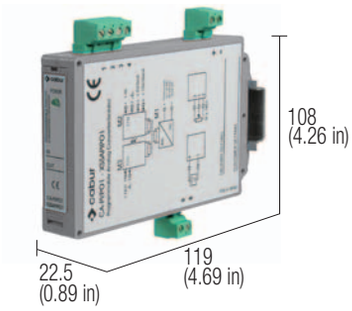
Programmable analogue signal converter

- 19 input scales
- 7 output scales
- 1 SPST (NO) alarm contact
- IN/OUT isolation >3 kVac
- Auxiliary supply output for loop-powered sensors
- Input for potentiometer



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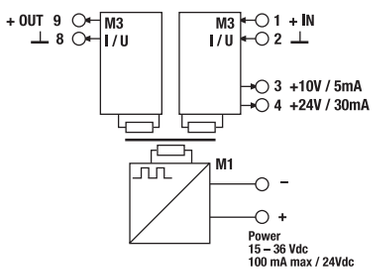
TAB.1 - INPUT SELECTION TABLE

INPUT RANGE		SW1 (INPUT)							
UNIPOLAR	BIPOLAR	1	2	3	4	5	6	7	8
0 – 60 mV	± 60 mV								
0 – 100 mV	± 100 mV		●						
0 – 500 mV	± 500 mV			●					
0 – 1 V	± 1 V				●				
0 – 2 V	± 2 V						●		
0 – 5 V	± 5 V			●	●	●	●		
0 – 10 V	± 10 V							●	
0 – 5 mA	± 5 mA	●		●					
0 – 10 mA	± 10 mA	●			●				
0 – 20 mA	± 20 mA	●					●		
4 – 20 mA	—	●				●			●

NOTES

The dimensions includes the terminal blocks and the DIN clamp.
(1) The modules in stock are programmed and calibrated with with 0...10 V and 0...10 V output. Modules programmed and calibrated for all other possible configurations can be supplied on request.

BLOCK DIAGRAM



TAB.2 - OUTPUT SELECTION TABLE

OUTPUT RANGE	INPUT TYPE	SW2 (OUTPUT)								SW3
		1	2	3	4	5	6	7	8	
0 – 5 V	UNIP.	X		●				●		U
	BIP.	X	●	●				●	●	U
± 5 V	UNIP.	X			●			●		U
	BIP.	X		●				●		U
0 – 10 V	UNIP.	X		●						U
	BIP.	X	●	●					●	U
± 10 V	UNIP.	X			●					U
	BIP.	X		●						U
0 – 20 mA	UNIP.	X		●				X		I
	BIP.	X	●	●				X	●	I
± 20 mA	UNIP.	X			●			X		I
	BIP.	X		●				X		I
4 – 20 mA	UNIP.	X				●	●	X		I
	BIP.	X	●			●	●	X	●	I

● = ON
= OFF
X = ANY

VERSIONS	Cat. No. XCAPIP03
	CAPIP03

INPUT TECHNICAL DATA	
Input signal (1)	19 programmable ranges (see Table 1)
Impedance voltage / current mode	1 MΩ / 50 Ω
Max. input voltage	15 V
Max. input current	30 mA

OUTPUT TECHNICAL DATA	
Output signal (1)	7 programmable ranges (see Table 2)
Applicable load (voltage / current model)	≥ 10 kΩ / ≤ 500 Ω
Max. output voltage	12 V
Max. output current	25 mA

GENERAL TECHNICAL DATA	
Supply voltage	15...36 Vdc
Rated current	100 mA max. @ 24 Vdc
Auxiliary DC feed output max. current	10 Vdc 5 mA / 24 Vdc 30 mA
Gain error	< 0.1% FS
Offset error	< 0.05 % FS
Linearity error	< 0.1% FS
Zero adjustment / Span adjustment	± 10% FS
Transmission frequency	400Hz...1kHz according to full-scale
Rise time	150 mV / µs
Bandwidth	1 kHz @ -6 dB
Phase delay	< 10 µs
I/O / supply isolation	> 3 kVac / 60 s
Continuous voltage isolation	800 Vac max.
Reference Standard	IEC 664-1, DIN VDE0110.1
Overvoltage category/Pollution degree	III / 2
Operating temperature range	-10... +65°C
Δ T	5°C
Protection degree	IP 20 IEC 529, EN60529
ECM standards	EN 50081-2 , EN 50082-2
Connection terminal	2.5 mm² pluggable screw type (14 AWG)
Housing material	polyamide UL94V-0
Approx. weight	150 g (5.29 oz)
Mounting information	vertical on rail, allow 5 mm spacing between adjacent component

MOUNTING ACCESSORIES	
Mounting rail type according to IEC60715/TH35-7.5	PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail type according to IEC60715/G32	—
Plug-in jumper red	—
white	—
blue	—

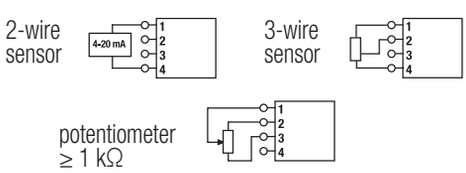
INPUT STAGE

The module can manage single-pole and two-pole inputs, choosing from among the ranges (see Table 1):

- 0…60 mV ± 60 mV
- 0…100 mV ± 100 mV
- 0…500 mV ± 500 mV
- 0…1 V ± 1 V
- 0…5 V ± 5 V
- 0…10 V ± 10 V
- 0…5 mA ± 5 mA
- 0…10 mA ± 10 mA
- 0…20 mA ± 20 mA
- 4…20 mA

The input stage provides two auxiliary supply outputs, for feeding loop powered sensor and potentiometer directly from the module (10V e 24V).

Example of connection:



OUTPUT STAGE

The module supplies in output single-pole and two-pole signals with the following ranges (see Table 2):

- 0…5 V ± 5 V
- 0…10 V ± 10 V
- 0…20 mA ± 20 mA
- 4…20 mA