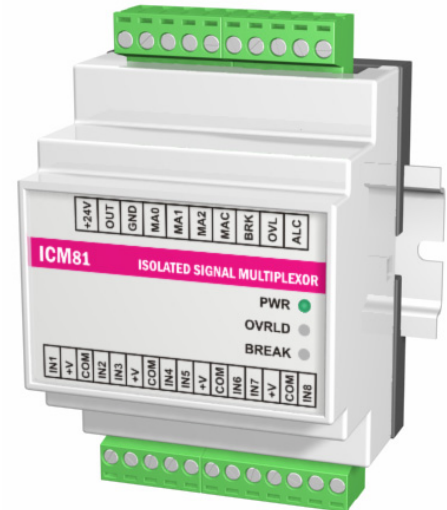


8-channel Isolated Current Scanner ICM81

- ◆ Triple isolation
- ◆ 8 internally powered input current loops
- ◆ Input current limiter
- ◆ Different retransmission output signals
- ◆ Isolated parallel interface for external control
- ◆ Isolated alarm outputs
- ◆ Self-testing and system-failure alarm

ICM81 is an 8-channel externally-controlled scanner / multiplexer of DC current signals to an isolated linear output, available in 2-wire current and 3-wire current and voltage versions. The scanner provides isolation DC power supply for all input current loops with common ground together with an automatic over-current protection and has a 3-bit isolated parallel port for external channel selection from PLC. ICM81 is equipped with sophisticated alarm circuit providing isolated alarm outputs and LED indication in case of input break and overload, output failure, and internal error. Designed for DIN-rail mounting, with its convenient plastic enclosure and detachable screw terminals, ICM81 can be very useful in industrial applications requiring DC current multiplexing with isolation, extending PLC analog input possibilities.



Technical specifications

Analog inputs		(scanned inputs)
Number of inputs		8
Input signal		DC current
Operating range		0...20 mA or 4...20 mA
Absolute range		0...22 mA
Resolution		approx. 10-bit
Scanning period		5 s
Input connection		2-wire or 3-wire
Input-loop power supply (ILPS)		externally or internally ⁽¹⁾ powered
ILPS current limitation		180 mA
Isolation between analog inputs		none (common ground and supply)
Isolation from main power supply		1000 V
Addressing input		
Input configuration		3-bit parallel port
Logic '0'		not connected
Logic '1'		connected to power supply > 12 VDC
Consumption		< 2 mA at logic '1'
Input function		remote channel selection
Isolation from analog inputs		2500 V
Analog output		
Output function		retransmission of selected input channel
Current output		0...20 mA or 4...20 mA
- maximum load		750 Ω at 24V/20mA
Voltage output		0...10 V
- minimum load		1 MΩ
Resolution		approx. 12-bit
Output delay		max. 50 ms
Output connection		3-wire
Isolation from analog inputs		1000 V
Isolation from main power supply		none (common ground)

⁽¹⁾ Provides isolated loop supply voltage - 24V/180mA for all input channels!

Ordering code ICM81 - G6.G11

Code	Feature or option	Code values
G6	Analog inputs ⁽²⁾	DB - 0...20 mA, DC - 4...20 mA, Z - other ⁽³⁾
G11	Analog output	E - 0...20 mA, F - 4...20 mA, K - 0...10 V, Z - other ⁽³⁾

⁽²⁾ All analog inputs are of a same type!

⁽³⁾ Contact COMECO

Alarm outputs	
Output type	MOS gate 0.1A/60V
Logic '0'	not connected
Logic '1' (active alarm)	connected to common ground (0 V)
Outputs function	input signal under- or over-range
Isolation from analog inputs	2500 V
Accuracy	
Measurement error	0.2% from span
Temperature drift	0.01% from span for 1 °C
Power supply	
Supply voltage	24 VDC ± 10%
Consumption	max. 250 mA
Indication	
'PWR' green LED	for device power ON
'BREAK' red LED	for selected input channel under range
'OVRLD' red LED	for selected input channel over range
Blinking LEDs	for output current loop error or system failure
Operating conditions	
Operating temperature	-10...65 °C
Operating humidity	0...85 %RH
Design and materials	
Case material	plastic
Mounting	on 35 mm DIN rail
Wiring	plug-in terminals
Dimensions	70x110x58 mm
Weight	max. 150 g
Protection, front/terminals	IP54 / IP20