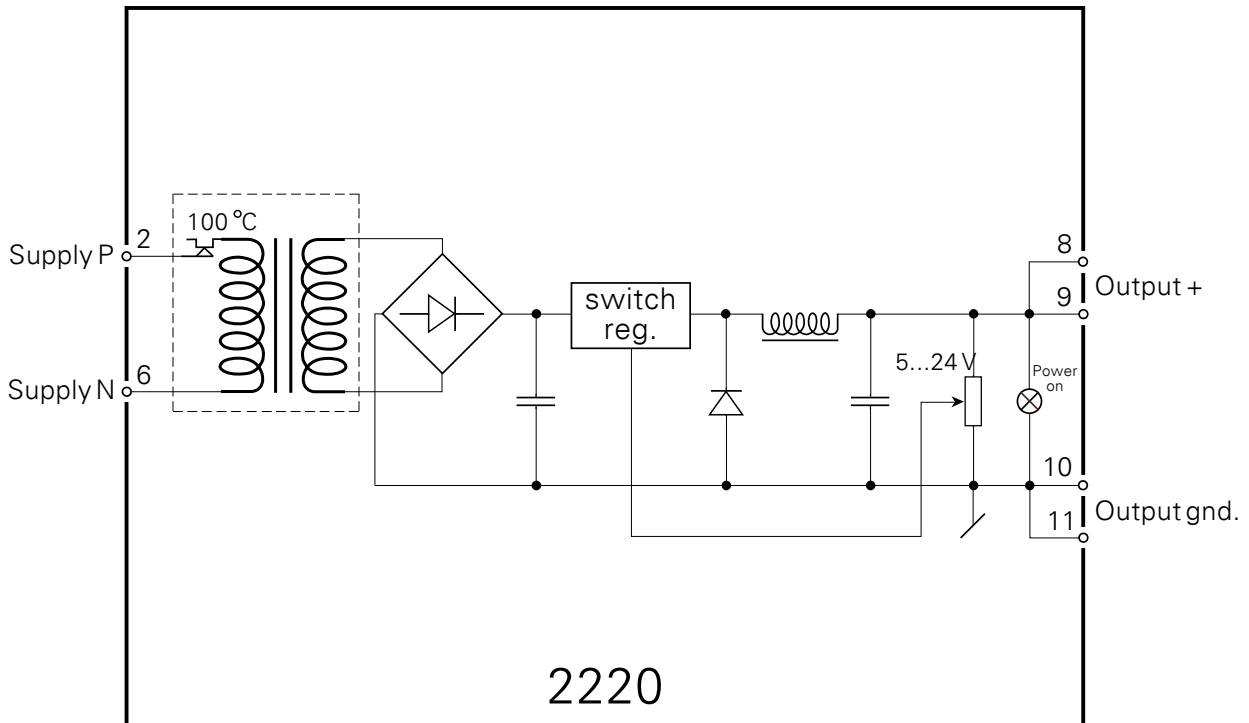


2220	3101	4104	5104	5331	6185	9106
2222	3102	4114	5105	5332	6331	9107
2224	3103	4116	5106	5333	6333	9113
2229	3104	4131	5114	5334	6334	9116
2231	3105	4179	5115	5335	6335	9202
2255	3108	4184	5116	5337	6337	9203
2261	3109	4222	5131	5343	6437	9410
2281	3111	4225	5202	5420	7400	9421
2289	3112	4510	5203	5437	7401	
2914	3113	4511	5223	5531	7501	
	3114	4512	5225	5714	7900	
	3117	4590		5715	8501	
	3118			5725		
	3185			5802		
	3186					
	3202					
	3225					
	3331					
	3333					
	3337					
	3405					

Order: 2220

Type	Version		Output	
2220	110 VAC	: A	Special (5...24 V)	: 0
	230 VAC	: B	24 VDC	: 1
	24 VAC	: D	15 VDC	: 2
	120 VAC	: F	12 VDC	: 3
			5 VDC	: 4

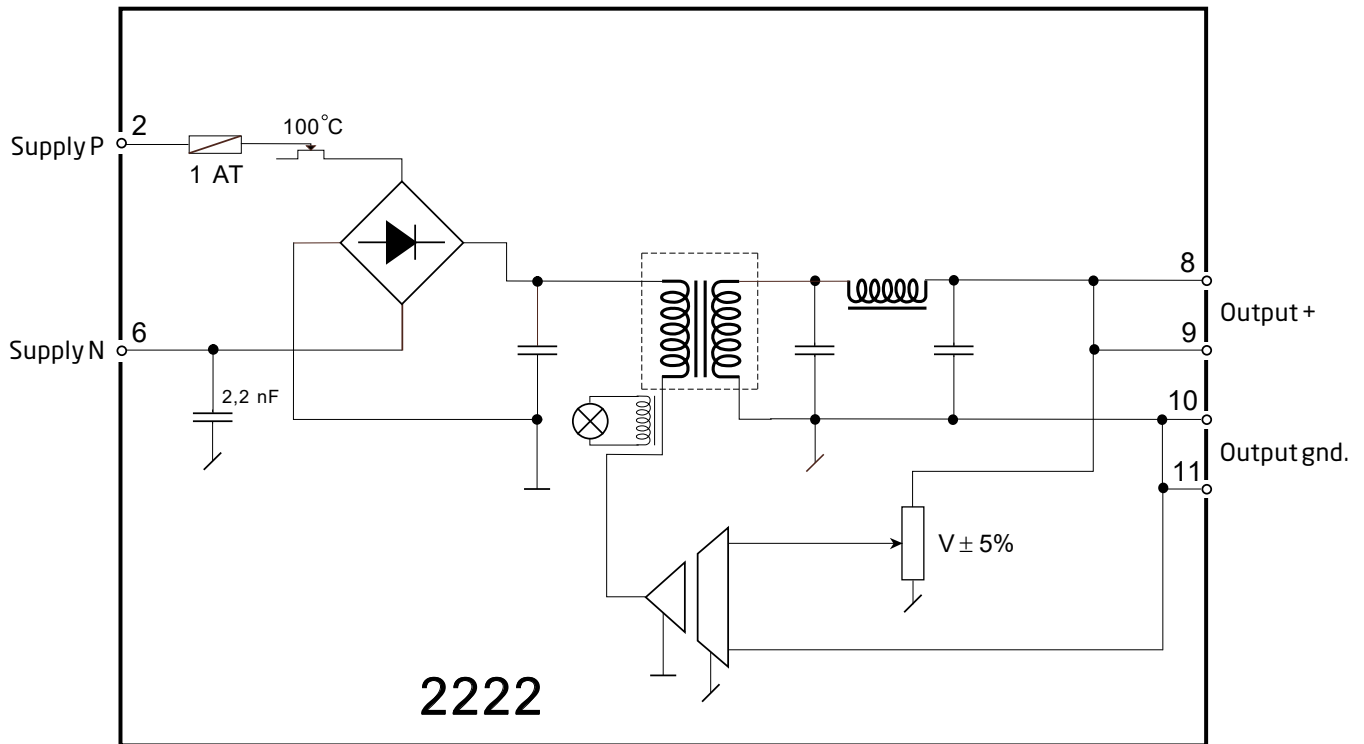
Block diagram:



Order : 2222

Type	Input	Output
2222	115 VAC : A 230 VAC : B	24 VDC : 1

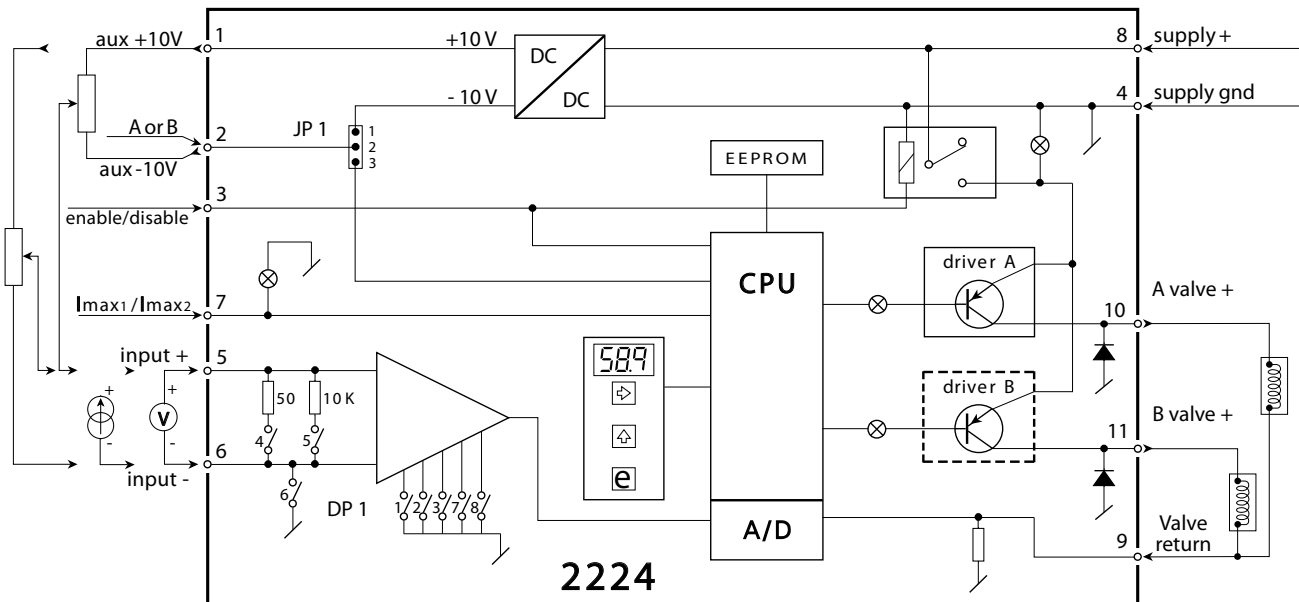
Block diagram:



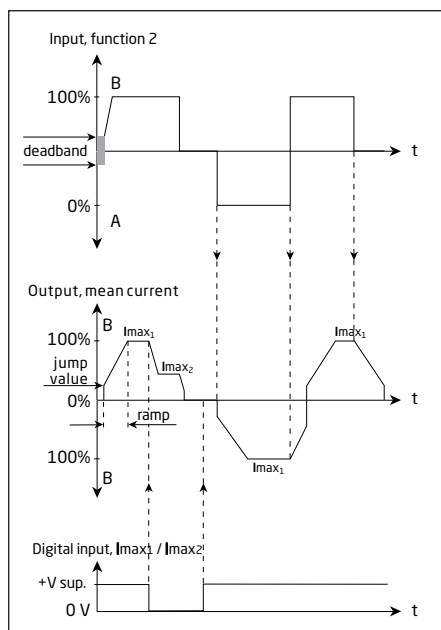
Order: 2224

Type	Input	Supply	Option
2224	0...20 mA : A	12 V : 1	Single valve (A) : A
	4...20 mA : B	24 V : 2	Double valve (A/B) : B
	0...1 V : C		
	0.2...1 V : D		
	0...10 V : E		
	2...10 V : F		
	±10 V potentiometer : G		
	0...10 V potentiometer : H		

Block diagram:



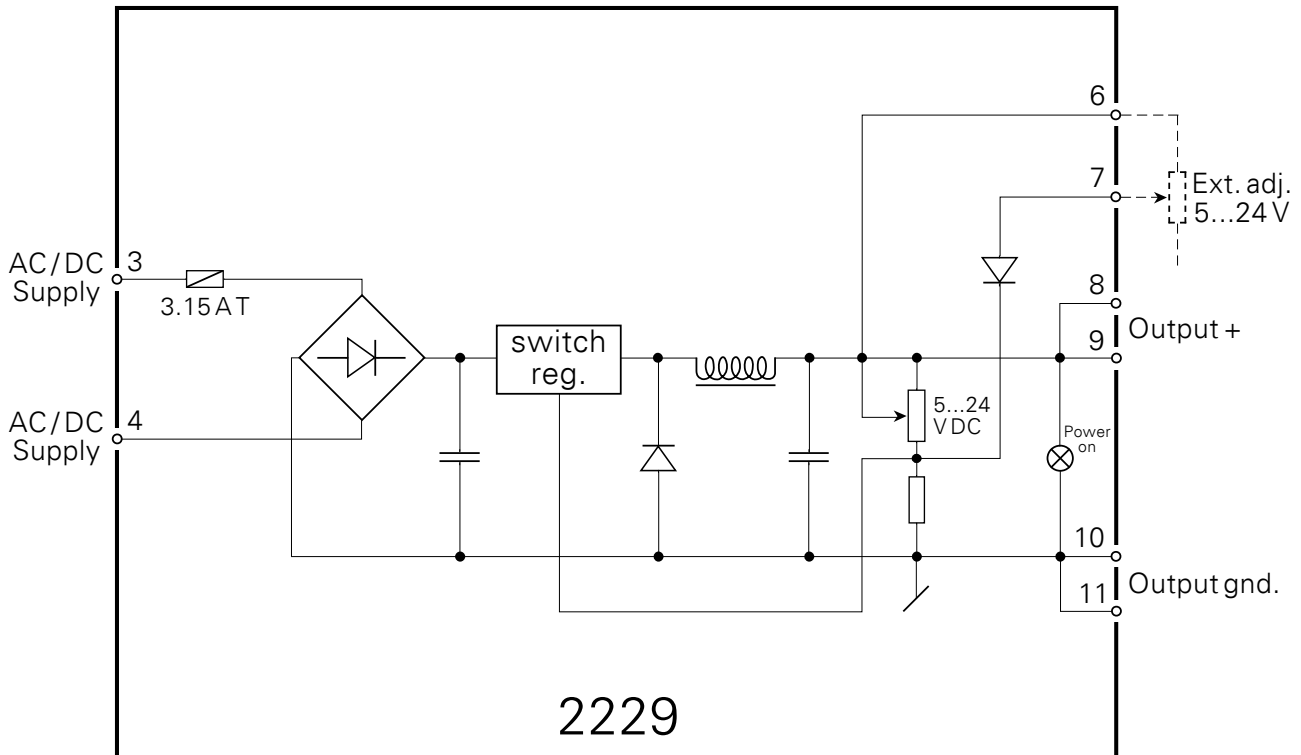
Timing diagram:



Order: 2229

Type	Version	Output
2229	AC or DC : A	Special (5...24 V) : 0
		24 VDC : 1
		15 VDC : 2
		12 VDC : 3
		5 VDC : 4

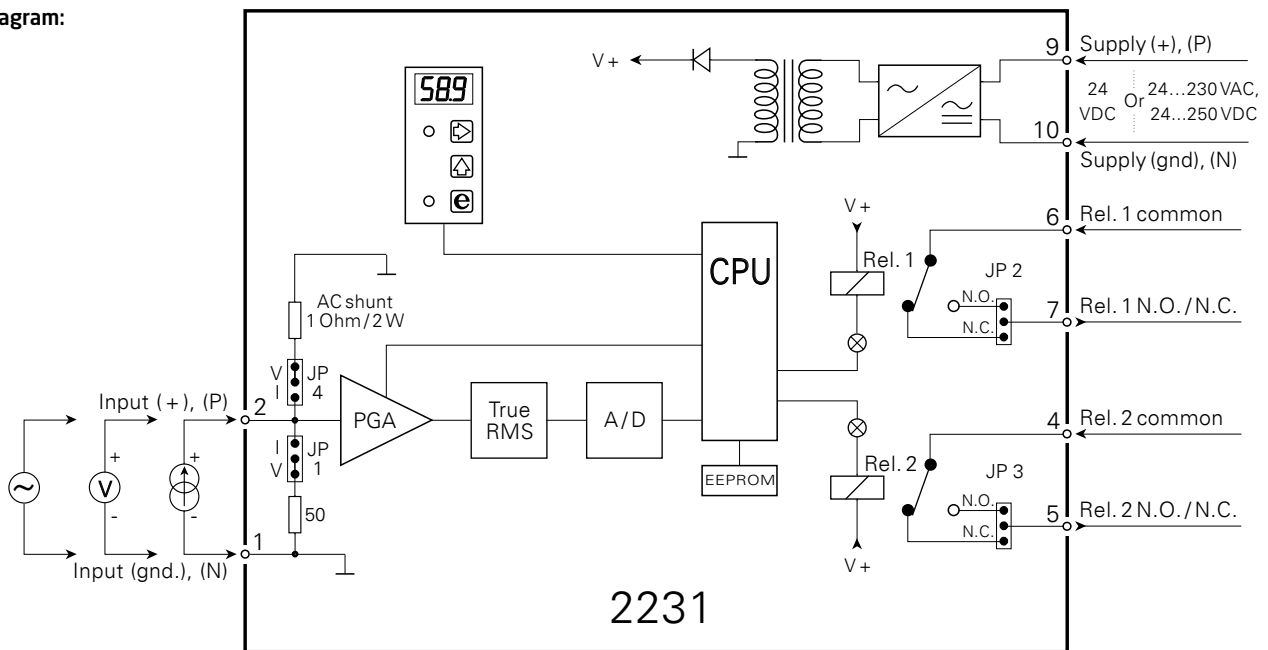
Block diagram:



Order: 2231

Type	Supply
2231	24 VDC :D
	24...230 VAC :P
	24...250 VDC

Block diagram:



Hardware programming:

Input:

Input	JP1	JP4
0...20 mADC	I	V
0...1 ARMS	I	I
0...250 VDC	V	V
0...250 VRMS	V	V

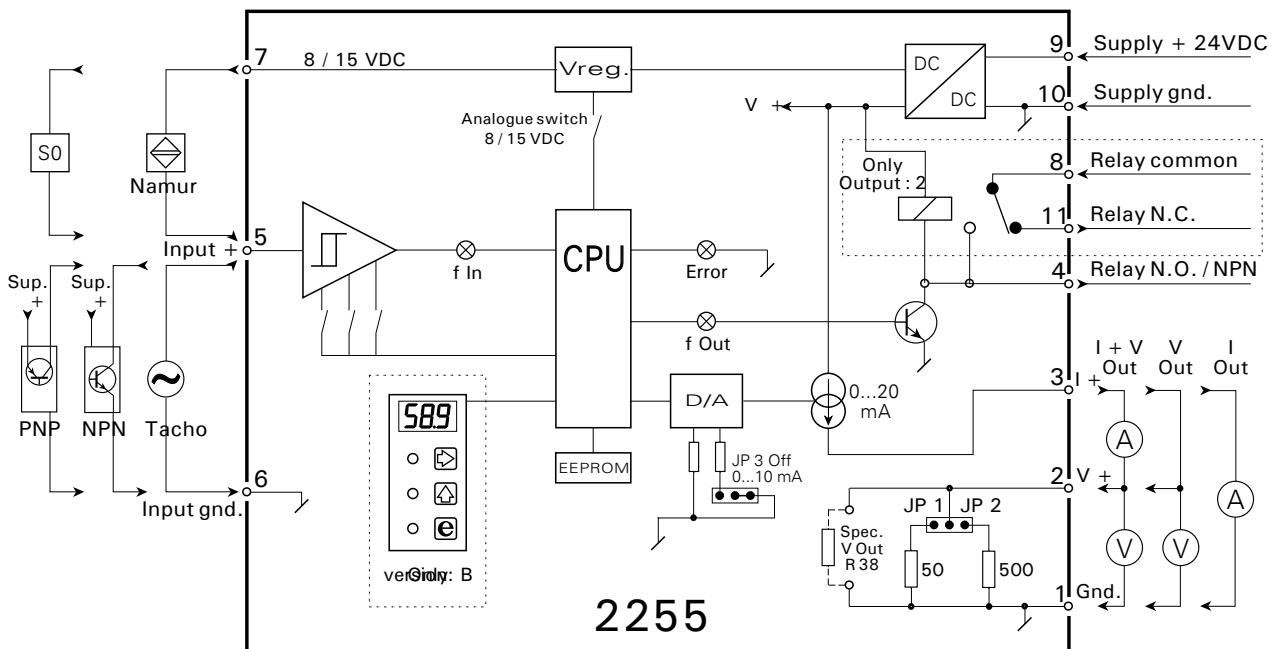
Output:

Relay	JP position
Relay 1 normally open	JP 2 N.O.
Relay 1 normally closed	JP 2 N.C.
Relay 2 normally open	JP 3 N.O.
Relay 2 normally closed	JP 3 N.C.

Order: 2255

Type	Version	Output
2255	Programmable : B	Analog + NPN output : 1 Analog + relay output : 2

Block diagram:

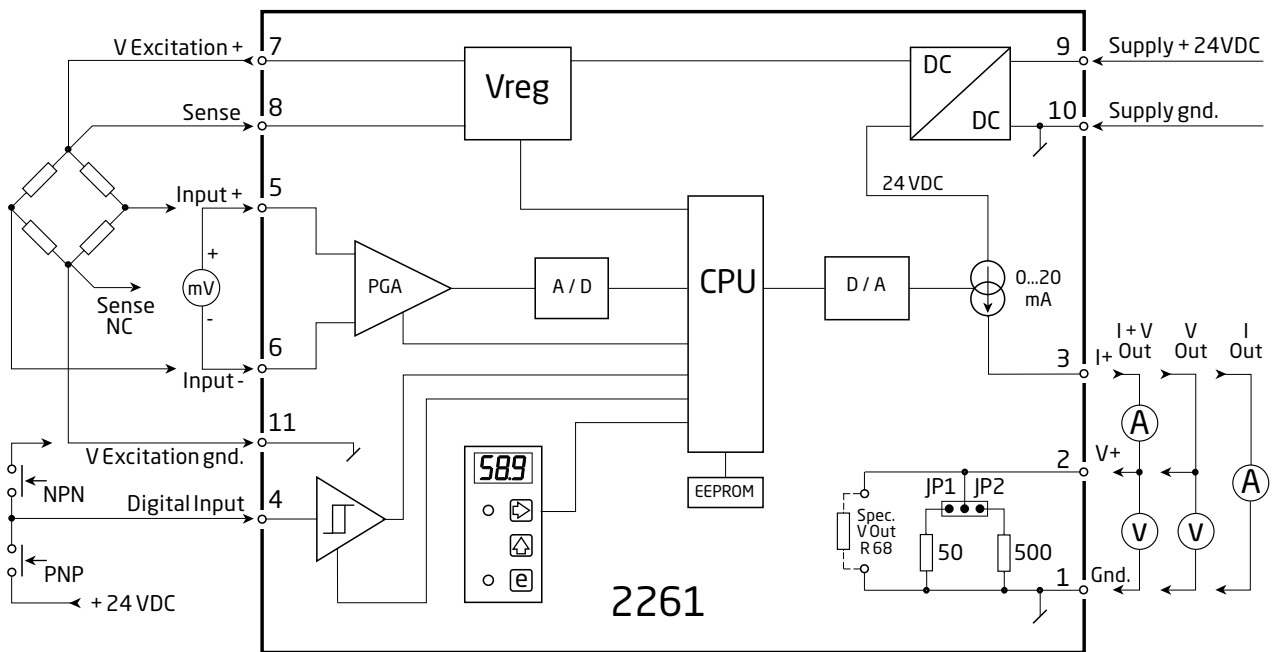


Analogue output programming:

Output range	JP3	JP2	JP1
0...10 mA (current only)	OFF	-	-
0...20 mA (current only)	ON	-	-
0...10 mA / 0...0.5 V	OFF	OFF	ON
0...20 mA / 0...1.0 V	ON	OFF	ON
0...10 mA / 0...5.0 V	OFF	ON	OFF
0...20 mA / 0...10.0 V	ON	ON	OFF
Special voltage output: (Resistor R38 mounted)	ON or OFF	OFF	OFF

Order: 2261

Block diagram:



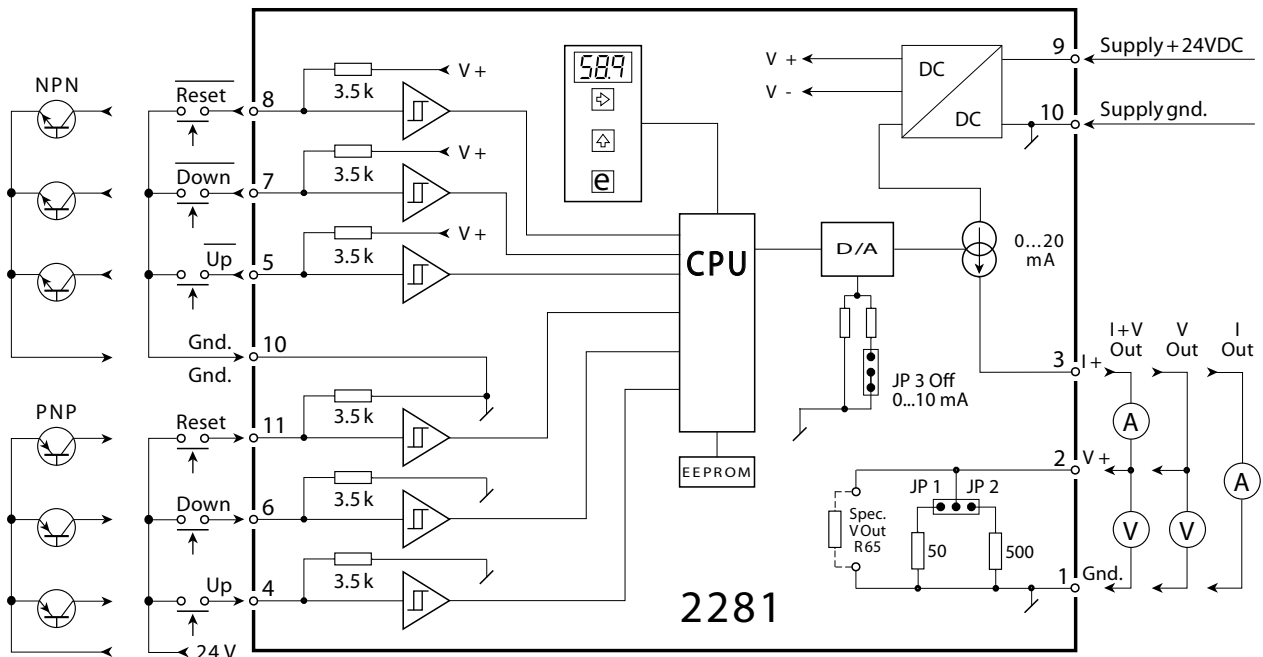
Hardware programming:

JP1	JP2	Output range	MENU 4.3
OFF	OFF	0...10 mA 0...20 mA	001 002
ON	OFF	0...500 mV 0...1000 mV	003 004
OFF	ON	0...5 V 0...10 V	005 006



Order : 2281

Block diagram:



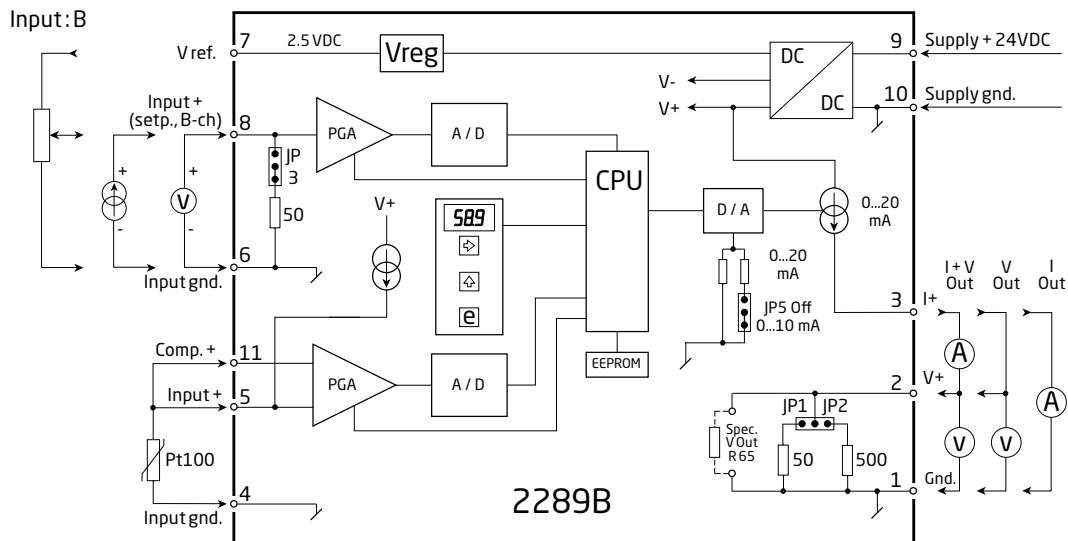
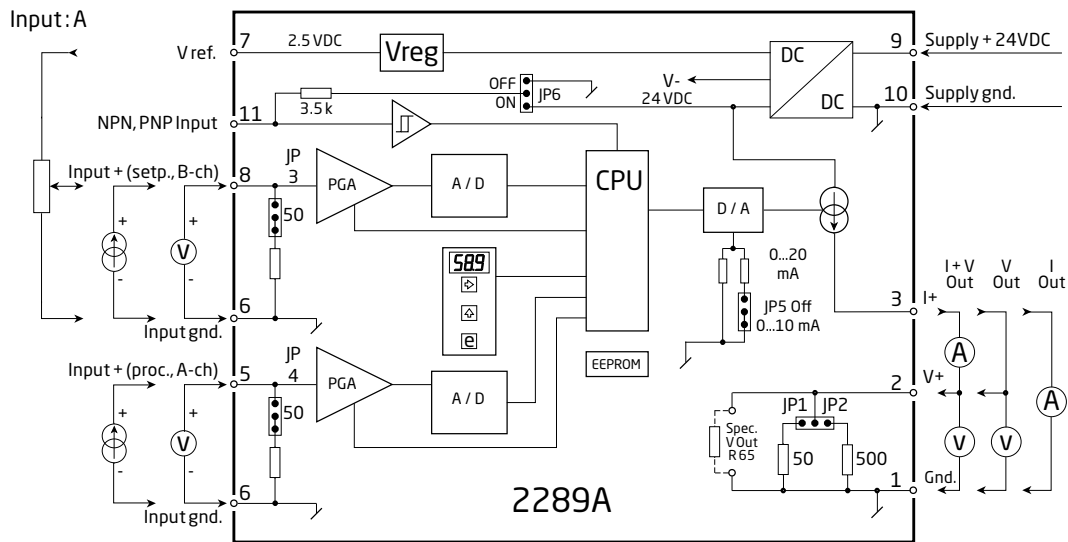
**HARDWARE PROGRAMMING:**

JP1	JP2	JP3	Output	MENU 4,3
OFF	OFF	OFF	0...10 mA	1
		ON	0...20 mA	2
ON	OFF	OFF	0...500 mV	3
		ON	0...1000 mV	4
OFF	ON	OFF	0...5 V	5
		ON	0...10 V	6

Order : 2289

Type	Inputs
2289	Current / voltage : A Pt100 & Current / voltage : B

Block diagrams:



Hardware programming:

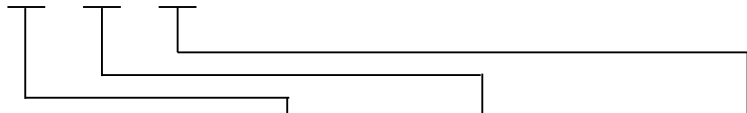
INPUT:

Channel	Input	JP	Setting	Menu
Channel A	0...20 mA	JP4	ON	MENU 2.3 = I
	0...10 VDC	JP4	OFF	MENU 2.3 = U
Channel B	0...20 mA	JP3	ON	MENU 3.3 = I
	0...10 VDC	JP3	OFF	MENU 3.3 = U
NPN		JP6	ON	
PNP		JP6	OFF	

OUTPUT:

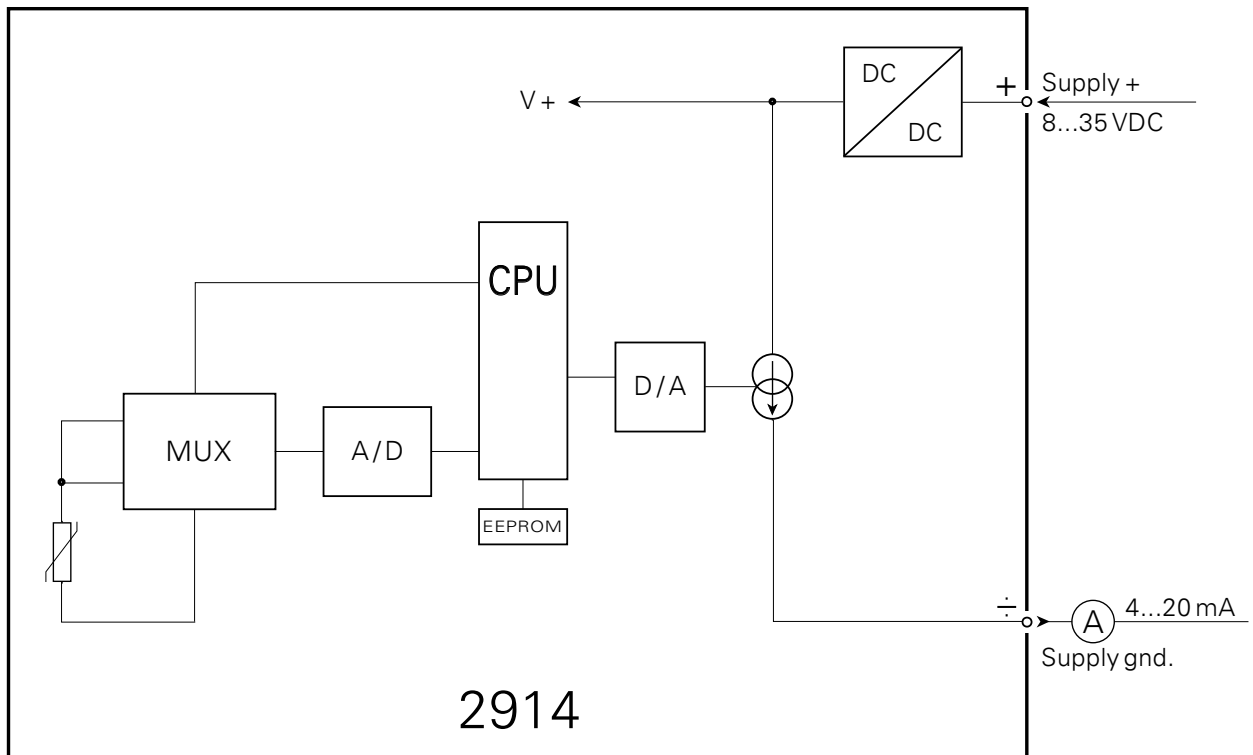
Output	JP1	JP2	JP5	Menu 4.3
0...10 mA	OFF	OFF	OFF	1
0...20 mA	OFF	OFF	ON	2
0...500 mV	ON	OFF	OFF	3
0...1000 mV	ON	OFF	ON	4
0...5 V	OFF	ON	OFF	5
0...10 V	OFF	ON	ON	6

Order: 2914



Type	Measurement range	Output	Sensor error value
2914	0...50°C : A	Special : 0	To max., ≥ 23 mA : A
	0...70°C : B	4...20 mA : 2	To min., ≤ 3.8 mA : B
	Special : X	20...4 mA : 9	Special : X

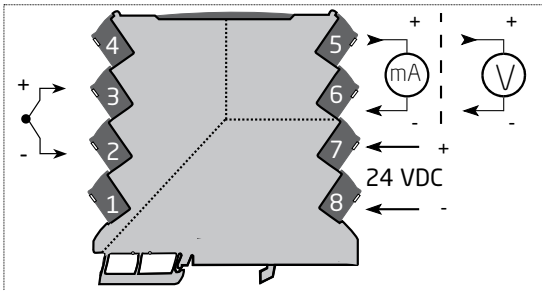
Block diagram:



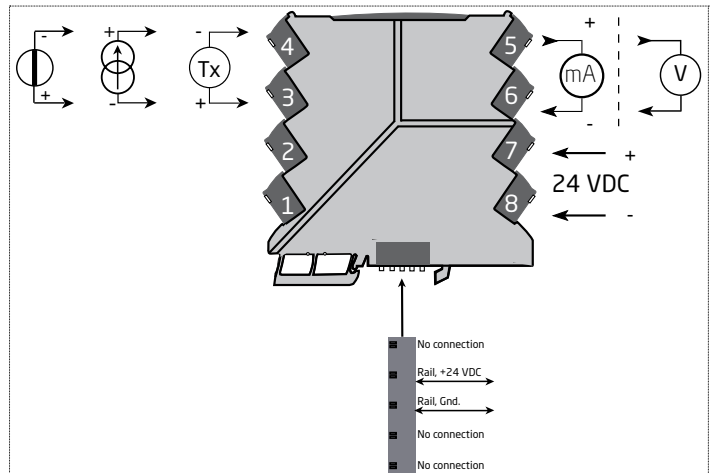
Order:

Type	Product name	Version	
3101	TC J&K converter	Supplied via terminals	:-
3102	Pt100 converter	Supplied via terminals	:-
3103	Isolated repeater	With power rail connector Supplied via terminals	:- :-N
3104	Isolated converter	With power rail connector Supplied via terminals	:- :-N
3105	Isolated converter	With power rail connector Supplied via terminals	:- :-N

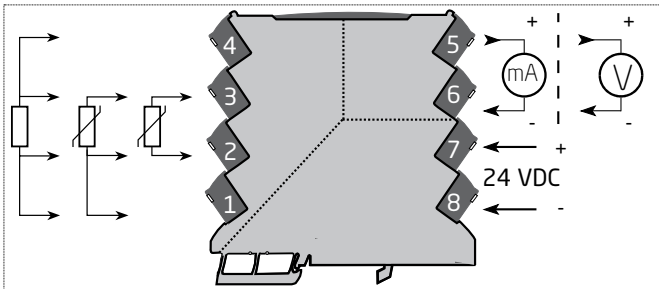
3101 block diagram:



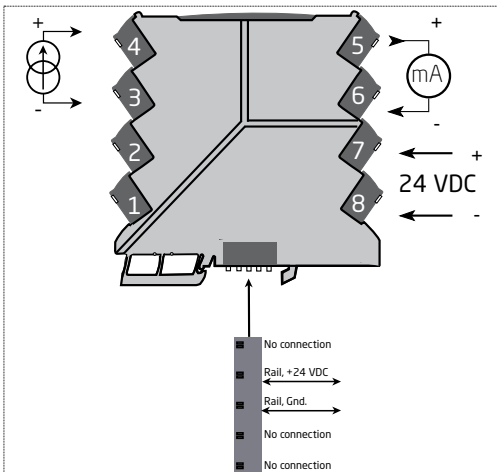
3104 block diagram:



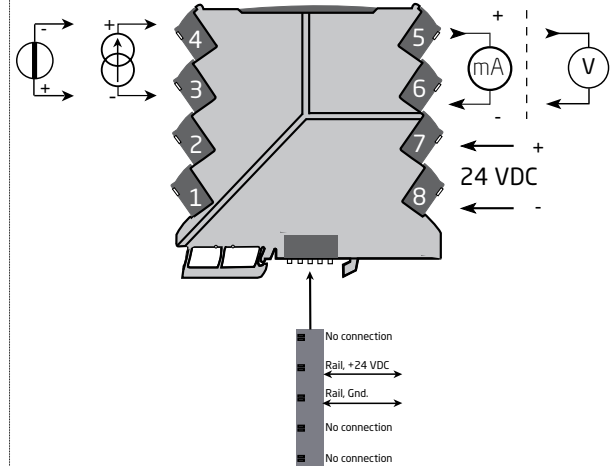
3102 block diagram:



3103 block diagram:



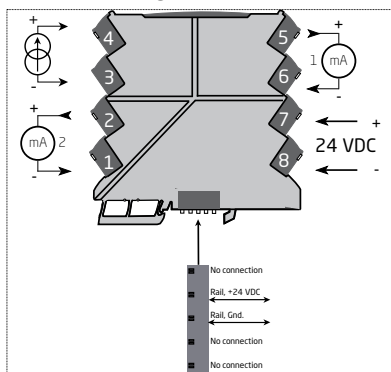
3105 block diagram:



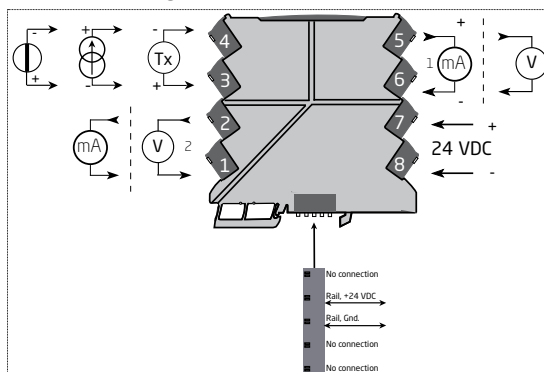
Order:

Type	Product name	Version
3108	Isolated repeater / splitter	With power rail connector :- Supplied via terminals :-N
3109	Isolated converter / splitter	With power rail connector :- Supplied via terminals :-N
3111	TC J&K converter - isolated	With power rail connector :- Supplied via terminals :-N
3112	Pt100 converter - isolated	With power rail connector :- Supplied via terminals :-N
3113	HART temperature converter	With power rail connector :- Supplied via terminals :-N

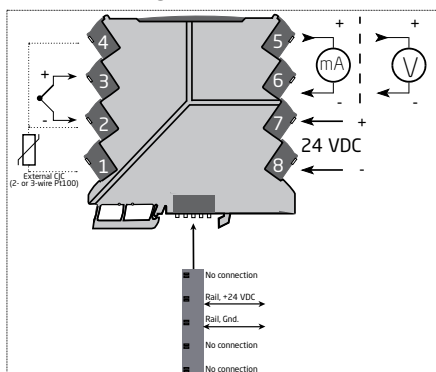
3108 block diagram:



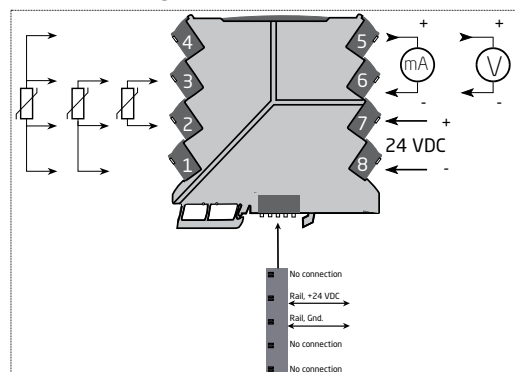
3109 block diagram:



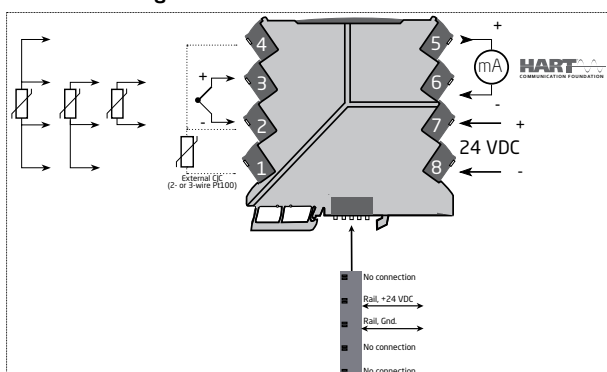
3111 block diagram:



3112 block diagram:



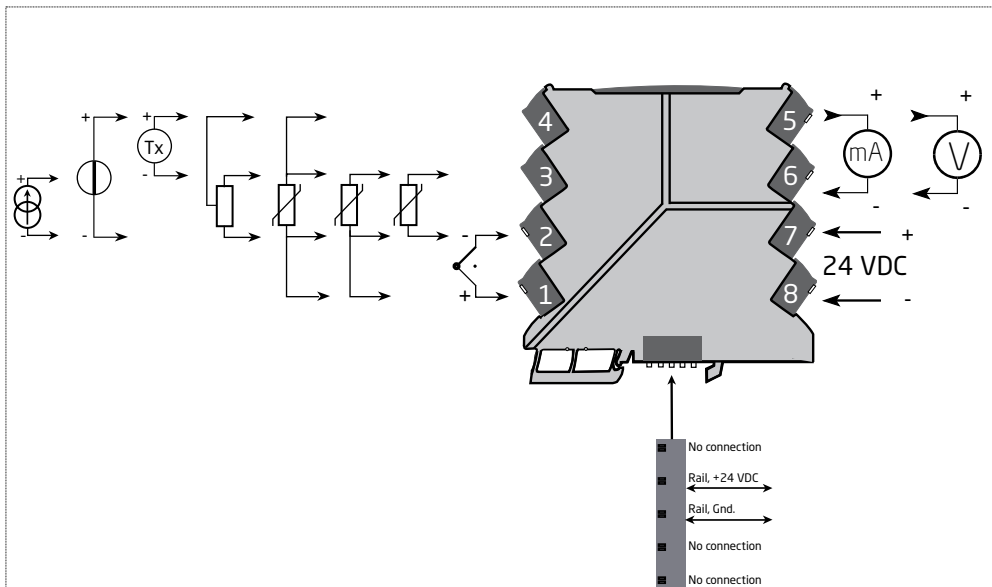
3113 block diagram:



Order:

Type	Product name	Version
3114	Isolated universal converter	With power rail connector :- Supplied via terminals :-N

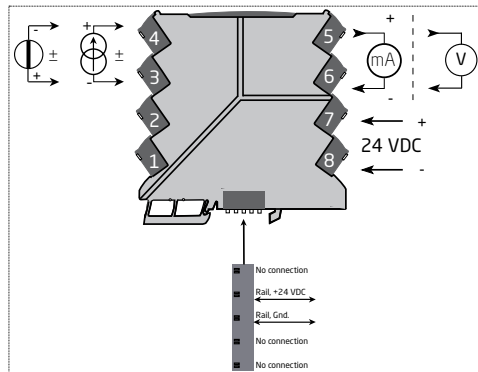
3114 block diagram:



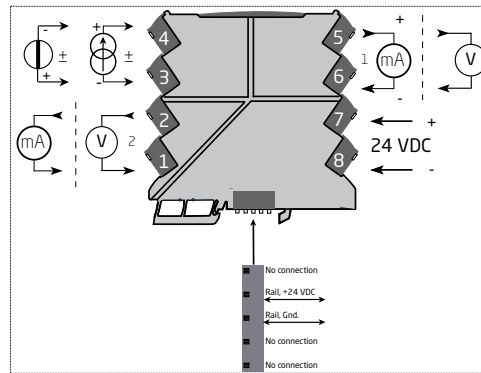
Order:

Type	Product name	Version
3117	Bipolar isolated converter	With power rail connector : -
		Supplied via terminals : -N
3118	Bipolar isolated converter/ splitter	With power rail connector : -
		Supplied via terminals : -N

3117 block diagram:



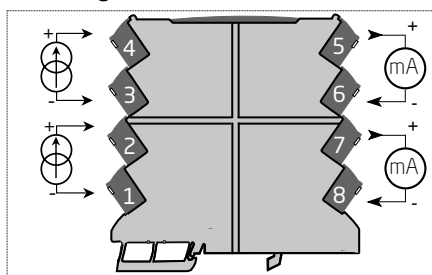
3118 block diagram:



Order: 3185A

Type	Unit channels
3185A	1
	2

Block diagram:

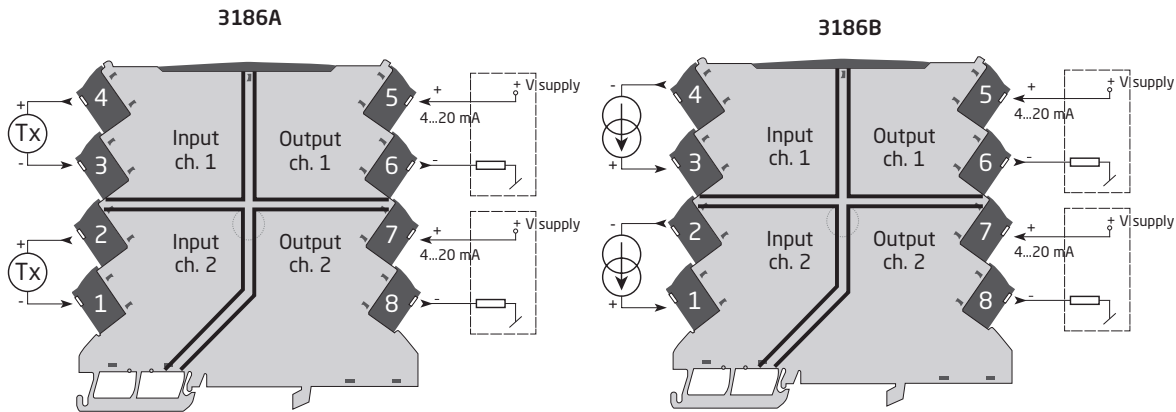


Order

Type	Version	Unit channels
3186	2-wire transmitter isolator : A	Single : 1
	2-wire current isolator : B	Double : 2

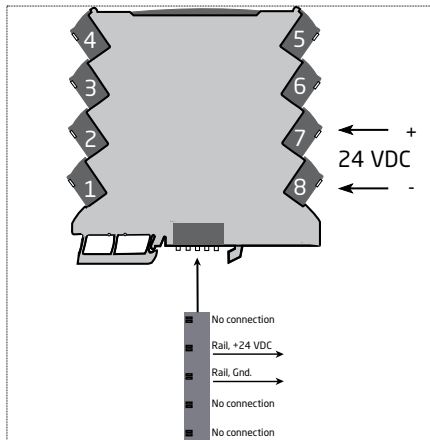
Example: 3186B2

Block diagrams:



Order: 3405 = Power Connector Unit

Block diagram:



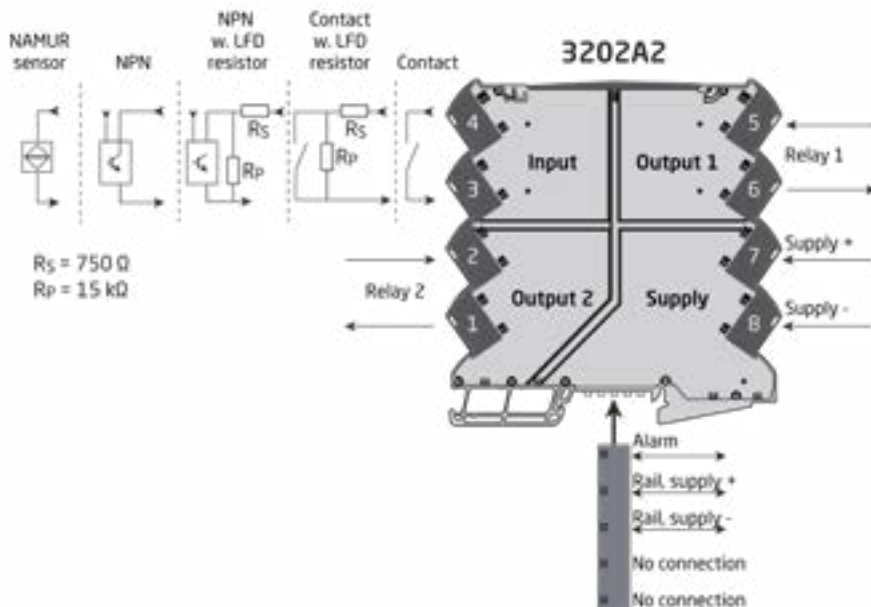
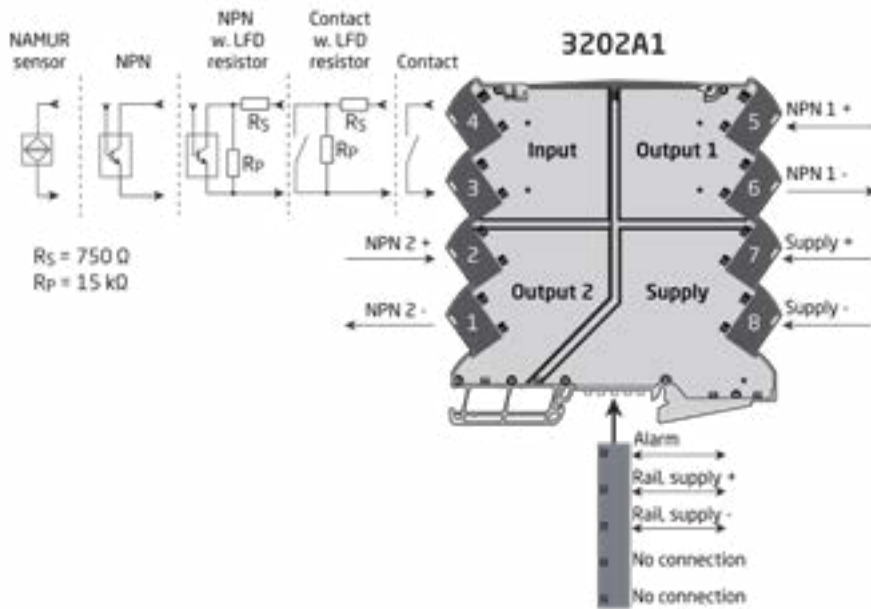


Order

Type	Version		
3202	Pulse isolator / switch amplifier, NPN output	: A1	With power rail connector / terminals : -
	Pulse isolator / switch amplifier, relay output	: A2	Supplied via terminals : -N

Example: 3202A1-N (Pulse isolator / switch amplifier, NPN output, supplied via terminals)

Block diagrams:



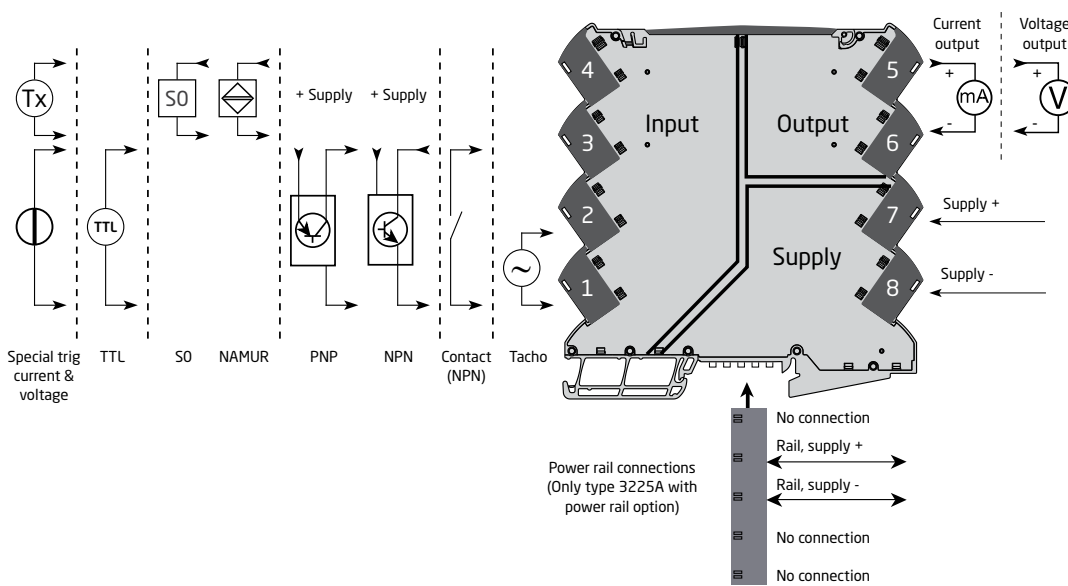
**Order**

Type	Version		
3225	Universal frequency converter , analog output	: A	With power rail connector / terminals : -
	Universal frequency converter, alarm relay output	: B	Supplied via terminals : -N

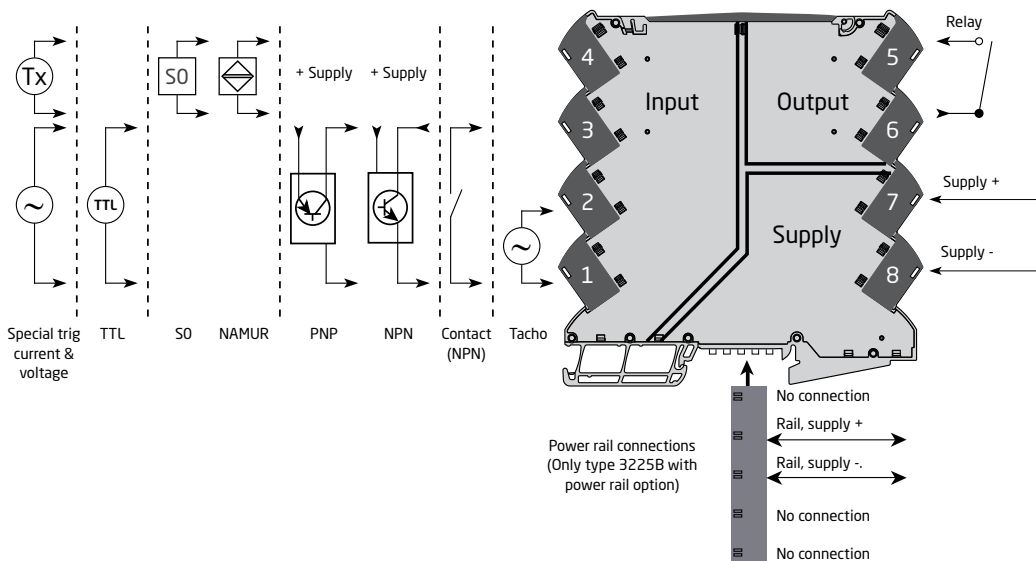
Example: 3225B-N (Universal frequency converter, alarm relay output, supplied via terminals)

**Block diagrams:**

**3225A**



**3225B**



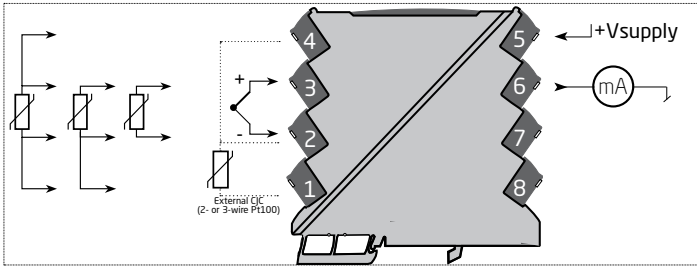
**Order:**

3331 = Temperature converter - loop powered - isolated

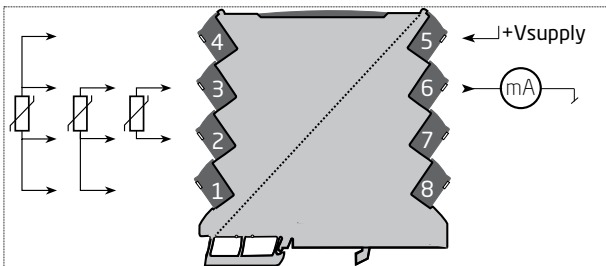
3333 = Pt100 converter - loop powered

3337 = HART temperature converter - loop powered - isolated

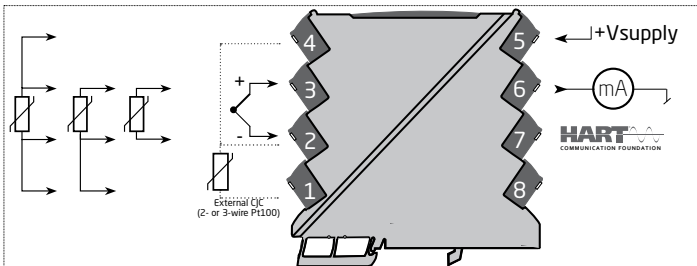
**3331 block diagram:**



**3333 block diagram:**



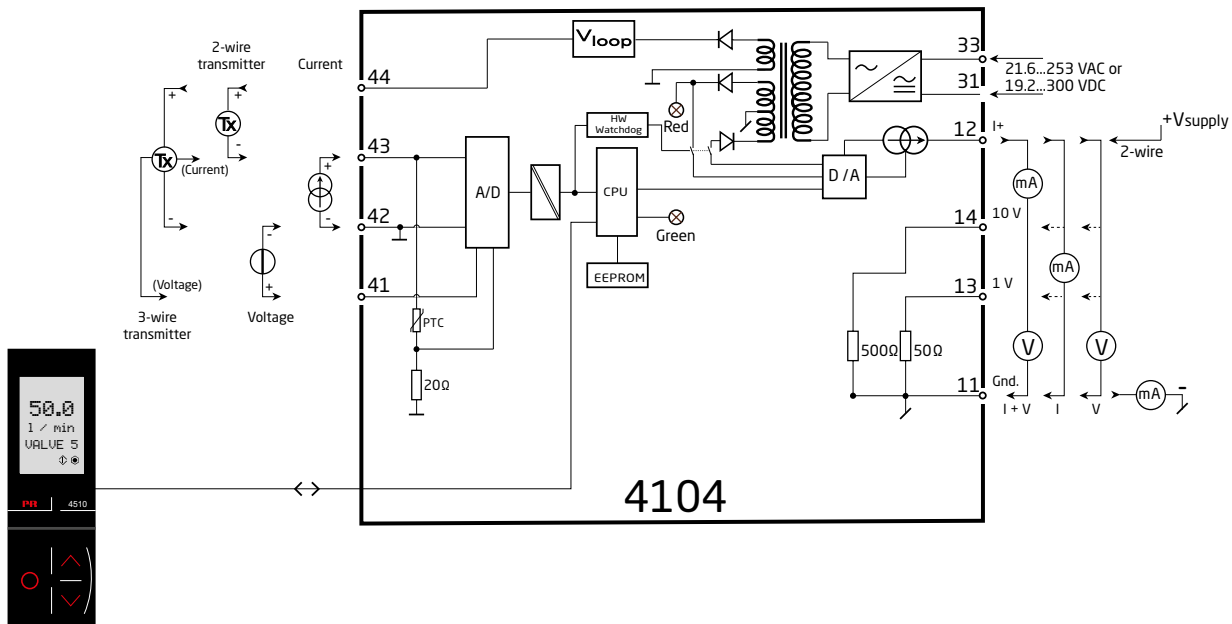
**3337 block diagram:**



**Order codes:**

- 4104 = Universal Uni/Bipolar transmitter
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

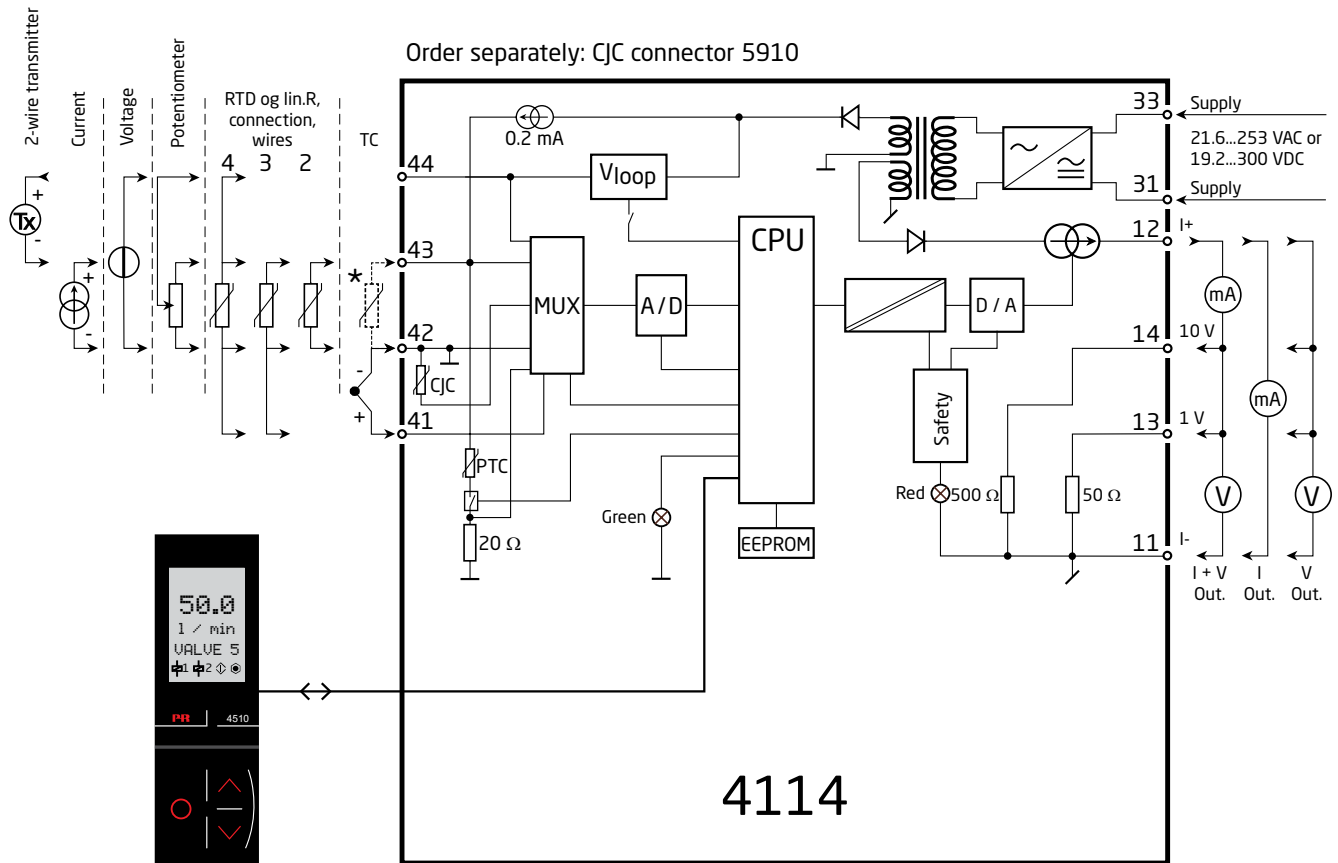
**Block diagram:**



**Order codes:**

- 4114 = Universal transmitter
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

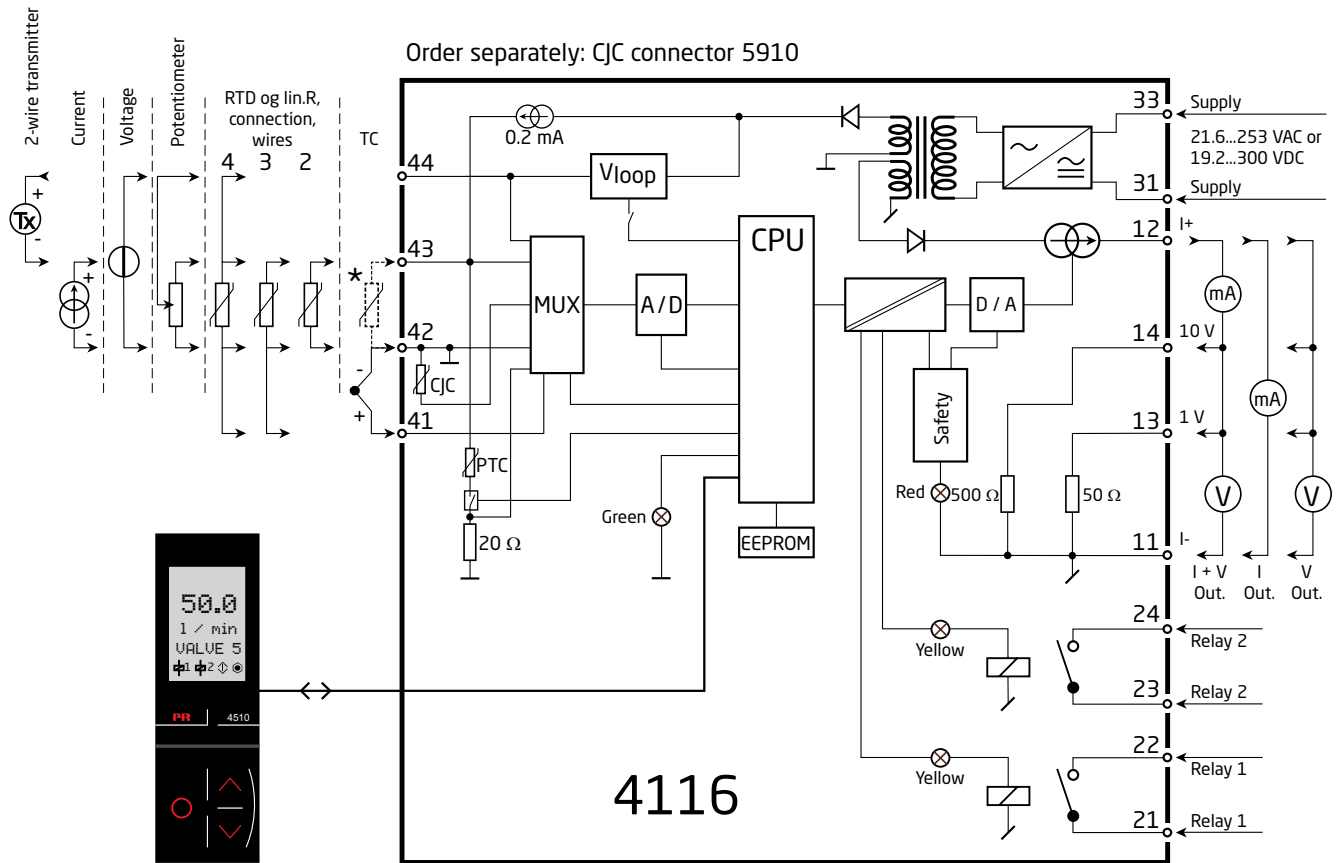
**Block diagram:**



**Order codes:**

- 4116 = Universal transmitter
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

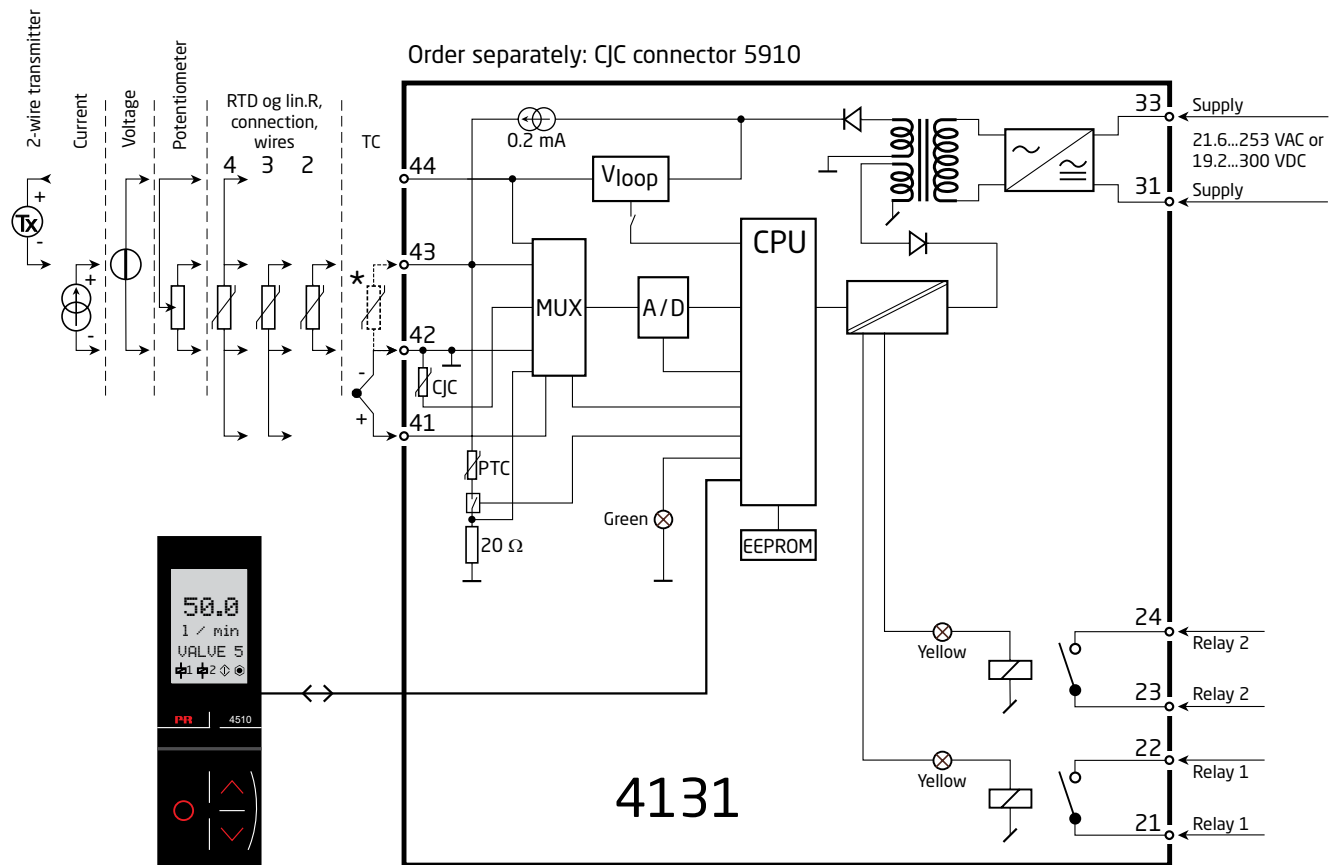
**Block diagram:**



**Order codes:**

- 4131 = Universal trip amplifier
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

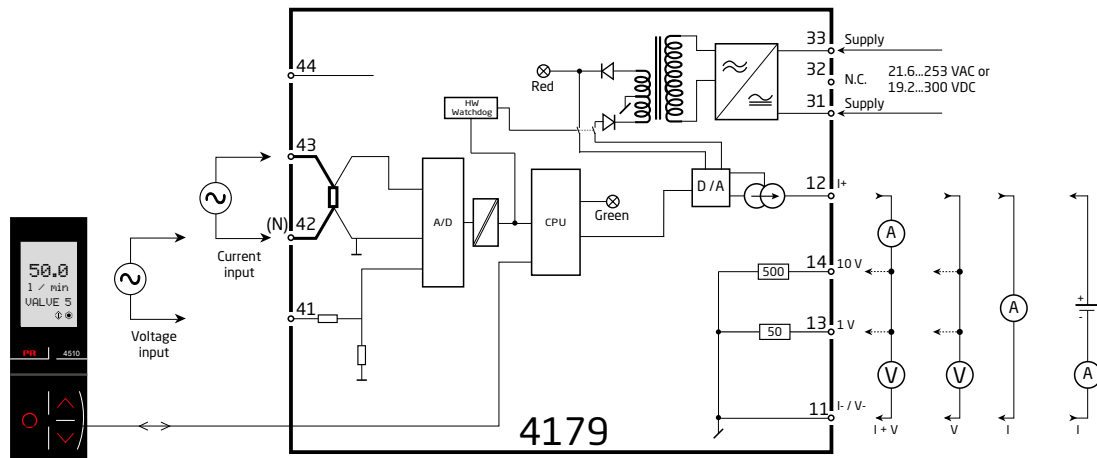
**Block diagram:**



**Order codes:**

- 4179 = Universal AC / DC transmitter
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

**Block diagram:**

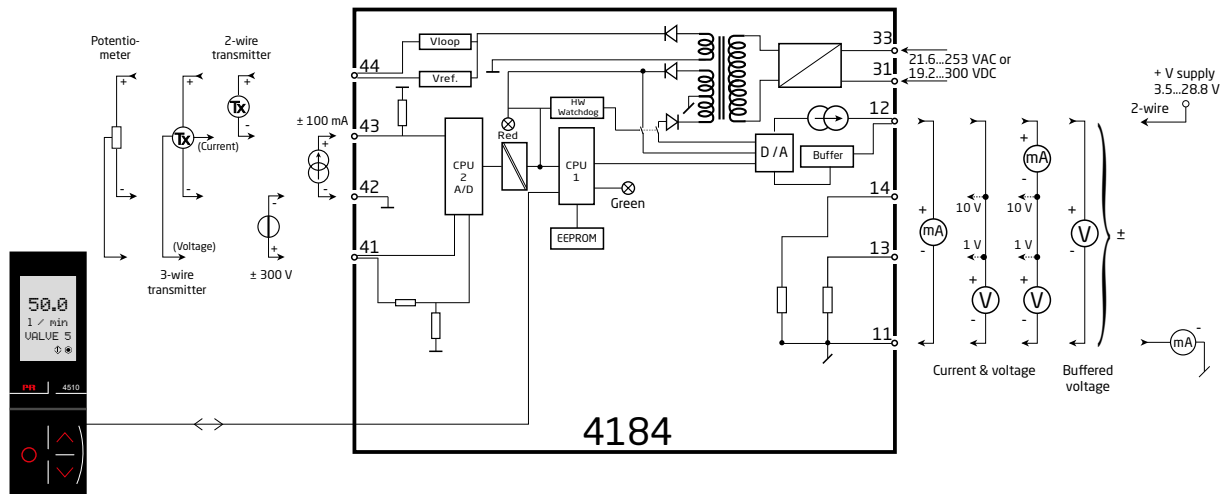




**Order codes:**

- 4184 = Universal uni-/bipolar signal transmitter
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

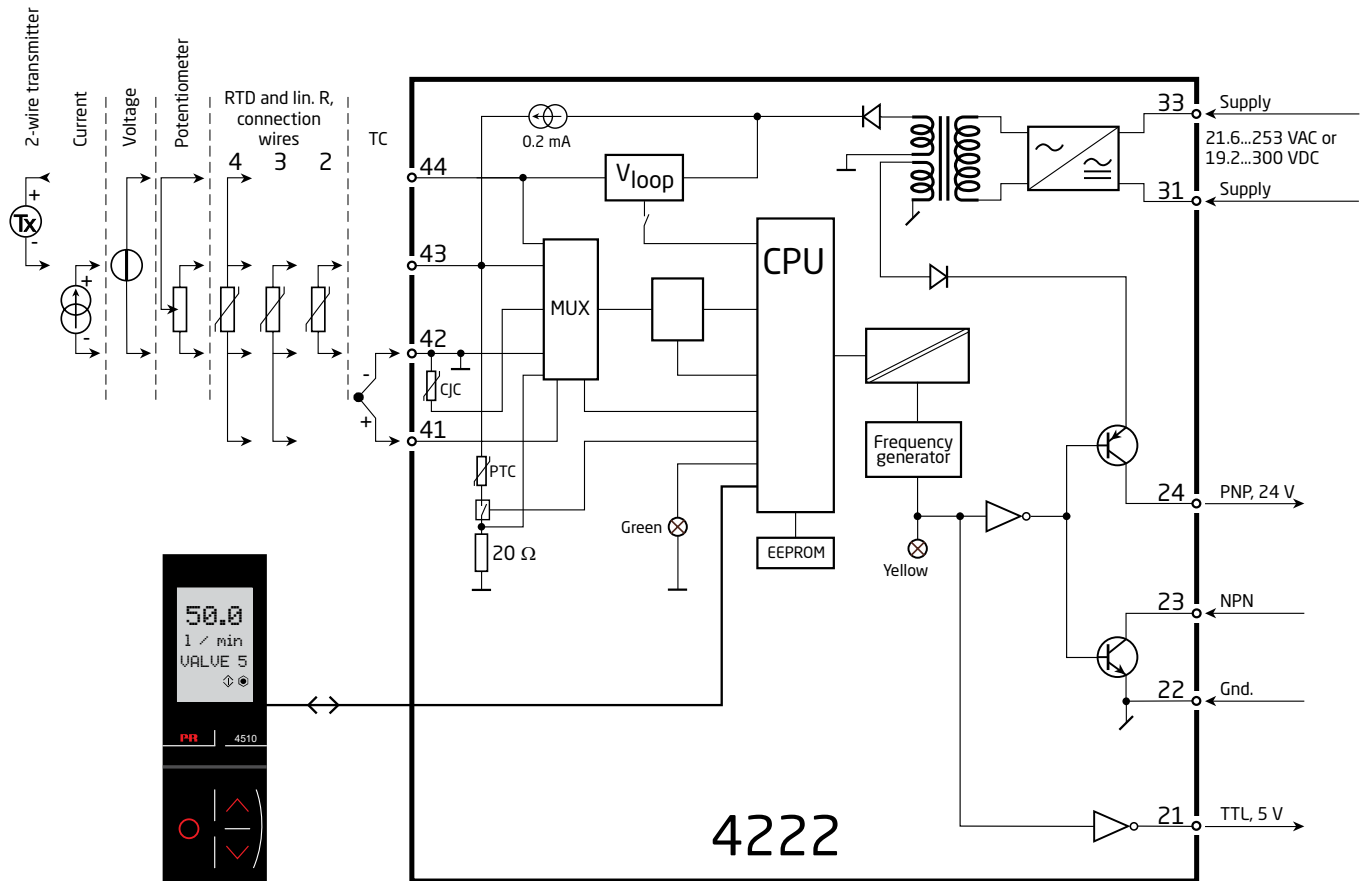
**Block diagram:**



**Order codes:**

- 4222 = Universal I/f converter
- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

**Block diagram:**



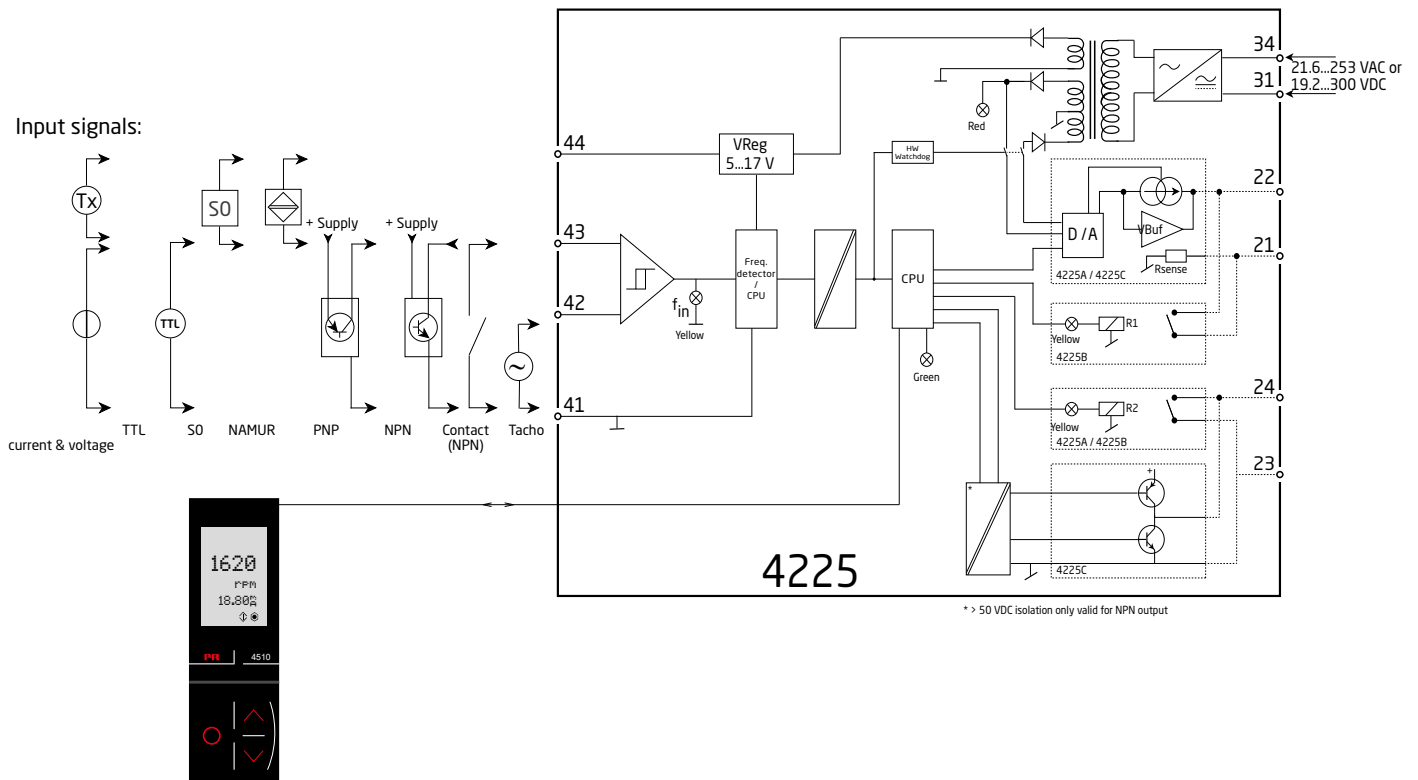
Order

Type	Output	
4225	1 analog output and 1 relay	: A
	2 relays	: B
	1 analog output and 1 frequency output	: C

Accessories

- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler

Block diagram:



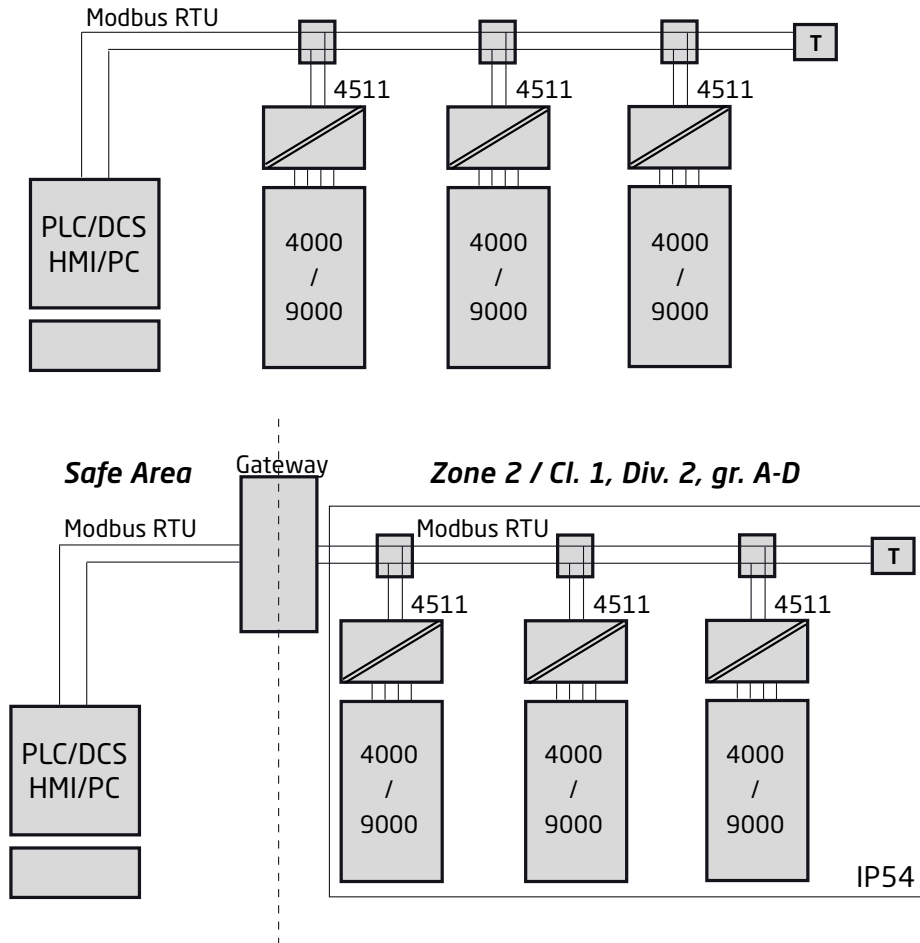
Order

Type	Description
4510	Display / programming front
4590	ConfigMate interface

**Order codes:**

4511 = Modbus Communication Enabler

Application-/  
Block diagram:



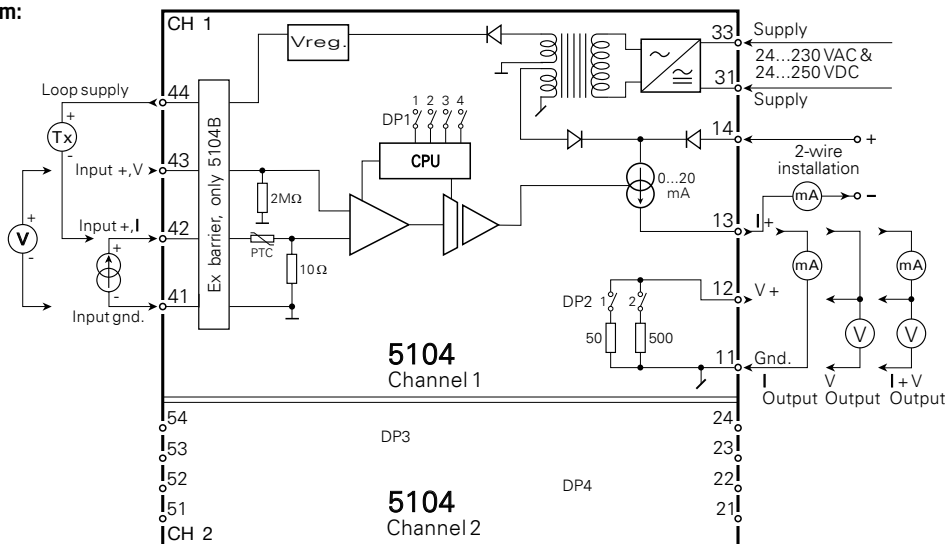
Order

Type	Description
4512	Bluetooth communication enabler
4590	ConfigMate interface

Order: 5104

Type	Version	Input	Output	Channels
5104	Standard : A	0...20 mA : A	Special : 0	Single : A
	[EEx ia] II C IS, DIV. 1 : B	4...20 mA : B	0...20 mA : 1	Double : B
		0...10 V : E	4...20 mA : 2	
		2...10 V : F	0...1 V : 4	
		Special : X	0.2...1 V : 5	
			0...10 V : 6	
			2...10 V : 7	

Block diagram:



DIP-switch programming:

Factory-calibrated standard ranges:

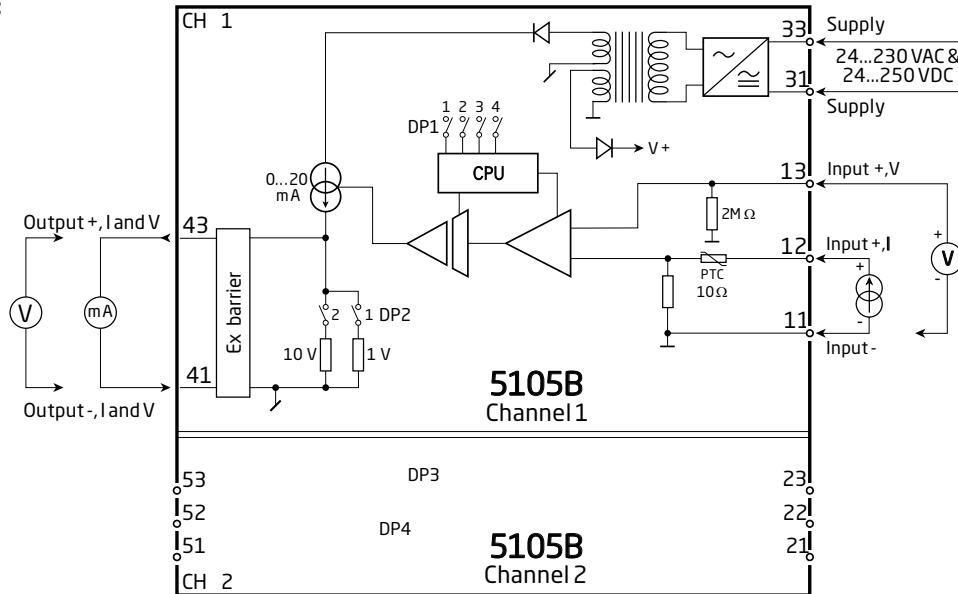
Output:	Input: (channel 2, DP 3 and DP 4)			
	0...20 mA	4...20 mA	0...10 V	2...10 V
0...20 mA	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2
4...20 mA	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2
0...1 V	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2		
0.2...1 V	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2		
0...10 V	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2
2...10 V	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2	On Off DP1 DP2 1 2 3 4 1 2

When special measurement ranges are delivered, all DIP-switches for the channel in question are OFF.

Order: 5105B

Type	Input	Output	Channels
5105B	0...20 mA : A	Special : 0	Single : A
	4...20 mA : B	0...20 mA : 1	Double : B
	0...10 V : E	4...20 mA : 2	
	2...10 V : F	0...1 V : 4	
	Special : X	0.2...1 V : 5	
		0...10 V : 6	
		2...10 V : 7	

Block diagram:



DIP-switch programming:

Factory-calibrated standard ranges:

Output:	Input: (channel 2, DP 3 and DP 4)			
	0...20 mA	4...20 mA	0...10 V	2...10 V
0...20 mA	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2
4...20 mA	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2
0...1 V	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2		
0.2...1 V	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2		
0...10 V	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2
2...10 V	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2	DP1 DP2 On Off 1 2 3 4 1 2

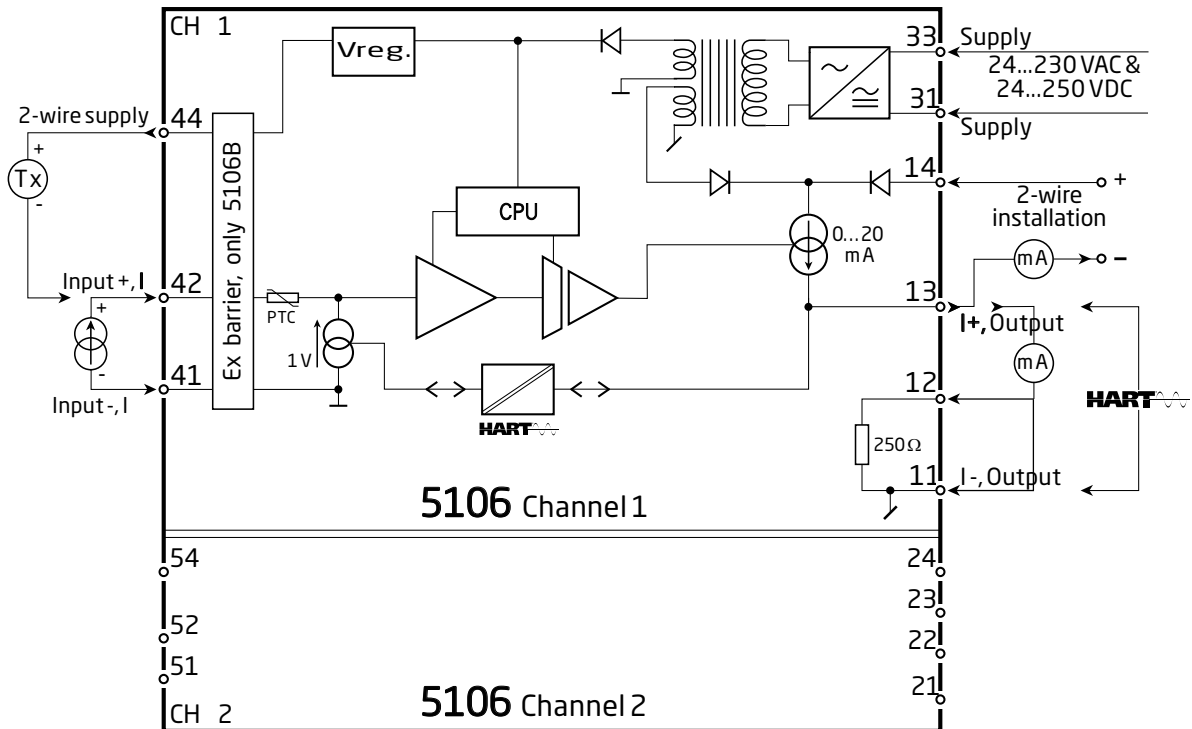
When special measurement ranges are delivered, all DIP-switches for the channel in question are OFF.



Order: 5106

Type	Version	Input	Output	Channels
5106	Standard : A	4...20 mA : B	4...20 mA : 2	Single : A
	[EEx ia] II C : B		20...4 mA : 9	Double : B

Block diagram:

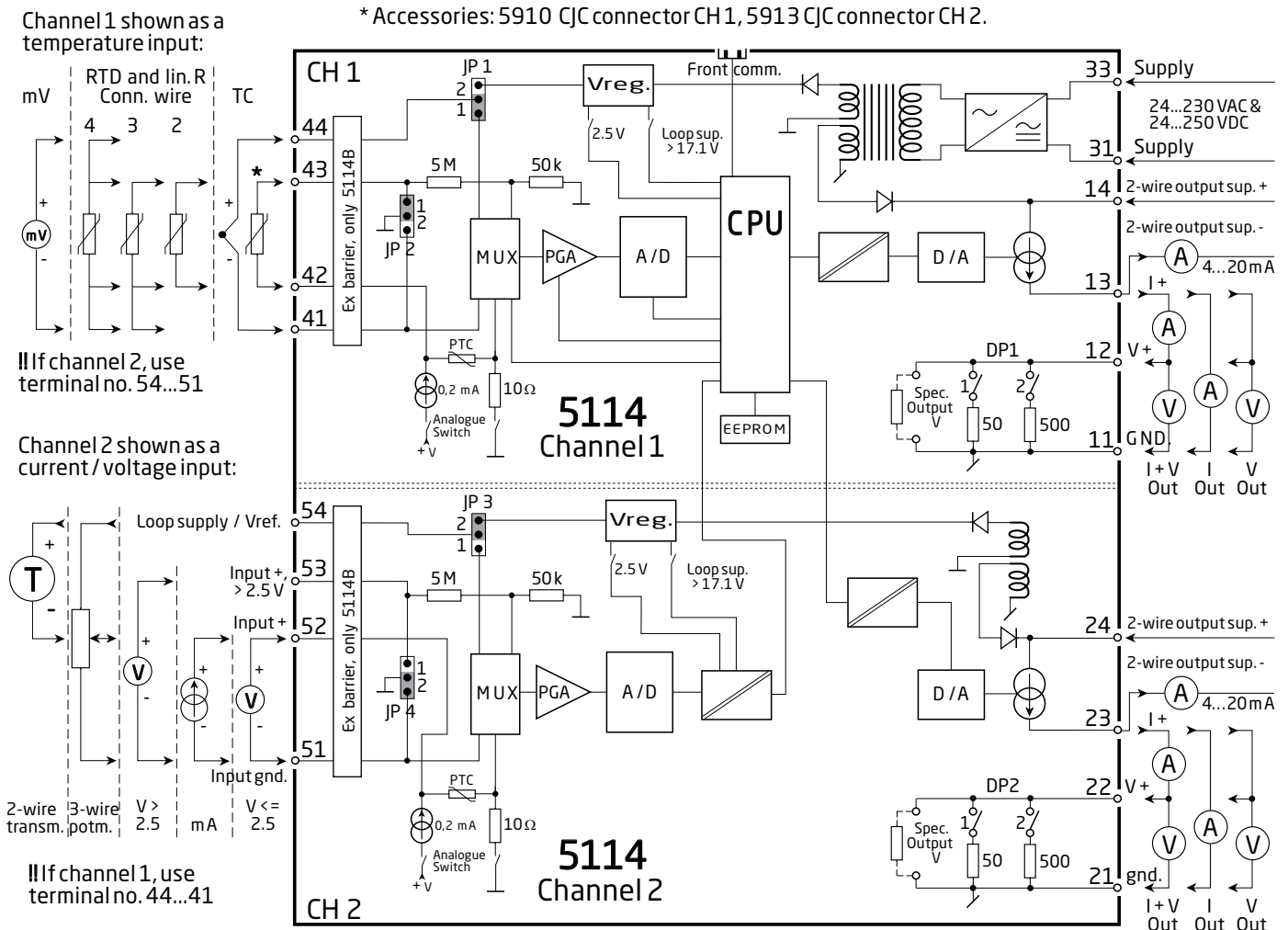


Order : 5114

Type	Version	Input	Channels
5114	Standard : A	RTD / TC / R / mA / V / mV : _	Single : A
	[EEx ia] IIC : B	RTD / TC / mV / R : 1 mA / V / mV : 2 Channel 1, RTD / TC / mV / R : 3 Channel 2, mA / V / mV : 3	Double : B

Note! For TC inputs with internal CJC, remember to order the CJC-terminals type 5910 / 5910 Ex (ch. 1) and 5913 / 5913 Ex (ch.2).

**Block diagram:**



**Selection of input type: (5114A)**

Input	JP 1	JP 2	JP 3	JP 4
Temperature channel 1	1	1	-	-
Temperature channel 2	-	-	1	1
Current / voltage channel 1	2	2	-	-
Current / voltage channel 2	-	-	2	2

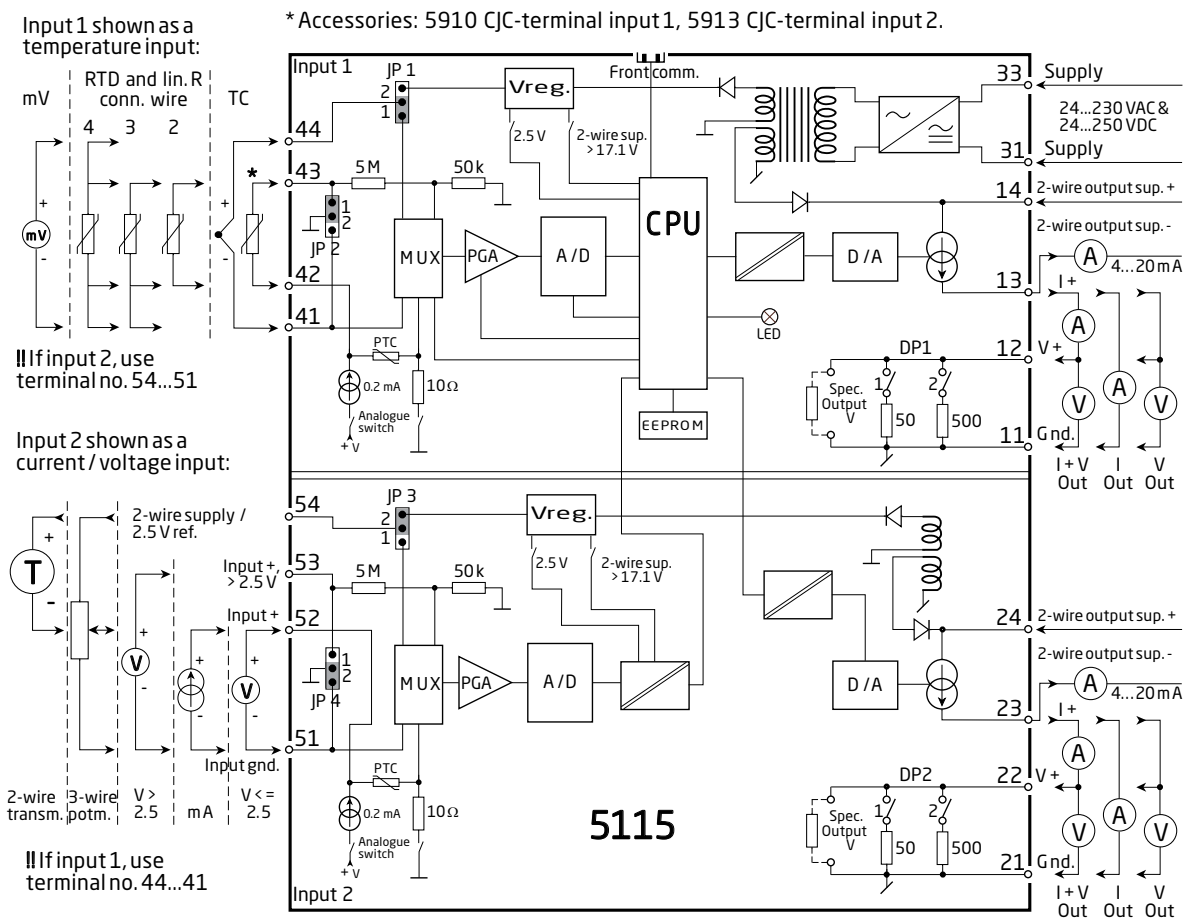
Order:

Type	Version	Input
5115	Standard	: A RTD / TC / mV / R / mA / V : _
	ATEX Ex	: B RTD / TC / mV / R : 1 mA / V / mV : 2 Input 1, RTD / TC / mV / R : 3 Input 2, mA / V / mV

Example: 5115B3

NB! Please remember to order CJC connectors type 5910Ex (input 1) and 5913Ex (input 2) for TC inputs with an internal CJC.

Block diagram:



Selection of input type: (5115A)

Input	JP 1	JP 2	P 3	JP 4
Temperature input 1	1	1	-	-
Temperature input 2	-	-	1	1
Current / voltage input 1	2	2	-	-
Current / voltage input 2	-	-	2	2

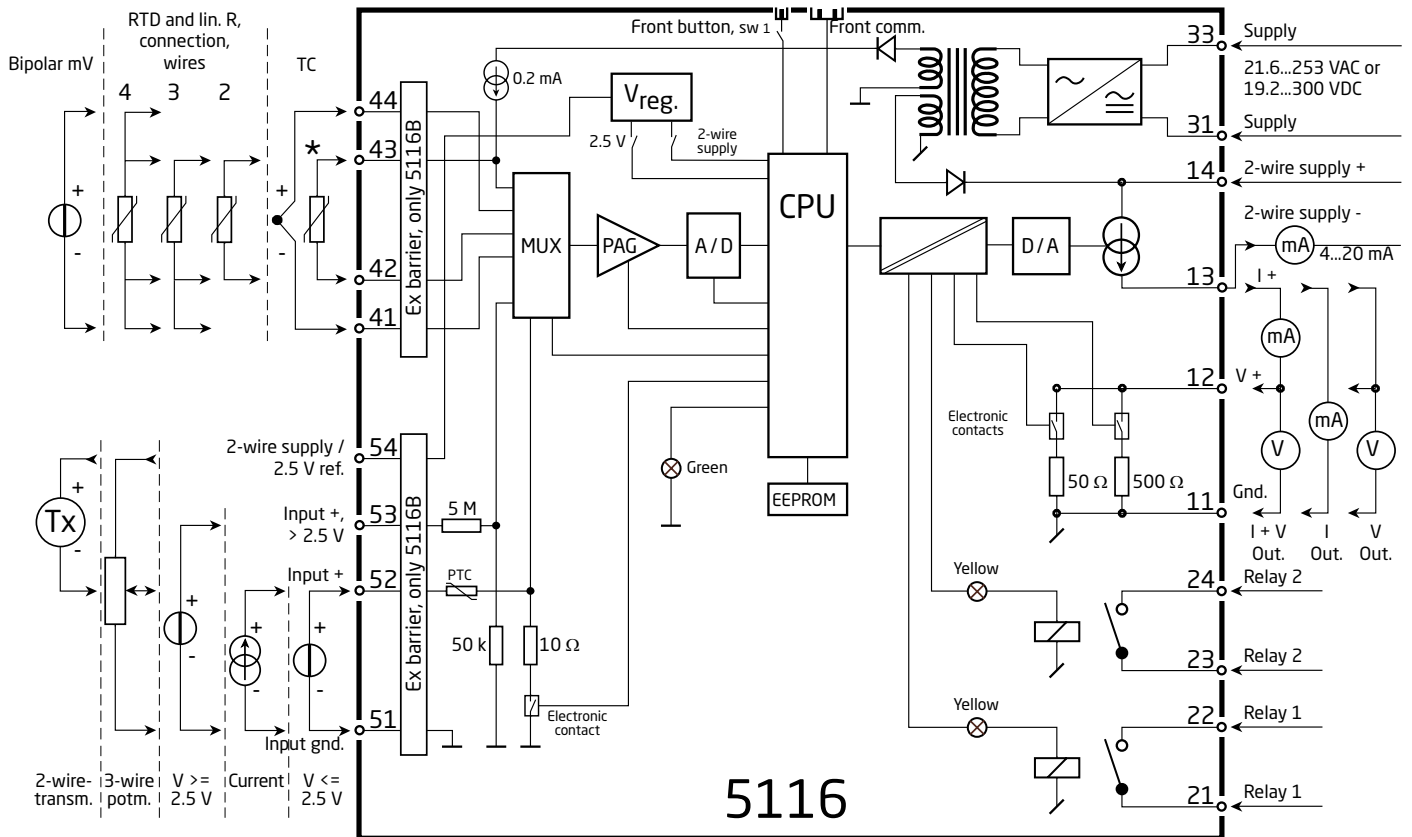
Order: 5116

Type	Version
5116	Standard.....: A ATEX Ex and FM.....: B

\*NB! Please remember to order CJC connectors type 5910/5910Ex for TC inputs with internal CJC

Block diagram:

\* Accessories: CJC connectors type 5910 / 5910 Ex



5116

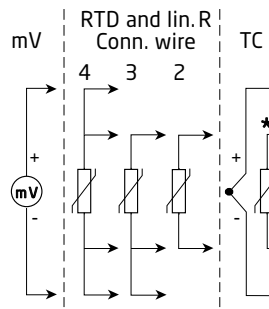
Order: 5131

Type	Version	Input	Channels
5131	Standard : A	RTD / TC / R / mA / V / mV : _	Single : A
	[EEx ia] IIC : B	RTD / TC / mV / R : 1	Double : B
		mA / V / mV : 2	
		Channel 1, RTD / TC / mV / R : 3	
		Channel 2, mA / V / mV : 3	

**Note!** For TC inputs with internal CJC, remember to order the CJC connectors type 5910 / 5910 Ex (ch. 1) and 5913 / 5913 Ex (ch. 2).

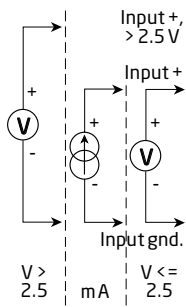
**Block diagram:**

Channel 1 shown as a temperature input:



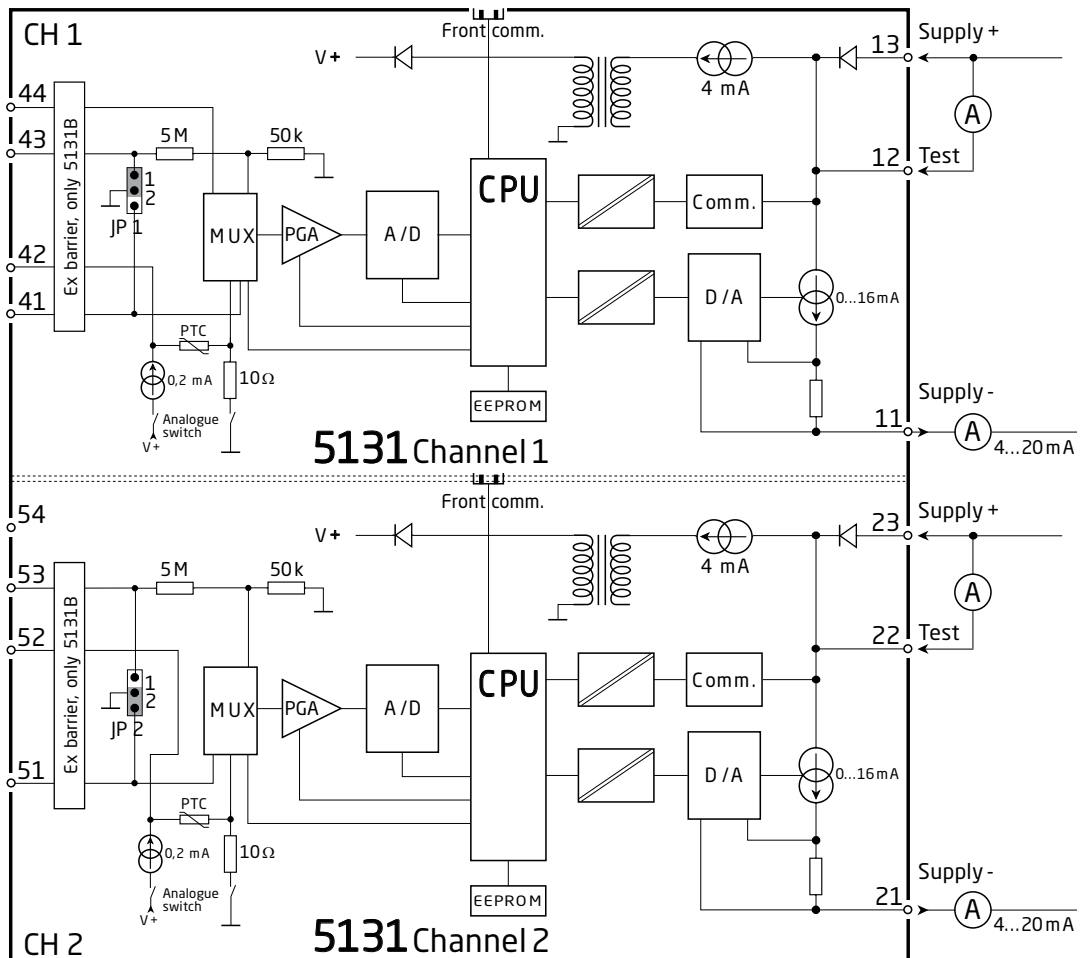
!! If channel 2, use terminal no. 54...51

Channel 2 shown as a current/voltage input:



!! If channel 1, use terminal no. 44...41

\* Accessories: 5910 CJC connector CH1, 5913 CJC connector CH2.



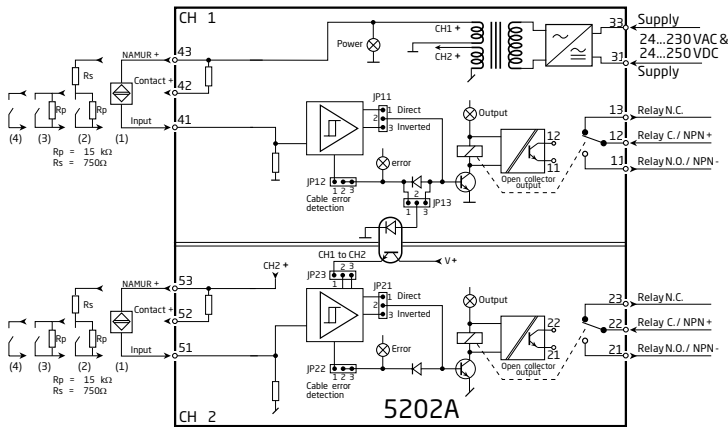
**Selection of input type: (5131A)**

Input	JP 1	JP 2
Temperature channel 1	1	-
Temperature channel 2	-	1
Current / voltage channel 1	2	-
Current / voltage channel 2	-	2

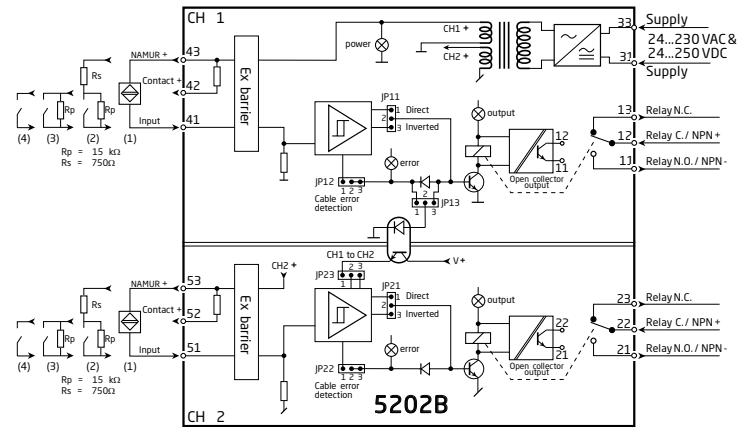
Order: 5202

Type	Version	Output
5202	Standard : A	Open collector NPN : 1 2x1 relay : 2
	ATEX Ex : B	2x2 relays : 4

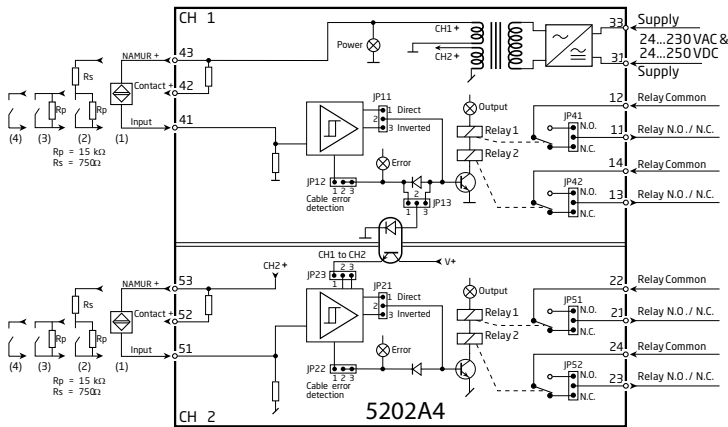
Block diagram, 5202A1 & A2:



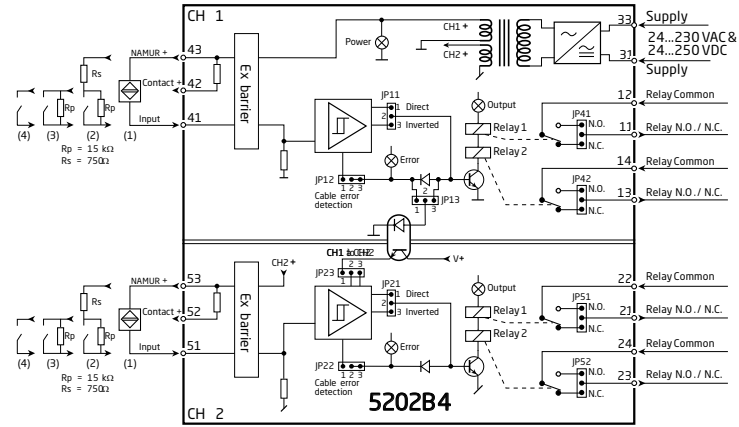
Block diagram, 5202B1 & B2:



Block diagram, 5202A4:



Block diagram, 5202B4:



Jumper programming:

Signal transmission	Channel 1 JP 11	Channel 2 JP 21	Cable error detection	Channel 1 JP 12	Channel 2 JP 22
Direct	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	ON	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3
Inverted	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	OFF	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

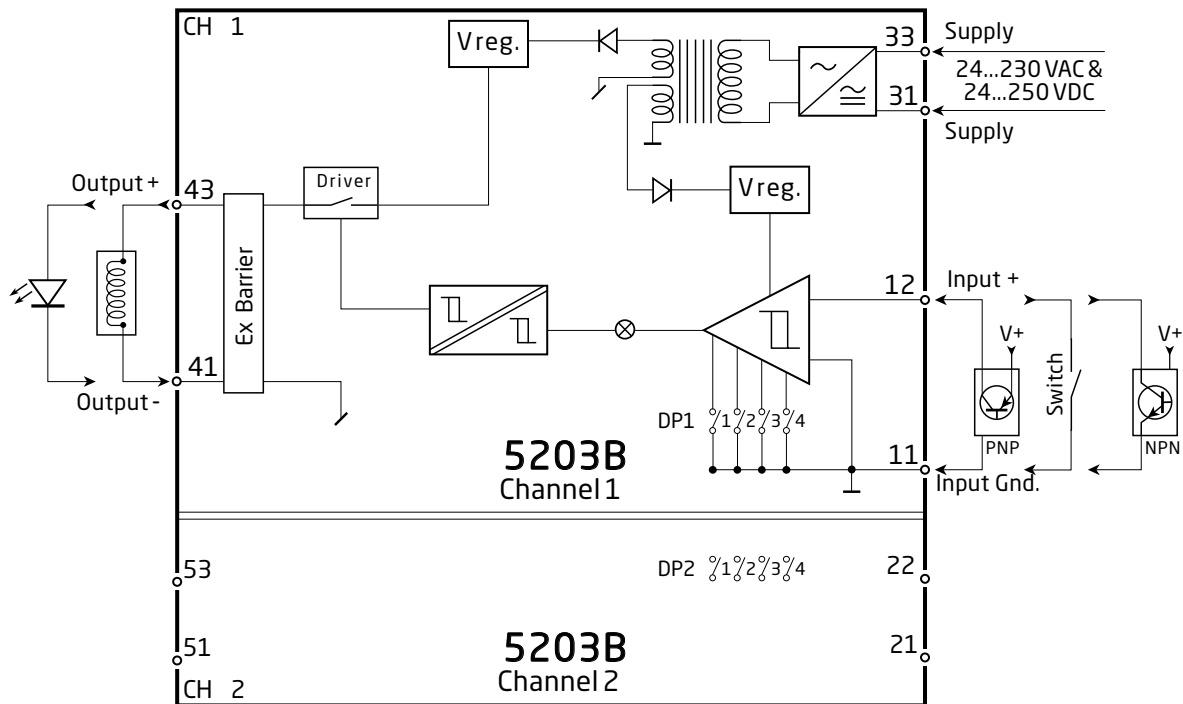
Channel 1 signal to channel 2	Channel 1 JP 13	Channel 2 function	Channel 2 JP 23
Cable error	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	Channel 1 to channel 2 ON, input 2 disabled	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3
Signal	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		Channel 1 to channel 2 OFF, input 2 active

5202B4		
Relay function		
Channel 1	Relay 1, JP41	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3
	Relay 2, JP42	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3
Channel 2	Relay 1, JP51	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3
	Relay 2, JP52	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3

Order: 5203B

Type	Input	Ex barrier	Channels
5203B	PNP : 1	[EEEx ia] type : F	Single : 1
	Switch : 2		
	NPN : 3	[EEEx ia] type : H	Single : 1
		[EEEx ia] type : I	Double : 2

Block diagram:



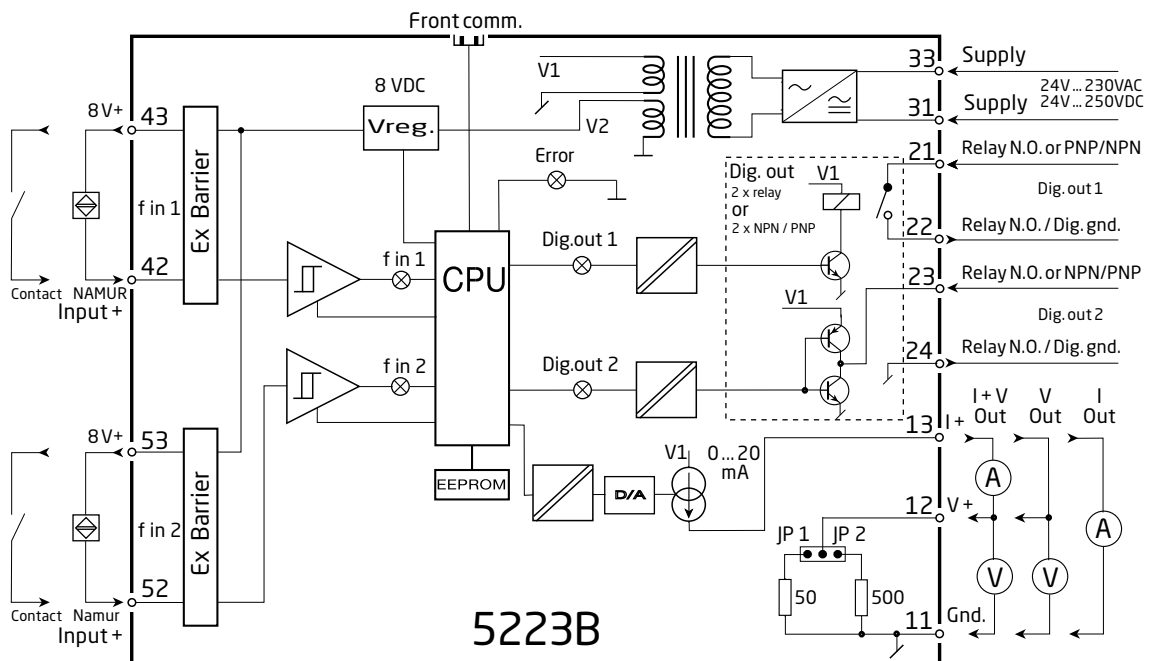
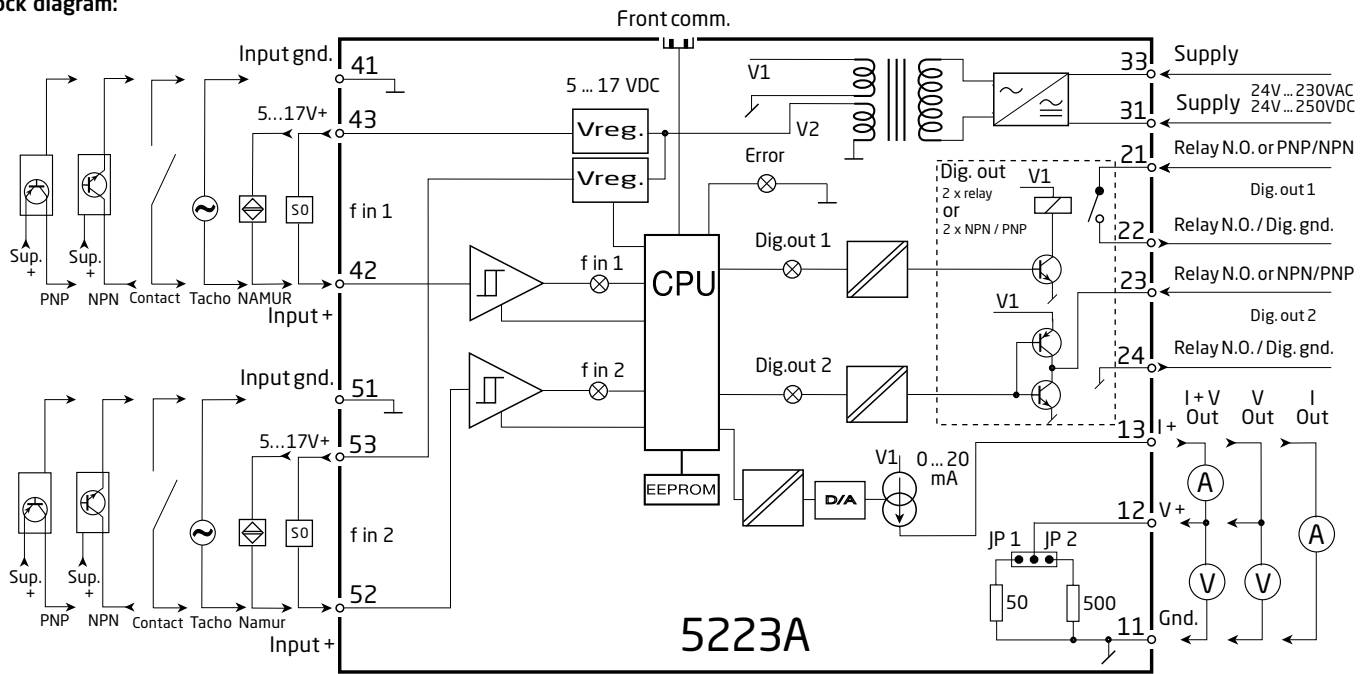
DIP-switch programming:

Input: (channel 1 = DP 1, channel 2 = DP 2)			
Open collector PNP, direct	Open collector PNP, inverted	Switch and open collector NPN, direct	Switch and open collector NPN, inverted
On Off DP 1 2 3 4	On Off DP 1 2 3 4	On Off DP 1 2 3 4	On Off DP 1 2 3 4

Order: 5223

Type	Version	Output
5223	Standard : A	Analogue + NPN / PNP : 1
	[EEx ia] IIC : B	Analogue + Relay output : 2

Block diagram:

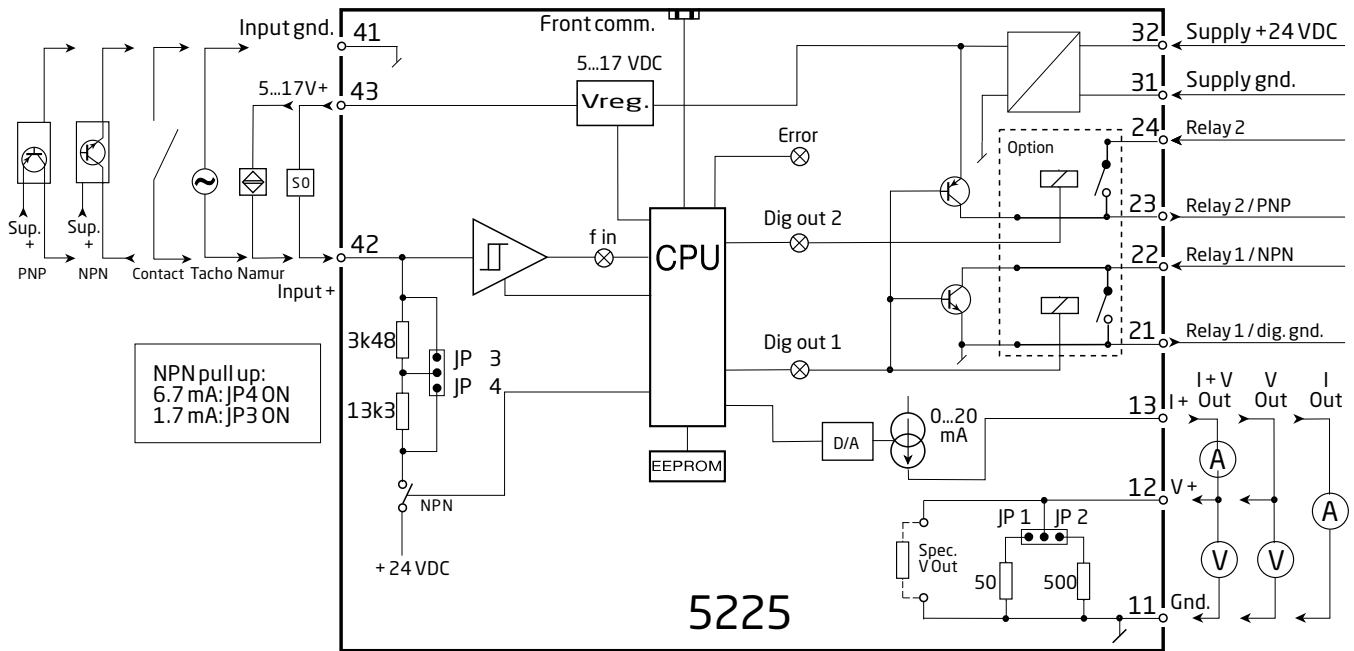




Order : 5225

Type	Version	Output
5225	Standard : A	Analogue + NPN / PNP : 1 Analogue + relay output : 2

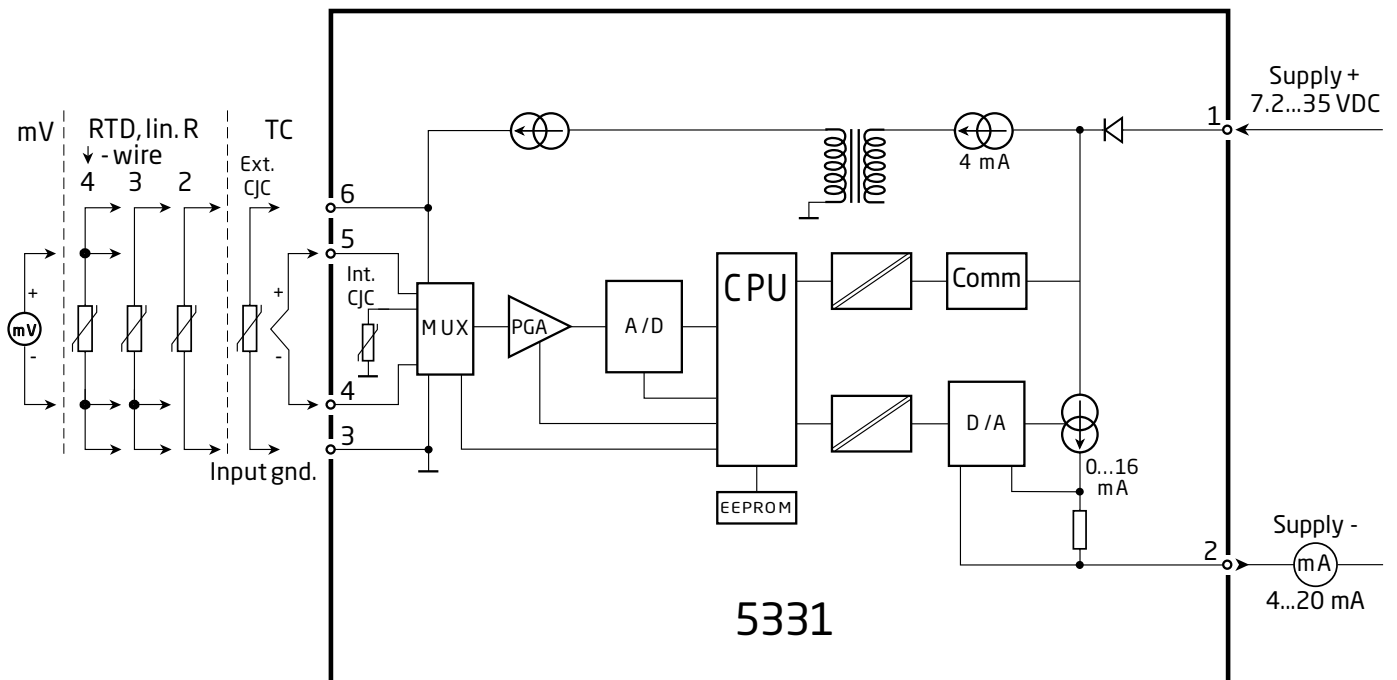
Block diagram:



Order:

Type	Version	Ambient temperature	Galvanic isolation
5331	Zone 2 / Div. 2 : A	-40°C...+85°C : 3	1500 VAC : B
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D		

Block diagram:



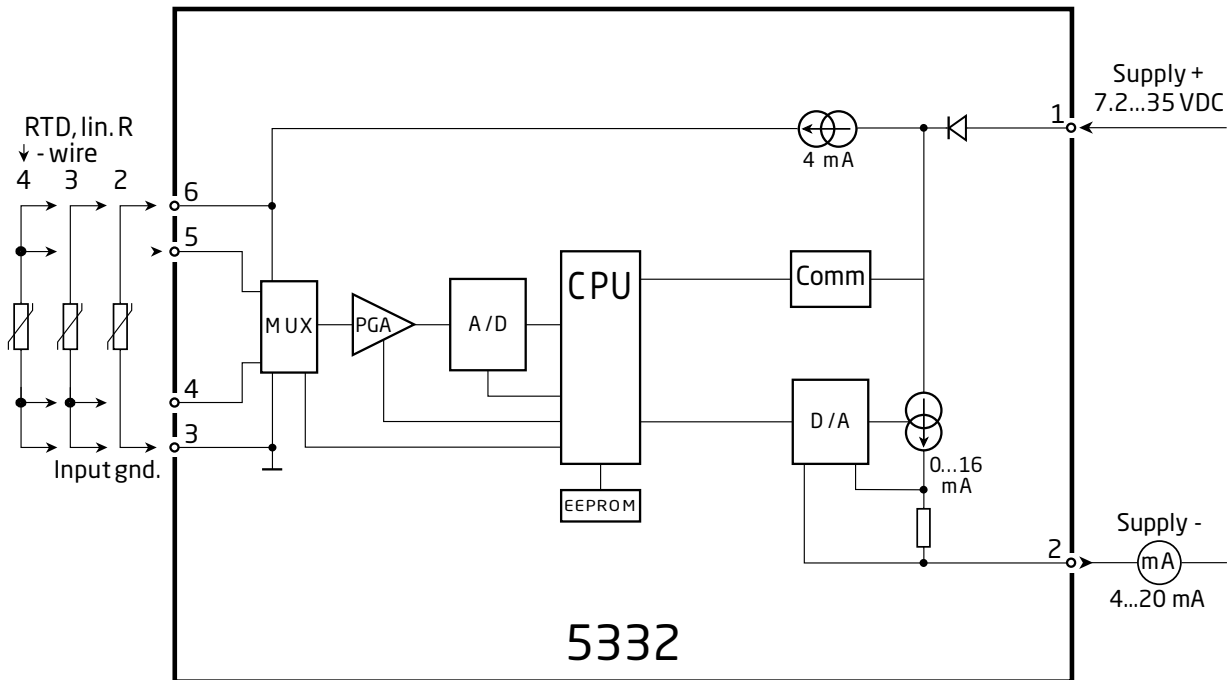
Order

Type	Version
5332	Simple, no approvals : N Zone 2 / Div. 2 : A Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D

Accessories

5909	= Loop Link USB interface and PReset Software
------	---

Block diagram:



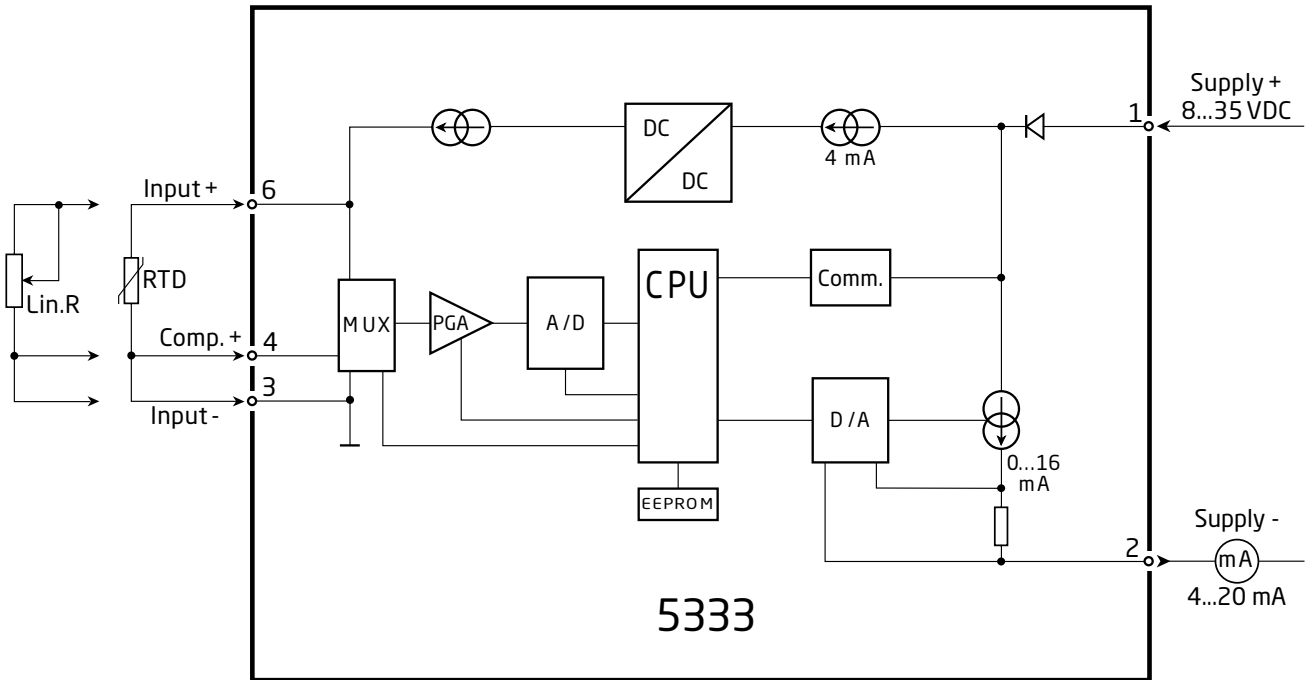
Order

Type	Version
5333	Zone 2 / Div. 2 : A
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D

Accessories

5909	= Loop Link USB interface and PReset Software
------	---

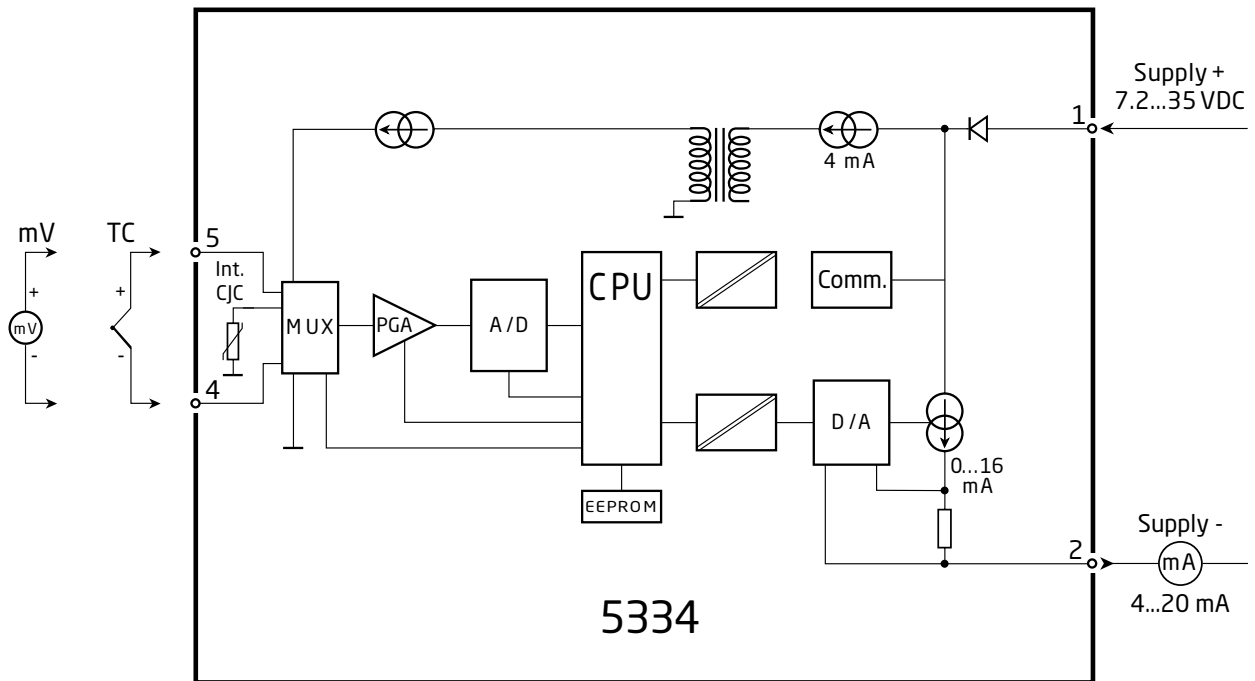
Block diagram:



Order:

Type	Version	Ambient temperature	Galvanic isolation
5334	Zone 2 / Div. 2	: A -40°C...+85°C : 3	1500 VAC : B
	Zone 0, 1, 2, 21, 22, M1	: B	

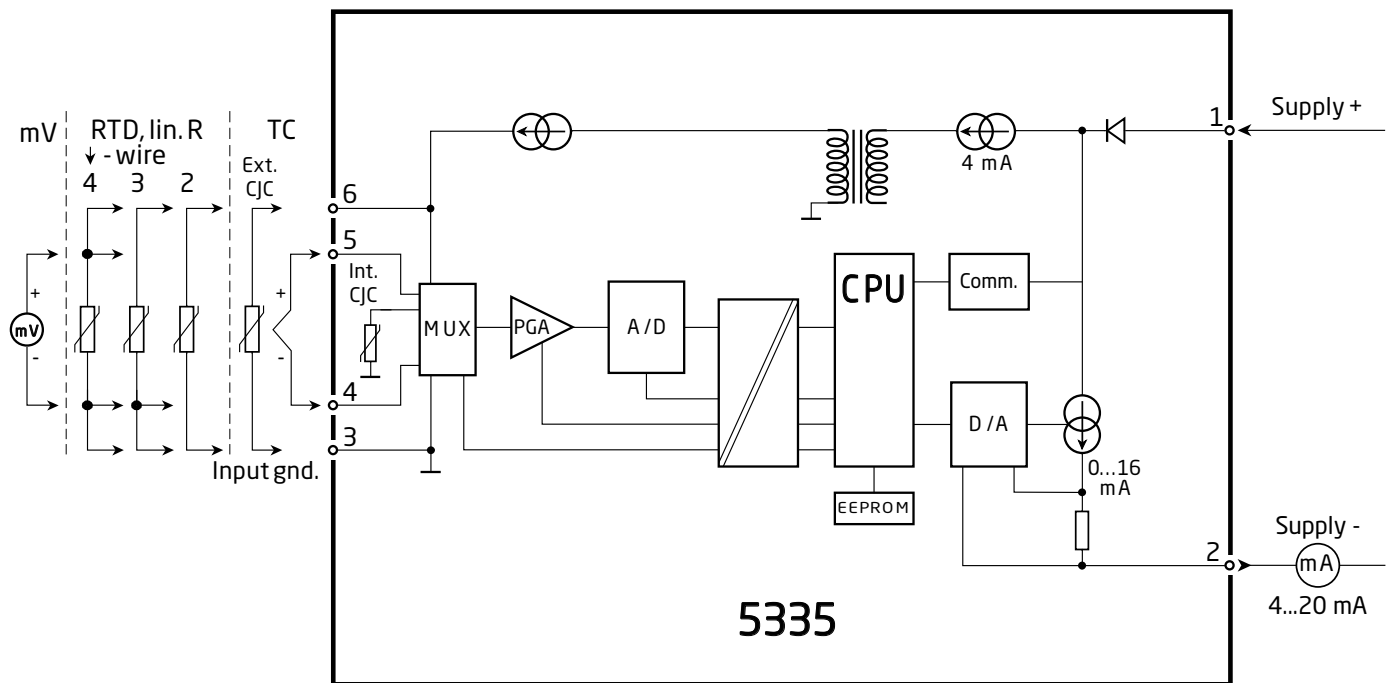
Block diagram:



Order:

Type	Version
5335	Zone 2 / Div. 2 : A Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D

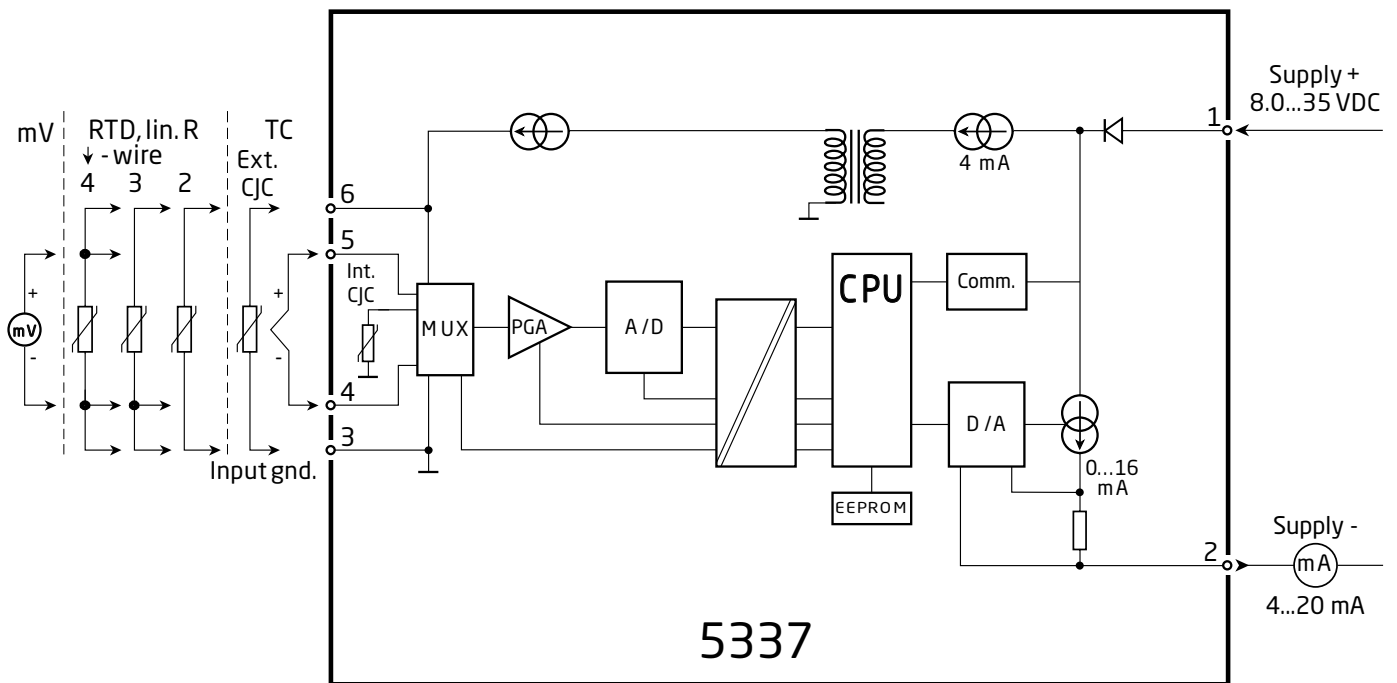
Block diagram:



Order:

Type	Version
5337	Zone 2 / Div. 2 : A Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D

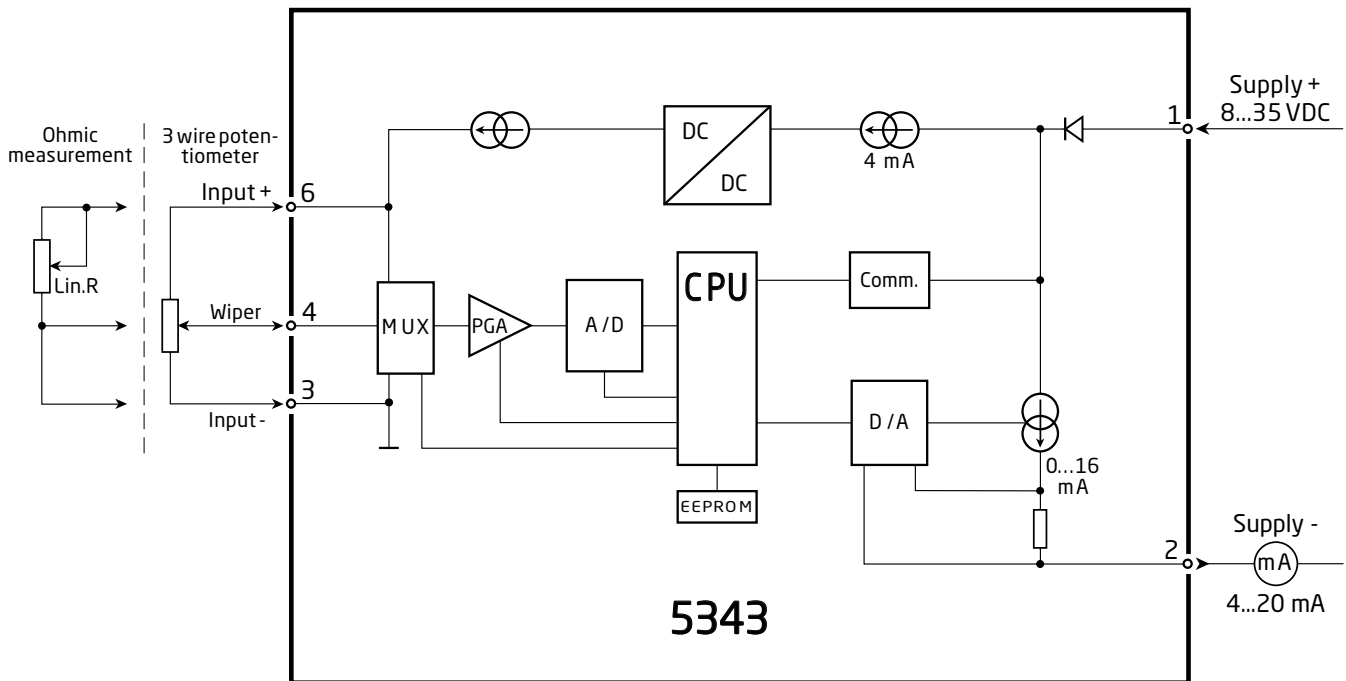
Block diagram 5337:



Order:

Type	Version
5343	Zone 2 / Div. 2 : A
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : B

Block diagram:

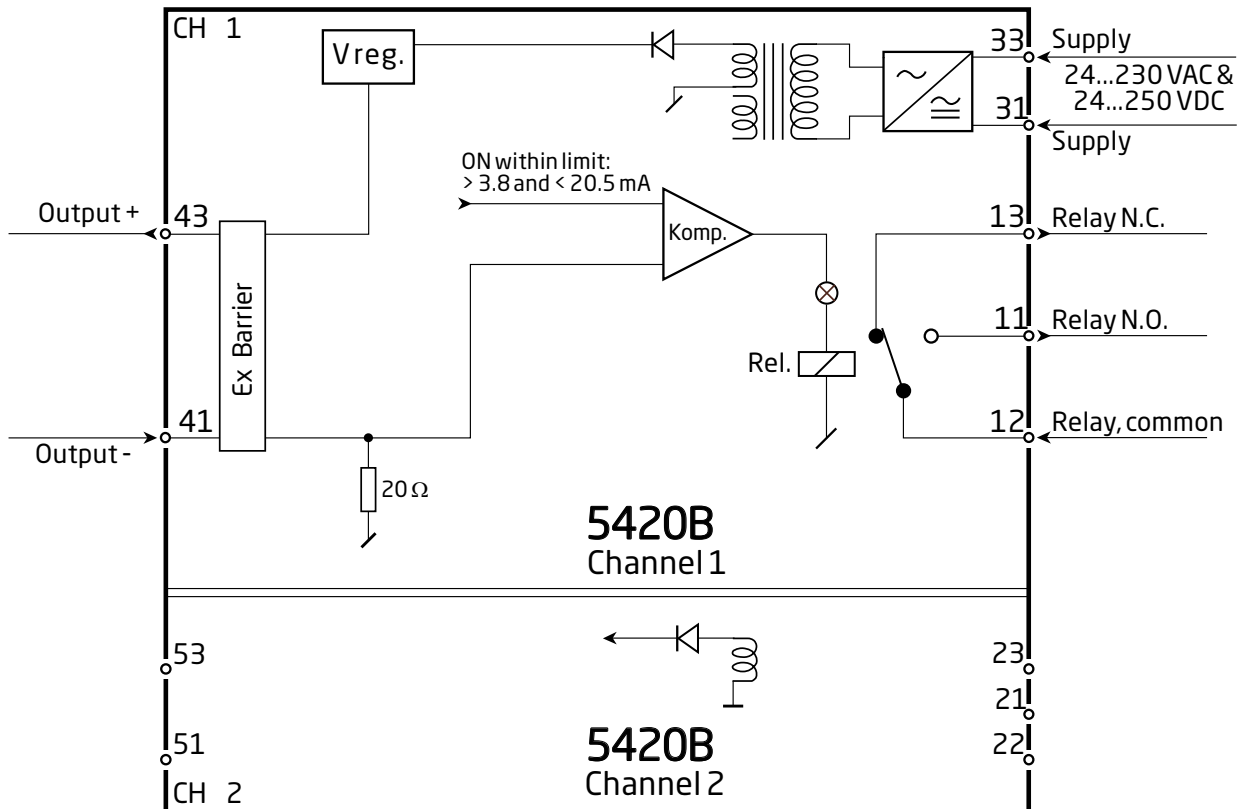




Order: 5420B

Type	Channels
5420B	Double : 2

Block diagram:



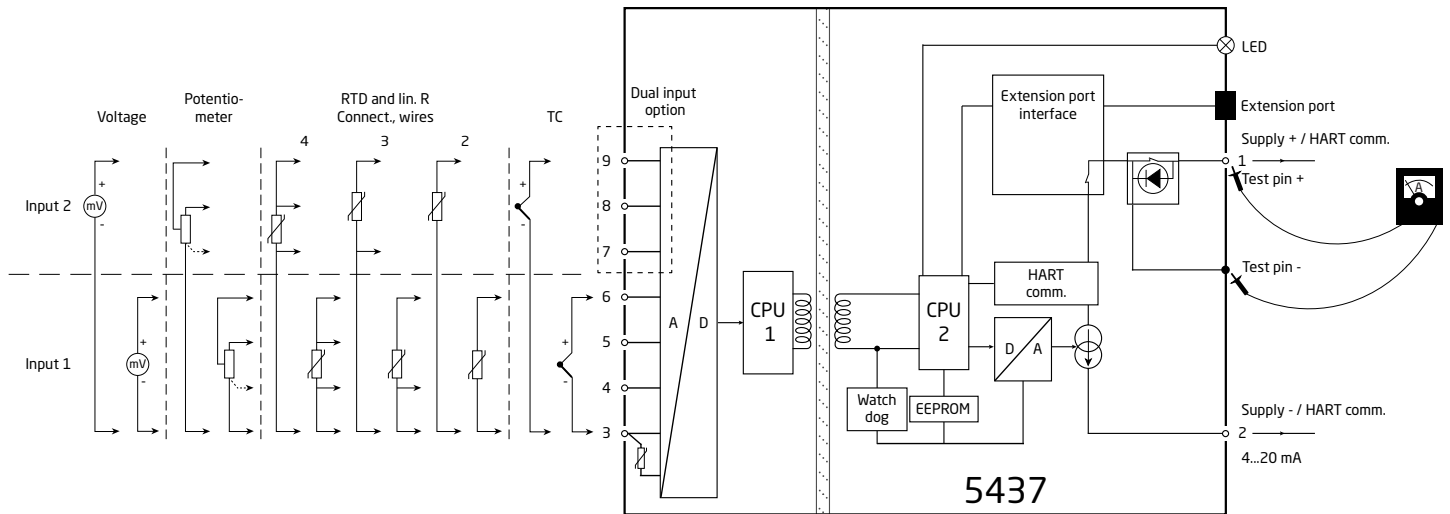
Order

Type	Version	Inputs	SIL approval	Marine approval
5437	Standard / Zone 2 / DIV. 2 : A	Single input (4 terminals) : 1	SIL : S	Yes : M
	Zone 0, 1, 2, 21, 22, M1 (ATEX only) : B	Dual input (7 terminals) : 2	No SIL : -	No : -
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D			

Accessories

- 5909 = Loop Link USB interface and PReset Software
- 276USB = HART modem with USB connection

Block diagram:



Order: 5531

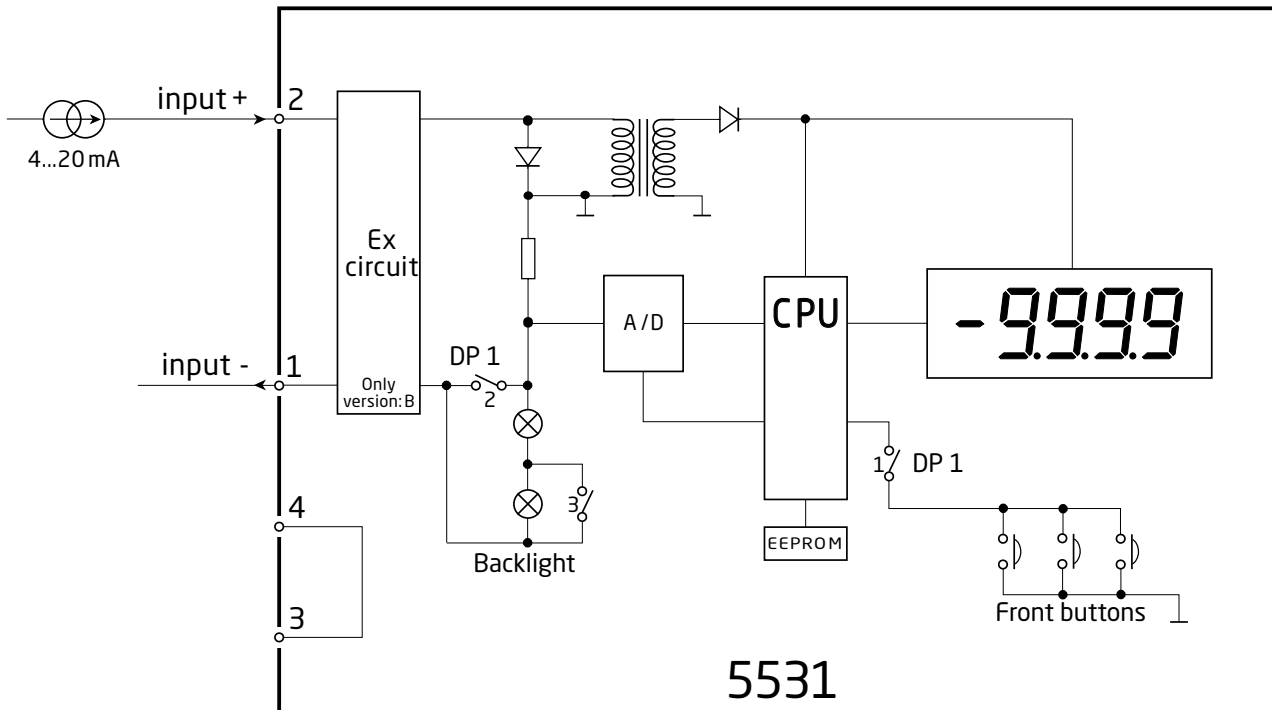
Type	Input signal area classification	Field enclosure
5531A	4...20 mA from safe and zone 2	No
5531B1	4...20 mA from safe, zone 2 and 22	Yes
5531B	4...20 mA from zone 0	No
5531B2	4...20 mA from zone 0 and 20	Yes

Accessories

Type	Specification
8335	Splash proof cover
8501	Field enclosure for 5531A

The 5531A display can be panel-mounted in the safe area or Ex Zone 2 (gas).  
 The 5531B1 Ex display includes the 8501 enclosure and can be mounted in Ex Zone 2 or 22 (gas or dust).  
 The 5531B2 includes the 8501 enclosure and can be mounted in Ex Zone 1, 2, 21 or 22 (gas or dust).

Block diagram:



Programming:

DP 1	Front keyboard	SW ON	SW OFF
	Keys locked	-	1
	Keys NOT locked	1	-

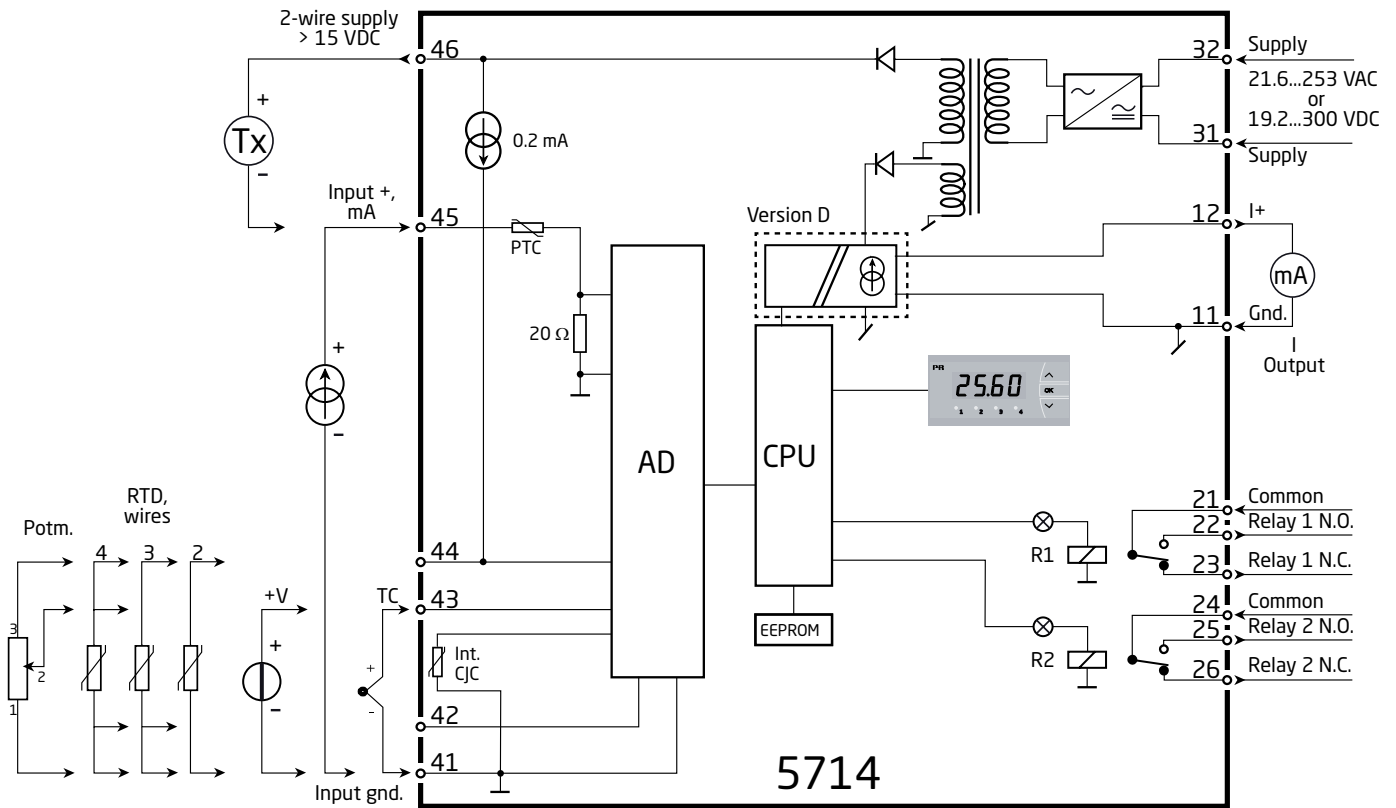
DP 1	Backlight	SW ON	SW OFF
	Off	2	-
	Half intensity	3	2
	Full intensity	-	2, 3

Order: 5714

Type	Version
<b>5714</b>	Standard . . . . . : A
	2 relays . . . . . : B
	Analog output . . . . . : C
	Analog output and 2 relays . . . : D

**NB!** Please order the splash-proof cover separately.  
Order no. 8335.

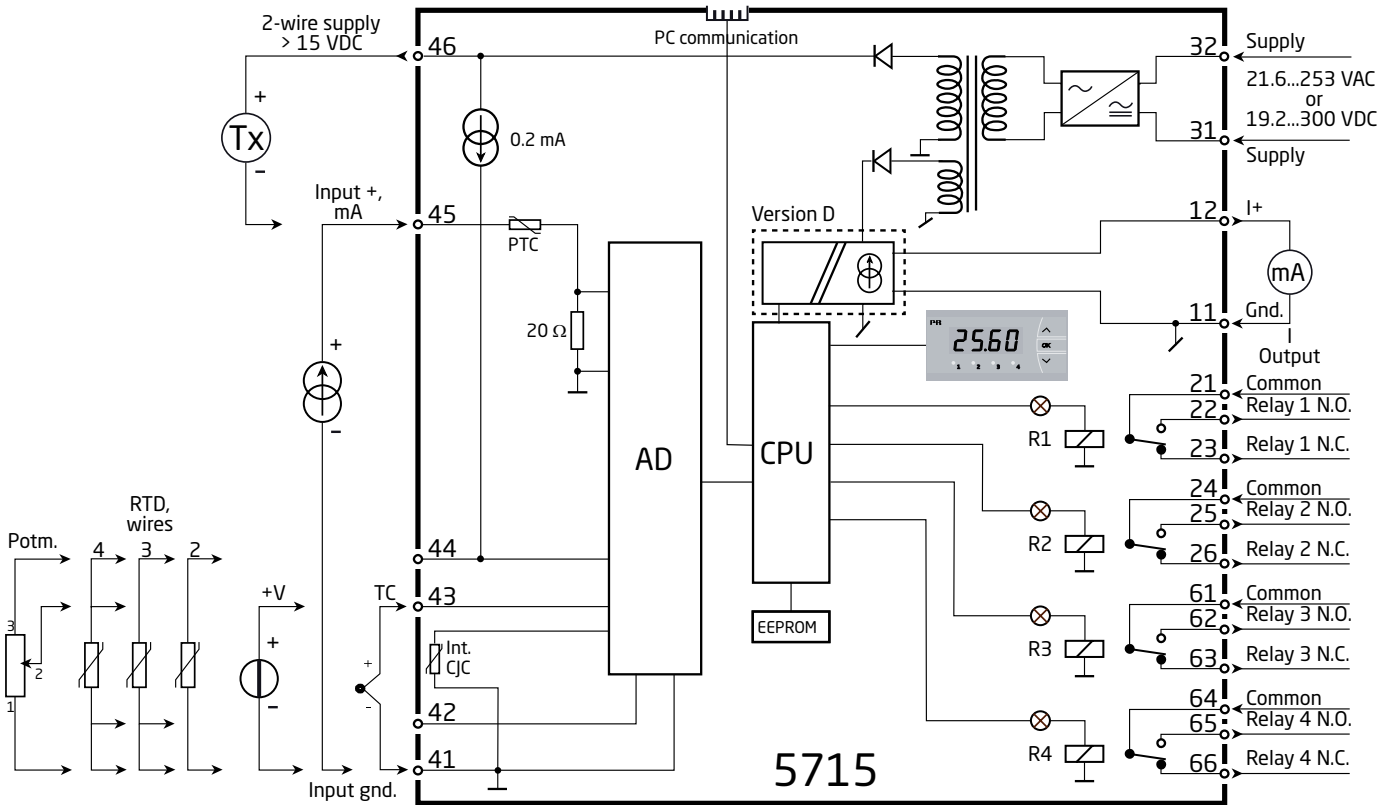
**Block diagram:**



Order: 5715

Type	Version
5715	4 relays.....: B Analog output and 4 relays .....: D

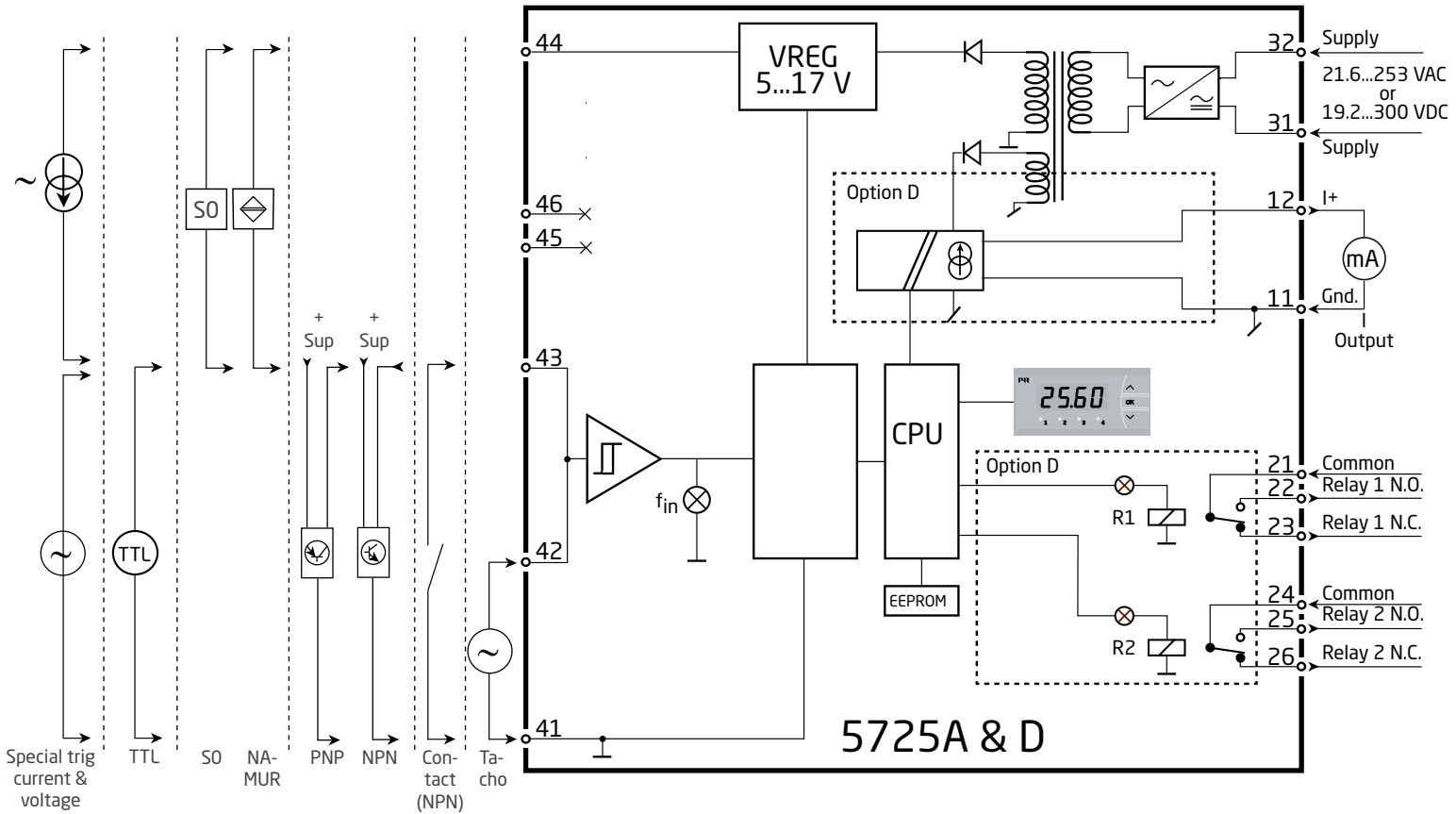
Block diagram:



Order: 5725

Type	Version
5725	Standard ..... : A
	Analog output and 2 relays ..... : D

Block diagram:



**Order**

Type	M12 connector	Output pins	PCB only
5802A1A2	No*	1-2	Yes
5802A2A2	Yes	1-2	Yes
5802A1A3	No*	1-3	Yes
5802A2A3	Yes	1-3	Yes

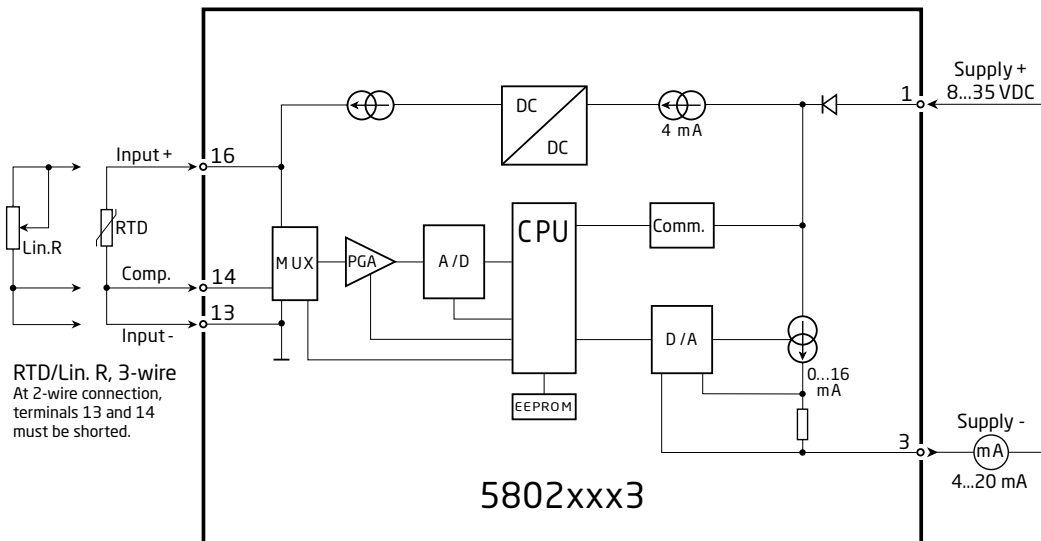
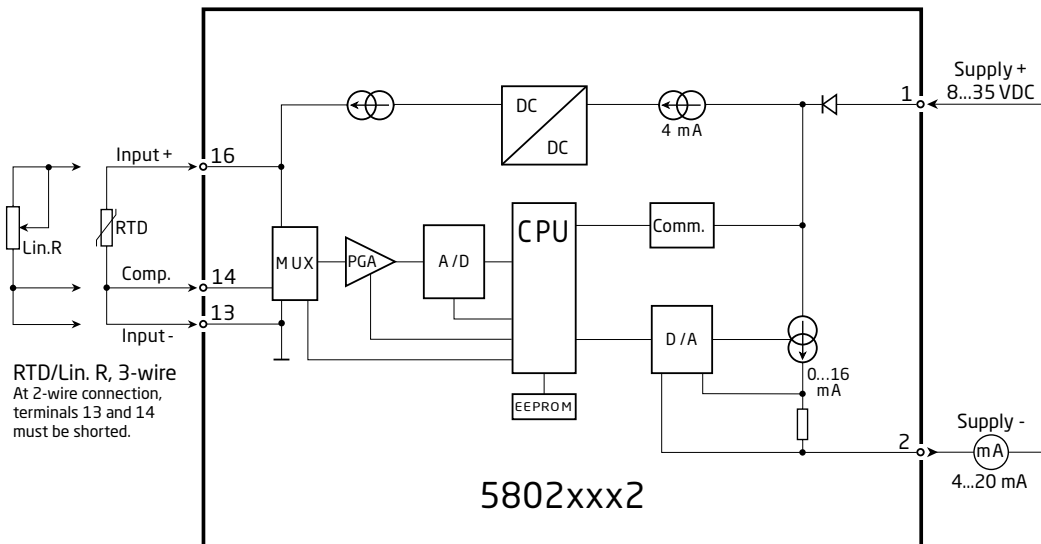
\* Prepared for customer-mounted M12 connector.

**NB:** Please note that minimum order quantity per type is 40 pcs. and that only order quantities divisible by 40 are accepted.

**Accessories**

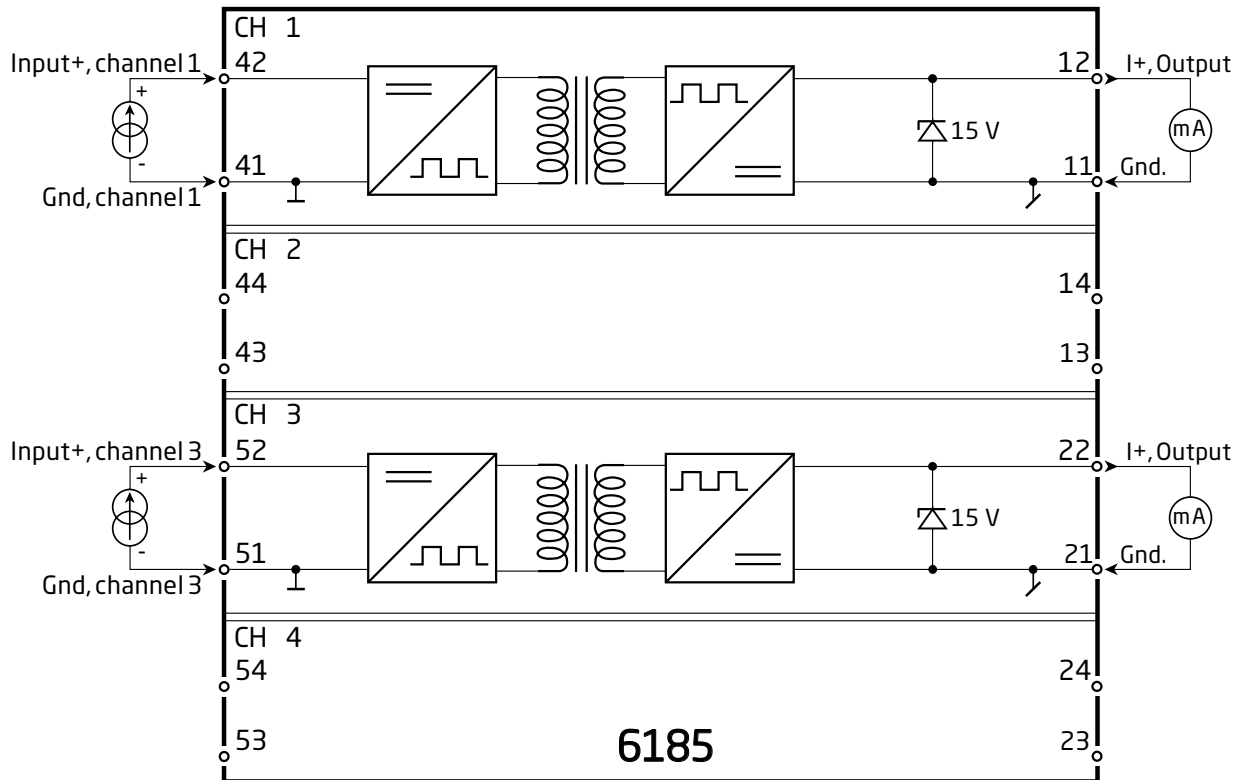
5909	= Loop Link USB interface and PReset Software
8509	= M12 interface cable for 5909 Loop Link

**Block diagrams:**



Type	Channels
6185	1 channel : A
	2 channels : B
	4 channels : D

Block diagram:



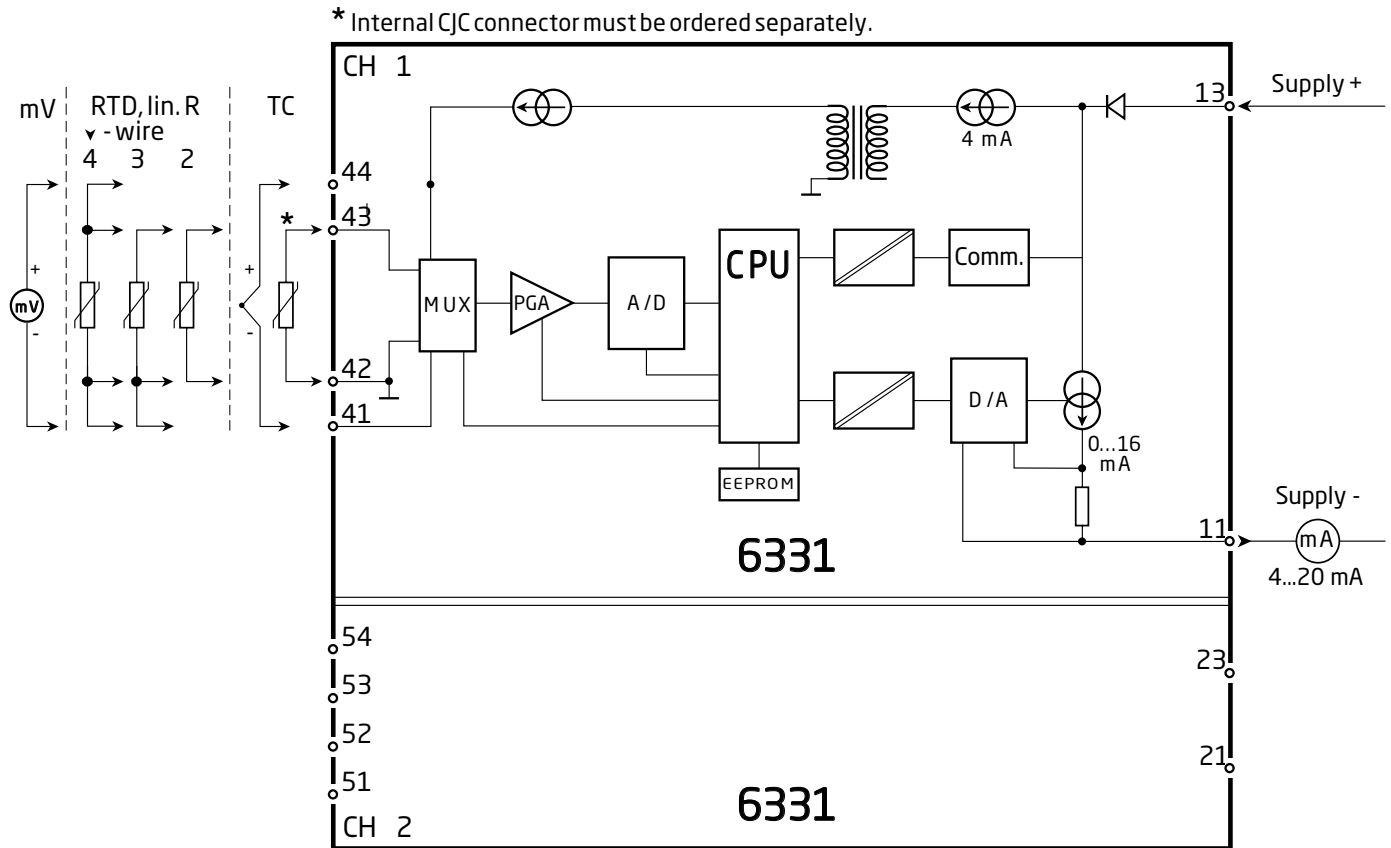


Order

Type	Version	Galvanic isolation	Channels
6331	Zone 2, 22 / Div. 2 : A	1500 VAC : 2	Single : A
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : B		Double : B

\*NB! Please remember to order CJC connectors type 5910 / 5910Ex (channel 1) and 5913 / 5913Ex (channel 2) for TC inputs with an internal CJC.

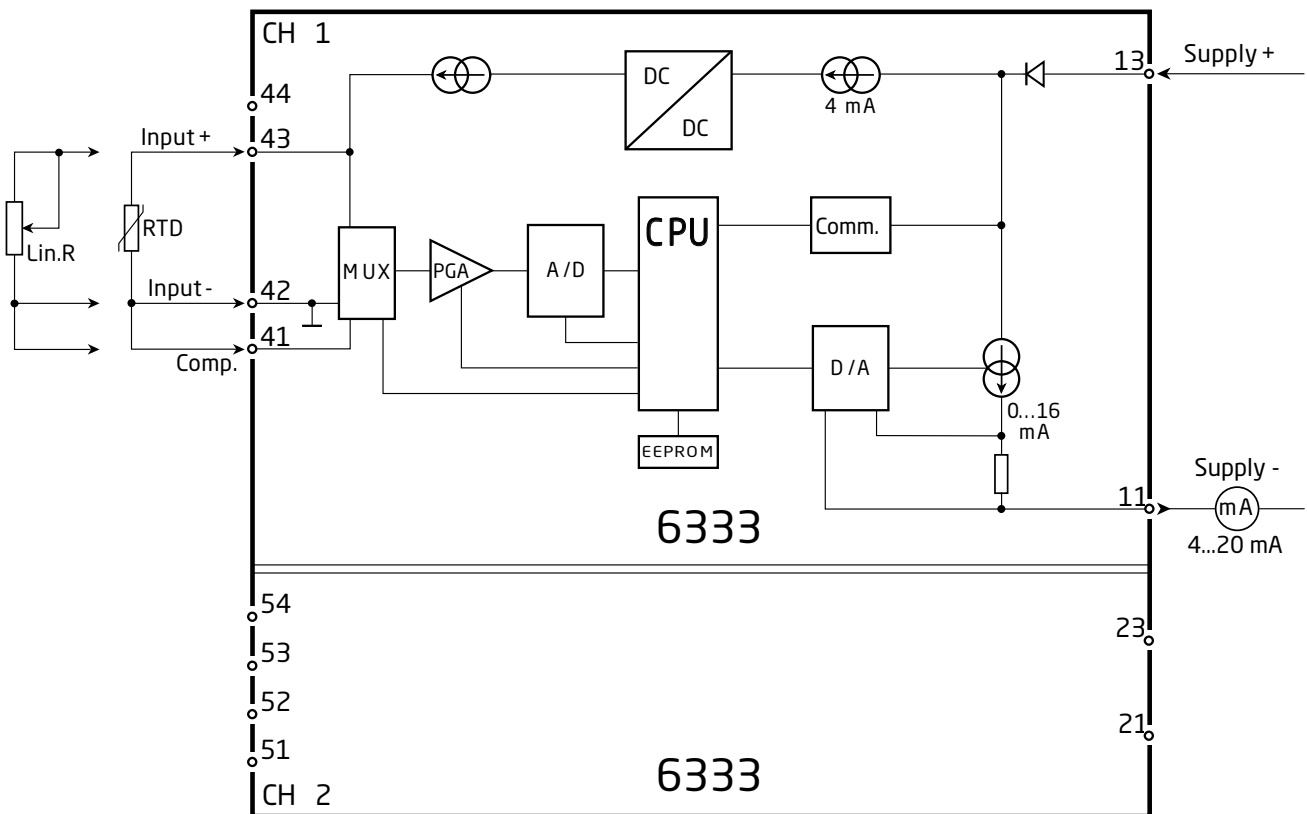
Block diagram:



Order

Type	Version	Galvanic isolation	Channels
6333	Zone 2, 22 / Div. 2	: A	None : 1
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2	: B	Single : A Double : B

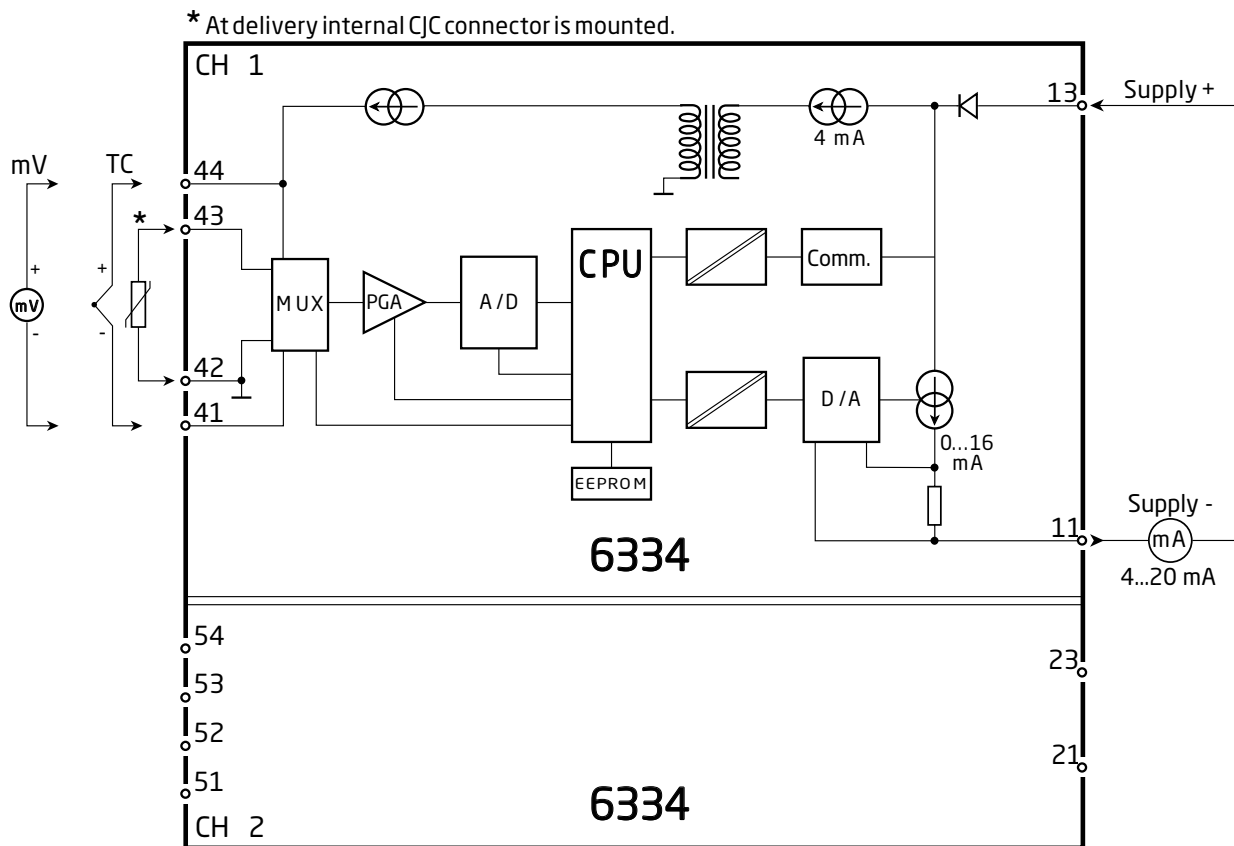
Block diagram:



Order

Type	Version	Galvanic isolation	Channels
6334	Zone 2, 22 / Div. 2 : A	1500 VAC : 2	Single : A
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : B		Double : B

Block diagram:



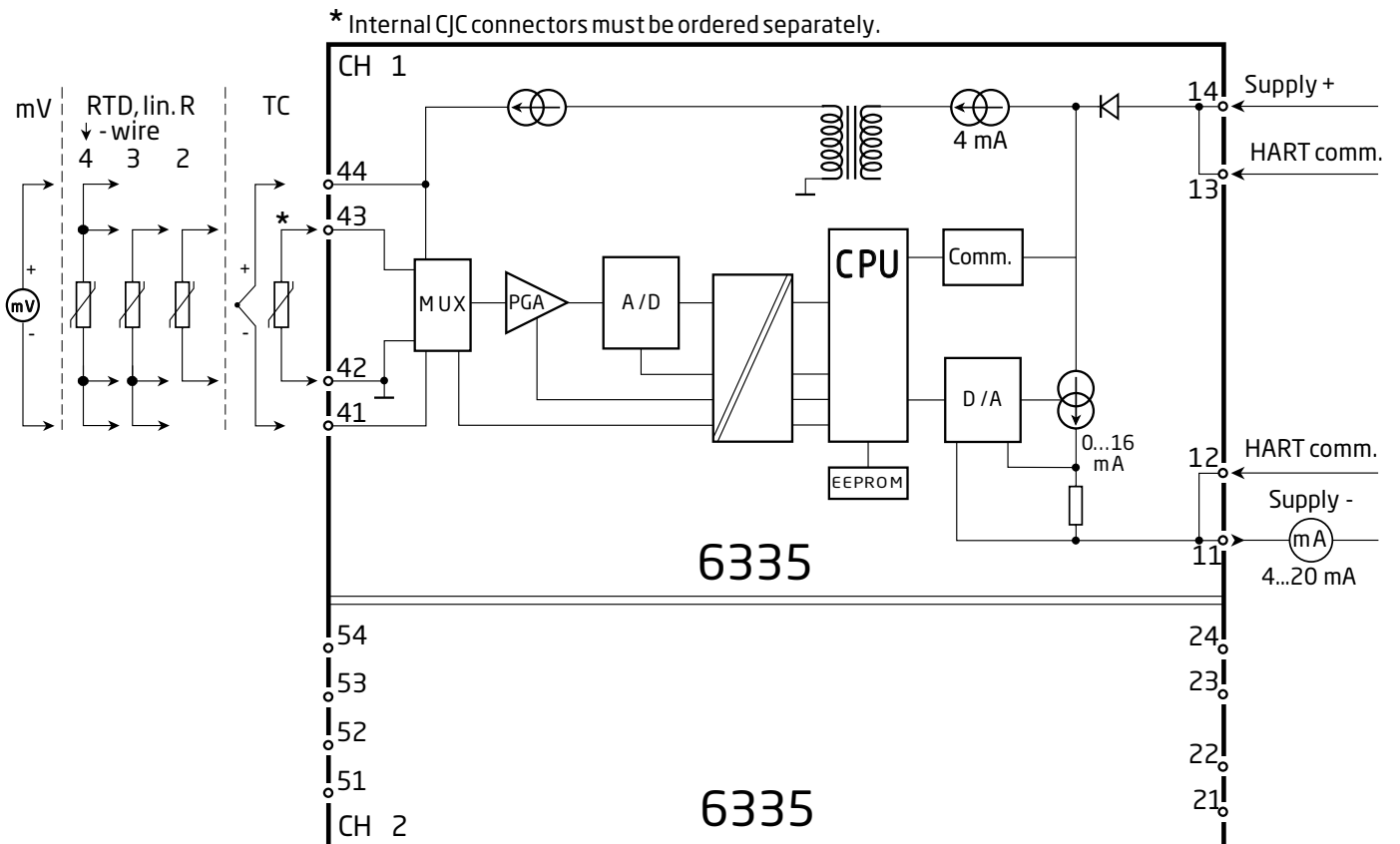
Order

Type	Version	Galvanic isolation	Channels
6335	Zone 2, 22 / Div. 2 : A	1500 VAC : 2	Single : A
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D		Double : B

Accessories

5909 = Loop Link USB interface  
 5910 / 5910Ex = CJC connector for channel 1  
 5913 / 5913Ex = CJC connector for channel 2

Block diagram:



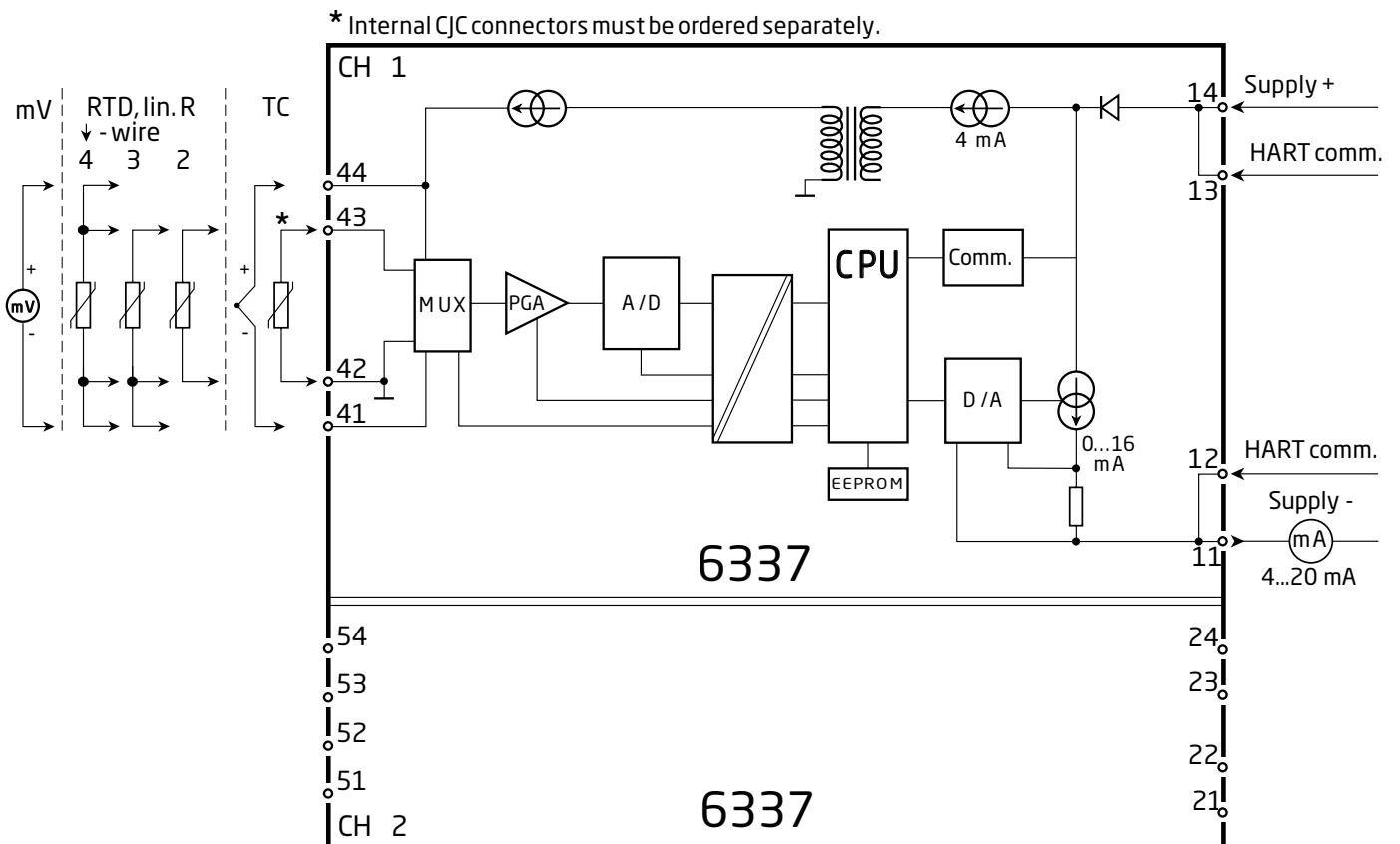
Order

Type	Version	Galvanic isolation	Channels
6337	Zone 2, 22 / Div. 2 : A	1500 VAC : 2	Single : A
	Zone 0, 1, 2, 21, 22, M1 / DIV. 1, DIV. 2 : D		Double : B

Accessories

5909 = Loop Link USB interface  
 5910 / 5910Ex = CJC connector for channel 1  
 5913 / 5913Ex = CJC connector for channel 2

Block diagram 6337:



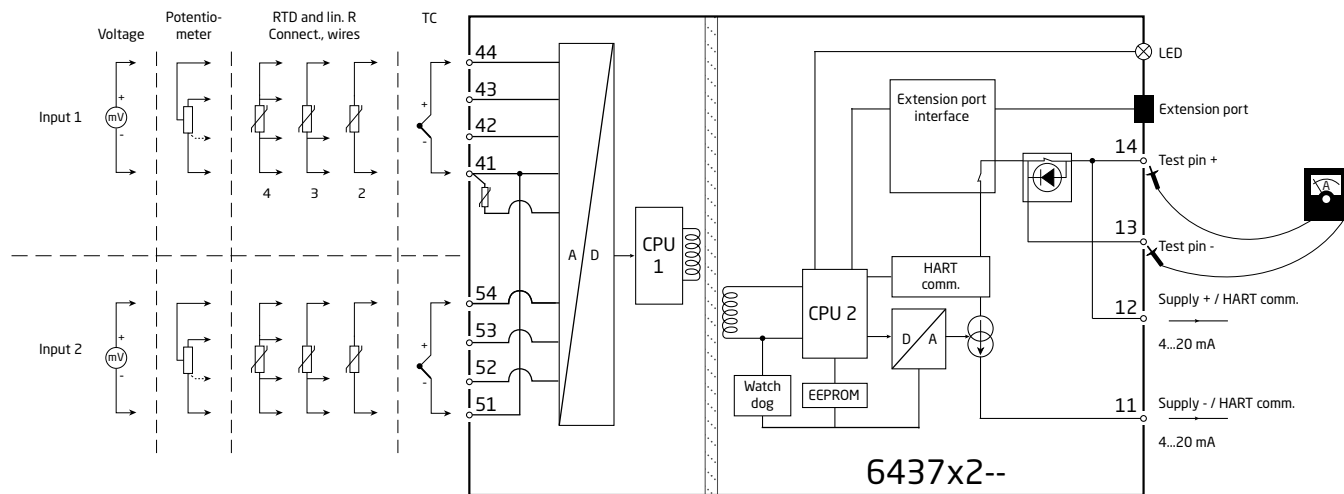
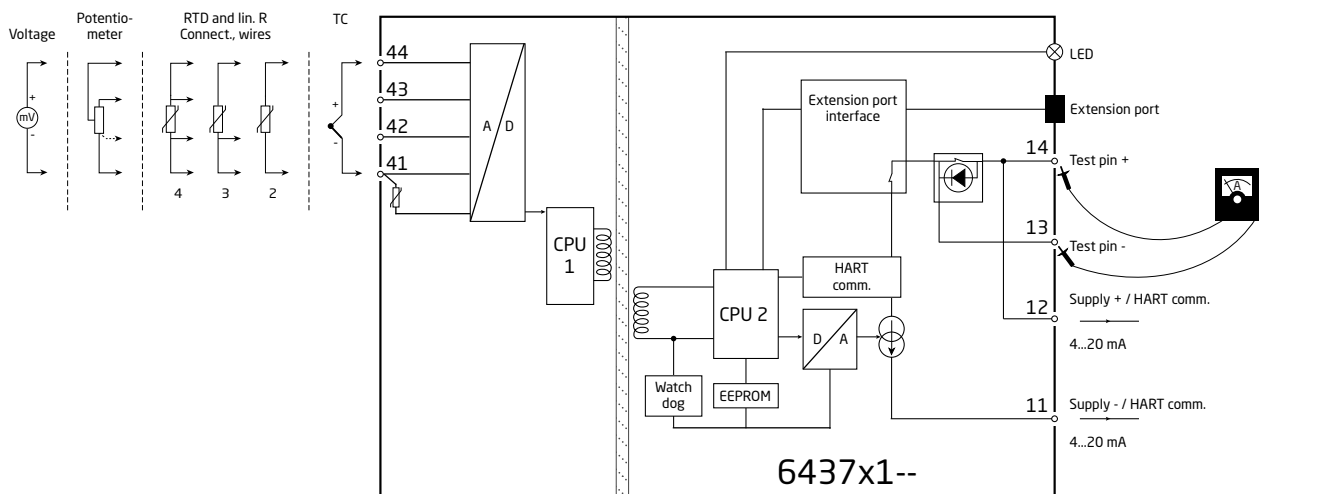
Order

Type	Version	Inputs	SIL approval	Marine approval
6437	Standard / Zone 2 / DIV. 2 : A	Single input (4 terminals) : 1	SIL : S	Yes : M
	Zone 0, 1, 2, 21, 22, M1 / : D DIV. 1, DIV. 2	Dual input (8 terminals) : 2	No SIL : -	No : -

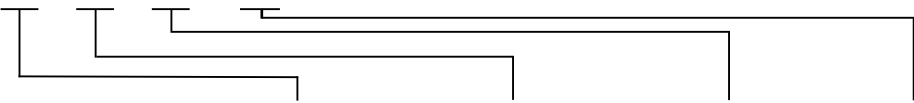
Accessories

5909	= Loop Link USB interface and PReset Software
276USB	= HART modem with USB connection

Block diagram:



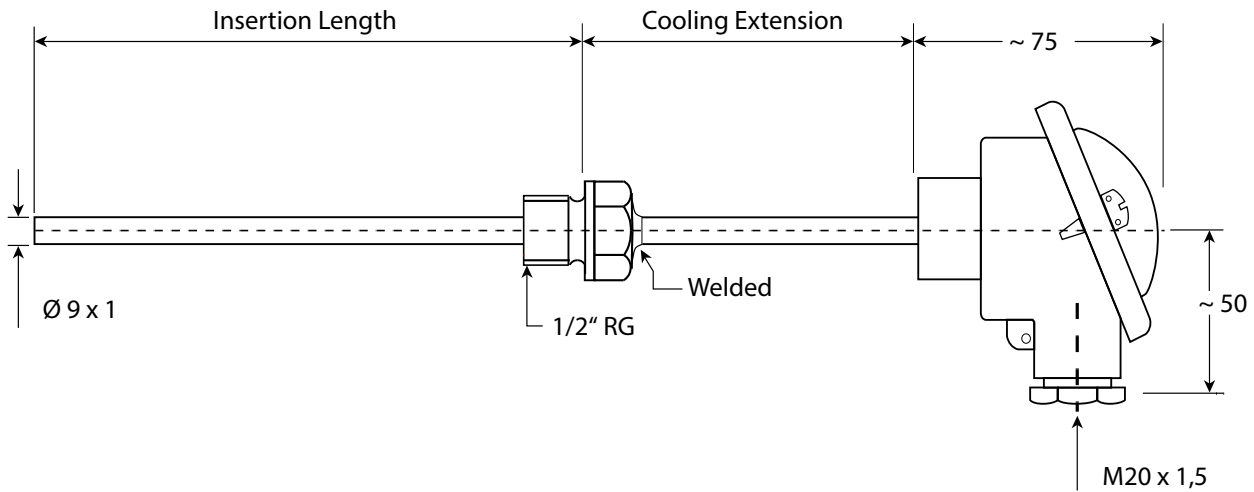
Order: 7400



Type	Pt100 sensor	Accuracy	Cooling extension	Insertion length
7400	1 x Pt100 : A	Class A : 1	Ingen : A	50 mm : 1
	2 x Pt100 : B		100 mm : B	100 mm : 2
			150 mm : C	150 mm : 3
			200 mm : D	200 mm : 4
				300 mm : 5
				400 mm : 6

Example: 7400A1A2 =  
 1 x Pt100 sensor  
 Class A accuracy  
 No cooling extension  
 100 mm insertion length

Dimensions:



Order

Type	Housing	Window	O-ring	Conduit thread (D1, D2 & D3)	Paint type	Cover color
7401	Low copper aluminum (AL) : A	No : 1	-40 to +85°C silicone rubber : A	M20x1.5 6H : 1	Epoxy : A	Red :-
		Yes : 2	-20 to +85°C FKM rubber : B	½ NPT mod. : 2	Epoxy + polyurethane : B	Gray : GY
		Yes : 2				
7401	316 Stainless steel (RF) : B	Yes : 2	-40 to +85°C silicone rubber : A -20 to +85°C FKM rubber : B	M20x1.5 6H : 1 ½ NPT mod. : 2	None : N	Steel :-

Example: 7401A2B1A = Aluminum, window, FKM rubber O-ring, M20x1.5 6H conduit, epoxy, red

NB: Head-mounted transmitters must be ordered separately and can be installed in the housing by PR electronics on request.





Order

Type	Housing	Local operator interface			O-ring	Conduit thread (D1, D2 & D3)
		Optical buttons	Display			
7501	Low copper aluminum (AL) : A	No	No	: 1	-40 to +85°C silicone rubber : A -20 to +85°C FKM rubber : B	M20x1.5 6H : 1
		No	Yes	: 2		½ NPT mod. : 2
		Yes	Yes	: 3		
		Yes	Yes	: 3		
7501	316 Stainless steel (RF) : B	No	Yes	: 2	-40 to +85°C silicone rubber : A -20 to +85°C FKM rubber : B	M20x1.5 6H : 1
		Yes	Yes	: 3		½ NPT mod. : 2

Paint type	Transmitter	Approvals	Cover color	Additional approvals	
Epoxy : A	Yes : 1	General purpose : 1	Red :-	Marine	: M
Epoxy + polyurethane : B	No (comes with a connection kit) : 2	Hazardous area (I.S.) : 2			
		Yes : 1	Hazardous area (I.S.) : 2	Gray : GY	
None : N	Yes : 1	General purpose : 1	Steel :-	Marine	: M
	No (comes with a connection kit) : 2	Hazardous area (I.S.) : 2			

Examples: 7501A1B1A22M = Aluminum, blind cover, FKM rubber O-ring, M20x1.5 6H conduit, epoxy, connection kit, hazardous installation, red, marine

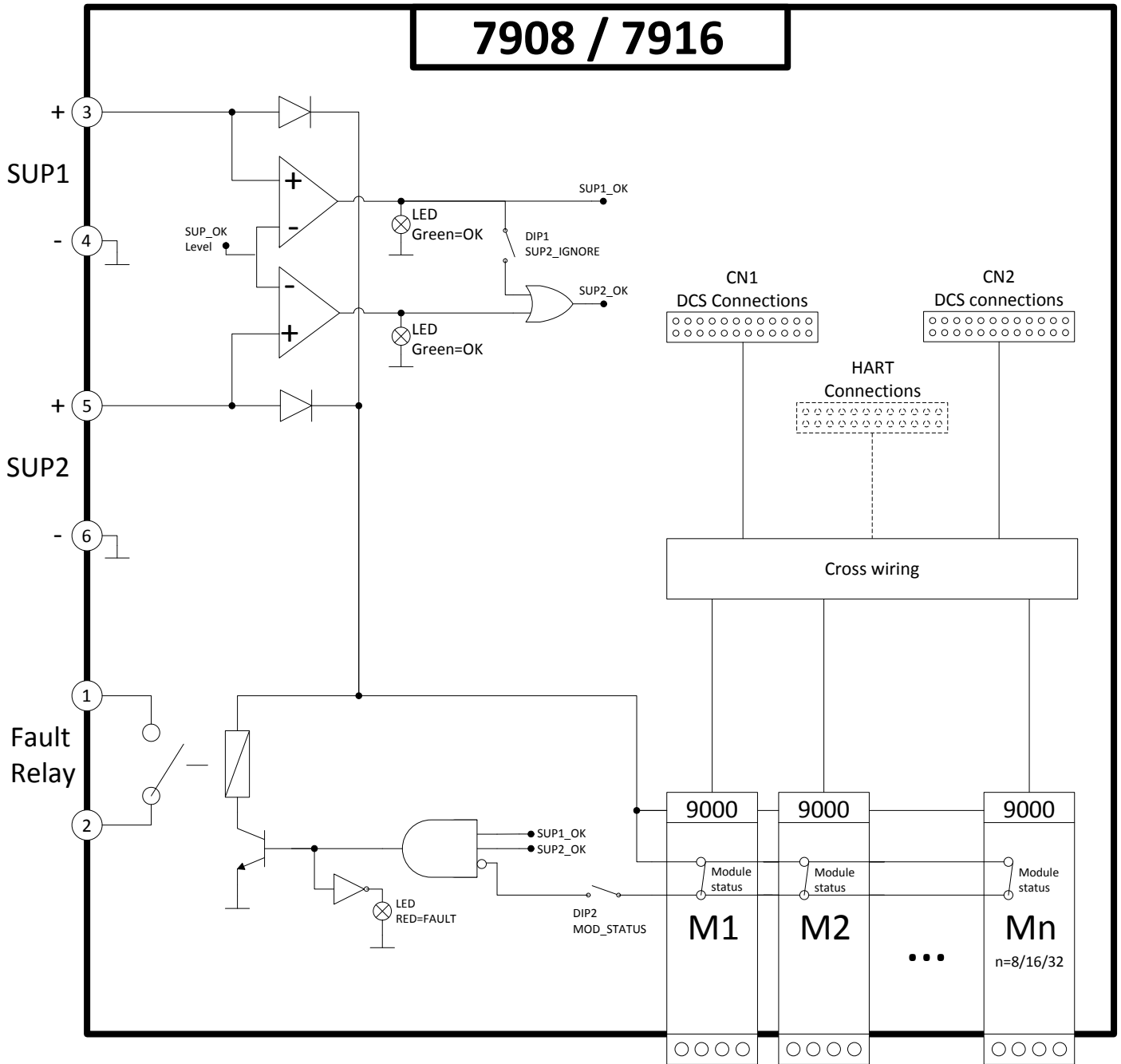
7501A3A1A12GY = Aluminum, Local Operator Interface, silicone rubber O-ring, M20x1.5 6H conduit, epoxy, HART TT, hazardous installation, gray



Order:

7908 = 8 module backplane

7916 = 16 module backplane



Order: 8501

Type	Cable glands
8501	1 cable gland ..... : A 2 cable glands ..... : B 3 cable glands ..... : C 4 cable glands ..... : D

Picture:



**Order**

Type	Associated apparatus	Barrier version	Unit channels	I.S. / Ex approvals
9106	No : A	U <sub>o</sub> = 27.5 V : 1	Single : A	ATEX, IECEx, FM, : - INMETRO, CCC, EAC-Ex, UKEX
	Yes : B	U <sub>o</sub> = 25.3 V : 2	Double : B	UL913, ATEX, IECEx, FM, : -U9 INMETRO, CCC, EAC-Ex, UKEX KCs, ATEX, IECEx, FM, : -KCs INMETRO, CCC, EAC-Ex, UKEX

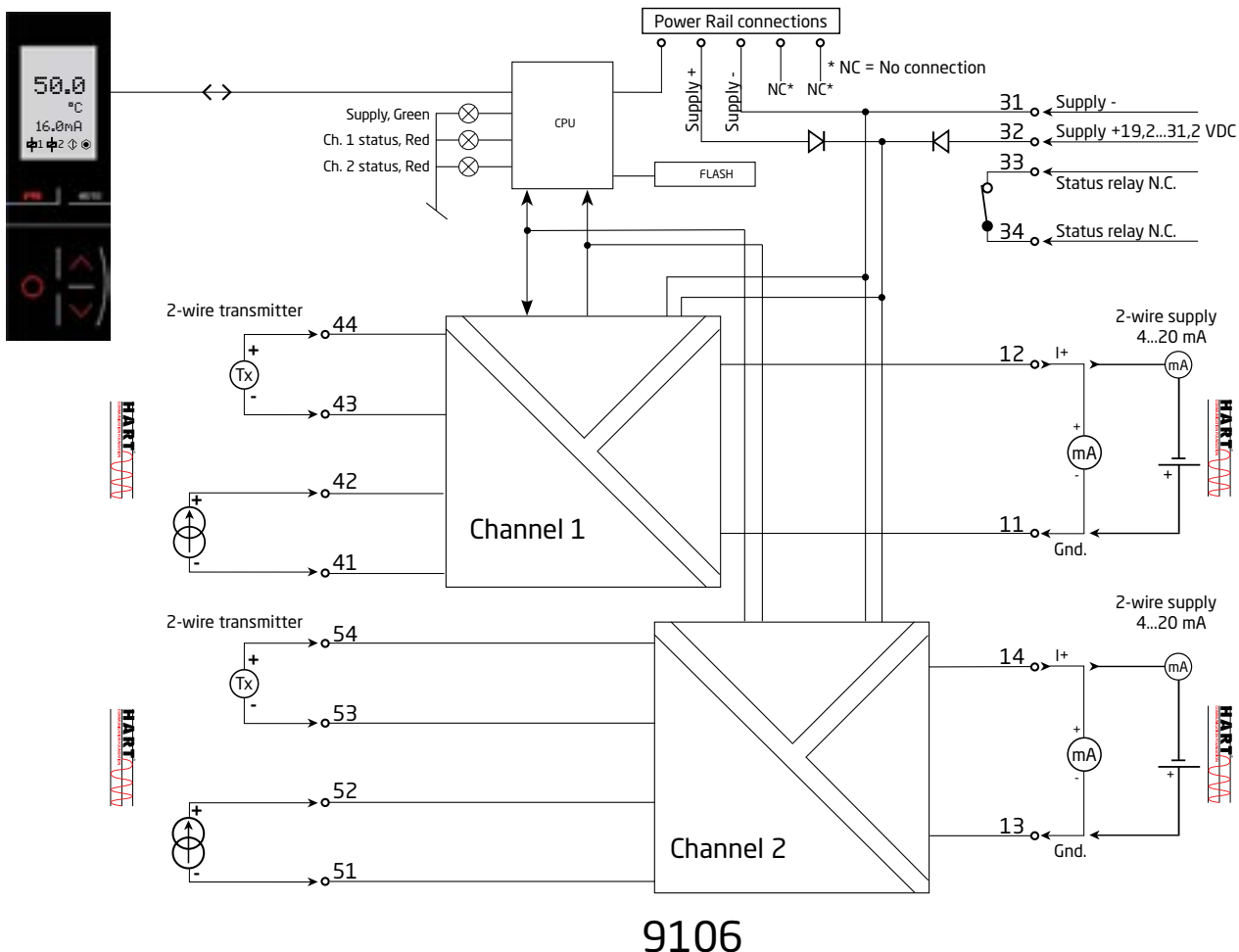
**Example: 9106B2B**

Remember to order short-circuit bridge(s) ST9106-01 when using the 9106 with no load on the output terminals.

**Accessories:**

4510	= Display / programming front	9400	= Power rail
4511	= Modbus communication enabler	9404	= Module stop for rail
4512	= Bluetooth communication enabler	9410	= Power control unit
ST9106-01	= Short-circuit bridge for 9106 output	9421	= Power supply 24 V - Ex ec nC

**Block diagram:**



Order

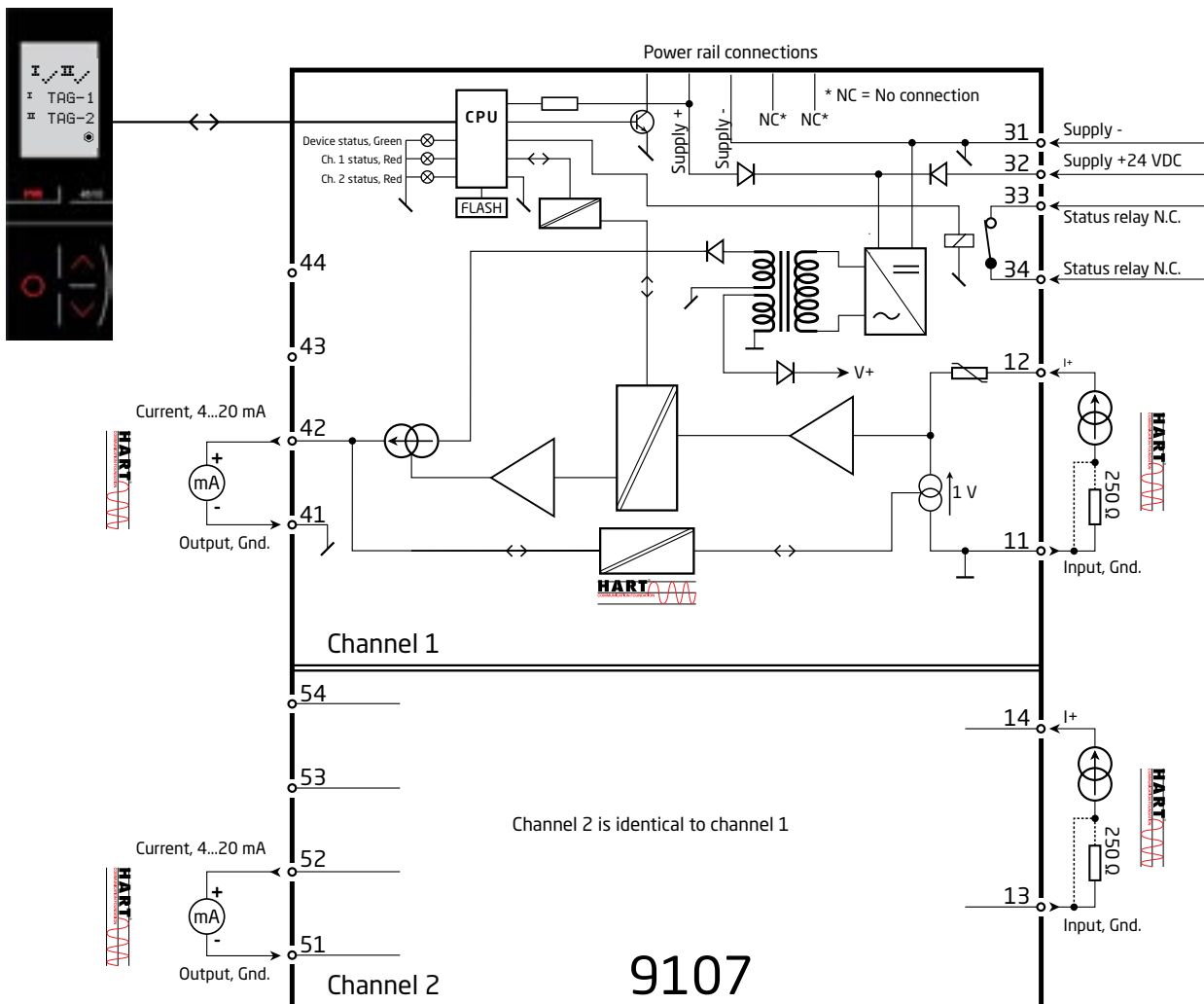
Type	Associated apparatus	Unit channels	I.S. / Ex approvals
9107	No : A	Single : A	ATEX, IECEx, FM, INMETRO, CCC, EAC-Ex, UKEX : -
	Yes : B	Double : B	UL 913, ATEX, IECEx, FM, INMETRO, CCC, EAC-Ex, UKEX : -U9 KCs, ATEX, IECEx, FM, INMETRO, CCC, EAC-Ex, UKEX : -KCs

Example: 9107BB

Accessories:

4510 = Display / programming front	9400 = Power rail
4511 = Modbus communication enabler	9404 = Module stop for rail
4512 = Bluetooth communication enabler	9410 = Power control unit
	9421 = Power supply 24 V - Ex ec nC

Block diagram:



Order

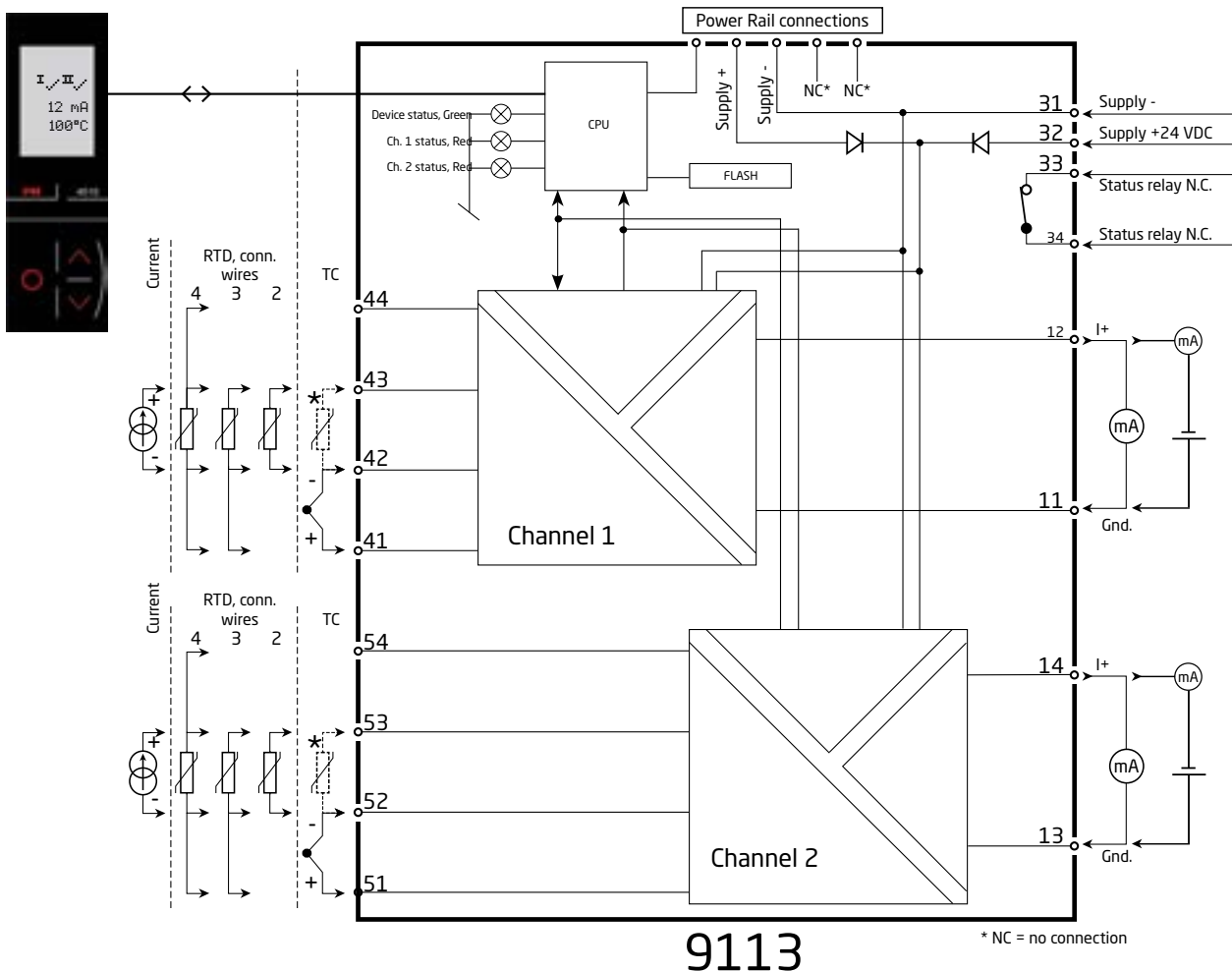
Type	Associated apparatus	Channels	I.S. / Ex approvals
9113	No : A	Single : A	ATEX, IECEx, FM, INMETRO, EAC-Ex, UKEX :-
	Yes : B	Double : B	UL 913, ATEX, IECEx, FM, INMETRO, EAC-Ex, UKEX KCs, ATEX, IECEx, FM, INMETRO, EAC-Ex, UKEX EMPHASIS-assessed :-U9 :-KCs :-EMP

Example: 9113BB

Accessories:

4510 = Display / programming front	9400 = Power rail
4511 = Modbus communication enabler	9404 = Module stop for rail
4512 = Bluetooth Communication enabler	9410 = Power control unit
5910 = CJC connector, channel 1, for 9113Axx	9421 = Power supply 24 V - Ex ec nC
5913 = CJC connector, channel 2, for 9113ABx	
5910Ex = CJC connector, channel 1, for 9113Bxx	
5913Ex = CJC connector, channel 2, for 9113BBx	

Block diagram:



**Order**

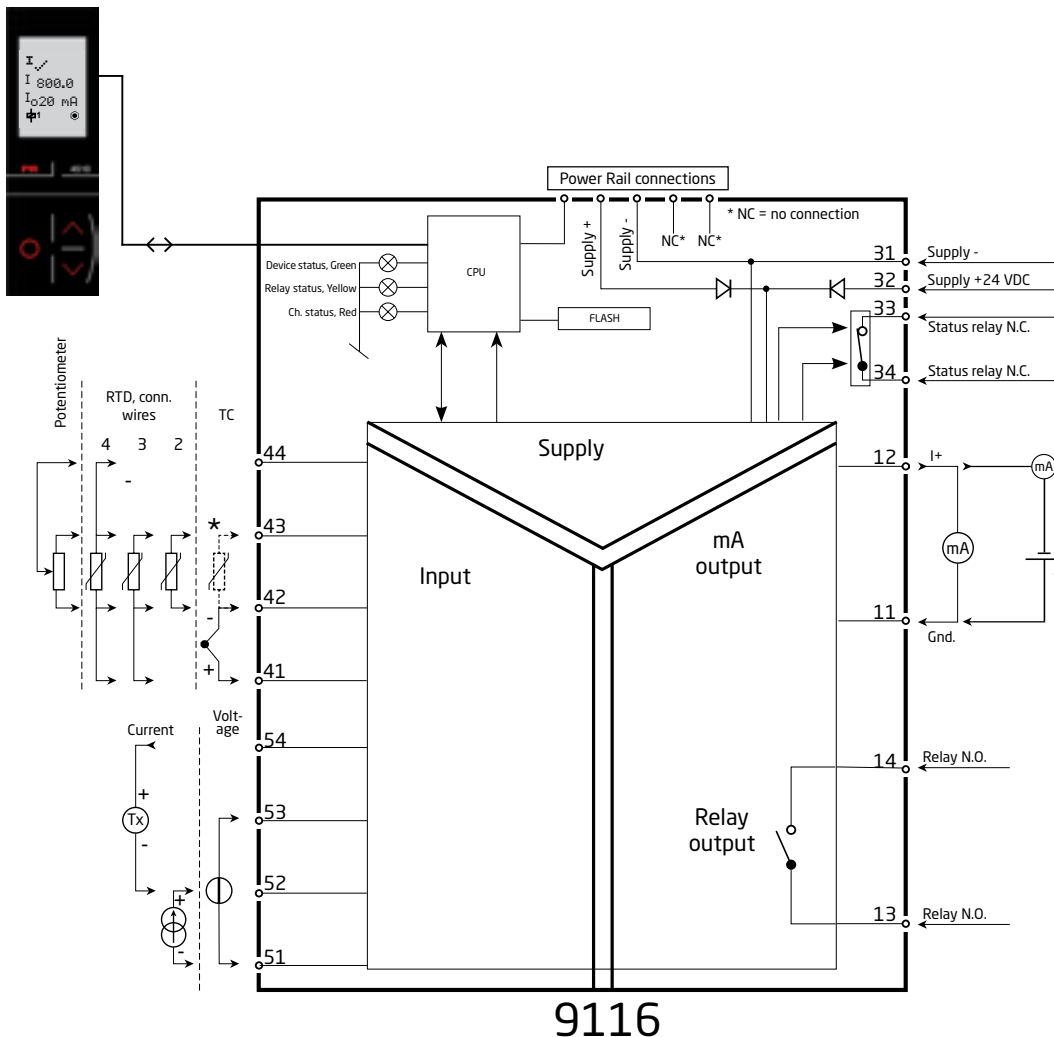
Type	Associated apparatus	Max. loop voltage	I.S. / Ex approvals
9116	No : A	Uo 28 VDC : 1	ATEX, IECEx, FM, INMETRO, EAC-Ex, UKEX : -
	Yes : B	Uo 21.4 VDC : 2	UL 913, ATEX, IECEx, FM, INMETRO, EAC-Ex, UKEX : -U9 KCs, ATEX, IECEx, FM, INMETRO, EAC-Ex, UKEX : - KCs EMPHASIS-assessed : -EMP

Example: 9116B2

**Accessories:**

4510 = Display / programming front	9400 = Power rail
4511 = Modbus communication enabler	9404 = Module stop for rail
4512 = Bluetooth communication enabler	9410 = Power control unit
5910 = CJC connector for 9116Axx	9421 = Power supply 24 V - Ex ec nC
5910Ex = CJC connector for 9116Bxx	

**Block diagram:**



Order

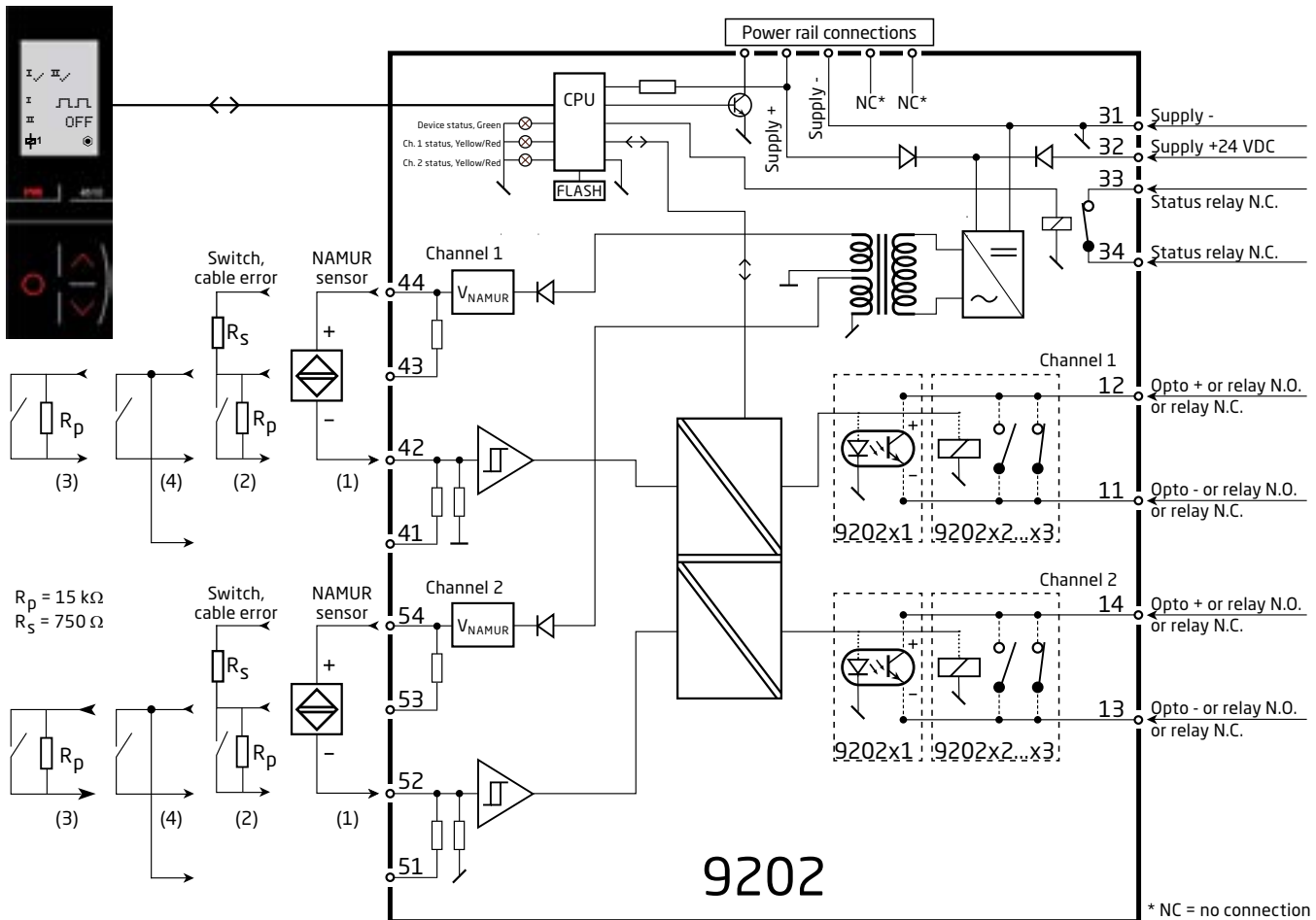
Type	Associated apparatus	Version	Unit channels	I.S. / Ex approvals
9202	No : A	Opto : 1	Single : A	ATEX, IECEx, FM, : -
	Yes : B	Relay N.O. : 2	Double : B	INMETRO, CCC, EAC-Ex, UKEX
		Relay N.C. : 3		UL 913, ATEX, IECEx, FM, : -U9
				KCs, ATEX, IECEx, FM, : -KCs
				INMETRO, CCC, EAC-Ex, UKEX

Example: 9202B2B

Accessories:

- 4510 = Display / programming front
- 4511 = Modbus communication enabler
- 4512 = Bluetooth communication enabler
- 9400 = Power rail
- 9404 = Module stop for rail
- 9410 = Power control unit
- 9421 = Power supply 24 V - Ex ec nC

Block diagram:





Order

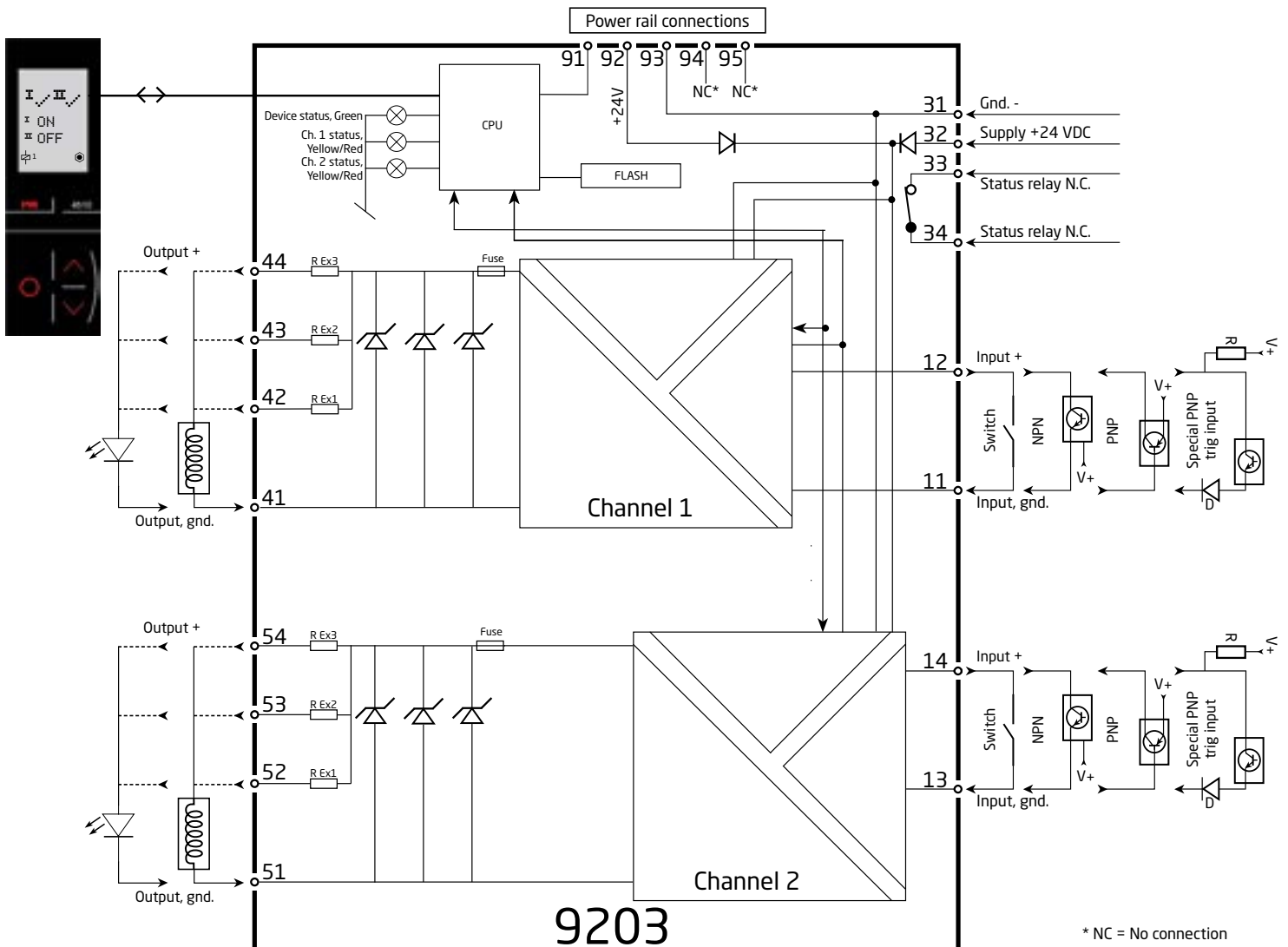
Type	Associated apparatus	Output	Channels	Input	I.S. / Ex approvals	
9203	No	: A	Low current : 1	Single : A	Opto / switch :-	ATEX, IECEx, FM, INMETRO, :- EAC-Ex
	Yes	: B		Double : B	PNP : 1	
			High current : 2	Single : A	NPN : 2	cULus, ATEX, IECEx, FM, INMETRO, EAC-Ex :-U9

Example: 9203B2B2

Input type selector

	9203xxx-x	9203xxx1x	9203xxx2x
NPN open collector	X		X
PNP open collector	X	X	
Switch	X	X	X
Active signal		X	X

Block diagram:

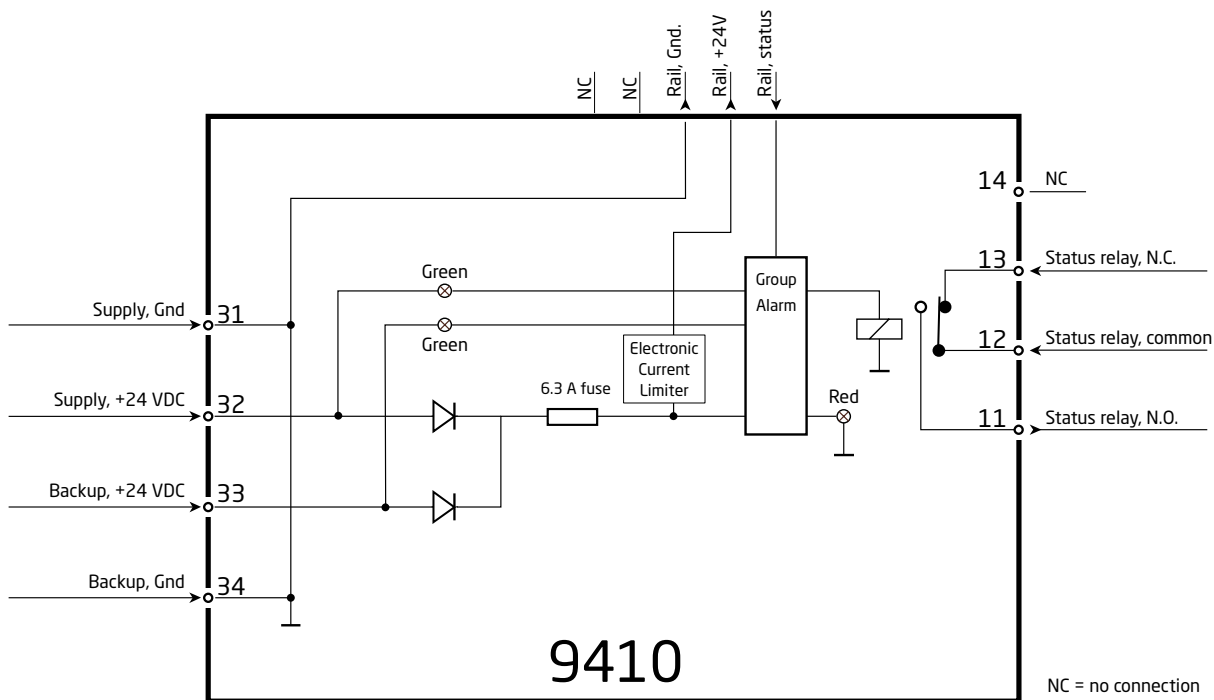


\* NC = No connection

Order: 9410

9410 = Power Control Unit  
9400 = Power rail

Block diagram:



Order: 9421

9421 = Power Supply  
9400 = Power rail

