

Signal Conditioners for Position Measurement

Series MUP080



Special features

- Analog signal conditioner for potentiometric linear and rotary sensors
- High impedance input for potentiometer
- Basic version with fixed amplification
- Normalized outputs: 0 to 10 V or 4 to 20 mA
- Very low temperature coefficient of approximately 20 ppm/K
- Mounts on DIN rail according to DIN EN 50022

Applications

Suitable for use with almost any novotechnik potentiometer

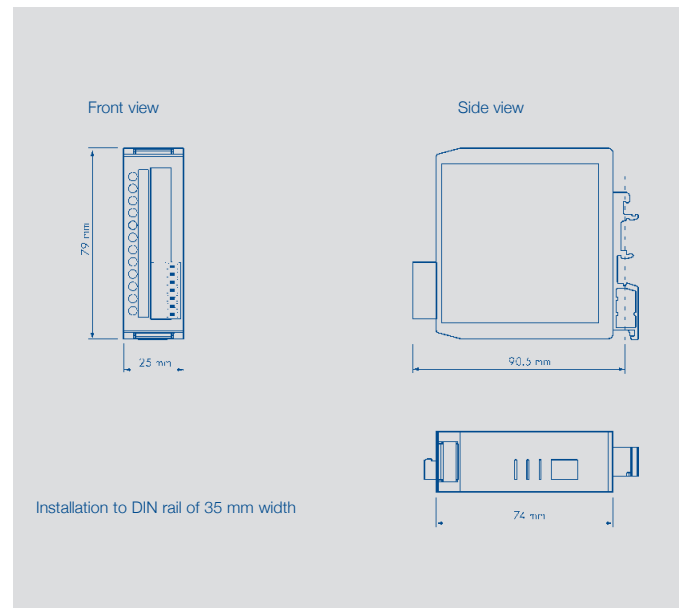
The MUP080 is an analog signal conditioner specifically designed for linear and rotary potentiometric position sensors.

A high impedance input circuit presents virtually no load to the wiper signal of a connected potentiometer. The signal is then converted into a proportional current or voltage output.

The electronics are built into an isolated housing. It can be snapped directly on DIN rails according to DIN EN 50022.

The wide supply range allows for an unstabilized power supply to be used.

Very good linearity and low temperature drift help maintain the excellent properties of conductive plastic potentiometers. The MUP080 output can be transmitted across long distances with minimum loss of signal and very good noise immunity.



Mechanical data

Dimensions	90.5 x 79 x 25	mm
Terminals	connector terminal board, 1.5 (AWG 14)	mm ²
Rail mounting	35 (DIN EN 50022)	mm
Housing material	PA66, incombustible UL94V-0, green	

Electrical data

Supply voltage	18...30	VDC
Internal reference voltage for potentiometer	10	VDC
Allowed potentiometer resistance	≥ 500	Ω
Current consumption max.	30	mA
Linearity	typ. 0.1	%
Amplification tolerance (gain)	1	%
Offset tolerance	1	%
Temperature coefficient	typ. 20...25	ppm
Response time	1	ms
Outputs	0...10 V or 4...20 mA	
Burden resistor current output	≤ 500	Ω
Stabilisation period	15	min.
Reverse voltage protection	yes, for supply lines	

Environmental data

Protection class	housing IP20	
Temperature range	working 0...60 storage 10...+85	°C
EMC	EN 61326-1	
Electrical safety	EN 61010-1, A2	

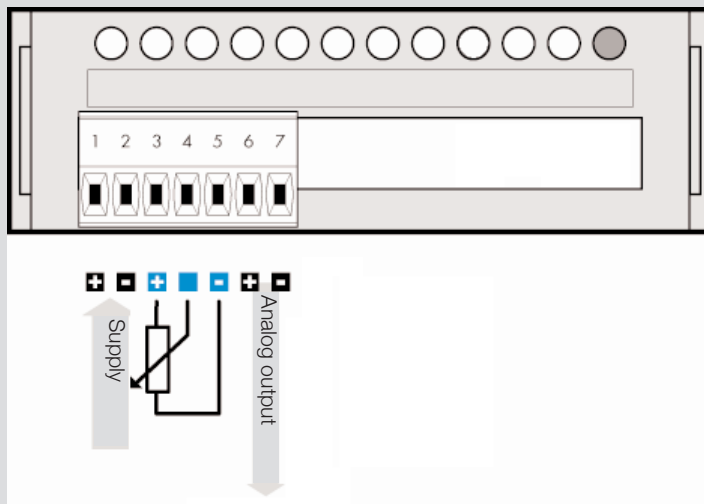
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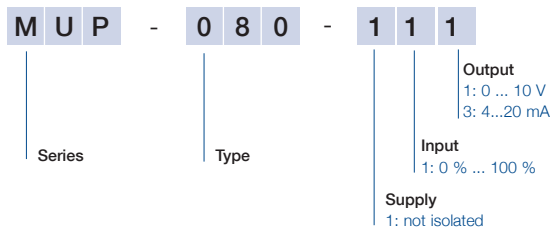
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Connection diagram



Order designation



Other configurations on request

- Galvanic isolation - supply to output
- Alternative configurations available for adjusting amplification/offset

Order designations

Type	Art.-No.
MUP-080-111	054220
MUP-080-113	054221