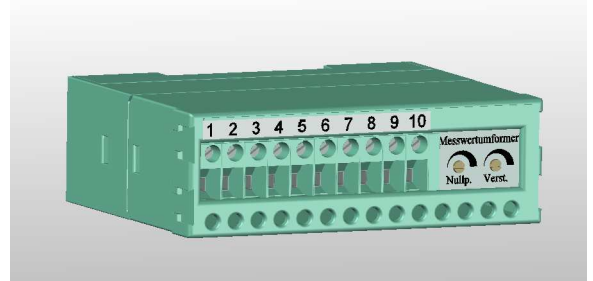


Signal conditioner series MU700 and MU900 for mounting on top-hat rails

- Signal conditioner for potentiometric angle and displacement sensors
- Independent wide range zero and span adjustability
- Normalised output :
0 - 10 Volt / 0 - 20 mA / 4 - 20 mA / ± 10 Volt / ± 20 mA
- Excellent linearity : typical 0.01 % full scale
- Very low temperatur coefficient : typical 20 ppm / °C
- Compact housing
- Galvanic isolation (series MU900 only)



Application

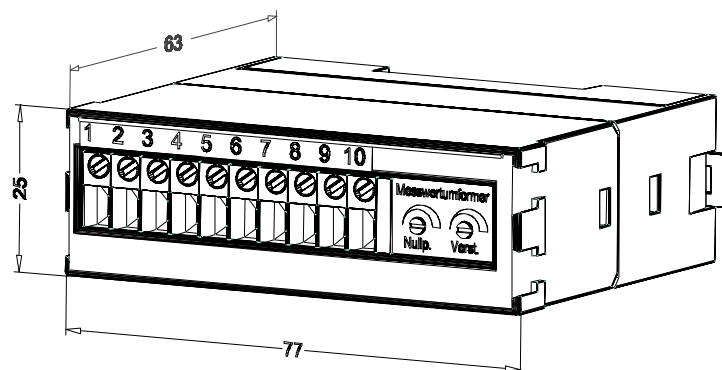
The signal conditioner supplies the potentiometric sensor and allows signal conditioning of angle and displacement sensors to be connected to electronic positioning, control and display equipment.

Due to wide range zero and span adjustability, it is possible to match voltage travel of partially used sensors to standard output signals.

The potentiometric sensors are actuated as voltage divider. Thereby fluctuations of the unavoidable transition resistance between wiper and conductive layer are irrelevant. Furthermore the relative high temperature coefficient of potentiometric sensors gets insignificant. The sensor is supplied by a high stable constant voltage.

Normalised output signals 0 - 10 Volt and 0(4) - 20 mA are provided for further processing of the sensor signal.

Dimension diagram



Setup

- Insulation material housing (polyamide) for snap-on mounting on DIN EN 50022 top-hat rails
- Screw clamp terminals 1.5 mm² (AWG 26)
- With high resolution trimmers for adjusting zero and span

Technical data

Electrical data

Voltage supply	24 V DC $\pm 20\%$
Input resistance :	> 10 MOhm
Sensor supply :	5 V DC or 10 V DC, high stable, max. 10 mA
Linearity :	typical 0.01 % FS
Temperature coefficient :	typical ± 20 ppm / °C

Voltage supply for external sensors

Series MU700 :	no
Series MU900 :	± 15 V / 20 mA

Output

MU713, 723, 913, 923 : (voltage output)	0 - 10 V , ± 10 V (load up to 2 mA)
MU733, 743, 933, 943 : (current output)	0 - 20 mA , 4 - 20 mA (load span 20 - 500 Ohm)
Optional for MU743, 943 :	± 10 mA, ± 20 mA, 0 - 5 V

Adjustment range (MU723, MU743, MU923, MU943 only)

Zero :	-30 % to +20 % (standard) (up to ± 90 % possible)
Span :	0.65 to 2 (standard) (up to 100 possible)
MU713, 733, 913, 933 :	zero and span fixed (input = output)

Galvanic Isolation

Series MU700 :	no
Series MU900 :	yes

Environmental conditions

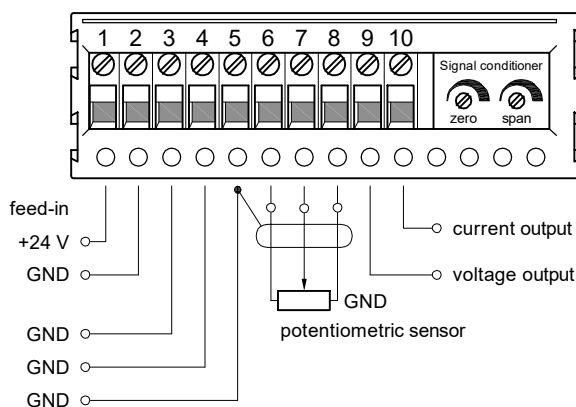
Operating temperature :	+5 °C to +70 °C
Humidity :	5 % to 95 %

Housing

Top-hat rail :	35 mm, DIN EN 50022
Protection class :	IP 50 / IP 00 (terminals)
Weight :	0.1 kg
Dimensions :	77 x 25 x 63 mm

Connection diagram / Adjusting zero and span

Serie MU700



Serie MU900

