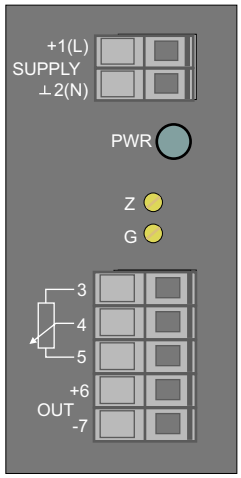
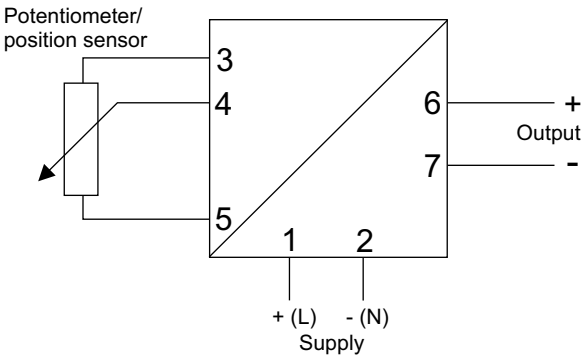
Signal transducer for potentiometer

Characteristics



Input: potentiometer 0...400 ohms up to 0...100 kohms
Analog output 4...20 mA
Optional output 0...10 V
Supply voltage 24 VDC +/-20%
Optional supply 12 VDC, 230 VAC or 115 VAC
Zero drift < 0,2% / 10 K
Gain drift < 0,1% / 10 K
Easy mounting with top hat rail case
Degree of protection IP 20
Adjustment of zero and gain
Low-cost model

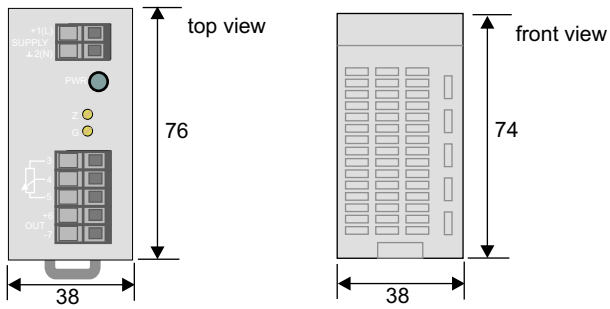
Connection



Configuration of terminals

terminal	12 VDC	24 VDC	230 VAC	115 VAC
1 2	+12 V 0V	+ 24 V 0 V	L N	L N
3 4 5	position sensor beginning position sensor tap position sensor end			
6 7	+ (0...10 V) - (0...10 V)	+ (4...20 mA, 0...10 V) - (4...20 mA, 0...10 V)		

Dimension, note



Note:

When it's because of the technical conditions not possible to use the whole length of the position sensor, it is possible to fit the output signal with a shifting of the zero point and a changing of gain.

Z= adjustment zero
G= adjustment gain

Applications

The signal transducer is suitable as an interface adaption between potentimeter (position sensor) and control units. The standard output signal of the transducer can be processed, eg with a SPS

Ordering code

P	U	X	X	X	X	X	X	-	X	X	X

Input:	0...400 ohms up to 0...100 kohms	0
Output:	**4**...20 mA	0
	0...10 V	1
Supply:	24 VDC	0
	12 VDC (output 0...10 V only)	1
	230 VAC	2
	115 VAC	3
Enclosure:	top hat rail case IP20	0
Customized type:	on request	0

Input

Potentiometer	0...400 ohms up to 0...100 kohms

Output

Current	4...20 mA, nominal load <500 ohms
Voltage	0...10 V, nominal load >2kohms

Accuracy

Resolution	dependent on position sensor
Gain drift	<0,1%/10K
Temperature coefficient	<0,2%/10K

Supply

Supply voltage	24 VDC +/-20%
Optional	12 VDC, 230 VAC or 115 VAC
Residual ripple	10%
Current consumption	< 50 mA with supply 24 VDC

Ambient conditions

Nominal temperature	10...40 °C
Operating temperature	0...60 °C
Storage temperature	-10...70 °C

Mechanics

Enclosure	syntetic material PA6
Dimension	W38 x D76 x H74
Mounting	top hat rail
Colour	black
Degree of protection	IP 20
Weight	approx. 80 g (supply DC) approx. 160 g (supply AC)
Connection	plug-in terminal strip up to 2,5 mm²