



Tool identification even at short ranges

RFID SYSTEM LF (70/455 KHZ) BIS C

Especially high-performing and flexible are the BIS C low-frequency RFID systems with reliable tool identification in coolant- and lubricant-heavy machining centers. Exact positioning is not always necessary: Many data carriers can be dynamically read and described in passing.

The LF RFID system (70/455 kHz) is also the first choice for tool identification over short ranges. Other areas of use are tool transport with conveyor systems, FTS and pallet transport systems as well as assembly technology and resource organization.

Features

- Great variety of data carriers and read/write heads for very diverse applications and difficult operating conditions
- Wear-free, maintenance-free and insensitive to dirt
- High noise immunity and assured data transfer with special checking software in the processor units
- All bus systems commonly used on a global basis available
- Memory capacity up to 8 kB



	BISO00T BIS C-121-04/L
Product Group	LF (70/455 kHz)
Dimension	Ø 9 x 4.5 mm
Antenna type	round
Memory type	EEPROM
User data, read/write	511 Byte
Storage temperature	-30...85 °C
Storage temperature temporary	—
Ambient temperature	0...70 °C
Housing material	Epoxy-resin/fiberglass
Protection degree	IP68
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 352

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

Installation	flush in metal	on metal*	metal-free (clear zone)
BIS C-300	0-2		0-3
BIS C-302	0-1.5		0-2.5
BIS C-305	0-2		0-3
BIS C-306	0-2		0-3
BIS C-322	0-2		0-3
BIS C-325	0-2		0-3

Dimensions in mm

* Installation on request



	BISO011 BIS C-122-04/L	BISO15W BIS C-122-05/L	BISO015 BIS C-122-11/L
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	Ø 10 x 4.5 mm	Ø 10 x 4.5 mm	Ø 10 x 4.5 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	511 Byte	1023 Byte	2047 Byte
Storage temperature	-30...85 °C	-30...85 °C	-30...85 °C
Storage temperature temporary	—	—	120 °C
Ambient temperature	0...70 °C	0...70 °C	-30...70 °C
Housing material	Epoxy-resin/fiberglass	Epoxy-resin/fiberglass	Epoxy-resin/fiberglass
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) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 352	Page 352	Page 352

	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)
	0-2.5		0-3	0-2.5		0-3	0-2.5		0-3
	0-2		0-2.5	0-2		0-2.5	0-2		0-2.5
	0-2.5		0-3	0-2.5		0-3	0-2.5		0-3
	0-2.5		0-3	0-2.5		0-3	0-2.5		0-3
	0-2.5		0-3	0-2.5		0-3	0-2.5		0-3
	0-4.5		0-5	0-4.5		0-5	0-4.5		0-5



	BIS0004 BIS C-103-05/A
Product Group	LF (70/455 kHz)
Dimension	Ø 12 x 8 mm
Antenna type	round
Memory type	EEPROM
User data, read/write	1023 Byte
Storage temperature	-30...85 °C
Storage temperature temporary	120 °C
Ambient temperature	-30...70 °C
Housing material	Epoxy-resin/fiberglass
Protection degree	IP68
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 352

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

Installation	flush in metal	on metal*	metal-free (clear zone)
BIS C-300	0-3.5		0-4
BIS C-302	0-3		0-3.5
BIS C-305	0-5		0-6
BIS C-306	0-3.5		0-4
BIS C-310			
BIS C-315			
BIS C-319			
BIS C-322	0-5		0-6
BIS C-323			
BIS C-324			
BIS C-325	0-4.5		0-5
BIS C-326			

Dimensions in mm
* Installation on request



	BIS0009 BIS C-105-05/A	BIS001E BIS C-130-05/L	BIS0002 BIS C-100-05/A
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	Ø 12 x 6 mm	Ø 15.98 x 7 mm	Ø 16 x 10.5 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	1023 Byte	1023 Byte	1023 Byte
Storage temperature	-30...85 °C	-30...85 °C	-20...85 °C
Storage temperature temporary	120 °C	—	—
Ambient temperature	-30...70 °C	-30...70 °C	0...70 °C
Housing material	Epoxy-resin/fiberglass	Epoxy-resin/fiberglass	PA 6.6
Protection degree	IP68	IP68	IP68
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, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 352	Page 352	Page 352

	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)
	0-3.5		0-4	0-4		0-4	0-4		0-4
	0-3		0-3.5	0-3.5		0-4	0-4		0-4
	0-5		0-6			0-7	0-4		0-4
	0-3.5		0-4	0-4		0-4	0-4		0-4
						0-11			
						0-18			
				0-6		0-13			
	0-5		0-6			0-7	0-4		0-4
						0-11			
						0-11			
	0-5		0-6	0-4		0-4	0-4		0-4
						0-13			



	BISO019 BIS C-128-05/L	
Product Group	LF (70/455 kHz)	
Dimension	Ø 26 x 6 mm	
Antenna type	round	
Memory type	EEPROM	
User data, read/write	1023 Byte	
Storage temperature	-30...85 °C	
Storage temperature temporary	120 °C	
Ambient temperature	-30...70 °C	
Housing material	Epoxy-resin/fiberglass	
Protection degree	IP68	
Installation	metal-free (clear zone)	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Productview	Page 352	

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

Installation	flush in metal	on metal*	metal-free (clear zone)	
BIS C-305			0-6	
BIS C-310	0-8		0-13	
BIS C-315			0-18	
BIS C-322			0-6	
BIS C-323	0-8		0-13	
BIS C-324	0-8		0-13	
BIS C-326			0-15	

Dimensions in mm
* Installation on request



	BISO01C BIS C-128-11/L	BISO006 BIS C-104-11/A	BISO007 BIS C-104-32/A
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	Ø 26 x 6 mm	Ø 30 x 35 mm	Ø 30 x 35 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	2047 Byte	2047 Byte	8192 Byte
Storage temperature	-30...85 °C	-30...85 °C	-30...85 °C
Storage temperature temporary	120 °C	—	—
Ambient temperature	-30...70 °C	-30...70 °C	-30...70 °C
Housing material	Epoxy-resin/fiberglass	Brass	Brass
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, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 352	Page 352	Page 352

	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)*
			0-6						
	0-8		0-13	1-11	0-12		1-11	0-12	
			0-18	1-13	0-14		1-13	0-14	
			0-6						
	0-8		0-13	1-11	0-12		1-11	0-12	
	0-8		0-13	1-11	0-12		1-11	0-12	
			0-15						



	BISO00M BIS C-117-05/A
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 16 mm
Antenna type	round
Memory type	EEPROM
User data, read/write	1023 Byte
Storage temperature	-30...85 °C
Storage temperature temporary	—
Ambient temperature	-30...70 °C
Housing material	PBT
Protection degree	IP68
Installation	metal-free (clear zone)
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353

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

Installation	flush in metal	on metal*	metal-free (clear zone)
BIS C-300			0-10
BIS C-305	1-8		
BIS C-306			
BIS C-310	1-12		0-13
BIS C-315	0-15		0-22
BIS C-319	0-13		0-16
BIS C-322	1-8		0-10
BIS C-323	1-12		0-13
BIS C-324			0-13
BIS C-325			
BIS C-326			

Dimensions in mm
* Installation on request



Use in vacuum



Use in vacuum

	BISO00N BIS C-117-05/L	BIS00J4 BIS C-140-05/L-M6	BIS00J2 BIS C-140-05/L-M8
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	Ø 30 x 16 mm	Ø 22 x 21 mm	Ø 22 x 21 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	1023 Byte	1023 Byte	1023 Byte
Storage temperature	-30...85 °C	-25...95 °C	-25...95 °C
Storage temperature temporary	—	—	—
Ambient temperature	-30...70 °C	-25...70 °C	-25...70 °C
Housing material	PBT	Steel, PA 12, GF30	Steel, PA 12, GF30
Protection degree	IP68	—	—
Installation	metal-free (clear zone)	metal-free (clear zone) on metal flush in metal	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353	Page 353	Page 353

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	0-3			0-3		
				0-4.5			0-4.5		
			0-13	0-3			0-3		
			0-18	0-7			0-7		
0-8			0-15						
			0-7						
			0-13	0-7			0-7		
			0-13	0-7			0-7		
			0-5	0-5			0-5		
			0-18						



Use in vacuum

	BIS00L9 BIS C-140-11/L-M10
Product Group	LF (70/455 kHz)
Dimension	Ø 22 x 21 mm
Antenna type	round
Memory type	EEPROM
User data, read/write	2047 Byte
Storage temperature	-25...95 °C
Storage temperature temporary	—
Ambient temperature	-25...70 °C
Housing material	Steel, PA 12, GF30
Protection degree	—
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353

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

Installation	flush in metal	on metal*	metal-free (clear zone)*
BIS C-300	0-3		
BIS C-305	0-4.5		
BIS C-306	0-3		
BIS C-310	0-7		
BIS C-315			
BIS C-319			
BIS C-322			
BIS C-323	0-7		
BIS C-324	0-7		
BIS C-325	0-5		
BIS C-327			

Dimensions in mm
* Installation on request



Use in vacuum



Use in vacuum

	BIS00J1 BIS C-140-11/L-M8	BIS000C BIS C-108-05/L	BIS000F BIS C-108-05/L-SA2
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	Ø 22 x 21 mm	32 x 11 x 52 mm	32 x 11 x 52 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	2047 Byte	1023 Byte	1023 Byte
Storage temperature	-25...95 °C	-30...85 °C	-30...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-25...70 °C	-30...70 °C	-30...70 °C
Housing material	Steel, PA 12, GF30	PBT	PBT
Protection degree	—	IP68	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, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353	Page 353	Page 353

	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)
	0-3								
	0-4.5					0-6			0-6
	0-3								
	0-7			0-5		0-12	0-4		0-12
				0-10		2-16	0-10		2-16
				0-11		0-14			
						0-6			0-6
	0-7					0-12			0-12
	0-7					0-12	0-4		0-11
	0-5						0-4		
						0-8			0-8



	BIS000H BIS C-108-11/L
Product Group	LF (70/455 kHz)
Dimension	32 x 11 x 52 mm
Antenna type	round
Memory type	EEPROM
User data, read/write	2047 Byte
Storage temperature	-30...85 °C
Storage temperature temporary	—
Ambient temperature	-30...70 °C
Housing material	PBT
Protection degree	IP68
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353

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

Installation	flush in metal	on metal*	metal-free (clear zone)
BIS C-305			0-6
BIS C-310	0-5		0-12
BIS C-315	0-10		2-16
BIS C-319	0-11		0-14
BIS C-322			0-6
BIS C-323			0-12
BIS C-324			0-12
BIS C-327			0-8

Dimensions in mm
* Installation on request



Use in vacuum



	BIS000J BIS C-108-11/L-SA2	BIS000K BIS C-108-32/L	BIS0017 BIS C-127-05/L
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	32 x 11 x 52 mm	32 x 11 x 52 mm	53 x 4.8 x 85 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	2047 Byte	8192 Byte	1023 Byte
Storage temperature	-30...85 °C	-30...85 °C	-20...60 °C
Storage temperature temporary	—	—	—
Ambient temperature	-30...70 °C	-30...70 °C	0...60 °C
Housing material	PBT	PBT	ABS
Protection degree	IP67	IP68	IP65
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, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353	Page 353	Page 353

	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)
			0-6			0-6			
	0-5		0-12	0-5		0-12			
	0-10		2-16	0-10		2-16			10-30
	0-11		0-14	0-11		0-14			
			0-6			0-6			
			0-12			0-12			
			0-12			0-12			
			0-8			0-8			



	BISO028 BIS C-150-05/A	
Product Group	LF (70/455 kHz)	
Dimension	40 x 22 x 80 mm	
Antenna type	Rod	
Memory type	EEPROM	
User data, read/write	1023 Byte	
Storage temperature	-30...85 °C	
Storage temperature temporary	—	
Ambient temperature	-30...70 °C	
Housing material	POM	
Protection degree	IP68	
Installation	on metal	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Productview	Page 353	

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

Installation	flush in metal	on metal	metal-free (clear zone)	
BIS C-300				
BIS C-305				
BIS C-306				
BIS C-310				
BIS C-315				
BIS C-319				
BIS C-322				
BIS C-323				
BIS C-324				
BIS C-325				
BIS C-326				
BIS C-351		0-45		

Dimensions in mm
* Installation on request



	BISO02A BIS C-150-11/A	BISO02E BIS C-150-32/A	BISO021 BIS C-134-11/L
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	40 x 22 x 80 mm	40 x 22 x 80 mm	25 x 11 x 25 mm
Antenna type	Rod	Rod	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	2047 Byte	8192 Byte	2047 Byte
Storage temperature	-30...85 °C	-30...85 °C	-30...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-30...70 °C	-30...70 °C	-30...70 °C
Housing material	POM	POM	PA 6.6, GF30, PU potting
Protection degree	IP68	IP68	IP68
Installation	on metal	on metal	metal-free (clear zone) flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 353	Page 353	Page 354

	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)
							0-3		0-6
							0-3		0-10
									0-16
									0-12
									0-6
									0-10
									0-10
									0-4
									0-12
		0-45			0-45				



	BISO023 BIS C-136-05/L
Product Group	LF (70/455 kHz)
Dimension	32 x 8 x 52 mm
Antenna type	round
Memory type	EEPROM
User data, read/write	1023 Byte
Storage temperature	-30...85 °C
Storage temperature temporary	—
Ambient temperature	-30...70 °C
Housing material	POM
Protection degree	IP67
Installation	metal-free (clear zone) on metal flush in metal
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 354

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

Installation	flush in metal*	on metal*	metal-free (clear zone)*
BIS C-310			
BIS C-315			
BIS C-323			
BIS C-324			
BIS C-326			
BIS C-327			

Dimensions in mm
* Installation on request



	BISO026 BIS C-138-11/L	BISO02K BIS C-190-05/L	BISO02N BIS C-190-32/L
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	30 x 17 x 30 mm	34 x 35 x 34 mm	34 x 35 x 34 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	2047 Byte	1023 Byte	8192 Byte
Storage temperature	-30...85 °C	-30...85 °C	-30...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	-30...70 °C	-30...70 °C	-30...70 °C
Housing material	PA 6.6, GF30, PU potting	PBT	PBT
Protection degree	IP68	IP68	IP68
Installation	metal-free (clear zone)	metal-free (clear zone)	metal-free (clear zone)
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 354	Page 354	Page 354

	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)
						0-11			0-11
						0-20			0-20
			0-9			0-11			0-11
						0-11			0-11
						0-18			0-18
									0-8



	BISO02P BIS C-191-05/L	
Product Group	LF (70/455 kHz)	
Dimension	24 x 21 x 24 mm	
Antenna type	round	
Memory type	EEPROM	
User data, read/write	1023 Byte	
Storage temperature	-30...85 °C	
Storage temperature temporary	—	
Ambient temperature	-30...70 °C	
Housing material	PBT	
Protection degree	IP68	
Installation	metal-free (clear zone)	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Productview	Page 354	

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

Installation	flush in metal	on metal	metal-free (clear zone)*
BIS C-300			0-3.5
BIS C-302			0-3
BIS C-305			
BIS C-306			0-3.5
BIS C-310			0-10
BIS C-315			
BIS C-319			0-11
BIS C-322			
BIS C-323			0-9
BIS C-324			0-10
BIS C-325			0-3.5
BIS C-326			

Dimensions in mm
* Installation on request



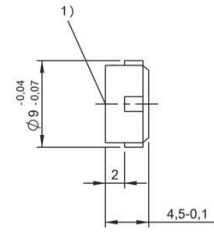
Use in vacuum



	BISO02Y BIS C-122-04/L-ZC1	BISO01H BIS C-130-05/L-SA1	BISO01Y BIS C-131-05/L
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Dimension	Ø 15 x 50 mm	Ø 15.5 x 7 mm	Ø 125 x 7 mm
Antenna type	round	round	round
Memory type	EEPROM	EEPROM	EEPROM
User data, read/write	511 Byte	1023 Byte	1023 Byte
Storage temperature	-30...85 °C	-30...85 °C	-30...85 °C
Storage temperature temporary	—	—	—
Ambient temperature	0...70 °C	-30...70 °C	-30...70 °C
Housing material	POM, EP	PBT	POM
Protection degree	IP68	IP68	IP67
Installation	metal-free (clear zone) on metal flush in metal	metal-free (clear zone)	metal-free (clear zone)
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
Productview	Page 354	Page 354	Page 354

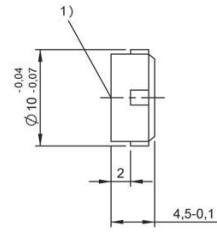
	flush in metal	on metal*	metal-free (clear zone)*	flush in metal	on metal*	metal-free (clear zone)	flush in metal*	on metal*	metal-free (clear zone)*
				0-4		0-4			
						0-4			
				0-6		0-7			
				0-4		0-4			
				0-8		0-8			
						0-8			
				0-7		0-13			
	0-2.5					0-7			
				0-8					
				0-8					
	0-2.5			0-4		0-8			
						0-12			

352 | RFID | LF (70/455 kHz)



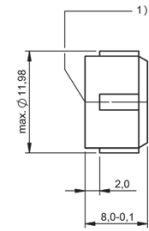
1) Sensing surface

BISO007



1) Sensing surface

BISO011, BISO15W, BISO015



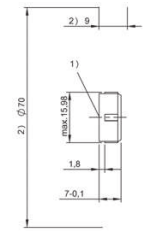
1) Sensing surface

BISO004



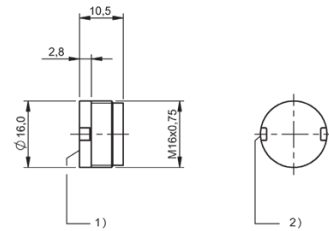
1) Sensing surface

BISO009



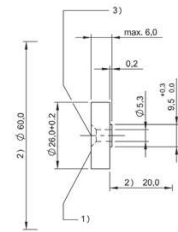
1) Sensing surface, 2) Clear zone

BISO01E



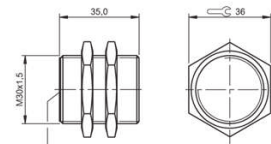
1) Sensing surface, 2) For mounting key 710691

BISO002



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

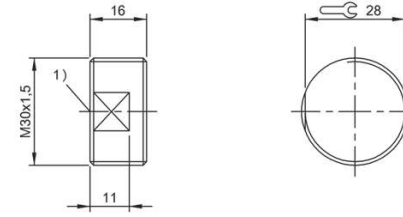
BISO019, BISO01C



1) Sensing surface

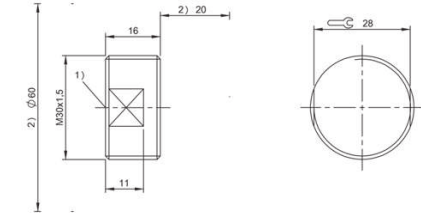
BISO006, BISO007

LF data carriers (70/455 kHz) | 353



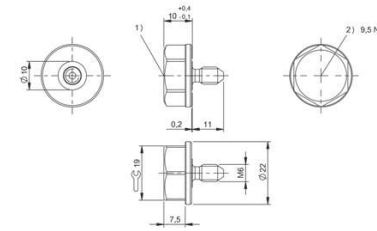
1) Sensing surface

BISO00M



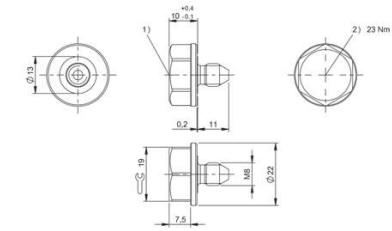
1) Sensing surface, 2) Clear zone

BISO00N



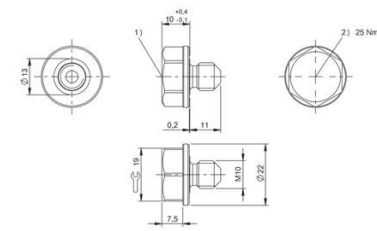
1) Sensing surface, 2) Tightening torque

BISO0J4



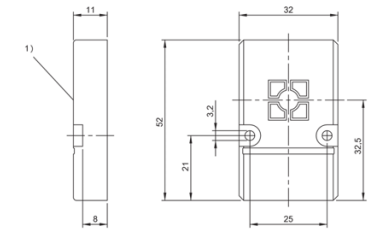
1) Sensing surface, 2) Tightening torque

BISO0J2, BISO0J1



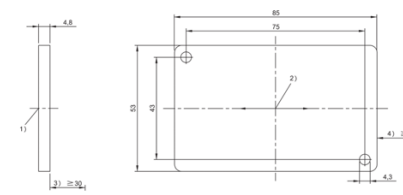
1) Sensing surface, 2) Tightening torque

BISO0L9



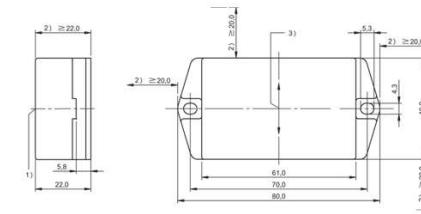
1) Sensing surface

BISO00C, BISO00F, BISO00H, BISO00J, BISO00K



1) Sensing surface, 2) Read/write axis, 3) Clear zone, 4) Clear zone surrounding

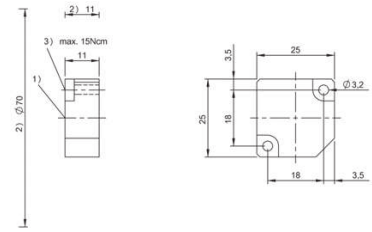
BISO017



1) Sensing surface, 2) Clear zone, 3) Read/write axis

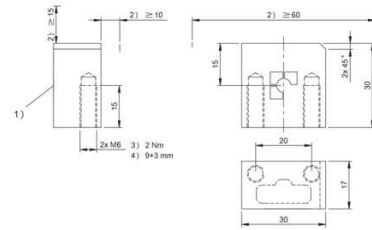
BISO028, BISO02A, BISO02E

354 | RFID | LF (70/455 kHz)



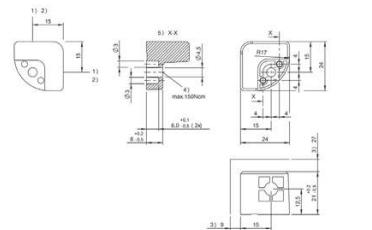
1) Sensing surface, 2) Clear zone, 3) Tightening torque

BISO021



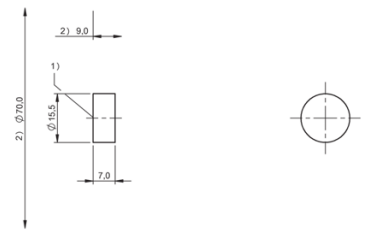
1) Sensing surface, 2) Clear zone, 3) Tightening torque, 4) Screw-in depth

BISO026



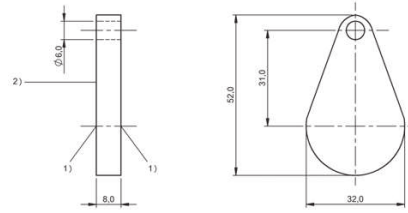
1) Sensing surface, 2) Do not use at same time, 3) Clear zone, 4) Tightening torque, 5) Cut-out

BISO02P



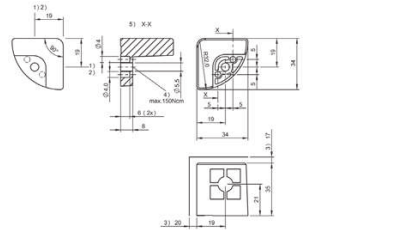
1) Sensing surface, 2) Clear zone

BISO01H



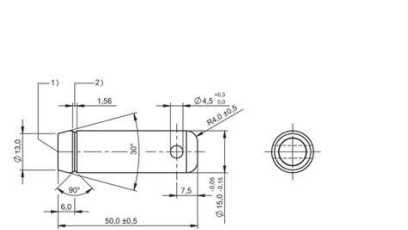
1) Sensing surface, 2) Label

BISO023



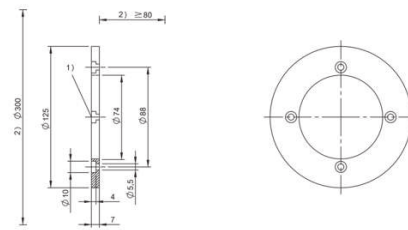
1) Sensing surface, 2) Do not use at same time, 3) Clear zone, 4) Tightening torque, 5) Cut-out

BISO02K, BISO02N



1) Sensing surface, 2) Notch

BISO02Y



1) Sensing surface, 2) Clear zone

BISO01Y

LF data carriers (70/455 kHz) | 355

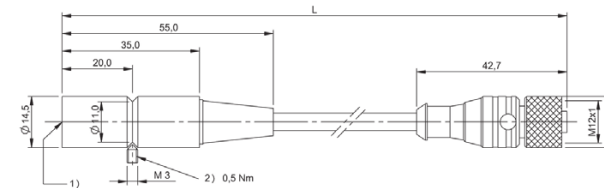


1 m cable PU	BIS00P5 BIS C-300-PU1-01
2 m cable PU	BIS0138 BIS C-300-PU1-02
5 m cable PU	BIS005Z BIS C-300-PU1-05
10 m cable PU	BIS00P6 BIS C-300-PU1-10
Product Group	LF (70/455 kHz)
Dimension	Ø 14.5 x 35 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1-Female
Housing material	Brass
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0002	BIS0004	BIS0009	BIS000T	BIS0011	BIS001E	BIS0021	BIS001H	BIS002P	
Data carrier distance to metal	flush	flush	flush	flush	flush	flush metal-free	flush	metal-free	metal-free	
Working distance for writing	0-4	0-3.5	0-3.5	0-2	0-2.5	0-4	0-4	0-3	0-4	0-3.5
Working distance for reading	0-4	0-3.5	0-3.5	0-2	0-2.5	0-4	0-4	0-3	0-4	0-3.5
Offset at distance										
	1 ±3	±3	±3	±2	±2.5	±3.5	±5	±4	±5	±4
	3 ±2	±2	±2			±3	±4		±4	±3

Dimensions in mm



1) Sensing surface, 2) Tightening torque

	BIS00J4	BIS00J2	BIS00L9	BIS00J1
	metal-free	metal-free	metal-free	metal-free
	0-3	0-3	0-3	0-3
	0-3	0-3	0-3	0-3
	±3.5	±3.5	±3.5	±3.5
	±2	±2	±2	±2

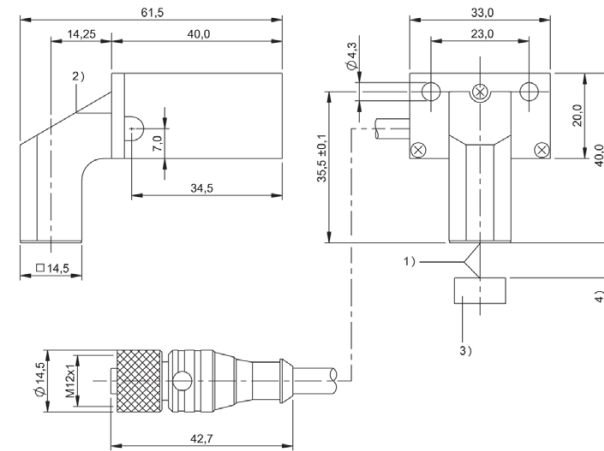


5 m cable PU	BIS00PA BIS C-302-PU1-05
10 m cable PU	BIS00P9 BIS C-302-PU1-10
Product Group	LF (70/455 kHz)
Dimension	40 x 33 x 61.5 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1-Female
Housing material	Aluminum, PA 6.6
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0002	BIS0004	BIS0009	BIS000T	BIS0011	BIS001E	BIS001H	BIS002P		
Data carrier distance to metal	flush	flush	flush	flush	flush	flush	metal-free	metal-free	metal-free	
Working distance for writing	0-4	0-3	0-3	0-1.5	0-2	0-3.5	0-4	0-4	0-3	
Working distance for reading	0-4	0-3	0-3	0-1.5	0-2	0-3.5	0-4	0-4	0-3	
Offset at distance										
	1 ±3	±3	±3	±1.5	±2	±3	±5	±5	±4	
	3 ±2	±1.5	±1.5			±2	±3	±3	±2	

Dimensions in mm



1) Sensing surface, 2) Mounting surface, 3) Data carrier, 4) Read range

BIS00J4	BIS00J2	BIS00L9	BIS00J1
metal-free	metal-free	metal-free	metal-free
0-3	0-3	0-3	0-3
0-3	0-3	0-3	0-3
±3.5	±3.5	±3.5	±3.5
±2	±2	±2	±2

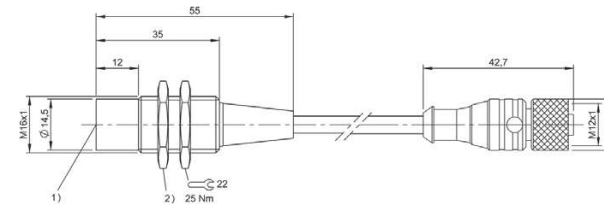


1 m cable PU	BIS00PC BIS C-306-PU1-01
5 m cable PU	BIS006F BIS C-306-PU1-05
10 m cable PU	BIS00PE BIS C-306-PU1-10
Product Group	LF (70/455 kHz)
Dimension	Ø 16 x 35 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1-Female
Housing material	Brass
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0002	BIS0004	BIS0009	BIS000T	BIS0011	BIS001E	BIS0021	BIS001H	BIS002P
Data carrier distance to metal	flush	flush	flush	flush	flush	flush metal-free	flush	metal-free	metal-free
Working distance for writing	0-4	0-3.5	0-3.5	0-2	0-2.5	0-4	0-4	0-3	0-4
Working distance for reading	0-4	0-3.5	0-3.5	0-2	0-2.5	0-4	0-4	0-3	0-4
Offset at distance									
	1 ±3	±3	±3	±2	±2.5	±3.5	±5	±4	±5
	3 ±2	±2	±2			±3	±4	±4	±3

Dimensions in mm



1) Sensing surface, 2) Tightening torque

BIS00J4	BIS00J2	BIS00L9	BIS00J1
metal-free	metal-free	metal-free	metal-free
0-3	0-3	0-3	0-3
0-3	0-3	0-3	0-3
±3.5	±3.5	±3.5	±3.5
±2	±2	±2	±2

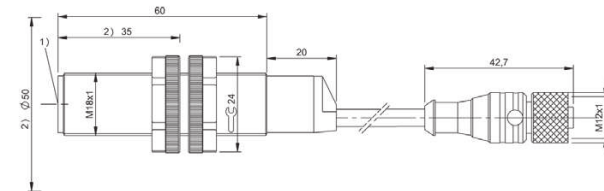


1 m cable PU	BIS0077 BIS C-319-PU1-01
5 m cable PU	BIS0078 BIS C-319-PU1-05
10 m cable PU	BIS0079 BIS C-319-PU1-10
Product Group	LF (70/455 kHz)
Dimension	Ø 18 x 80 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	M12x1-Female
Housing material	PBT, blue, nuts PA 6.6 black
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS000C BIS000H BIS000K	BIS000N	BIS001E BIS001H	BIS0021	BIS002P
Data carrier distance to metal	metal-free	metal-free	metal-free	metal-free	metal-free
Working distance for writing	0-14	0-15	0-13	0-12	0-11
Working distance for reading	0-14	0-15	0-13	0-12	0-11
Offset at distance					
	1 ±12	±13	±9	±9	±9
	3 ±12	±12	±9	±9	±9
	5 ±11	±12	±9	±9	±9
	7 ±11	±11	±8.5	±8.5	±8
	10 ±9	±10	±7.5	±7.5	

Dimensions in mm



1) Sensing surface, 2) Clear zone

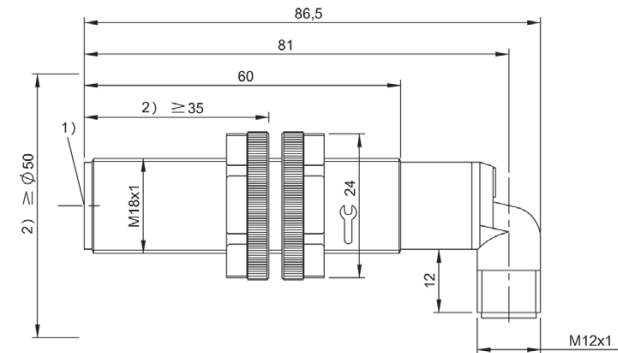


For 5 m cable	BIS007A BIS C-319/05-S4
For 10 m cable	BIS007C BIS C-319/10-S4
Product Group	LF (70/455 kHz)
Dimension	Ø 18 x 86.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	M12x1 male
Housing material	PBT, blue, nuts PA 6.6 black
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS000C BIS000H BIS000K	BIS000N	BIS001E BIS001H	BIS0021	BIS002P
Data carrier distance to metal	metal-free	metal-free	metal-free	metal-free	metal-free
Working distance for writing	0-14	0-15	0-13	0-12	0-11
Working distance for reading	0-14	0-15	0-13	0-12	0-11
Offset at distance					
	1 ±12	±13	±9	±9	±9
	3 ±12	±12	±9	±9	±9
	5 ±11	±12	±9	±9	±9
	7 ±11	±11	±8.5	±8.5	±8
	10 ±9	±10	±7.5	±7.5	

Dimensions in mm



1) Sensing surface, 2) Clear zone

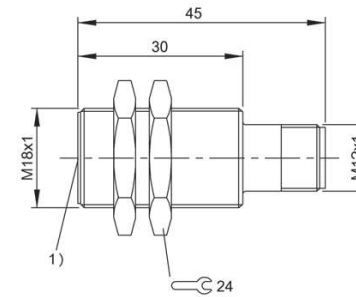


For 1 m cable	BIS007P BIS C-325/01-S4
For 5 m cable	BIS007R BIS C-325/05-S4
For 10 m cable	BIS007T BIS C-325/10-S4
Product Group	LF (70/455 kHz)
Dimension	Ø 18 x 45 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1 male
Housing material	Stainless steel (1.4571), stainless steel (1.4571)
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0002	BIS0011 BIS002Y BIS015W BIS0015	BIS001E	BIS001H	BIS0021	BIS002P	BIS00J2
Data carrier distance to metal	flush	flush	metal-free	metal-free	metal-free	metal-free	auf Metall
Working distance for writing	0-4	0-2.5	0-4	0-3	0-4	0-3	0-5
Working distance for reading	0-4	0-2.5	0-4	0-8	0-4	0-3.5	0-5
Offset at distance							
	1 ±3.5	±2.5	±4	±4	±4	±4	
	2						±3
	3 ±3		±2	±2	±2	±2	
	4						±2

Dimensions in mm



1) Sensing surface

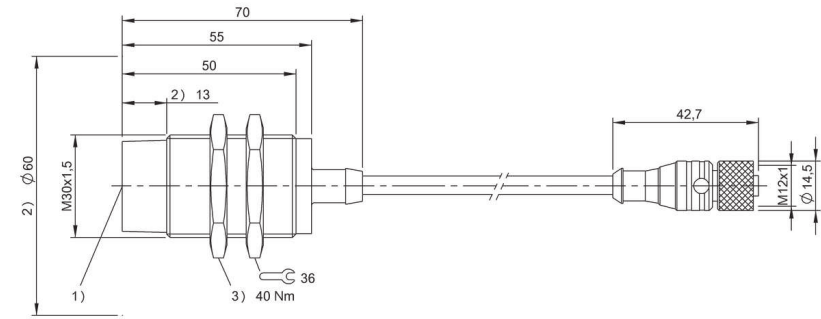


1 m cable PU	BISO00PF BIS C-310-PU1-01
5 m cable PU	BISO00PH BIS C-310-PU1-05
10 m cable PU	BISO00PJ BIS C-310-PU1-10
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 70 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	M12x1-Female
Housing material	Brass
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0006		BIS0007		BIS000C BIS000F BIS000H BIS000J BIS000K		BIS000M		BIS000N		BIS0019		BIS001C		BIS001E	
Data carrier distance to metal	flush	metal-free	flush	metal-free	metal-free		flush	metal-free	flush	metal-free	flush	metal-free	flush	metal-free	metal-free	
Working distance for writing	1-11	0-12	1-11	0-12	0-12		1-12	0-13	0-8	0-13	0-8	0-13	0-8	0-13	0-11	
Working distance for reading	1-11	0-12	1-11	0-12	0-12		1-12	0-13	0-8	0-13	0-8	0-13	0-8	0-13	0-11	
Offset at distance																
	1	±7.5	±7.5	±7.5	±7.5	±10	±7.5	±11	±8	±10	±8	±10	±8	±10	±9	
	3	±7	±7	±7	±7	±9	±7.5	±10	±7	±10	±7	±10	±8	±10	±8	
	5	±7	±7	±7	±7	±9	±7	±10	±6.5	±9	±6.5	±9	±7	±10	±7	
	7	±7	±7	±7	±7	±8.5	±6.5	±9.5	±5.5	±9	±5.5	±9	±5	±10	±5	
	10															

Dimensions in mm



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

	BIS001H	BIS0021	BIS002K BIS002N	BIS002P
	metal-free	metal-free	metal-free	metal-free
	0-8	0-10	0-11	0-10
	0-8	0-10	0-11	0-10
	±6.5	±9	±10	±8
	±6	±8	±9	±7.5
	±5.5	±7	±9	±7
		±4	±8	±6.5
			±6.5	

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.

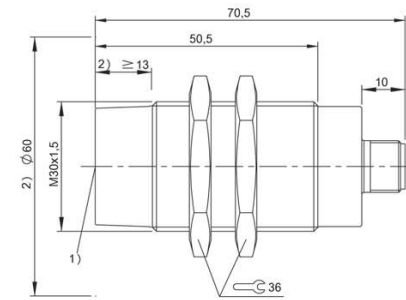


For 1 m cable	BIS007J BIS C-323/01-S4
For 5 m cable	BIS007K BIS C-323/05-S4
For 10 m cable	BIS007L BIS C-323/10-S4
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 70.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	M12x1 male
Housing material	1.4305 stainless steel
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0006 BIS0007		BIS000C BIS000F BIS000H BIS000J BIS000K		BIS000M	BIS000N	BIS0019 BIS001C		BIS001E	BIS001H	BIS0021		
Data carrier distance to metal	flush	metal-free	metal-free		flush	metal-free	flush	metal-free	flush	metal-free	flush	metal-free	
Working distance for writing	1-11	0-12	0-12		1-12	0-13	0-8	0-13	0-11	0-8	0-10		
Working distance for reading	1-11	0-12	0-12		1-12	0-13	0-8	0-13	0-11	0-8	0-10		
Offset at distance													
	1	±7.5	±7.5	±10	±7.5	±11	±8	±10	±9	±6.5	±9		
	3	±7	±7	±9	±7.5	±10	±7	±10	±8	±6	±8		
	5	±7	±7	±9	±7	±10	±6.5	±9	±7	±5.5	±7		
	7	±7	±7	±8.5	±6.5	±9.5	±5.5	±9	±5		±4		
	10												

Dimensions in mm



1) Sensing surface, 2) Clear zone

	BIS0026	BIS002K BIS002N	BIS002P	
Data carrier distance to metal	metal-free	metal-free	metal-free	
Working distance for writing	0-9	0-11	0-9	
Working distance for reading	0-9	0-11	0-9	
Offset at distance				
	±8	±10	±8	
	±7	±9	±7.5	
	±5	±9	±7	
		±8	±6.5	
		±6.5		

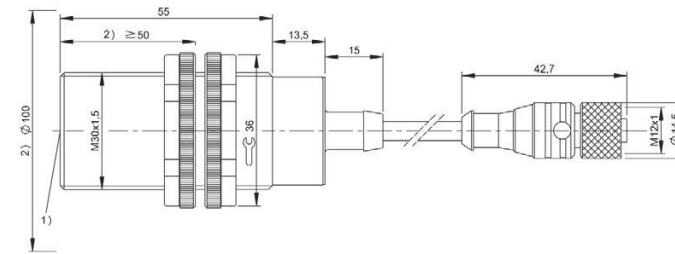


1 m cable PU	BIS007Y BIS C-326-PU1-05
10 m cable PU	BIS007Z BIS C-326-PU1-10
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 83.5 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	M12x1-Female
Housing material	PVDF, nuts PA 6.6
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS000N	BIS0019 BIS001C	BIS001E	BIS001H	BIS0021	BIS002K BIS002N
Data carrier distance to metal	metal-free	metal-free on metal	metal-free	metal-free	metal-free	metal-free
Working distance for writing	0-18	0-15	0-12.5	0-13	0-12	0-18
Working distance for reading	0-18	0-15	0-12.5	0-13	0-12	0-18
Offset at distance						
	1 ±15	±14	±13	±12	±12	±17
	3 ±15	±14	±12	±12	±12	±17
	5 ±15	±14	±12	±10	±10	±17
	7 ±14	±14	±11	±10	±10	±16
	10 ±11	±8.5	±8			±14

Dimensions in mm



1) Sensing surface, 2) Clear zone

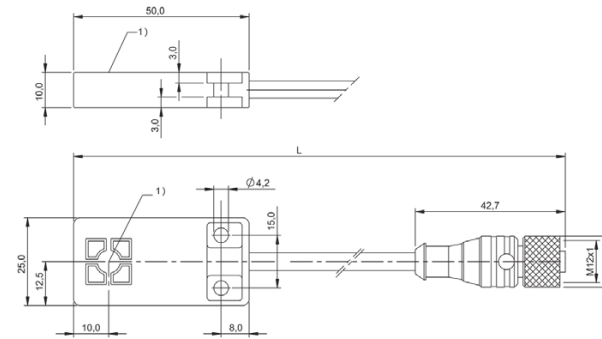


1 m cable PU	BIS0066 BIS C-305-PU1-01
5 m cable PU	BIS0067 BIS C-305-PU1-05
10 m cable PU	BIS0068 BIS C-305-PU1-10
Product Group	LF (70/455 kHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1-Female
Housing material	ABS, GF16
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0002	BIS0004 BIS0009	BIS000C BIS000F BIS000H BIS000J BIS000K	BIS000M	BIS000N	BIS000T	BIS0011	BIS0019	
Data carrier distance to metal	flush	flush	metal-free	flush metal-free	metal-free	flush	flush	metal-free	
Freizone Datenträger									
Working distance for writing	0-4	0-5	0-6	1-8 0-10	0-7	0-2	0-2.5	0-6	
Working distance for reading	0-4	0-5	0-6	1-8 0-10	0-7	0-2	0-2.5	0-6	
Offset at distance	1 ±3	±4	±8	±5 ±6	±8.5	±2	±3	±8	
	3 ±2	±3	±7	±4 ±6	±7.5		±2	±7	
	5		±5	±5 ±6	±6			±5	
	7			±2 ±5	±4				
	10				±3				

Dimensions in mm



1) Sensing surface

	BIS001E BIS001H	BIS0021	BIS00J4 BIS00J2
	metal-free	metal-free	metal-free
	0-7	0-6	0-4.5
	0-7	0-6	0-4.5
	±5	±5	±4.5
	±5	±5	±3.5
	±4	±4	
	±2		

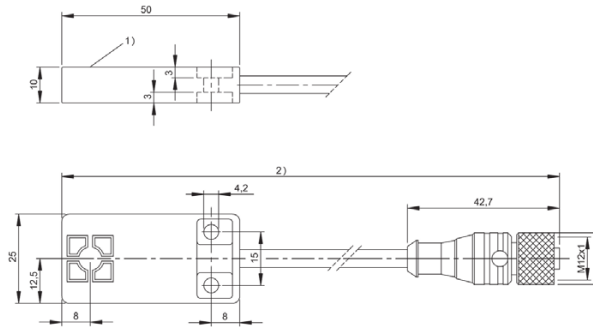


5 m cable PU	BIS007H BIS C-322-PU1-05
Product Group	LF (70/455 kHz)
Dimension	25 x 10 x 50 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1-Female
Housing material	ABS, GF16
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0002	BIS0004 BIS0009	BIS000C BIS000F BIS000H BIS000J BIS000K	BIS000M	BIS000N	BIS000T	BIS0011	BIS002Y	
Data carrier distance to metal	flush	flush	metal-free	flush	metal-free	metal-free	flush	flush	flush
Working distance for writing	0-4	0-5	0-6	1-8	0-10	0-7	0-2	0-2.5	0-2.5
Working distance for reading	0-4	0-5	0-6	1-8	0-10	0-7	0-2	0-2.5	0-2.5
Offset at distance	0.7								
	1 ±3	±4	±8	±5	±6	±8.5	±2	±3	±3
	3 ±2	±3	±7	±4	±6	±7.5		±2	±2
	4 ±2								
	5		±5	±3	±6	±6			
	7				±5	±4			
	10				±3				

Dimensions in mm



1) Sensing surface, 2) Cable length see text

	BIS0019	BIS001E BIS001H	BIS0021
	metal-free	metal-free	metal-free
	0-6	0-7	0-6
	0-6	0-7	0-6
	±8	±5	±5
	±7	±5	±5
	±5	±4	±4
		±2	

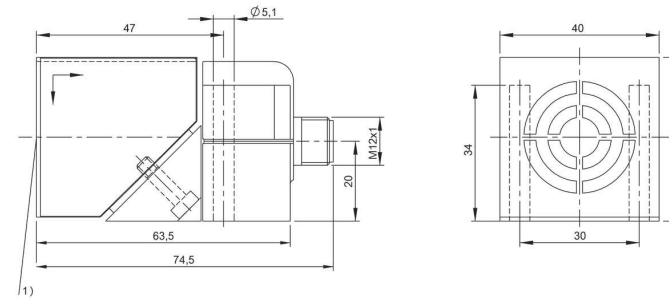


For 5 m cable	BIS007M BIS C-324/05-S4
For 10 m cable	BIS007N BIS C-324/10-S4
Product Group	LF (70/455 kHz)
Dimension	40 x 41 x 74.5 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1 male
Housing material	PBT, zinc fastener
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0006 BIS0007		BIS000C BIS000H BIS000K		BIS000F BIS000J		BIS000M		BIS000N		BIS0019 BIS001C		BIS001E		BIS001H	
Data carrier distance to metal	flush	metal-free	metal-free	metal-free	metal-free	metal-free	metal-free	metal-free	metal-free	metal-free	flush	metal-free	metal-free	metal-free	flush	
Freizone Datenträger																
Working distance for writing	1-11	0-12	0-12		0-11		1-12		0-13		0-8	0-13	0-11		0-8	
Working distance for reading	1-11	0-12	0-12		0-11		1-12		0-13		0-8	0-13	0-11		0-8	
Offset at distance																
	1	±7.5	±7.5	±10	±10		±7.5	±11	±8	±10	±9			±6.5		
	3	±7	±7	±9	±9		±7.5	±10	±7	±10	±8			±6		
	5	±7	±7	±9	±8.5		±7	±10	±6.5	±9	±7			±5.5		
	7	±7	±7	±8.5	±7.5		±6.5	±9.5	±5.5	±9	±5					
	10															

Dimensions in mm



1) Sensing surface

	BIS0021	BIS002K BIS002N	BIS002P
	metal-free	metal-free	metal-free
	0-10	0-11	0-10
	0-10	0-11	0-10
	±9	±10	±8
	±8	±9	±7.5
	±7	±9	±7
	±4	±8	±6.5
		±6.5	

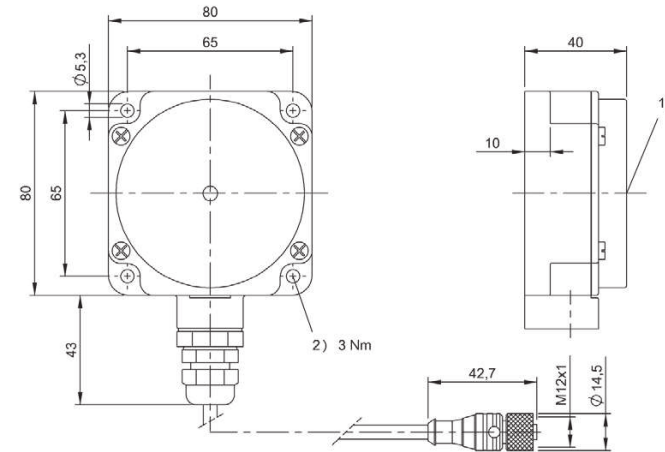


1 m cable PU	BIS00PK BIS C-315-PU1-01
5 m cable PU	BIS00PL BIS C-315-PU1-05
10 m cable PU	BIS00PM BIS C-315-PU1-10
Product Group	LF (70/455 kHz)
Dimension	80 x 40 x 80 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1-Female
Housing material	Brass
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0006 BIS0007	BIS000C BIS000H BIS000K	BIS000F BIS000J	BIS000M	BIS000N	BIS0017	BIS0019 BIS001C	BIS001E	
Data carrier distance to metal Freizone Datenträger	flush	metal-free	metal-free	flush	metal-free	metal-free	metal-free	metal-free	
Working distance for writing	1-13	2-16	2-16	0-15	0-18	10-30	0-18	0-18	
Working distance for reading	1-13	2-16	2-16	0-15	0-18	10-30	0-18	0-18	
Offset at distance									
	1 ±15			±15	±17		±17	±16	
	2	±15	±15						
	3 ±14	±14	±15	±15	±17		±17	±16	
	5 ±11	±12	±12	±14	±17		±17	±16	
	7 ±10	±11	±10	±12	±15		±15	±14	
	10 ±8	±8	±8	±12	±15	±30	±15	±14	
	15				±14	±27	±14	±11	
	20					±20			

Dimensions in mm



1) Sensing surface, 2) Tightening torque

	BIS001H	BIS0021	BIS002K BIS002N
	metal-free	metal-free	metal-free
	0-8	0-16	0-20
	0-8	0-16	0-20
		±16	±18
	±6.5	±16	±18
	±6	±16	±18
	±5.5	±16	±18
		±14	±18
		±12	±18
			±16

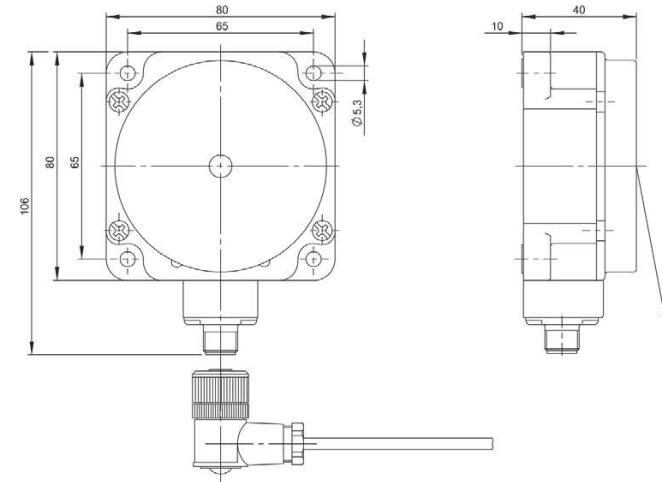


For 5 m cable	BIS006Y BIS C-315/05-S4
For 10 m cable	BIS006Z BIS C-315/10-S4
Product Group	LF (70/455 kHz)
Dimension	80 x 40 x 80 mm
Installation	metal-free (clear zone) on metal flush in metal
Antenna type	round
Connection	M12x1 male
Housing material	PBT
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BIS0006 BIS0007	BIS000C BIS000H BIS000K	BIS000F BIS000J	BIS000M	BIS000N	BIS0017	BIS0019 BIS001C	BIS001E	
Data carrier distance to metal	flush	metal-free	metal-free	flush	metal-free	metal-free	metal-free	metal-free	
Working distance for writing	1-13	2-16	2-16	0-15	0-18	10-30	0-18	0-18	
Working distance for reading	1-13	2-16	2-16	0-15	0-18	10-30	0-18	0-18	
Offset at distance									
1	±15			±15	±17		±17	±16	
2		±15	±15						
3	±14	±14	±15	±15	±17		±17	±16	
5	±11	±12	±12	±14	±17		±17	±16	
7	±10	±11	±10	±12	±15		±15	±14	
10	±8	±8	±8	±12	±15	±30	±15	±14	
15					±14	±27	±14	±11	
20						±20			

Dimensions in mm



1) Sensing surface

	BIS001H	BIS0021	BIS002K BIS002N
	metal-free	metal-free	metal-free
	0-8	0-16	0-20
	0-8	0-16	0-20
	±6.5	±16	±18
	±6	±16	±18
	±5.5	±16	±18
		±14	±18
		±12	±18
			±16

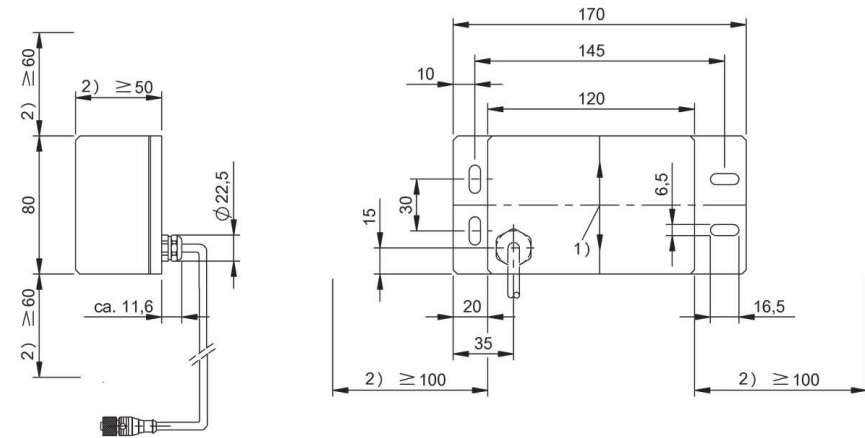


5 m cable PU	BISO00PN BIS C-351-PU1-05
10 m cable PU	BISO00PP BIS C-351-PU1-10
Product Group	LF (70/455 kHz)
Dimension	80 x 50 x 170 mm
Installation	metal-free (clear zone)
Antenna type	Rod
Connection	M12x1-Female
Housing material	POM, mounting plate aluminum
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	IP67
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS

Appropriate data carrier

	BISO028	BISO02A	BISO02E
Data carrier distance to metal	metal-free		
Working distance for writing	0-45		
Working distance for reading	0-45		
Offset at distance			
	1	±15	
	2	±15	
	3	±15	
	4	±15	
	5	±15	
	6	±15	
	10	±15	
	20	±15	

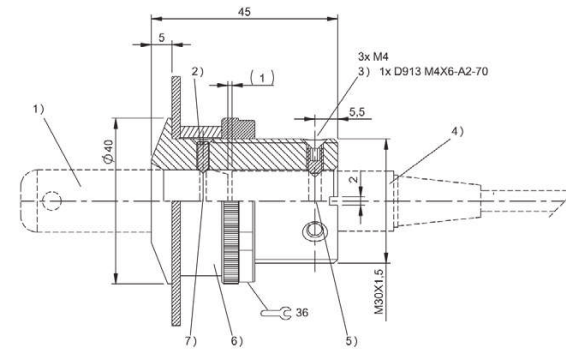
Dimensions in mm



1) Sensing surface, 2) Clear zone



	BAM012C BIS C-300-ZA1
Product Group	LF (70/455 kHz)
Dimension	Ø 40 x 45 mm
Installation	—
Antenna type	—
Connection	—
Housing material	—
Storage temperature	-20...85 °C
Ambient temperature	0...70 °C
Protection degree	—
Approval/Conformity	CE



1) Data carrier, 2) Spring-loaded compression piece, 3) Threaded pin, 4) Read/write head, 5) Notch in read/write head, 6) Spacer ring, 7) Notch in data carrier



0.7 m cable	BIS00JA BIS C-380-01/10-00,7	
1 m cable		
1,5 m cable		
2 m cable		
5 m cable		
Style 1	M12x1	
Style 2	M30x1.5	
Antenna type	round	
Storage temperature	-20...85 °C	
Ambient temperature	0...70 °C	
Housing material	Brass, nuts nickel plated brass	
Protection degree	IP67	
Installation	metal-free (clear zone)	
Approval/Conformity	CE	
Productview	Page 392	

Appropriate data carrier

	BIS0002 BIS0004 BIS0009 BIS000T BIS0011	
Installation	flush	
Appropriate read/write head	BIS00P5 BIS005Z BIS00P6	



	BIS00JJ BIS C-380-06/06-01	
	BIS00JK BIS C-380-06/06-01,5	
	BIS00LU BIS C-380-06/06-02	BIS00JM BIS C-380-06/10-02
	BIS00N9 BIS C-380-06/06-05	
	M16x1	M16x1
	M16x1	M30x1.5
	round	round
	-20...85 °C	-20...85 °C
	0...70 °C	0...70 °C
	Brass, nuts nickel plated brass	Brass, nuts nickel plated brass
	IP67	IP67
	metal-free (clear zone) on metal flush in metal	metal-free (clear zone)
	CE	CE
	Page 392	Page 393

	BIS0002 BIS0004 BIS0009 BIS000T BIS0011	BIS0002 BIS0004 BIS0009 BIS000T BIS0011
	flush	flush
	BIS00P5 BIS005Z BIS00P6	BIS00P5 BIS005Z BIS00P6



1 m cable	BIS00JP BIS C-380-10/10-01	
2 m cable		
5 m cable	BIS00JR BIS C-380-10/10-05	
Style 1	M30x1.5	
Style 2	M30x1.5	
Antenna type	round	
Storage temperature	-20...85 °C	
Ambient temperature	0...70 °C	
Housing material	Brass, nuts nickel plated brass	
Protection degree	IP67	
Installation	metal-free (clear zone)	
Approval/Conformity	CE	
Productview	Page 393	

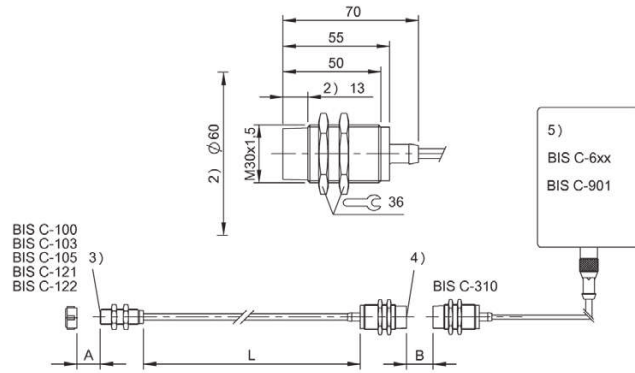
Appropriate data carrier

	BIS000N BIS001E BIS C-104-xx/A BIS C-108-xx/L BIS C-128-xx/L	
Installation	metal-free	
Appropriate read/write head	BIS00PF BIS00PH BIS00PJ	

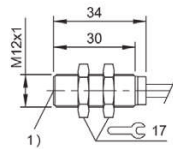


	BIS00JE BIS C-380-05/06-02	
	—	
	M16x1	
	round	
	-20...85 °C	
	0...70 °C	
	Brass, ABS-GF16	
	IP67	
	metal-free (clear zone) on metal flush in metal	
	CE	
	Page 394	

	BIS0002 BIS0004 BIS0009 BIS000T BIS0011	
	flush	
	BIS00P5 BIS005Z BIS00P6	

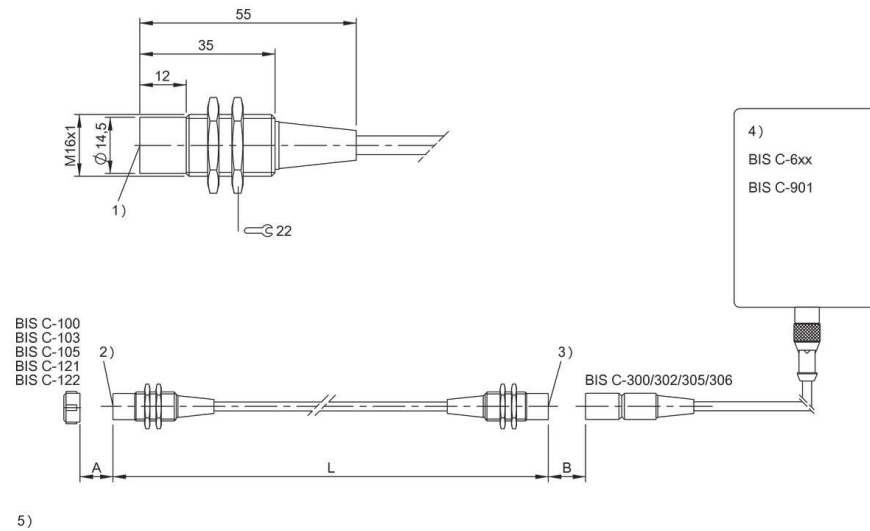


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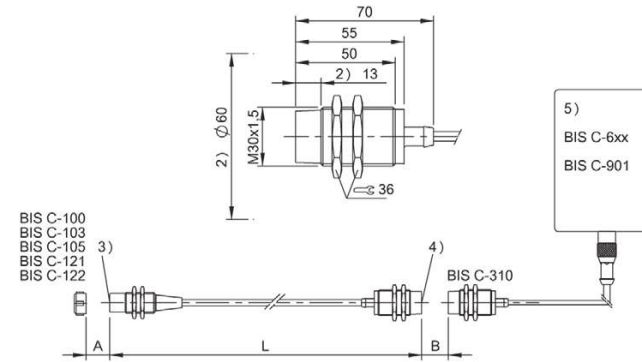
1) Sensing surface, 2) Clear zone, 3) Active surface data carrier, 4) Active surface R/W head, 5) Processor or converter, 6) see remarks

BISO0JA

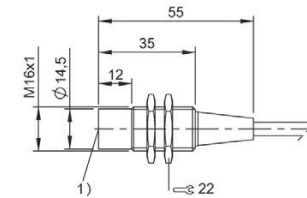


1) Sensing surface, 2) Active surface data carrier, 3) Active surface R/W head, 4) Processor or converter, 5) see remarks

BISO0JJ, BISO0JK, BISO0LU, BISO0NG

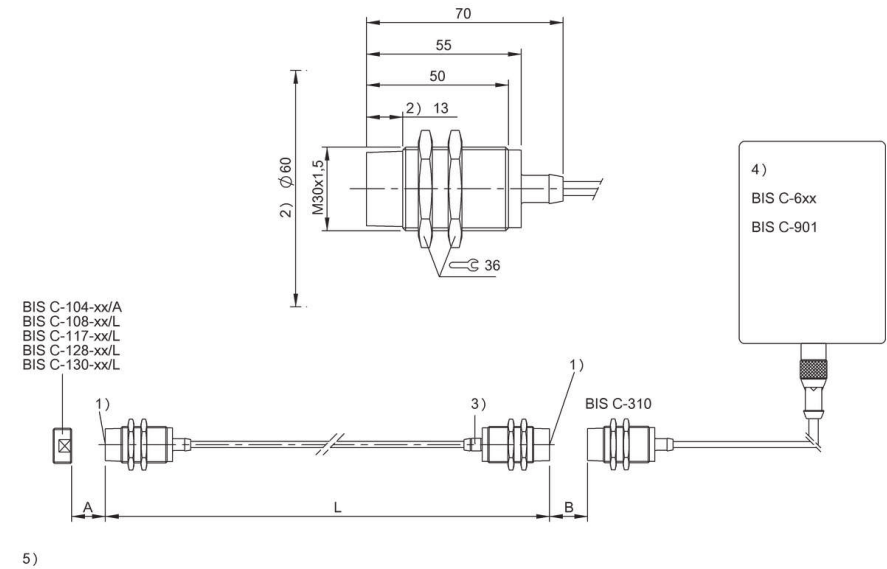


6)



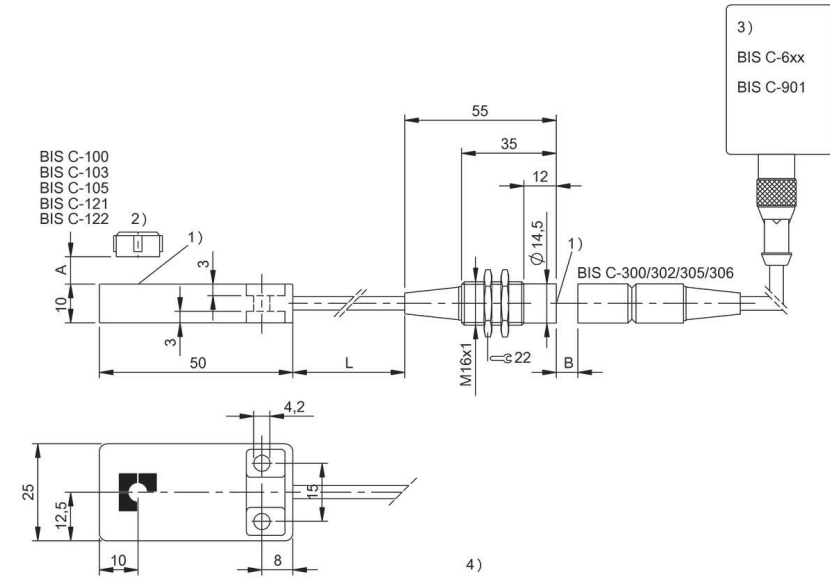
1) Sensing surface, 2) Clear zone, 3) Active surface data carrier, 4) Active surface R/W head, 5) Processor or converter, 6) see remarks

BISO0JM



1) Sensing surface, 2) Clear zone, 3) Yellow marking, 4) Processor or converter, 5) see remarks

BISO0JP, BISO0JR



1) Sensing surface, 2) Data carrier, 3) Processor or converter, 4) see remarks

BIS00JE



For read/write heads BIS VM (HF 13.56 MHz), BIS VL (LF 125 kHz) and BIS VU (UHF 860/960 MHz) *	BIS013W BIS V-6108-048-C102	
Product Group	Multi-Frequency Processors (BIS V)	
Interface	Profinet I/O (IRT), 2 port Switch	
Supported RFID technologies	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), 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 410	

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



BIS012E BIS V-6102-019-C101	BIS0187 BIS V-6107-039-C105	BIS018K BIS V-6107-039-C106
Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)
Profibus DP Slave galvanically isolated	Ethernet TCP/IP, USB	Ethernet TCP/IP, USB
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)	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-Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded 7/8"-Male, 5-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 410	Page 411	Page 411

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.



For read/write heads BIS VM (HF 13.56 MHz), BIS VL (LF 125 kHz) and BIS VU (UHF 860/960 MHz) *	BISO14C BIS V-6106-034-C102	
Product Group	Multi-Frequency Processors (BIS V)	
Interface	Ethernet/IP	
Supported RFID technologies	LF 125 kHz (BIS VL), LF 70/455 kHz (BIS C), 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 412	

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



BISO146 BIS V-6106-034-C104	BISO147 BIS V-6110-063-C102	BISO14E BIS V-6111-073-C103
Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)	Multi-Frequency Processors (BIS V)
Ethernet/IP	EtherCAT	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), 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)
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	M12x1-Male, 5-pole, A-coded M12x1-Female, 5-pole, A-coded 7/8"-Male, 5-pole
Page 412	Page 413	Page 413



	BIS008U BIS C-600-007-650-00-KL1	
Product Group	LF (70/455 kHz)	
Interface	RS232	
Supported RFID technologies	LF 70/455 kHz (BIS C)	
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 read/write head	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	Terminal strip, 19-pole	
Productview	Page 414	



	BIS00AZ BIS C-620-007-050-00-ST2	BIS00K3 BIS C-6008-048-650-06-ST23	BIS00K4 BIS C-6028-048-050-06-ST22
	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
	RS232	Profinet I/O (IRT), Profinet I/O (IRT) 2 port Switch	Profinet
	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)
	2	2	2
	19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC
	Aluminum, die-cast	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, 9-pole 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 414	Page 415	Page 415



	BIS00TU BIS C-6028-048-050-06-ST28	
Product Group	LF (70/455 kHz)	
Interface	Profinet	
Supported RFID technologies	LF 70/455 kHz (BIS C)	
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 416	



	BIS009F BIS C-6002-019-654-03-ST11	BIS009L BIS C-6002-028-650-03-KL2	BIS0099 BIS C-6002-019-650-03-KL2
	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
	Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated
	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)
	1	1	2
	19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC
	ABS	ABS	ABS
	0...60 °C	0...60 °C	0...60 °C
	IP65 with read/write head	IP65 with read/write head	IP65 with read/write head
	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	Terminal strip, 19-pole	Terminal strip, 19-pole
	Page 416	Page 417	Page 417



	BIS009A BIS C-6002-019-650-03-ST11	
Product Group	LF (70/455 kHz)	
Interface	Profibus DP Slave galvanically isolated	
Supported RFID technologies	LF 70/455 kHz (BIS C)	
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 read/write head	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	Male, 5-pole, B-coded M12x1-Female, 5-pole, B-coded Male, 5-pole	
Productview	Page 417	



	BIS009H BIS C-6002-019-655-03-KL2	BIS009J BIS C-6002-019-655-03-ST11	BIS009M BIS C-6002-028-650-03-ST11
	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
	Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated
	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)
	2	2	2
	19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC
	ABS	ABS	ABS
	0...60 °C	0...60 °C	0...60 °C
	IP65 with read/write head	IP65 with read/write head	IP65 with read/write head
	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS
	Terminal strip, 19-pole	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
	Page 418	Page 418	Page 417



	BIS00A4 BIS C-602-019-650-03-KL2	
Product Group	LF (70/455 kHz)	
Interface	Profibus DP Slave galvanically isolated	
Supported RFID technologies	LF 70/455 kHz (BIS C)	
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 read/write head	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	Terminal strip, 19-pole	
Productview	Page 417	



	BIS00AL BIS C-6022-019-050-03-ST10	BIS00AM BIS C-6022-019-050-03-ST14	BIS00AN BIS C-6022-019-056-03-ST14
	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
	Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated	Profibus DP Slave galvanically isolated
	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)
	2	2	2
	19.2...28.8 VDC	19.2...28.8 VDC	19.2...28.8 VDC
	Aluminum, die-cast	Aluminum, die-cast	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
	2x Female, 12-pole Male, 5-pole	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
	Page 419	Page 419	Page 419

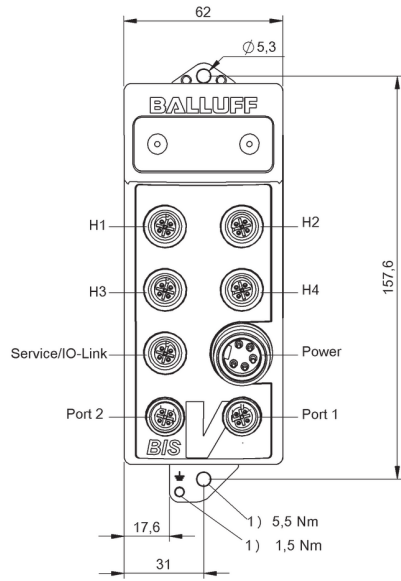
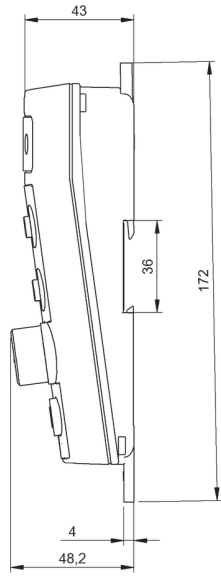


	BIS00AY BIS C-6027-039-050-06-ST19	
Product Group	LF (70/455 kHz)	
Interface	Ethernet TCP/IP	
Supported RFID technologies	LF 70/455 kHz (BIS C)	
Number of connectable R/W heads / antennas	2	
Operating voltage Ub	19.2...28.8 VDC	
Housing material	Aluminum, die-cast	
Ambient temperature	0...60 °C	
Protection degree	IP65 with connector	
Approval/Conformity	CE, UL-FILE E227256, Vol.X1, BIS	
Connection	Female, 4-pole, D-coded Male, 5-pole	
Productview	Page 420	



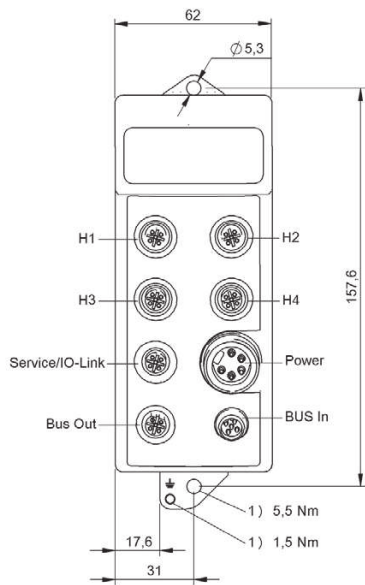
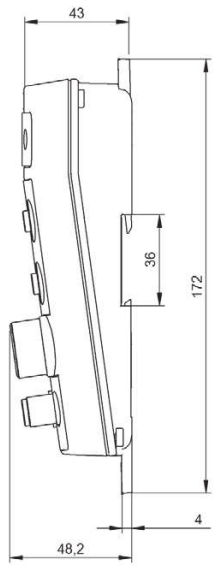
	BIS00AU BIS C-6026-034-050-06-ST19	BIS009N BIS C-6003-025-650-03-ST12	
	LF (70/455 kHz)	LF (70/455 kHz)	
	Ethernet/IP	DeviceNet galvanically isolated	
	LF 70/455 kHz (BIS C)	LF 70/455 kHz (BIS C)	
	2	2	
	19.2...28.8 VDC	19.2...28.8 VDC	
	Aluminum, die-cast	ABS	
	0...60 °C	0...60 °C	
	IP65 with connector	IP65 with connector	
	CE, UL-FILE E227256, Vol.X1, BIS	CE, UL-FILE E227256, Vol.X1, BIS	
	Female, 4-pole, D-coded Male, 5-pole	Male, 5-pole Female, 5-pole Male, 5-pole	
	Page 420	Page 420	

410 I RFID | LF (70/455 kHz)



1) Tightening torque

BIS013W

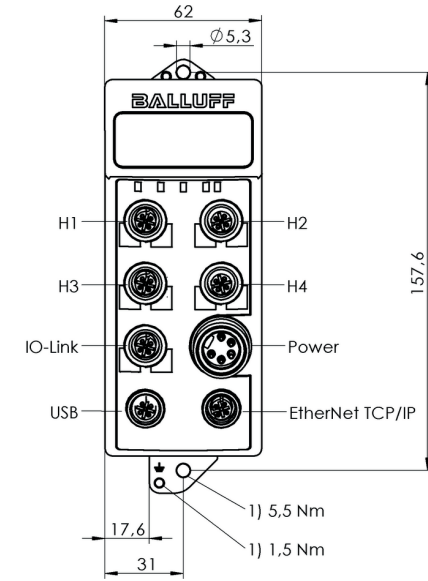
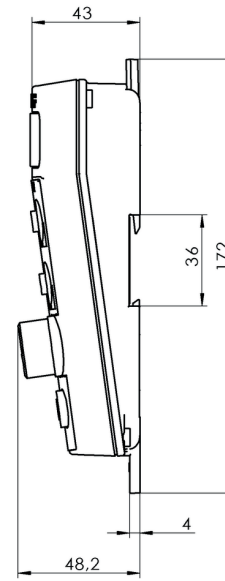


1) Tightening torque

BIS012E

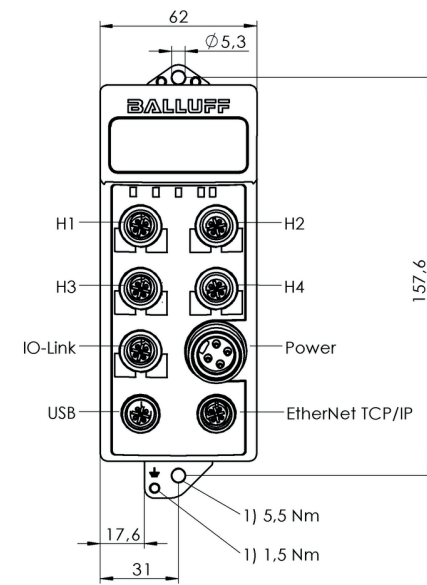
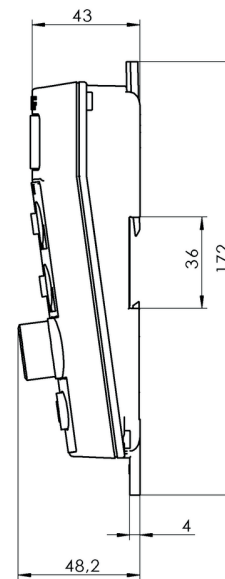
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LF processor units (70/455 kHz) | 411



1) Tightening torque

BIS0187

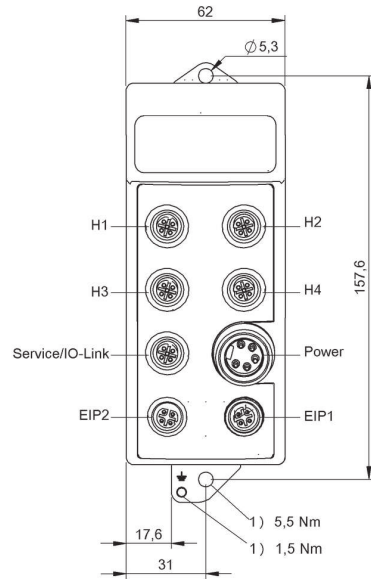
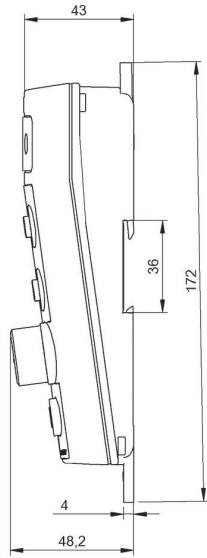


1) Tightening torque

BIS018K

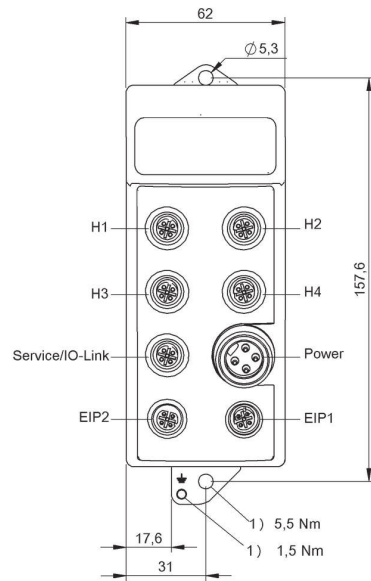
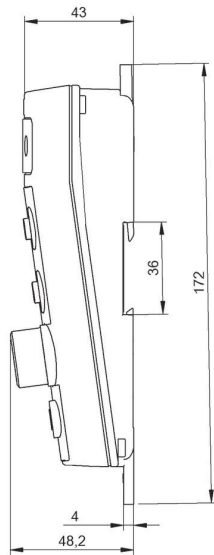
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412 | RFID | LF (70/455 kHz)



1) Tightening torque

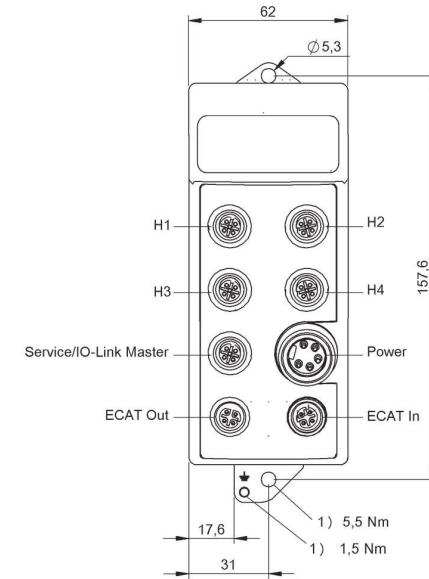
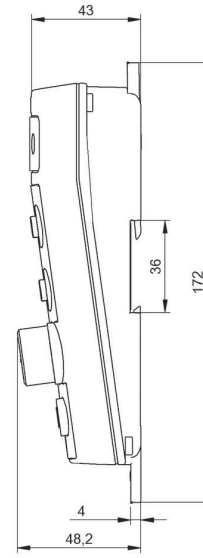
BIS014C



1) Tightening torque

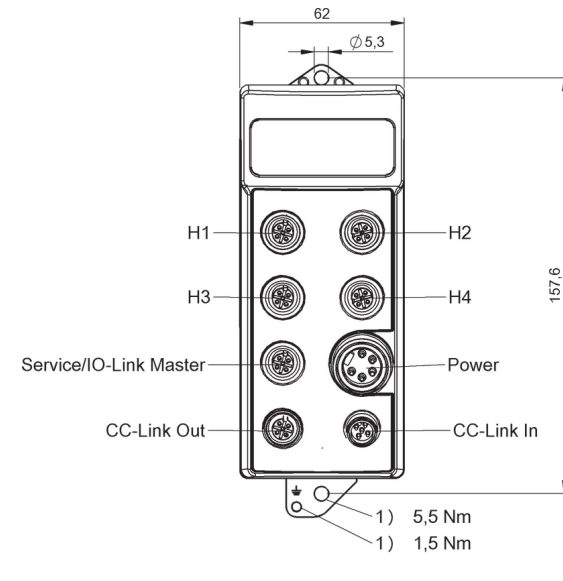
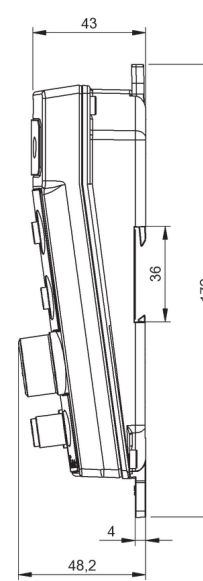
BISO146

LF processor units (70/455 kHz) | 413



1) Tightening torque

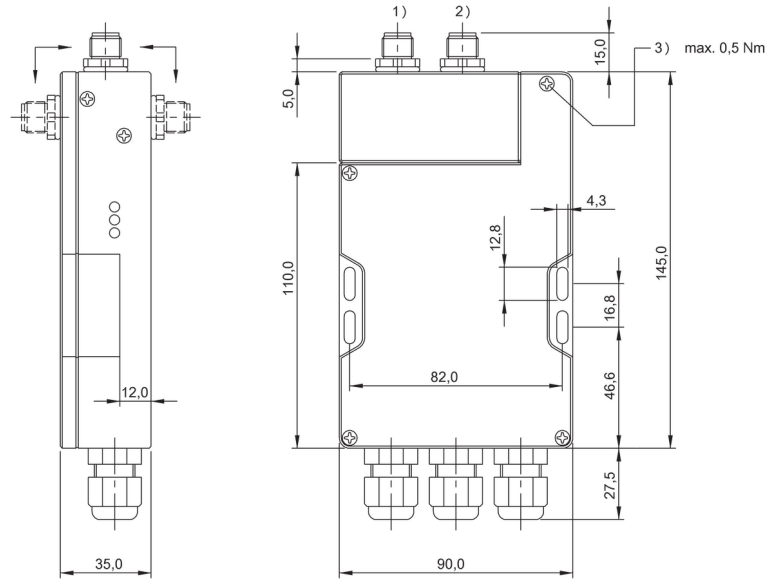
BISO147



1) Tightening torque

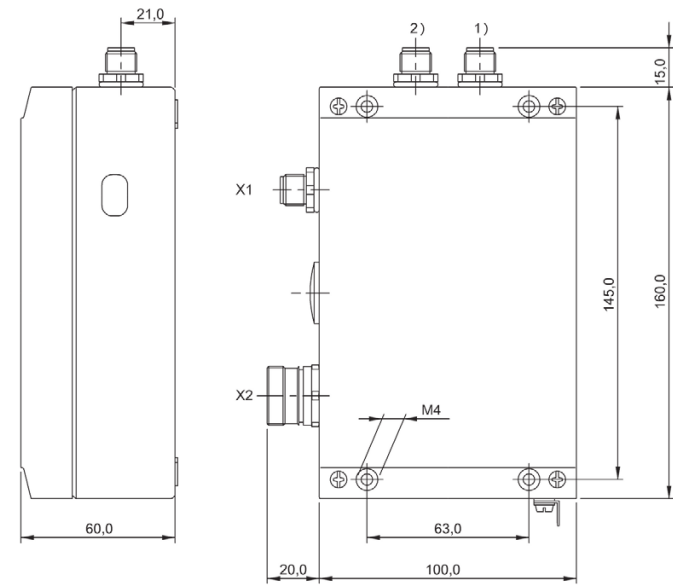
BISO14E

414 I RFID | LF (70/455 kHz)



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

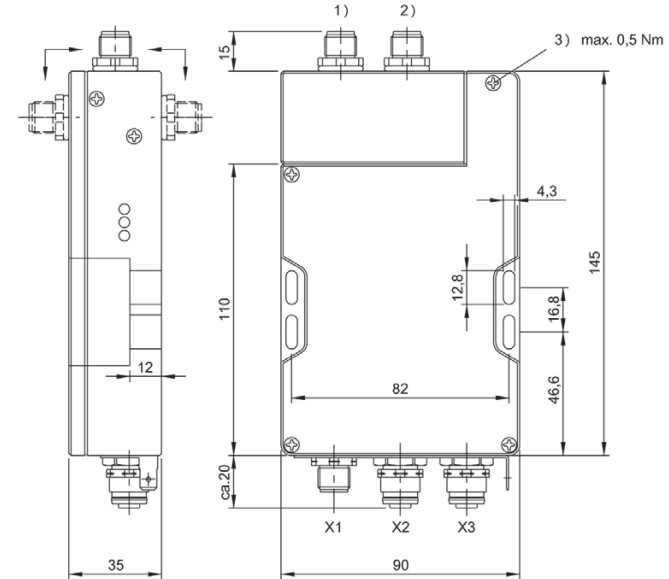
BIS008U



1) Head 1, 2) Head 2

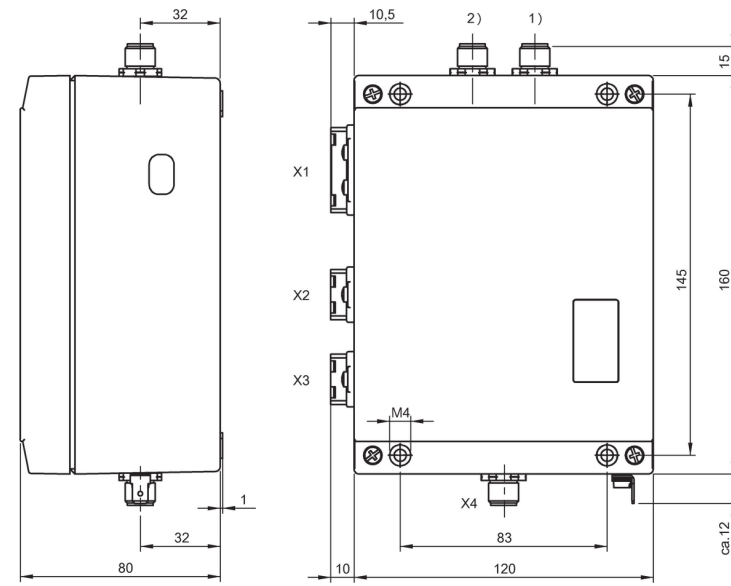
BIS00AZ

LF processor units (70/455 kHz) | 415



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

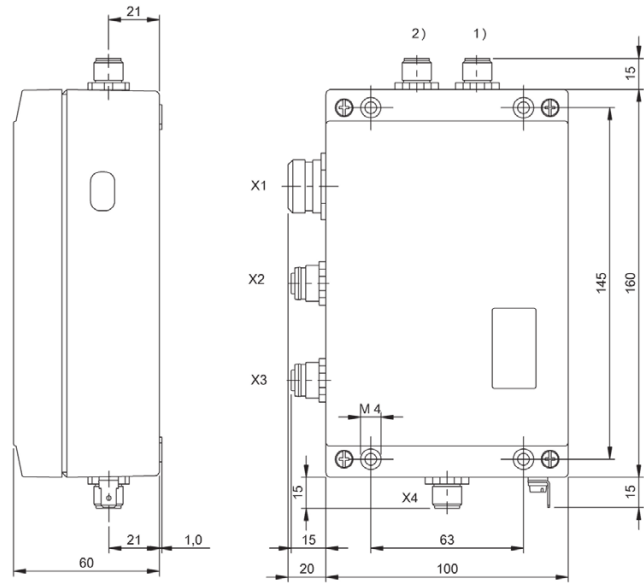
BIS00K3



1) Head 1, 2) Head 2

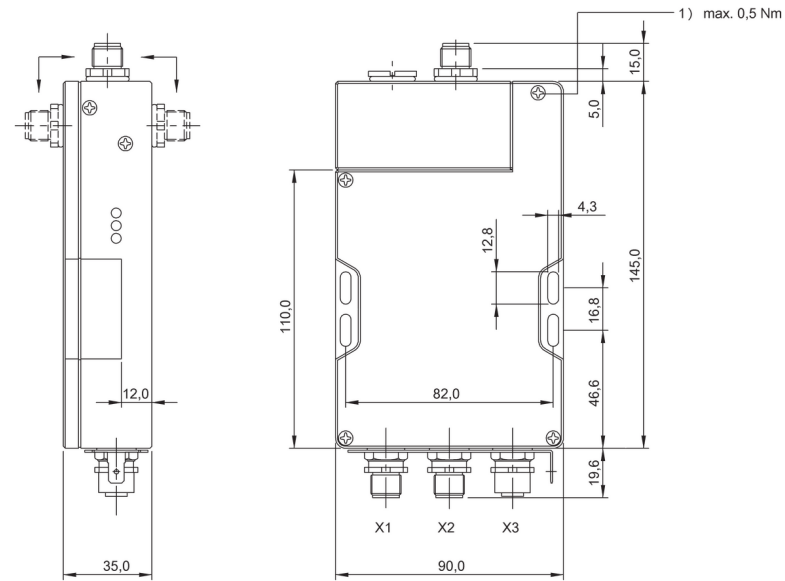
BIS00K4

416 | RFID | LF (70/455 kHz)



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

BIS00TU

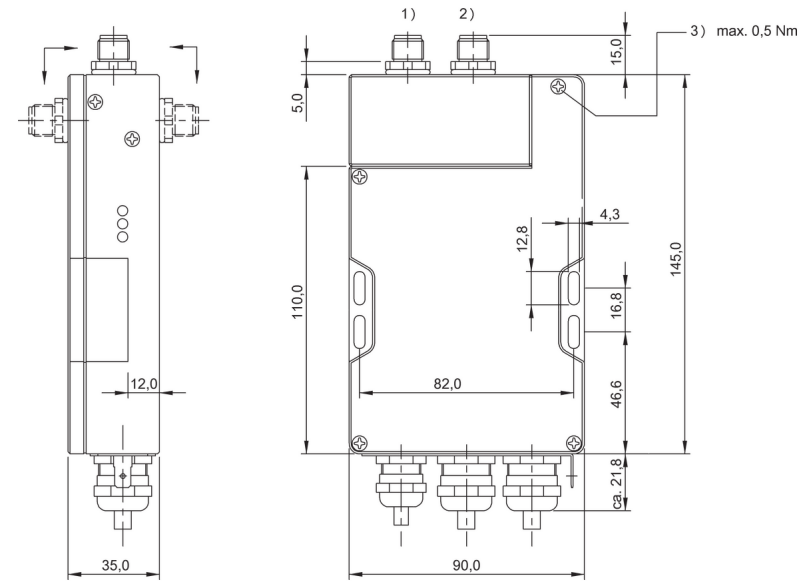


1) Tightening torque

BIS009F

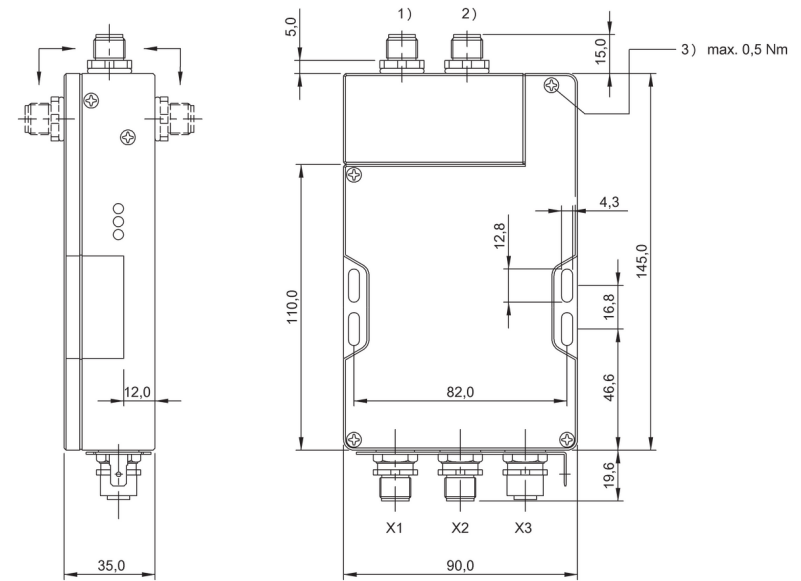
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LF processor units (70/455 kHz) | 417



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

BIS009L, BIS0099, BIS00A4



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

BIS009A, BIS009M

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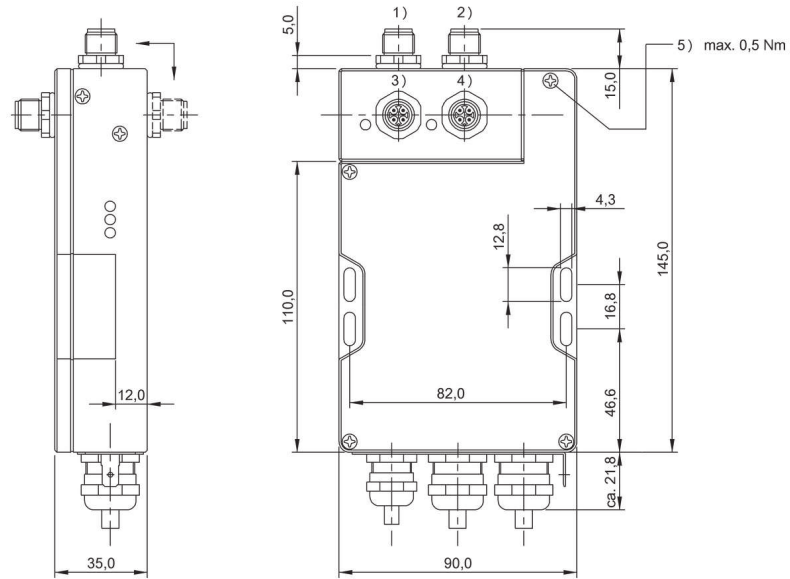
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Power Supplies

Connectivity

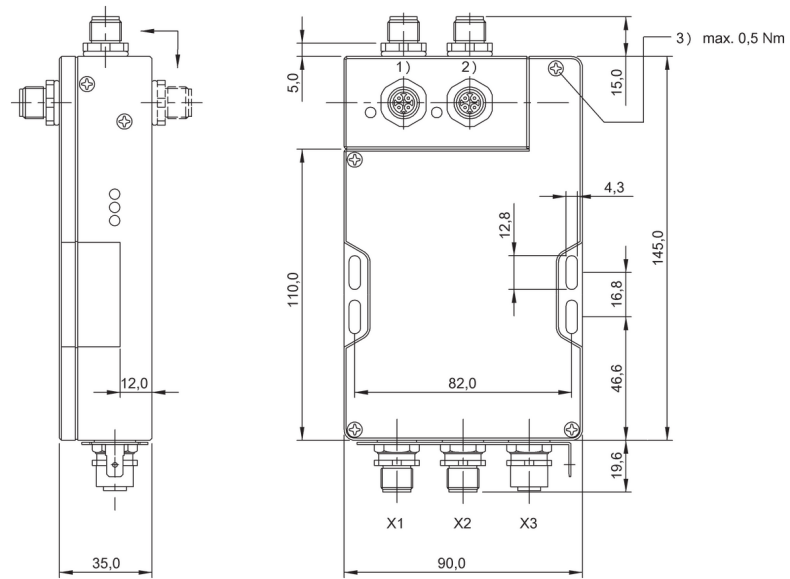
Accessories

418 | RFID | LF (70/455 kHz)



1) Head 1.1, 2) Head 2.1, 3) Head 1.2, 4) Head 2.2, 5) Tightening torque

BIS009H

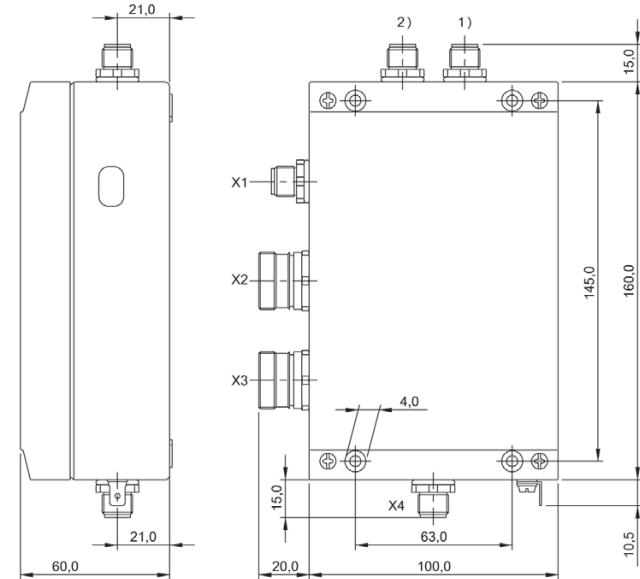


1) Head 1.1, 2) Head 2.1, 3) Head 1.2, 4) Head 2.2, 5) Tightening torque

BIS009J

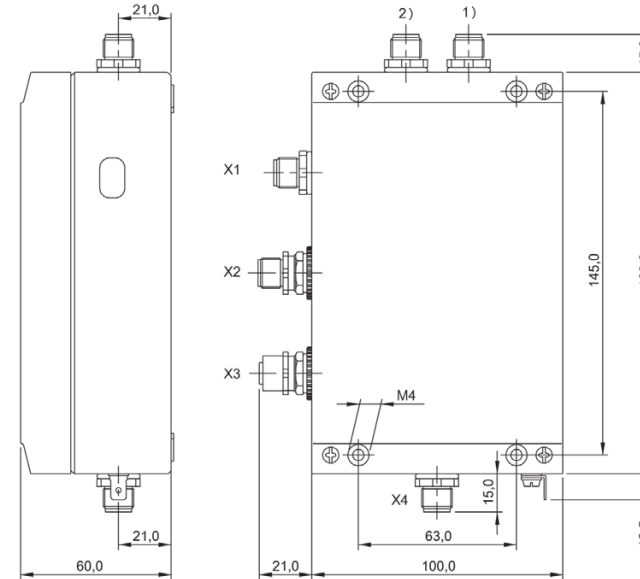
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LF processor units (70/455 kHz) | 419



1) Head 1, 2) Head 2

BIS00AL



1) Head 1, 2) Head 2

BIS00AM, BIS00AN

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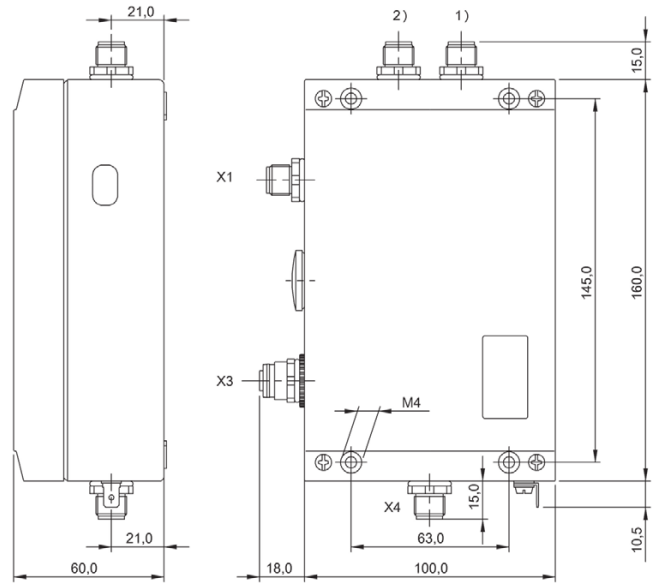
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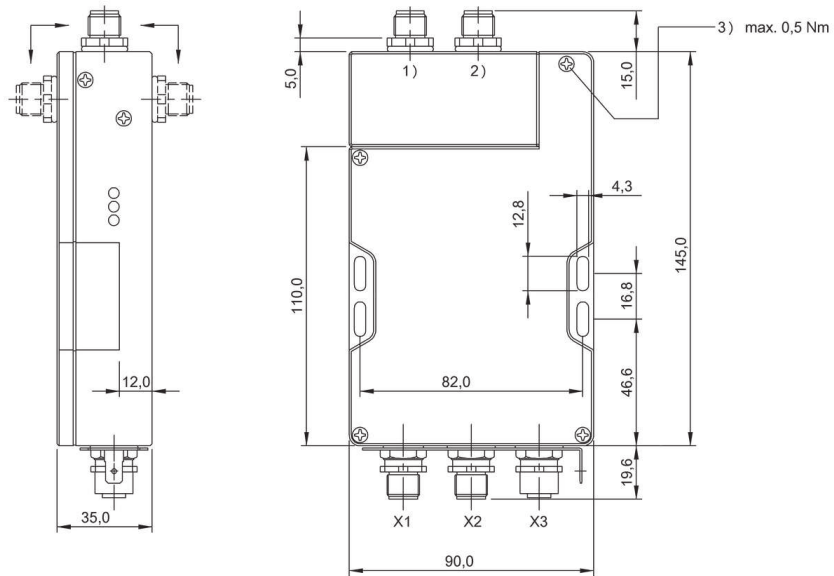
Accessories

420 I RFID | LF (70/455 kHz)



1) Head 1, 2) Head 2

BIS00AY, BIS00AU



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

BIS009N

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LF processor units (70/455 kHz) | 421

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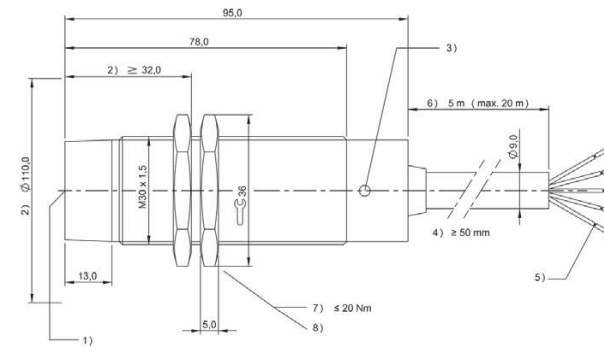
Power Supplies

Connectivity

Accessories



5 m cable PU	BISO0HH BIS C-60R-003-08P-PU-05
10 m cable PU	BISO0HJ BIS C-60R-003-08P-PU-10
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 95 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	Cable (shielded), 15-pin
Housing material	Brass
Interface	2x8 Bit parallel dynamic
Ambient temperature	0...50 °C
Protection degree	IP67
Approval/Conformity	CE



1) Sensing surface, 2) Clear zone, 3) data valid, 4) Cable bending radius, 5) strip, 6) standard length, 7) Tightening torque, 8) see remarks

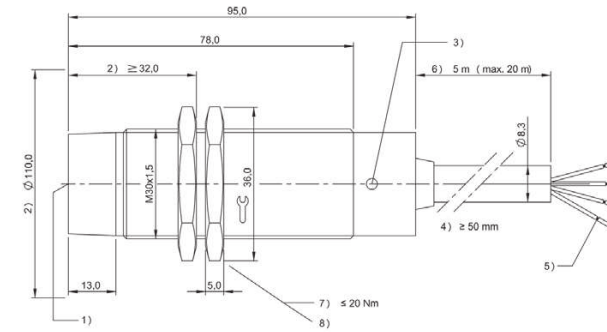


5 m cable PU	BIS00H6 BIS C-60R-001-08P-PU-05
10 m cable PU	BIS00H7 BIS C-60R-001-08P-PU-10
20 m cable PU	BIS00H8 BIS C-60R-001-08P-PU-20
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 95 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	Cable (shielded), 11-pin
Housing material	Brass
Interface	8 Bit parallel
Ambient temperature	0...50 °C
Protection degree	IP67
Approval/Conformity	CE

Appropriate data carrier

	BIS000T			BIS0011			BIS0004			BIS001E			BIS0002			BIS0019			BIS000M		BIS000N	
Data carrier distance to metal	flush	metal-free	metal-free	flush	metal-free	metal-free	flush	metal-free	metal-free	flush	metal-free	metal-free	flush	metal-free	metal-free	flush	metal-free	metal-free	flush	metal-free	metal-free	
Working distance for reading	0-3	0-5	1-5	0-4	1-5	0-5	1-8	0-5	1-6	3-12	1-8	1-8										
Offset at distance																						
	1	±2	±3	±3	±4	±2.5	±3	±4	±2.5	±3			±5		±7							
	3	±2	±3	±3	±2.5	±2.5	±3	±5	±3	±3	±7		±5		±7							
	5		±3	±3		±2.5	±3	±5	±3	±3	±6		±5		±7							
	7							±5			±5		±5		±6							

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) data valid, 4) Cable bending radius, 5) strip, 6) standard length, 7) Tightening torque, 8) see remarks

	BIS000C		BIS0006	
Data carrier distance to metal	flush	metal-free	flush	metal-free
Working distance for reading	0-6	1-8	1-8	
Offset at distance				
	±7	±7	±4	
	±7	±7	±4	
	±6	±7	±4	
	±6	±4		

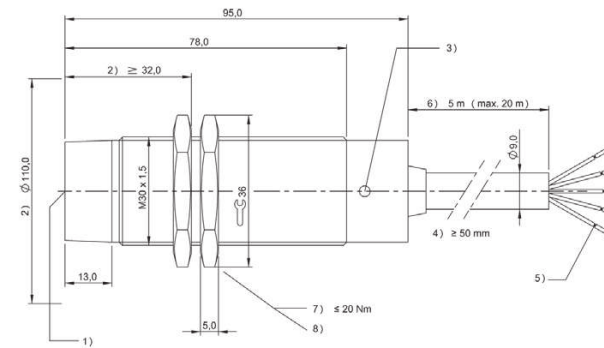


5 m cable PU	BIS00HC BIS C-60R-002-08P-PU-05
10 m cable PU	BIS00HE BIS C-60R-002-08P-PU-10
20 m cable PU	BIS00TC BIS C-60R-002-08P-PU-20
Product Group	LF (70/455 kHz)
Dimension	Ø 30 x 95 mm
Installation	metal-free (clear zone)
Antenna type	round
Connection	Cable (shielded), 15-pin
Housing material	Brass
Interface	8x8 Bit parallel
Ambient temperature	0...50 °C
Protection degree	IP67
Approval/Conformity	CE

Appropriate data carrier

	BIS000T		BIS0011		BIS0004		BIS001E		BIS0002		BIS0019		BIS000M		BIS000N	
	flush	metal-free	metal-free		flush	metal-free	flush	metal-free	flush	metal-free	metal-free	flush		flush	metal-free	
Working distance for reading	0-3	0-5	1-5		0-4	1-5	0-5	1-8	0-5	1-6	3-12		1-8		1-8	
Offset at distance																
	1	±2	±3	±3		±4	±2.5	±3	±4	±2.5	±3			±5		±7
	3	±2	±3	±3		±2.5	±2.5	±3	±5	±3	±3	±7		±5		±7
	5		±3	±3		±2.5	±3	±5	±3	±3	±6			±5		±7
	7							±5			±5			±5		±6

Dimensions in mm



1) Sensing surface, 2) Clear zone, 3) data valid, 4) Cable bending radius, 5) strip, 6) standard length, 7) Tightening torque, 8) see remarks

	BIS000C		BIS0006	
	flush	metal-free	flush	
Working distance for reading	0-6	1-8	1-8	
Offset at distance				
	±7	±7	±4	
	±7	±7	±4	
	±6	±7	±4	
	±6	±4		



	BAE004C BIS C-720-01-03	BAE0088 BIS C-810-0-003	
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	
Product name	Read / write gun	Standard	
Dimension	90 x 85 x 200 mm	97 x 55 x 232 mm	
Antenna type	—	—	
Use	for all C-85x with jack plug Ø6.3 mm	for all C-85x with jack plug Ø6.3 mm	
Display	—	LCD display 20 characters/4 lines	
Keypad	—	32 keys, alphanumeric (4x8)	
Operating voltage Ub	—	2.4 V DC rechargeable battery pack NIMH	
Storage temperature	-20...70 °C	—	
Ambient temperature	0...50 °C	0...50 °C	
Protection degree	IP40	IP40	
Approval/Conformity	CE	CE	
Productview	Page 432	Page 432	



	BAE0094 BIS C-850	BAE0095 BIS C-851	BAE0096 BIS C-852	BAE0097 BIS C-853
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Product name	Read / write heads	Read / write heads	Read / write heads	Read / write heads
Dimension	—	Ø 14.5 x 94 mm	Ø 30 x 97 mm	27 x 27 x 72 mm
Antenna type	—	round	round	Rod
Use	—	—	—	—
Display	—	—	—	—
Keypad	—	—	—	—
Operating voltage Ub	—	—	—	—
Storage temperature	—	-20...85 °C	-20...85 °C	-20...60 °C
Ambient temperature	—	0...70 °C	0...70 °C	0...60 °C
Protection degree	IP67	IP67	IP67	IP67
Approval/Conformity	CE	CE	CE	CE
Productview	Page 433	Page 433	Page 433	Page 433

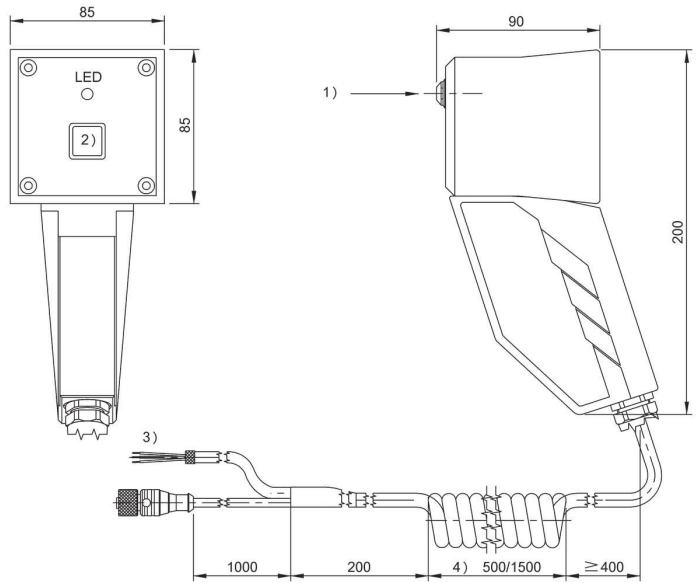


	BAE00CR BIS C-870-1-008-X-001	BAE00J6 BIS C-870-1-008-X-004	
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	
Product name	WLAN	WLAN + 1D	
Dimension	100 x 51 x 265 mm	100 x 51 x 265 mm	
Antenna type	round	round	
Use	for data carriers $\varnothing \geq 20$ mm	for data carriers $\varnothing \geq 20$ mm	
Display	TFT Touchscreen-display (color): 480x640 VGA resolution	TFT Touchscreen-display (color): 480x640 VGA resolution	
Keypad	52 keys, alphanumeric	52 keys, alphanumeric	
Operating voltage Ub	3.7 V DC rechargeable battery pack	3.7 V DC rechargeable battery pack	
Storage temperature	-40...60 °C	-40...60 °C	
Ambient temperature	-10...50 °C	-10...50 °C	
Protection degree	IP65	IP65	
Approval/Conformity	CE	CE	
Productview	Page 434	Page 434	



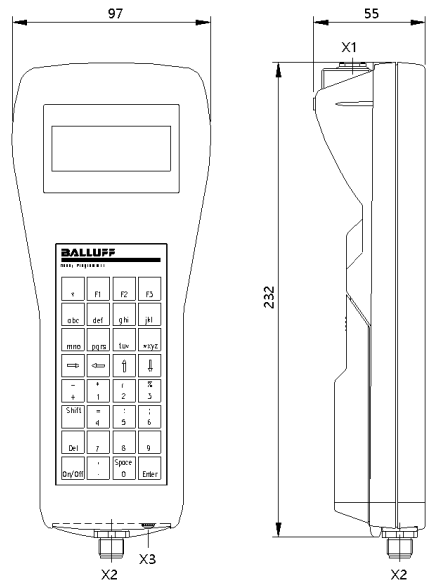
	BAE00K6 BIS C-870-1-008-X-005	BAE00NR BIS C-873-1-008-X-001	BAE00E8 BIS C-873-1-008-X-004	BAE00KM BIS C-873-1-008-X-005
Product Group	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)	LF (70/455 kHz)
Product name	WLAN + 2D	WLAN	WLAN + 1D	WLAN + 2D
Dimension	100 x 51 x 265 mm	100 x 69 x 265 mm	100 x 69 x 265 mm	100 x 69 x 265 mm
Antenna type	round	round	round	round
Use	for data carriers $\varnothing \geq 20$ mm	for data carriers $\varnothing < 20$ mm	for data carriers $\varnothing < 20$ mm	for data carriers $\varnothing < 20$ mm
Display	TFT Touchscreen-display (color): 480x640 VGA resolution	TFT Touchscreen-display (color): 480x640 VGA resolution	TFT Touchscreen-display (color): 480x640 VGA resolution	TFT Touchscreen-display (color): 480x640 VGA resolution
Keypad	52 keys, alphanumeric	52 keys, alphanumeric	52 keys, alphanumeric	52 keys, alphanumeric
Operating voltage Ub	3.7 V DC rechargeable battery pack	3.7 V DC rechargeable battery pack	3.7 V DC rechargeable battery pack	3.7 V DC rechargeable battery pack
Storage temperature	-40...60 °C	-40...60 °C	-40...60 °C	-40...60 °C
Ambient temperature	-10...50 °C	-10...50 °C	-10...50 °C	-10...50 °C
Protection degree	IP65	IP65	IP65	IP65
Approval/Conformity	CE	CE	CE	CE
Productview	Page 435	Page 435	Page 435	Page 435

432 | RFID | LF (70/455 kHz)



1) see remarks, 2) Button, 3) see connection diagram, 4) Spiral length retracted/extended

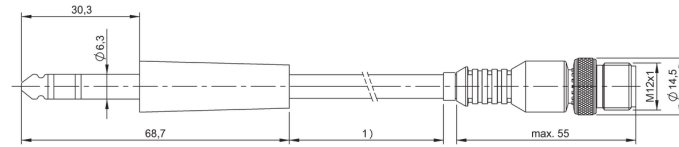
BAE004C



BAE0088

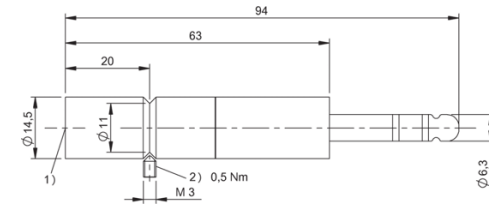
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Portable LF read/write units (70/455kHz) | 433



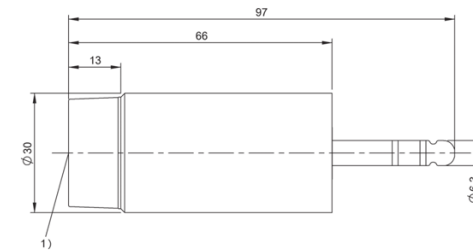
1) Cable length see text

BAE0094



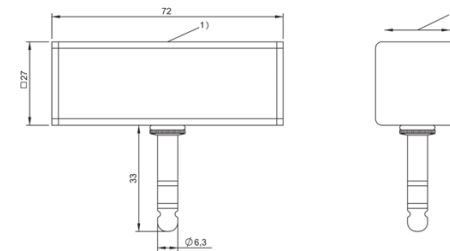
1) Sensing surface, 2) Tightening torque

BAE0095



1) Sensing surface

BAE0096

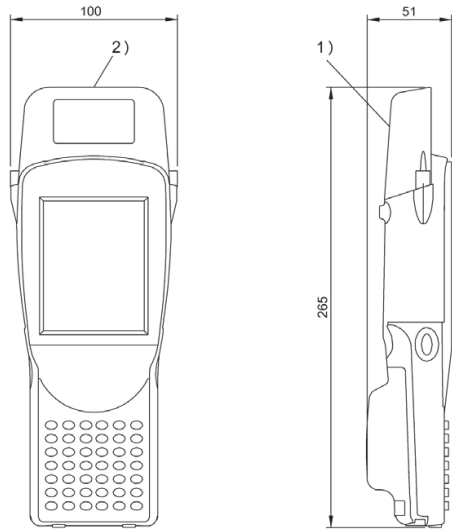


1) Sensing surface, 2) Read/write axis

BAE0097

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.

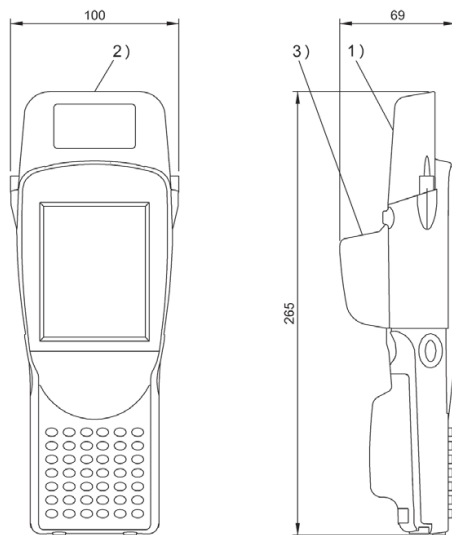
434 I RFID | LF (70/455 kHz)



X1

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

BAE00CR



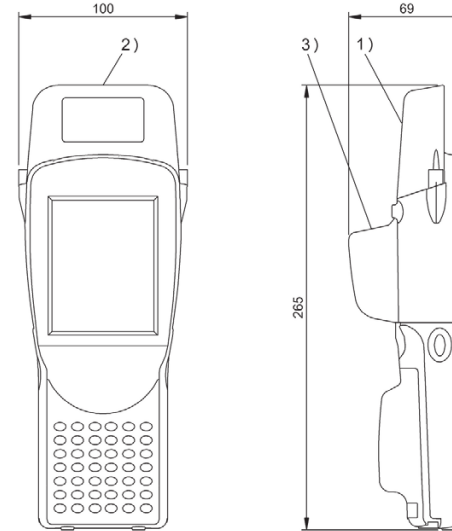
X1

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

BAE00J6

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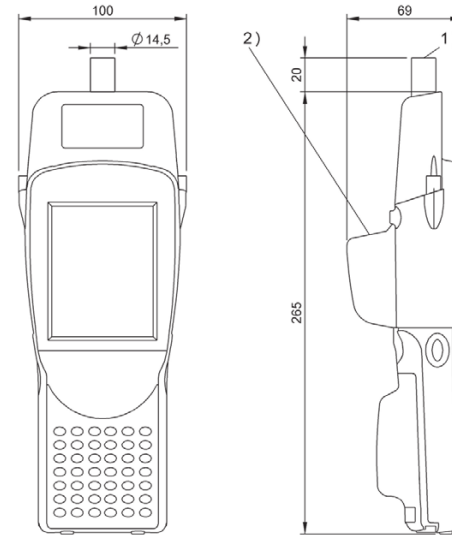
Portable LF read/write units (70/455kHz) | 435



X1

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

BAE00K6



X1

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

BAE00NR, BAE00E8, BAE00KM

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