100	>150	>150	>150	>150	>150	>150	>150	>120
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	±20	±22	±25	0 ±35	±40	±44			0 ±22
	±20	±22	±25	5 ±35	±40	±44			5 ±22
	±20	±22	±25	10 ±35	±40	±44			10 ±22
	±16	±20	±25	15 ±35	±40	±44			15 ±22
	±16	±20	±25	20 ±35	±40	±44			20 ±22
	±10	±12	±20	23 ±30	±32	±32	±24	±24	25 ±20
	±10	±12	±20	30 ±30	±32	±32	±24	±24	30 ±20
	±8	±8	±12	32 ±30	±32	±32	±18	±18	35 ±20
			±12	35 ±30	±32	±32	±18	±18	40 ±10
				40 ±30	±32	±32	±18	±18	
				46 ±24	±32	±32	±10	±10	
				50 ±24	±32	±32			
				55 ±16	±24	±25			
				60 ±16	±24	±25			
				65	±15	±15			
				68	±15	±15			
				70		±15			



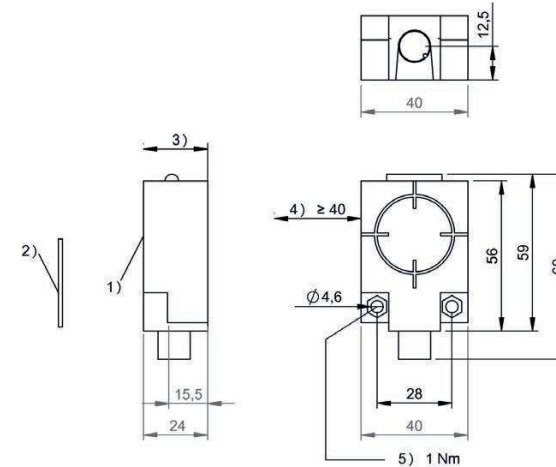
	BIS00W1 BIS M-410-067-001-04-592
Product Group	HF (13.56 MHz)
Dimension	40 x 24 x 56 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 5-pin
Housing material	PC, with PU potting
Interface	Subnet 16 (RS485)
Operating voltage Ub	10...30 VDC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

* Use with **BIS Z-GW-001...** only

Appropriate data carrier

	BIS00YL	BIS00YK	BIS00YH	BIS00YF	BIS00YE	BIS00YC	BIS00YA
Data carrier distance to metal	>10	>10	>10	>25	>25	>25	>25
Data carrier clear zone	>60	>60	>60	>100	>100	>100	>100
Working distance for writing	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Working distance for reading	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Offset at distance							
	0 ±15	±12	±10	±30	±25	0 ±15	±15
	2 ±15	±12	±10	±30	±25	5 ±15	±15
	4 ±15	±12	±7,5	±30	±25	10 ±12	±12
	5 ±15	±12	±5	±30	±25	15 ±8	±8
	10 ±14	±10		±30	±25	20	
	12 ±12	±5		±25	±20	25	
	15 ±12			±25	±20	30	
	17 ±7			±25	±20	32	
				±25	±20	36	
				±25	±20	40	
				±25	±20	45	
				±20	±12	50	
				±20	±12	55	
				±12		60	
				±12		65	
						68	
						75	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

	BIS00Y9	BIS00Y8	BIS00Y7	BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y3	BIS00Y2	BIS0043
	>25	>50	>50	>50	>50	>50	>50	>50	>25
	>100	>150	>150	>150	>150	>150	>150	>150	>120
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	±20	±22	±25	0 ±35	±40	±44			0 ±22
	±20	±22	±25	5 ±35	±40	±44			5 ±22
	±20	±22	±25	10 ±35	±40	±44			10 ±22
	±16	±20	±25	15 ±35	±40	±44			15 ±22
	±16	±20	±25	20 ±35	±40	±44			20 ±22
	±10	±12	±20	23 ±30	±32	±32	±24	±24	25 ±20
	±10	±12	±20	30 ±30	±32	±32	±24	±24	30 ±20
	±8	±8	±12	32 ±30	±32	±32	±18	±18	35 ±20
			±12	35 ±30	±32	±32	±18	±18	40 ±10
				40 ±30	±32	±32	±18	±18	
				46 ±24	±32	±32	±10	±10	
				50 ±24	±32	±32			
				55 ±16	±24	±25			
				60 ±16	±24	±25			
				65	±15	±15			
				68	±15	±15			
				70		±15			

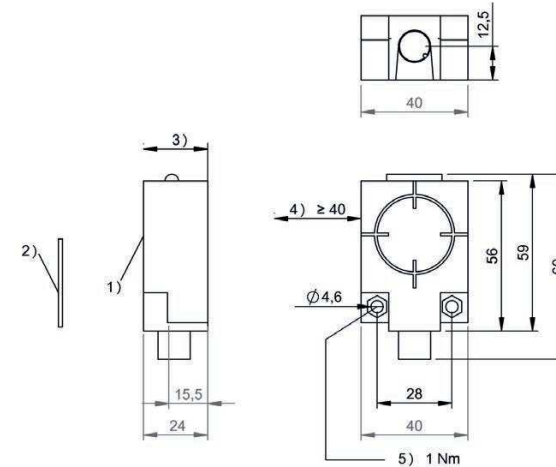


	BISO0W3 BIS M-410-068-001-02-S115
Product Group	HF (13.56 MHz)
Dimension	40 x 24 x 56 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	PC, with PU potting
Interface	RS422
Operating voltage Ub	10...30 VDC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO0YL	BISO0YK	BISO0YH	BISO0YF	BISO0YE	BISO0YC	BISO0YA
Data carrier distance to metal	>10	>10	>10	>25	>25	>25	>25
Data carrier clear zone	>60	>60	>60	>100	>100	>100	>100
Working distance for writing	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Working distance for reading	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Offset at distance							
	0 ±15	±12	±10	±30	±25	0 ±15	±15
	2 ±15	±12	±10	±30	±25	5 ±15	±15
	4 ±15	±12	±7.5	±30	±25	10 ±12	±12
	5 ±15	±12	±5	±30	±25	15 ±8	±8
	10 ±14	±10		±30	±25	20	
	12 ±12	±5		±25	±20	25	
	15 ±12			±25	±20	30	
	17 ±7			±25	±20	32	
	20			±25	±20	36	
	25			±25	±20	40	
	30			±25	±20	45	
	35			±20	±12	50	
	40			±20	±12	55	
	45			±12		60	
	48			±12		65	
	75					68	
	80					75	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

	BISO0Y9	BISO0Y8	BISO0Y7	BISO0Y6	BISO0Y5	BISO0Y4	BISO0Y3	BISO0Y2	BISO043
	>25	>50	>50	>50	>50	>50	>50	>50	>25
	>100	>150	>150	>150	>150	>150	>150	>150	>120
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	±20	±22	±25	0 ±35	±40	±44			0 ±22
	±20	±22	±25	5 ±35	±40	±44			5 ±22
	±20	±22	±25	10 ±35	±40	±44			10 ±22
	±16	±20	±25	15 ±35	±40	±44			15 ±22
	±16	±20	±25	20 ±35	±40	±44			20 ±22
	±10	±12	±20	23 ±30	±32	±32	±24	±24	25 ±20
	±10	±12	±20	30 ±30	±32	±32	±24	±24	30 ±20
	±8	±8	±12	32 ±30	±32	±32	±18	±18	35 ±20
			±12	35 ±30	±32	±32	±18	±18	40 ±10
				40 ±30	±32	±32	±18	±18	
				46 ±24	±32	±32	±10	±10	
				50 ±24	±32	±32			
				55 ±16	±24	±25			
				60 ±16	±24	±25			
				65	±15	±15			
				68	±15	±15			
				70		±15			

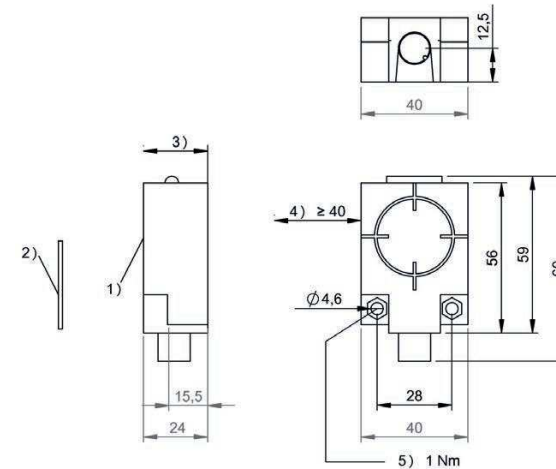


	BISO002 BIS M-410-068-001-00-S115
Product Group	HF (13.56 MHz)
Dimension	40 x 24 x 56 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	PC, with PU potting
Interface	RS232
Operating voltage Ub	10...30 VDC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO00YL	BISO00YK	BISO00YH	BISO00YF	BISO00YE	BISO00YC	BISO00YA
Data carrier distance to metal	>10	>10	>10	>25	>25	>25	>25
Data carrier clear zone	>60	>60	>60	>100	>100	>100	>100
Working distance for writing	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Working distance for reading	0-17	0-12	0-5	0-48	0-40	0-15	0-15
Offset at distance							
	0 ±15	±12	±10	±30	±25	0 ±15	±15
	2 ±15	±12	±10	±30	±25	5 ±15	±15
	4 ±15	±12	±7.5	±30	±25	10 ±12	±12
	5 ±15	±12	±5	±30	±25	15 ±8	±8
	10 ±14	±10		±30	±25	20	
	12 ±12	±5		±25	±20	25	
	15 ±12			±25	±20	30	
	17 ±7			±25	±20	32	
	20			±25	±20	36	
	25			±25	±20	40	
	30			±25	±20	45	
	35			±20	±12	50	
	40			±20	±12	55	
	45			±12		60	
	48			±12		65	
	75					68	
	80					75	

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

	BISO00Y9	BISO00Y8	BISO00Y7	BISO00Y6	BISO00Y5	BISO00Y4	BISO00Y3	BISO00Y2	BISO0043
	>25	>50	>50	>50	>50	>50	>50	>50	>25
	>100	>150	>150	>150	>150	>150	>150	>150	>120
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	0-32	0-32	0-36	0-60	0-68	0-70	23-46	23-46	0-40
	±20	±22	±25	0 ±35	±40	±44			0 ±22
	±20	±22	±25	5 ±35	±40	±44			5 ±22
	±20	±22	±25	10 ±35	±40	±44			10 ±22
	±16	±20	±25	15 ±35	±40	±44			15 ±22
	±16	±20	±25	20 ±35	±40	±44			20 ±22
	±10	±12	±20	23 ±30	±32	±32	±24	±24	25 ±20
	±10	±12	±20	30 ±30	±32	±32	±24	±24	30 ±20
	±8	±8	±12	32 ±30	±32	±32	±18	±18	35 ±20
			±12	35 ±30	±32	±32	±18	±18	40 ±10
				40 ±30	±32	±32	±18	±18	
				46 ±24	±32	±32	±10	±10	
				50 ±24	±32	±32			
				55 ±16	±24	±25			
				60 ±16	±24	±25			
				65	±15	±15			
				68	±15	±15			
				70		±15			

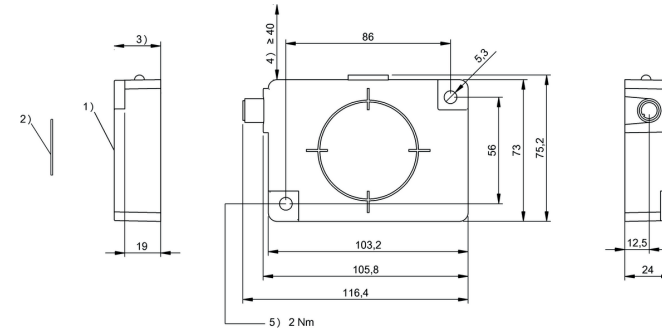


	BIS00W8 BIS M-411-068-001-09-S72
Product Group	HF (13.56 MHz)
Dimension	75 x 24 x 105 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 5-pin
Housing material	PC, with PU potting
Interface	USB 2.0
Operating voltage Ub	5 V DC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS00YL	BIS00YK	BIS00YF	BIS00YE		BIS00YC	BIS00YA	BIS00Y9	
Data carrier distance to metal	>10	>10	>25	>25		>25	>25	>25	
Data carrier clear zone	>60	>60	>100	>100		>100	>100	>100	
Working distance for writing	0-20	0-13	0-80	0-70		0-26	0-22	38-52	
Working distance for reading	0-20	0-13	0-80	0-70		0-26	0-22	38-52	
Offset at distance									
	0 ±22	±22	±50	±42		0 ±20	±20		
	5 ±22	±22	±50	±42		5 ±20	±20		
	9 ±19	±20	±50	±42		10 ±20	±20		
	12 ±19	±12	±50	±42		15 ±20	±20		
	13 ±19	±5	±50	±42		20 ±15	±15		
	15 ±19		±50	±42		22 ±15	±10		
	20 ±14		±50	±42		26 ±15			
	22		±40	±39		30			
	26		±40	±39		38		±25	
	30		±40	±39		40		±25	
	35		±40	±39		45		±25	
	40		±40	±39		50		±25	
	45		±35	±36		52		±25	
	50		±35	±36		56			
	60		±35	±36		60			
	65		±30	±28		70			
	70		±30	±28		80			
	75		±30			90			
	80		±30			100			
	90					110			

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

	BIS00Y8	BIS00Y7		BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y3	BIS00Y2		BIS0044	BIS0045
	>50	>50		>50	>50	>50	>50	>50		>25	>25
	>150	>150		>150	>150	>150	>150	>150		>100	>100
	0-56	0-60		0-100	0-110	0-125	11-95	11-75		0-45	0-67
	0-56	0-60		0-100	0-110	0-125	11-95	11-75		0-45	0-67
	±35	±32		0 ±50	±62	±65				0 ±30	±40
	±35	±32		5 ±50	±62	±65				5 ±30	±40
	±35	±32		11 ±50	±62	±65	±52	±50		10 ±30	±40
	±35	±32		15 ±50	±62	±65	±52	±50		15 ±28	±40
	±35	±32		20 ±50	±62	±65	±52	±50		20 ±28	±40
	±30	±30		25 ±50	±62	±65	±52	±50		25 ±28	±38
	±30	±30		30 ±50	±62	±65	±52	±50		30 ±28	±38
	±30	±30		35 ±50	±58	±65	±48	±42		35 ±25	±38
	±30	±30		40 ±50	±58	±65	±48	±42		40 ±25	±38
	±30	±30		45 ±50	±58	±62	±48	±42		45 ±10	±35
	±30	±25		50 ±50	±58	±62	±48	±42		50	±35
	±25	±25		55 ±50	±58	±62	±48	±42		55	±35
	±25	±20		60 ±50	±58	±62	±48	±35		60	±35
	±25	±20		75 ±45	±52	±62	±44	±35		67	±10
		±20		85 ±45	±52	±58	±44			70	
				95 ±45	±52	±58	±40			75	
				100 ±45	±52	±58				80	
				110	±48	±58				85	
				120		±58				90	
				125		±50				95	



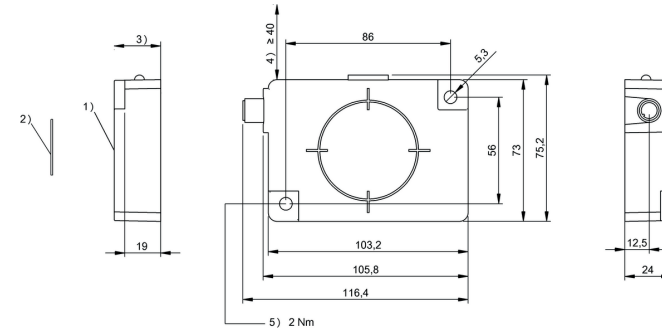
	BIS00W5 BIS M-411-067-001-04-592
Product Group	HF (13.56 MHz)
Dimension	75 x 24 x 105 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 5-pin
Housing material	PC, with PU potting
Interface	Subnet 16 (RS485)
Operating voltage Ub	10...30 VDC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

* Use with **BIS Z-GW-001...** only

Appropriate data carrier

	BIS00YL	BIS00YK	BIS00YF	BIS00YE	BIS00YC	BIS00YA	BIS00Y9		
Data carrier distance to metal	>10	>10	>25	>25	>25	>25	>25		
Data carrier clear zone	>60	>60	>100	>100	>100	>100	>100		
Working distance for writing	0-20	0-13	0-80	0-70	0-26	0-22	38-52		
Working distance for reading	0-20	0-13	0-80	0-70	0-26	0-22	38-52		
Offset at distance									
	0 ±22	±22	±50	±42	0 ±20	±20			
	5 ±22	±22	±50	±42	5 ±20	±20			
	9 ±19	±20	±50	±42	10 ±20	±20			
	12 ±19	±12	±50	±42	15 ±20	±20			
	13 ±19	±5	±50	±42	20 ±15	±15			
	15 ±19		±50	±42	22 ±15	±10			
	20 ±14		±50	±42	26 ±15				
	22		±40	±39	30				
	26		±40	±39	38				
	30		±40	±39	40		±25		
	35		±40	±39	45		±25		
	40		±40	±39	50		±25		
	45		±35	±36	52		±25		
	50		±35	±36	56				
	60		±35	±36	60				
	65		±30	±28	70				
	70		±30	±28	80				
	75		±30		90				
	80		±30		100				
	90				110				

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

BIS00Y8	BIS00Y7	BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y3	BIS00Y2	BIS0044	BIS0045
>50	>50	>50	>50	>50	>50	>50	>25	>25
>150	>150	>150	>150	>150	>150	>150	>100	>100
0-56	0-60	0-100	0-110	0-125	11-95	11-75	0-45	0-67
0-56	0-60	0-100	0-110	0-125	11-95	11-75	0-45	0-67
±35	±32	0 ±50	±62	±65			0 ±30	±40
±35	±32	5 ±50	±62	±65			5 ±30	±40
±35	±32	11 ±50	±62	±65	±52	±50	10 ±30	±40
±35	±32	15 ±50	±62	±65	±52	±50	15 ±28	±40
±35	±32	20 ±50	±62	±65	±52	±50	20 ±28	±40
±30	±30	25 ±50	±62	±65	±52	±50	25 ±28	±38
±30	±30	30 ±50	±62	±65	±52	±50	30 ±28	±38
±30	±30	35 ±50	±58	±65	±48	±42	35 ±25	±38
±30	±30	40 ±50	±58	±65	±48	±42	40 ±25	±38
±30	±30	45 ±50	±58	±62	±48	±42	45 ±10	±35
±30	±25	50 ±50	±58	±62	±48	±42	50	±35
±25	±25	55 ±50	±58	±62	±48	±42	55	±35
±25	±20	60 ±50	±58	±62	±48	±35	60	±35
±25	±20	75 ±45	±52	±62	±44	±35	67	±10
	±20	85 ±45	±52	±58	±44		70	
		95 ±45	±52	±58	±40		75	
		100 ±45	±52	±58			80	
		110	±48	±58			85	
		120		±58			90	
		125		±50			95	

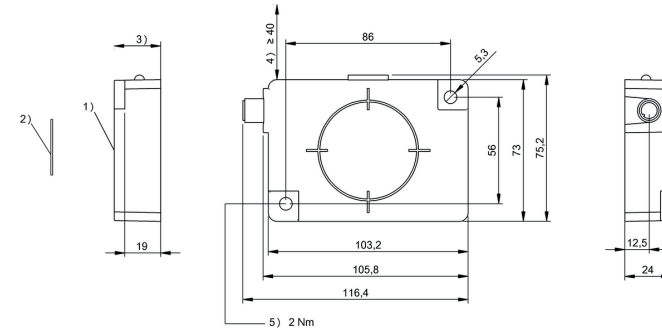


	BIS00W7 BIS M-411-068-001-02-S115
Product Group	HF (13.56 MHz)
Dimension	75 x 24 x 105 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	PC, with PU potting
Interface	RS422
Operating voltage Ub	10...30 VDC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS00YL	BIS00YK	BIS00YF	BIS00YE		BIS00YC	BIS00YA	BIS00Y9	
Data carrier distance to metal	>10	>10	>25	>25		>25	>25	>25	
Data carrier clear zone	>60	>60	>100	>100		>100	>100	>100	
Working distance for writing	0-20	0-13	0-80	0-70		0-26	0-22	38-52	
Working distance for reading	0-20	0-13	0-80	0-70		0-26	0-22	38-52	
Offset at distance									
	0 ±22	±22	±50	±42		0 ±20	±20		
	5 ±22	±22	±50	±42		5 ±20	±20		
	9 ±19	±20	±50	±42		10 ±20	±20		
	12 ±19	±12	±50	±42		15 ±20	±20		
	13 ±19	±5	±50	±42		20 ±15	±15		
	15 ±19		±50	±42		22 ±15	±10		
	20 ±14		±50	±42		26 ±15			
	22		±40	±39		30			
	26		±40	±39		38		±25	
	30		±40	±39		40		±25	
	35		±40	±39		45		±25	
	40		±40	±39		50		±25	
	45		±35	±36		52		±25	
	50		±35	±36		56			
	60		±35	±36		60			
	65		±30	±28		70			
	70		±30	±28		80			
	75		±30			90			
	80		±30			100			
	90					110			

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

	BIS00Y8	BIS00Y7		BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y3	BIS00Y2		BIS0044	BIS0045
	>50	>50		>50	>50	>50	>50	>50		>25	>25
	>150	>150		>150	>150	>150	>150	>150		>100	>100
	0-56	0-60		0-100	0-110	0-125	11-95	11-75		0-45	0-67
	0-56	0-60		0-100	0-110	0-125	11-95	11-75		0-45	0-67
	±35	±32		0 ±50	±62	±65				0 ±30	±40
	±35	±32		5 ±50	±62	±65				5 ±30	±40
	±35	±32		11 ±50	±62	±65	±52	±50		10 ±30	±40
	±35	±32		15 ±50	±62	±65	±52	±50		15 ±28	±40
	±35	±32		20 ±50	±62	±65	±52	±50		20 ±28	±40
	±30	±30		25 ±50	±62	±65	±52	±50		25 ±28	±38
	±30	±30		30 ±50	±62	±65	±52	±50		30 ±28	±38
	±30	±30		35 ±50	±58	±65	±48	±42		35 ±25	±38
	±30	±30		40 ±50	±58	±65	±48	±42		40 ±25	±38
	±30	±30		45 ±50	±58	±62	±48	±42		45 ±10	±35
	±30	±25		50 ±50	±58	±62	±48	±42		50	±35
	±25	±25		55 ±50	±58	±62	±48	±42		55	±35
	±25	±20		60 ±50	±58	±62	±48	±35		60	±35
	±25	±20		75 ±45	±52	±62	±44	±35		67	±10
		±20		85 ±45	±52	±58	±44			70	
				95 ±45	±52	±58	±40			75	
				100 ±45	±52	±58				80	
				110	±48	±58				85	
				120		±58				90	
				125		±50				95	

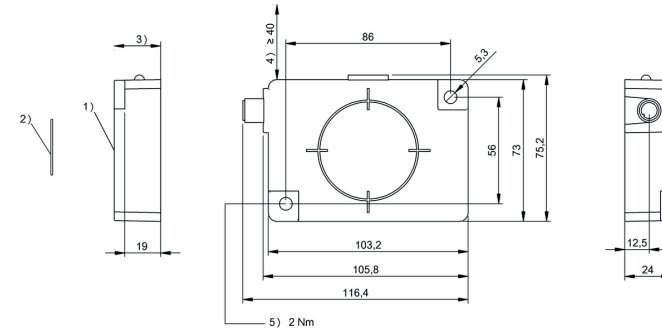


	BIS00W6 BIS M-411-068-001-00-S115
Product Group	HF (13.56 MHz)
Dimension	75 x 24 x 105 mm
Installation	metal-free (clear zone)
Antenna type	round
Supported data carrier types	DIN ISO 14443, DIN ISO 15693
Connection	Connector, M12x1 connector, 8-pin
Housing material	PC, with PU potting
Interface	RS232
Operating voltage Ub	10...30 VDC
Ambient temperature	-20...50 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS00YL	BIS00YK	BIS00YF	BIS00YE		BIS00YC	BIS00YA	BIS00Y9	
Data carrier distance to metal	>10	>10	>25	>25		>25	>25	>25	
Data carrier clear zone	>60	>60	>100	>100		>100	>100	>100	
Working distance for writing	0-20	0-13	0-80	0-70		0-26	0-22	38-52	
Working distance for reading	0-20	0-13	0-80	0-70		0-26	0-22	38-52	
Offset at distance									
	0 ±22	±22	±50	±42		0 ±20	±20		
	5 ±22	±22	±50	±42		5 ±20	±20		
	9 ±19	±20	±50	±42		10 ±20	±20		
	12 ±19	±12	±50	±42		15 ±20	±20		
	13 ±19	±5	±50	±42		20 ±15	±15		
	15 ±19		±50	±42		22 ±15	±10		
	20 ±14		±50	±42		26 ±15			
	22		±40	±39		30			
	26		±40	±39		38		±25	
	30		±40	±39		40		±25	
	35		±40	±39		45		±25	
	40		±40	±39		50		±25	
	45		±35	±36		52		±25	
	50		±35	±36		56			
	60		±35	±36		60			
	65		±30	±28		70			
	70		±30	±28		80			
	75		±30			90			
	80		±30			100			
	90					110			

Dimensions in mm



1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque

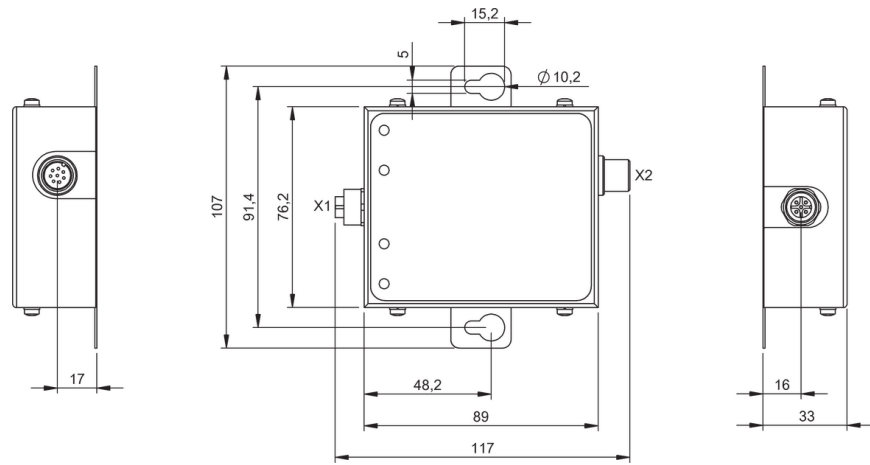
	BIS00Y8	BIS00Y7		BIS00Y6	BIS00Y5	BIS00Y4	BIS00Y3	BIS00Y2		BIS0044	BIS0045
	>50	>50		>50	>50	>50	>50	>50		>25	>25
	>150	>150		>150	>150	>150	>150	>150		>100	>100
	0-56	0-60		0-100	0-110	0-125	11-95	11-75		0-45	0-67
	0-56	0-60		0-100	0-110	0-125	11-95	11-75		0-45	0-67
	±35	±32		0 ±50	±62	±65				0 ±30	±40
	±35	±32		5 ±50	±62	±65				5 ±30	±40
	±35	±32		11 ±50	±62	±65	±52	±50		10 ±30	±40
	±35	±32		15 ±50	±62	±65	±52	±50		15 ±28	±40
	±35	±32		20 ±50	±62	±65	±52	±50		20 ±28	±40
	±30	±30		25 ±50	±62	±65	±52	±50		25 ±28	±38
	±30	±30		30 ±50	±62	±65	±52	±50		30 ±28	±38
	±30	±30		35 ±50	±58	±65	±48	±42		35 ±25	±38
	±30	±30		40 ±50	±58	±65	±48	±42		40 ±25	±38
	±30	±30		45 ±50	±58	±62	±48	±42		45 ±10	±35
	±30	±25		50 ±50	±58	±62	±48	±42		50	±35
	±25	±25		55 ±50	±58	±62	±48	±42		55	±35
	±25	±20		60 ±50	±58	±62	±48	±35		60	±35
	±25	±20		75 ±45	±52	±62	±44	±35		67	±10
		±20		85 ±45	±52	±58	±44			70	
				95 ±45	±52	±58	±40			75	
				100 ±45	±52	±58				80	
				110	±48	±58				85	
				120		±58				90	
				125		±50				95	



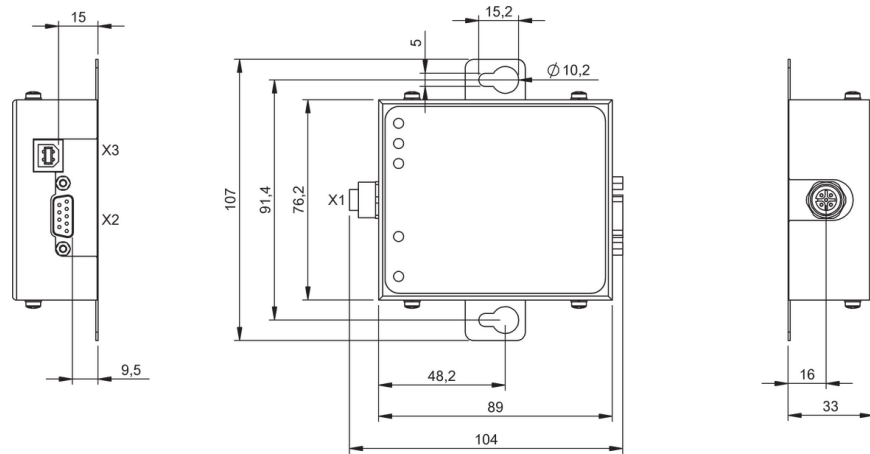
	BAE00JL BIS Z-GW-001-RS232	
Dimension	107 x 33 x 117 mm	
Interface	RS232	
Auxiliary interfaces	Subnet 16 (RS485)	
Housing material	Aluminum, die-cast	
Ambient temperature	-20...50 °C	
Protection degree	IP30	
Approval/Conformity	CE, FCC Part 15	
Productview	Page 320	



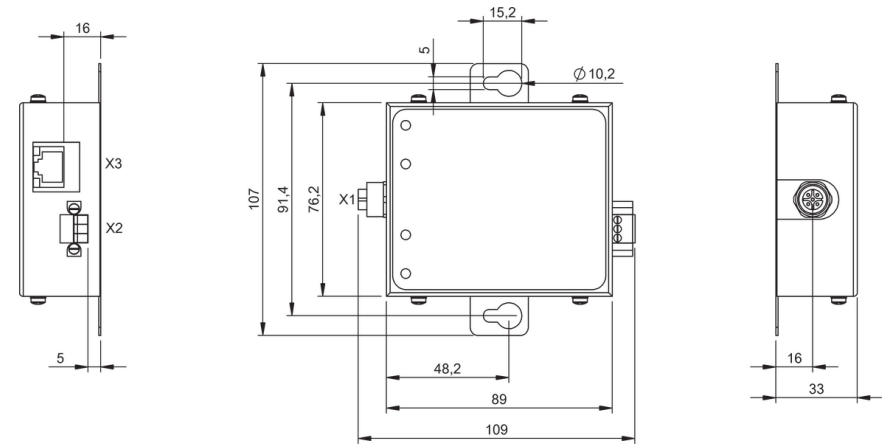
	BAE00JK BIS Z-GW-001-PBS	BAE00JJ BIS Z-GW-001-IND	BAE00JM BIS Z-GW-001-TCP
Dimension	107 x 33 x 104 mm	107 x 33 x 109 mm	107 x 33 x 109 mm
Interface	Profibus DP Slave, USB 2.0 galvanically isolated	Industrial Ethernet / MODBUS TCP	Ethernet TCP/IP
Auxiliary interfaces	Subnet 16 (RS485)	Subnet 16 (RS485)	Subnet 16 (RS485)
Housing material	Aluminum, die-cast	Aluminum, die-cast	Aluminum, die-cast
Ambient temperature	-20...50 °C	-20...50 °C	-20...50 °C
Protection degree	IP30	IP30	IP30
Approval/Conformity	CE, FCC Part 15	CE, FCC Part 15	CE, FCC Part 15
Productview	Page 320	Page 321	Page 321



BAE00JL



BAE00JK



BAE00JJ, BAE00JM



Standard, WLAN	BAE00M1 BIS M-870-1-008-X-001	
Standard, 1D code reader, WLAN	BAE00CC BIS M-870-1-008-X-004	
Standard, 2D code reader, WLAN	BAE00L3 BIS M-870-1-008-X-005	
Product Group	HF (13.56 MHz)	
Product name	WLAN	
Dimension	100 x 51 x 265 mm	
Antenna type	round	
Supported data carrier types	DIN ISO 14443, DIN ISO 15693	
Use	for data carriers $\varnothing \geq 20$ mm	
Display	TFT Touchscreen-display (color): 480x640 VGA resolution	
Keypad	52 keys, alphanumeric	
Operating voltage Ub	3.7 V DC rechargeable battery pack	
Storage temperature	-40...60 °C	
Ambient temperature	-10...50 °C	
Protection degree	IP65	
Approval/Conformity	CE	
Productview	Page 326	



	BAE00W4 BIS M-870-1-010-X-001	BAE00U1 BIS M-871-1-008-X-001	BAE00W5 BIS M-871-1-010-X-001
	HF (13.56 MHz)	HF (13.56 MHz)	HF (13.56 MHz)
	WLAN	WLAN	WLAN
	100 x 51 x 265 mm	100 x 51 x 265 mm	100 x 51 x 265 mm
	round	Rod	Rod
	DIN ISO 15693, DIN ISO 15693 (High Memory)	DIN ISO 14443, DIN ISO 15693	DIN ISO 15693, DIN ISO 15693 (High Memory)
	for data carriers $\varnothing \geq 20$ mm	—	—
	TFT Touchscreen-display (color): 480x640 VGA resolution	TFT Touchscreen-display (color): 480x640 VGA resolution	TFT Touchscreen-display (color): 480x640 VGA resolution
	55 keys, alphanumeric	52 keys, alphanumeric	55 keys, alphanumeric
	3.7 V DC rechargeable battery pack	3.7 V DC rechargeable battery pack	3.7 V DC rechargeable battery pack
	-40...60 °C	-40...60 °C	-40...60 °C
	-10...50 °C	-10...50 °C	-10...50 °C
	IP65	IP65	IP65
	CE	CE	CE
	Page 327	Page 328	Page 328

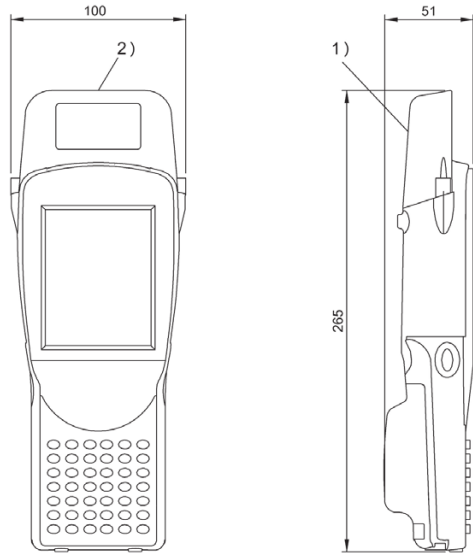


Standard, WLAN	BAE00F0 BIS M-873-1-008-X-001	
Standard, 1D code reader, WLAN	BAE00E9 BIS M-873-1-008-X-004	
Standard, 2D code reader, WLAN	BAE00KL BIS M-873-1-008-X-005	
Product Group	HF (13.56 MHz)	
Product name	WLAN	
Dimension	100 x 51 x 265 mm	
Antenna type	round	
Supported data carrier types	DIN ISO 14443, DIN ISO 15693	
Use	for data carriers Ø < 20 mm	
Display	TFT Touchscreen-display (color): 480x640 VGA resolution	
Keypad	52 keys, alphanumeric	
Operating voltage Ub	3.7 V DC rechargeable battery pack	
Storage temperature	-40...60 °C	
Ambient temperature	-10...50 °C	
Protection degree	IP65	
Approval/Conformity	CE	
Productview	Page 329	



	BAE00W6 BIS M-873-1-010-X-001	
	HF (13.56 MHz)	
	WLAN	
	100 x 51 x 265 mm	
	round	
	DIN ISO 15693, DIN ISO 15693 (High Memory)	
	for data carriers Ø < 20 mm	
	TFT Touchscreen-display (color): 480x640 VGA resolution	
	55 keys, alphanumeric	
	3.7 V DC rechargeable battery pack	
	-40...60 °C	
	-10...50 °C	
	IP65	
	CE	
	Page 330	

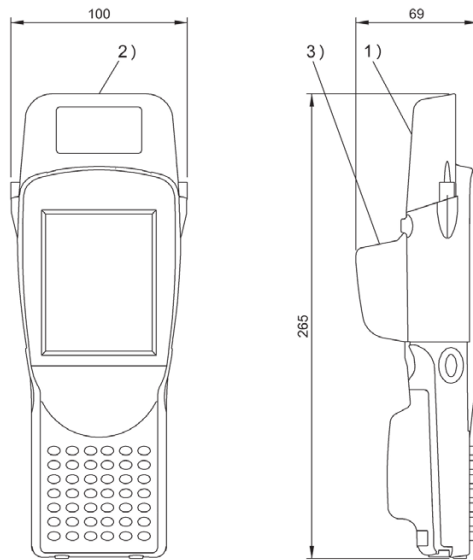
326 | RFID | HF (13.56 MHz)



X1

1) Sensing surface, 2) See data for antenna form

BAE00M1



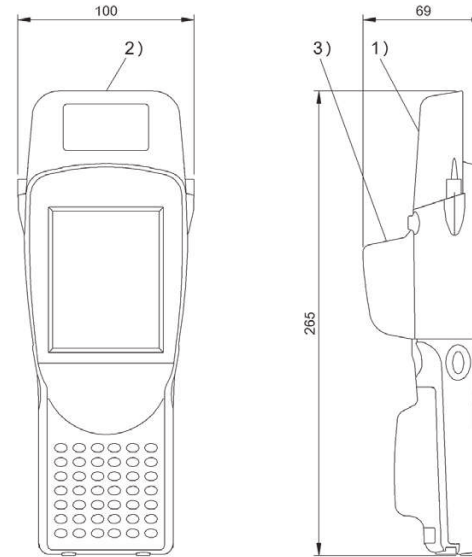
X1

1) Sensing surface, 2) See data for antenna form, 3) Barcode 1D-Scanner

BAE00CC

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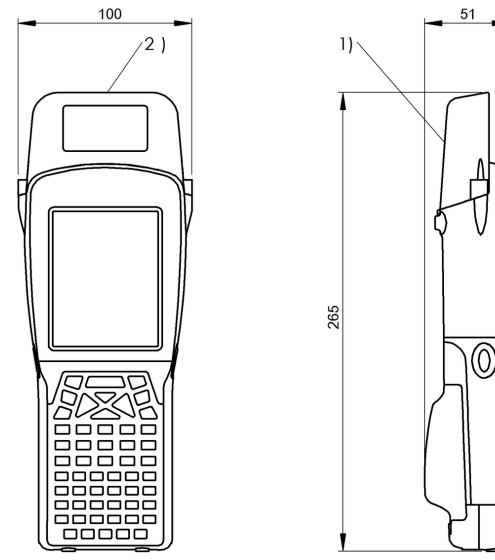
Portable HF read/write units (13.56 MHz) | 327



X1

1) Sensing surface, 2) See data for antenna form, 3) Barcode 2D-Scanner

BAE00L3



X1

1) Sensing surface, 2) See data for antenna form

BAE00W4

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Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

Safety

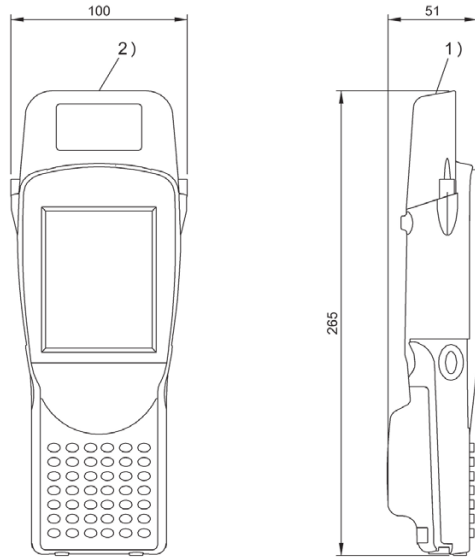
Industrial Networking

Power Supplies

Connectivity

Accessories

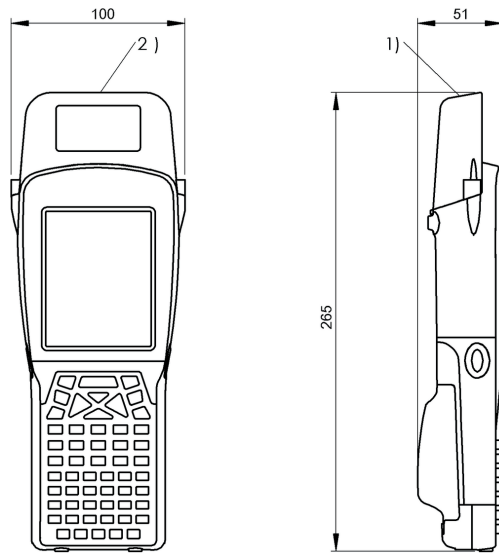
328 | RFID | HF (13.56 MHz)



X1

1) Sensing surface, 2) See data for antenna form

BAE00U1



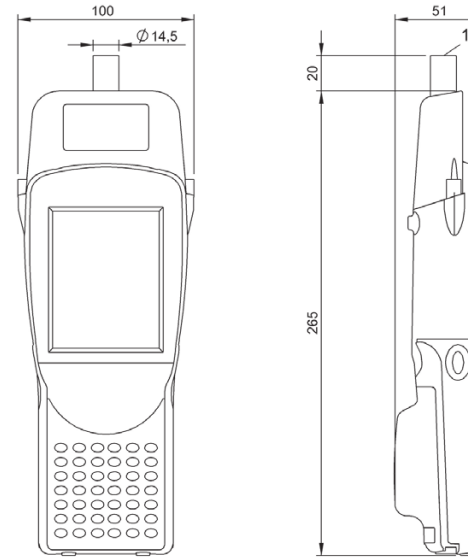
X1

1) Sensing surface, 2) See data for antenna form

BAE00WS

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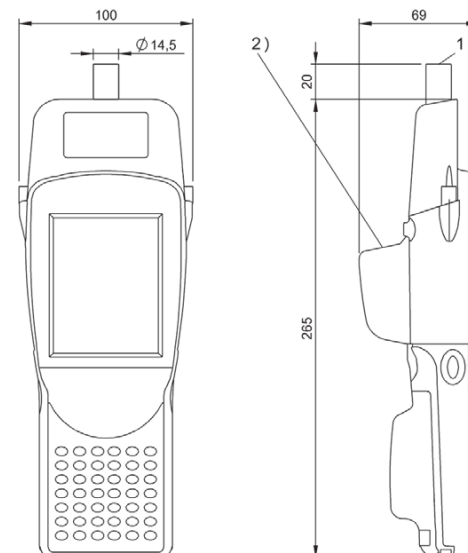
Portable HF read/write units (13.56 MHz) | 329



X1

1) Sensing surface, 2) See data for antenna form

BAE00F0



X1

1) Sensing surface, 2) Barcode 1D-Scanner

BAE00E9

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Sensors

RFID

Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

Safety

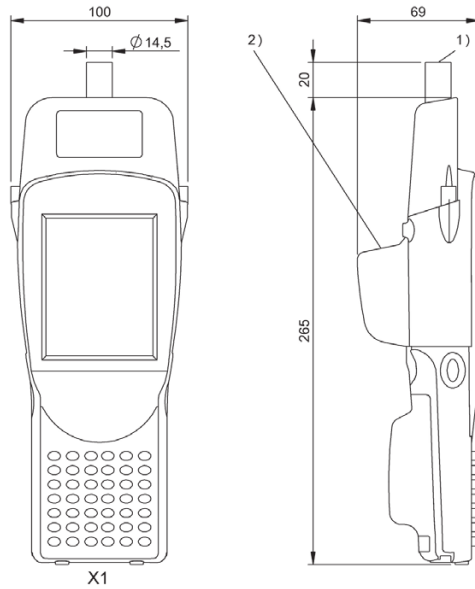
Industrial Networking

Power Supplies

Connectivity

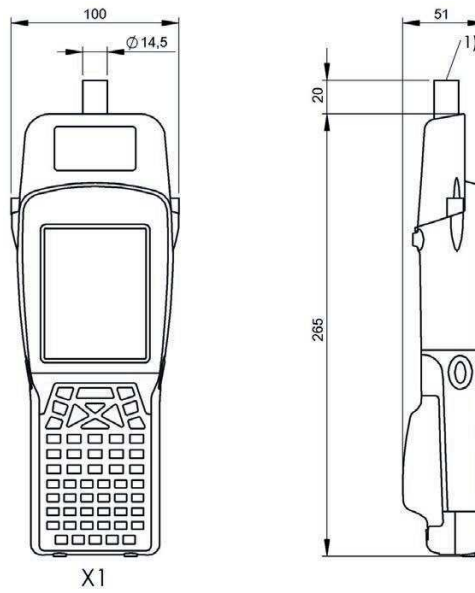
Accessories

330 I RFID I HF (13.56 MHz)



1) Sensing surface, 2) Barcode 2D-Scanner

BAE00KL



1) Sensing surface, 2) See data for antenna form

BAE00W6

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Portable HF read/write units (13.56 MHz) I 331

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RFID

Machine Vision and
Optical Identification

Human Machine
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Systems

Safety

Industrial Networking

Power Supplies

Connectivity

Accessories