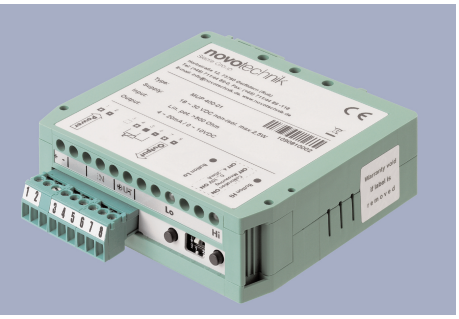
novotechnik
Siedle Group

Signal Conditioners for Position Measurement

Series MUP400



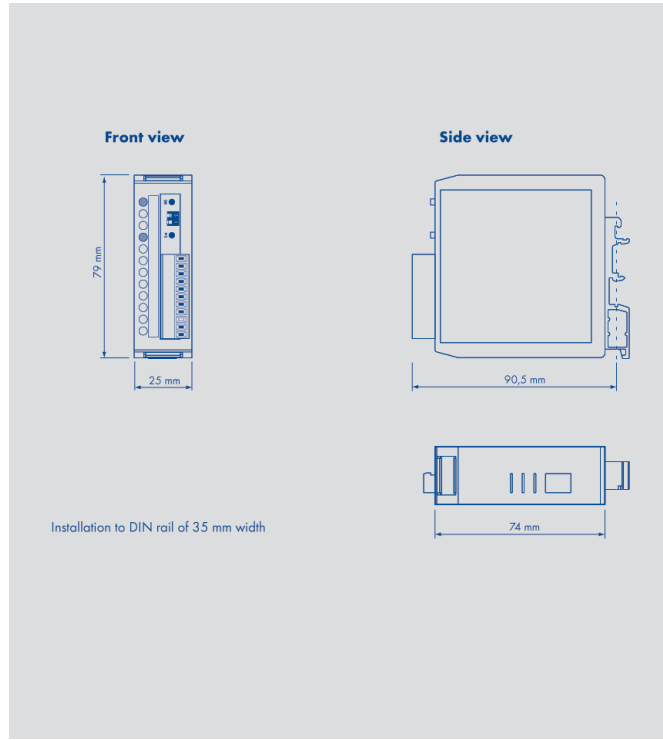
Special features

- computer controlled interface module for position sensors
- simple teach-in function to adapt to the travel of the connected potentiometer
- over/underflow signaling of learned range
- high measuring rate - up to 7.5 kHz
- 24 bit Sigma-Delta-AC converter
- available with electrical isolation (DC/DC transformer) as an option
- standardized output signals
  0… 10 V
  4… 20 mA
- outstanding linearity
- extremely low temperature drift - 20 ppm/K
- designed for standard DIN EN 50022 mounting rail fixture

Computer controlled signal transformer for potentiometric input signals to be converted to standardized voltage or current signals. The signal conditioner supplies the potentiometric sensors with a highly stable constant voltage. The wiper signal is sampled without load via a high-resistance input stage and transformed into a proportional standardized output signal.

The adjustment of the desired output signal (current or voltage, switchable) is done easily by a teach-in procedure using only 2 buttons on the front panel of the device. The input span can be limited down to 80 % of the total input range. This permits standardized output signals to be adjusted if the maximum travel or angle of the sensor is not completely utilized.

The electronic circuitry is accommodated in a plastic housing designed for mounting to a standard DIN EN 50022 mounting rail. The wide operating voltage range allows use of unstabilized direct voltage sources. High-grade DC/DC transformers are used in the models with electrically isolated supply voltage and signal conditioning.
The excellent linearity and temperature drift characteristics of the MUP400 ensure optimum electrical implementation of potentiometers. By locating the MUP400 physically close to the potentiometer, reliable and interference-free transmission of the position signal is guaranteed, even over long transmission distances.

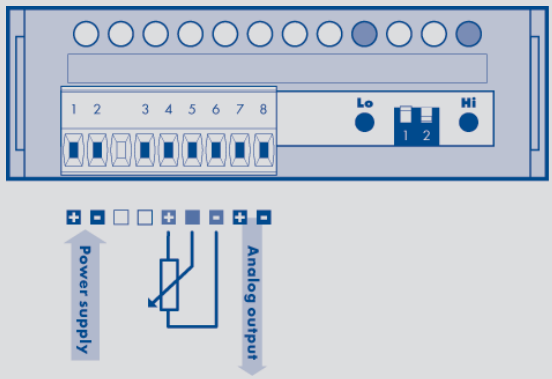


Mechanical data		
Dimensions	90.5 x 79 x 25	mm
Terminals	connector terminal board, 1.5 (AWG 14)	mm^2
Rail mounting	35 (DIN EN 50022)	mm
Housing material	PA66, incombustible UL94V-0, green	

Electrical data		
Supply voltage	18...30	VDC
Power dissipation	max. 2.5	W
Accuracy	±0.01 or range + 1 digit	%
Temperature coefficient	(max.) 20	ppm
Functions	Teach-In	
Response time	0.2	ms
Outputs	selectable 0...10 V or 4...20 mA (burden load max. 500 Ohm)	
Stabilization period	15 minutes after switch on	
Resolution teach-In	16	bit

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

Connection diagram



Order designation

M U P — 4 0 0 - 0 1

Series

Type

Type

01 = 0 ... 10 V / 4 ... 20 mA, without galvanic isolation, Art.no. 054201
11 = 0 ... 10 V / 4 ... 20 mA, with galvanic isolation, Art.no. 054202

Other configurations on request:

- other output signals
- extended adjustment ranges
- serial digital interface (RS485)