

TM 10



- **Power supply:**
20 to 270 Vac and 20 to 300 Vdc
- **Universal input:**
mA, mV, V, Pt100 3 wire, thermocouple J or K, resistance and potentiometer.
- Supply for 2-wire sensor
- **Insulated analog outputs:**
- active or passive current (0-20 mA or 4-20 mA), or 0-10V voltage.
- Sensor rupture detection
Self-zero and self-diagnosis
- **Configuration:**
A set of 8 switches located behind the front face allows selecting the input and output types and calibers, without any other setting required.

Environment

- Operating T°: -10° to 50°C
- Storage T°: -20° to 70°C
- ♦ **CE** according to IEC 61000-6-4, IEC 61000-6-2 (industrial environment).
- ♦ Disturbance immunity according to the standard IEC 61000-6-2 (IEC 61000-4-3 level 3, IEC 61000-4-4 level 4, IEC 61000-4-6 level 3)

Power supply

- Voltage range: 20 to 270 Vac 50/60/400 Hz and 20 to 300 Vdc
- Power draw: 2.5W max. 4.5 VA max.

Outputs

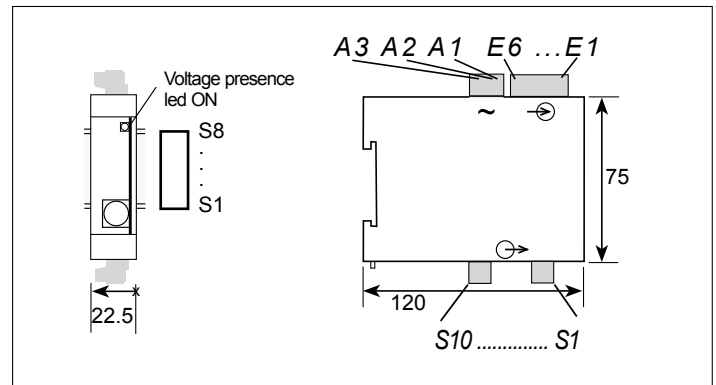
- Average response time = 200 ms (for a variation from 0 to 90% of the input signal)
- Temperature coefficient < 200 ppm/°C

Type	Load impedance	Caliber	Configuration of the micro-switches	
			S7	S8
Active/passive current	≤ 600Ω	0-20 mA		
		4-20 mA		●
Voltage	≥ 5 kΩ	0-10V	●	

● → Switch ON

Dimensions

- Self-extinguishing case of black UL 94VO ABS.
- Mounting in switchbox: latching on symmetrical DIN rail.
- *Rack version: consult.*
- Plug-off connectors for screwed connectings (2.5mm², flexible or rigid)
- Protection: Case / terminals: IP20
- Weight: 175 g (with packaging)



Dimensions : 22.5x75x120 mm

Galvanic partition

- 2 KV - 50 Hz - 1mn between supply, inputs, outputs
- Other features: consult

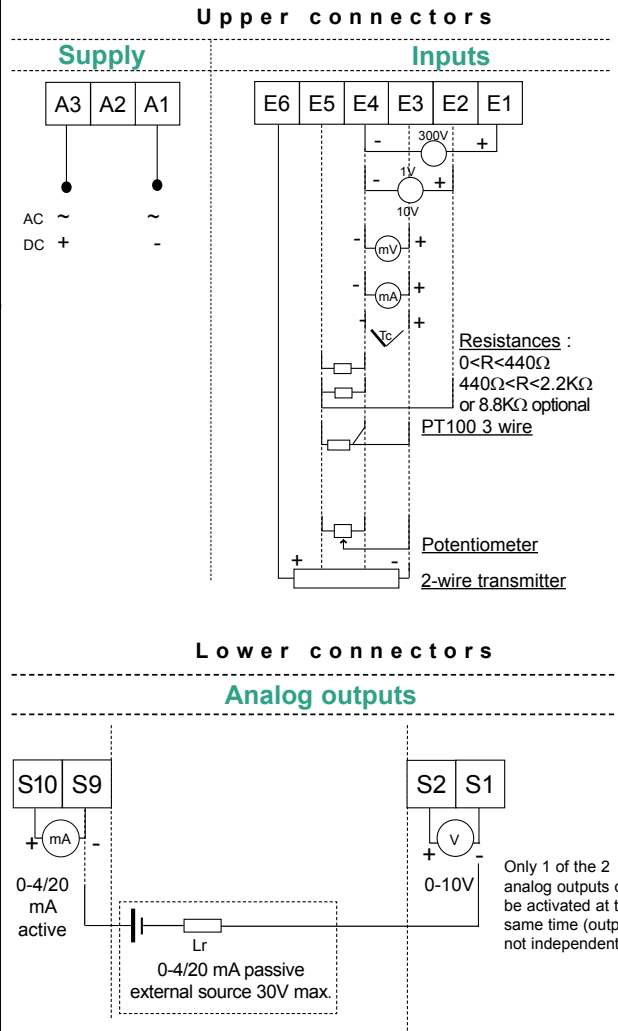
Inputs

● → Switch ON

Type	Max. error	Input impedance	Permanent overload	Caliber	Configuration of the micro-switches					
					S1	S2	S3	S4	S5	S6
mA	±30µA	Max. drop 0.9V	±100mA	4-20 mA						
	±30µA			4-20 mA (2-wire sensor)						●
	±30µA			0-20 mA					●	
	±20µA			0-10 mA					●	●
	±50µA			±20mA					●	
	±50µA			±10mA					●	●
mV	±150µV	≥1MΩ	±1V	0-100 mV				●	●	
	±250µV			±100mV				●	●	
V	±1.5mV	≥1MΩ	±50V	0-1V				●		
	±1mV			0-500mV				●		
	±2.5mV			±1V				●	●	
	±15mV			0-10V				●	●	
	±10mV		0-5V				●	●		
	±25mV		±10V				●	●		
	±450mV		0-300V				●	●		
	±750mV		±300V				●	●		
Thermocouple J (Standard IEC581)	±3.5°C	≥1MΩ	-	-50 to 200°C		●				
				0 to 100°C		●			●	
				0 to 200°C		●			●	
				0 to 400°C		●			●	
				0 to 600°C		●		●	●	
				0 to 800°C		●		●	●	
Thermocouple K (Standard IEC581)	±3.5°C	≥1MΩ	-	-50 to 200°C		●	●			
				0 to 100°C		●	●		●	
				0 to 200°C		●	●		●	
				0 to 400°C		●	●		●	
				0 to 600°C		●	●	●	●	
				0 to 800°C		●	●	●	●	
Sensor Pt100Ω 3 wire Standard IEC 751 (DIN 43760) (Line resistance < 25Ω)	±0,6°C	Current 250µA	-	-200 to 200°C	●					
				-100 to 100°C	●				●	
				-50 to 50°C	●				●	
				-50 to 100°C	●				●	
				-50 to 150°C	●			●	●	
	±0,8°C			0 to 50°C	●				●	
				0 to 100°C	●			●	●	
				0 to 150°C	●			●	●	
				0 to 200°C	●		●	●	●	
				0 to 300°C	●		●	●	●	
±1°C	0 to 500°C	●		●	●	●				
	0 to 800°C	●		●	●	●				
	Potentiometer from 100Ω to 10kΩ	±0.1% of the measure range	-	-	0 to 100Ω	●	●			
					0 to 200Ω	●	●			●
0 to 300Ω					●	●			●	
0 to 400Ω					●	●			●	
0 to 500Ω					●	●		●	●	
0 to 1000Ω					●	●		●	●	
Resistive sensor	±0.7Ω	-	-	0 to 100Ω	●	●				
				0 to 200Ω	●	●			●	
				0 to 300Ω	●	●			●	
	±12Ω			0 to 400Ω	●	●			●	
				0 to 500Ω	●	●		●	●	
				0 to 1000Ω	●	●		●	●	

- Supply for 2-wire sensor: 24 Vdc ±15% (protection from short-circuits 30mA max)
- Measurable overrange: ±10% of the caliber
- Standard sampling time: 100ms
- Common mode rejection rate: 130 dB
- Serial mode rejection rate: 40 dB 50/60Hz

Wiring



Safeties

	Voltage presence LED blinking	Return value of the analog output
Self-diagnosis	2s / 2s	22mA for the 0-20mA current output
Sensor rupture	0.5s / 0.5 s	0mA for the 4-20mA output 11V for the voltage output

your representative



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