

Process module analog output PMAO

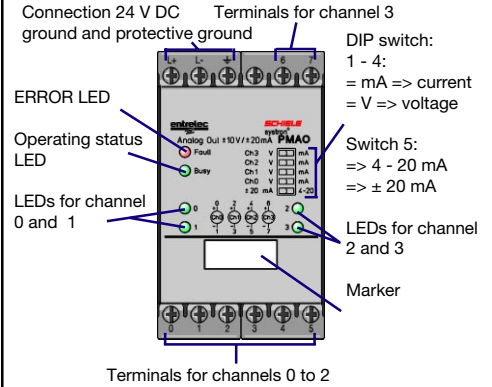


- 4 channels, resolution 12 Bit
- Ranges ± 10 V, ± 20 mA, 4...20 mA settable
- Electrical isolation between CPU and internal supply
- Internal power consumption 80 mA, external 70 mA at 24 V DC + load

Operation

The PMAO module converts digital values into analog values and transfers them to the corresponding channel. Each of these channels can be set to one of three possible ranges.

Design



■ Approvals:

Analog output modules	P/N:
PMAO	2 423 455 00

Technical data

Supply voltage	24 V DC
Voltage range	20...30 V DC including ripple
Reverse polarity protection	Diode
Number of outputs	4
Electrical isolation	CPU <-> analog part, external supply <-> Analog, not outputs <-> outputs
Output ranges	selectable ± 10 V, ± 20 mA or 4 ... 20 mA per channel
Resolution	12 Bit (11 Bit + sign)
Conversion rate	1 ms per channel
Accuracy	< 0.7 %
Voltage output	Load ≥ 2 KOhm f. Ia ≤ 5 mA, short-circuit proof
Current output	Load 50 - 500 Ohm, no-load proof
Value representation	
Complement-on-two	INTERBUS, PROFIBUS-DP, MODBUS, E/A-Bus S 800 DEVICENET
Sign + amount	CAN, E/A-Bus S 400
Power consumption	
internal (from PM)	80 mA
external (24 V, no load)	70 mA without load, 180 mA maximum
Cable length, shielded	max. 10 m
Max. number of PMAO per	
S 200/ S 250	6
INTERBUS	1
PROFIBUS-DP	5
Schiele E/A-Bus	4
Modbus	6
CAN	4
DeviceNet	5
RS 232/ RS 485	6
Addressing	automatic -> physical arrangement
Data exchange per module	INTERBUS: 1.3 ms, PROFIBUS-DP: 1.6 ms
Display of operational status	
Output status	green LED per output
Error message	red Fault LED, if Vv fails
Dielectric withstand	acc. to VDE 0160, 500 V AC
Noise immunity check	acc. to IEC 801-4, stage 3, 2 kV
Vibration and shock tests	acc. to IEC68-2-6
Degree of protection	
Terminals	IP 20
Housing	IP 50
Ambient temperature	
Operation temperature	0 ... +55 °C
Storage temperature	-25 ... +75 °C
Terminals, screw	max. 2 x 14 AWG (2 x 2.5 mm ²)
Weight	0.48 lb (220 g)
Dimensions (W x H x D)	45 mm x 82.5 mm x 100 mm