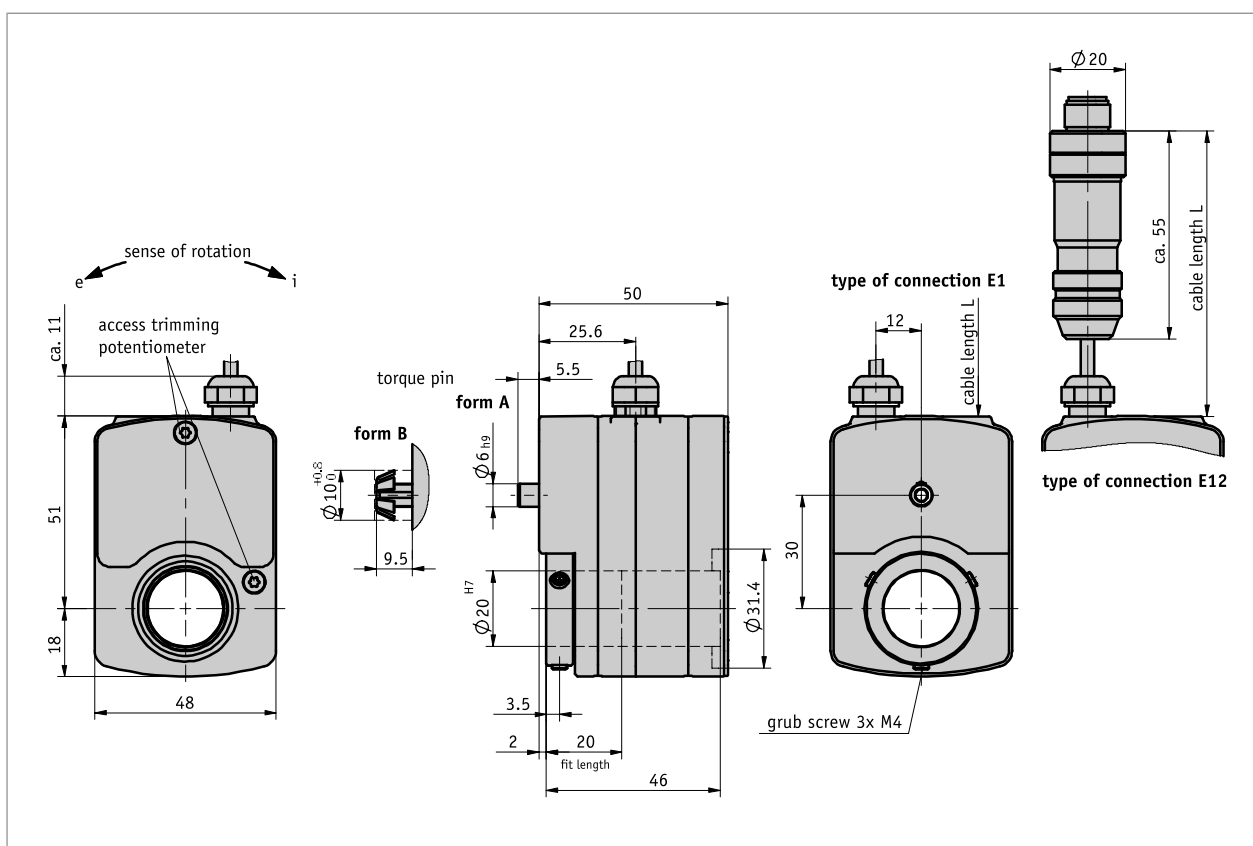


Profile

- Resistant to external influences
- Through hollow shafts up to $\varnothing 20$ mm
- Adaptation to various measurement distances owing to a wide range of gear ratios
- Integrated slip clutch to protect the potentiometer
- Compact design
- Potentiometer, power or voltage output
- IP68 protection class with oil filling possible
- Easy mounting



Mechanical data

Feature	Technical data	Additional information
shaft	rustproof stainless steel	
Housing	zinc die-cast	
Gear ratio	0.2 ... 244	
Speed	≤ 500 min ⁻¹	depending on transmission
Shaft load rating	≤ 400 N	radial
	≤ 150 N	axial
Potentiometer service life	1×10^6 rotation(s)	

Electrical data

■ Encoder potentiometer type 01,1 helix

Feature	Technical data	Additional information
Power rating	1 W at 70 °C	≤30 V
resistance	1, 5, 10 kΩ	
Resistance tolerance	±10 %	
Standard terminal resistance	0.5 %	
Linearity tolerance	±1 %	
Design	hybride	

■ Encoder potentiometer type 02,10 helices

Feature	Technical data	Additional information
Power rating	2 W at 70 °C	≤30 V
resistance	1, 5, 10 kΩ	
Resistance tolerance	±5 %	
Standard terminal resistance	0.2 %	
Linearity tolerance	±0.25 %	
Design	wire	

■ Encoder potentiometer type 03/0.1, 10 helices

Feature	Technical data	Additional information
Power rating	2 W at 70 °C	≤30 V
resistance	1, 5, 10 kΩ	
Resistance tolerance	±5 %	
Standard terminal resistance	0.2 %	
Linearity tolerance	±0.1 %	
Design	hybride	

■ Transducer, power output

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	
Output current	4 ... 20 mA at load 500 Ω	

■ Transducer, voltage output

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	
Output voltage	0 ... 10 V	

System data

Feature	Technical data	Additional information
Measuring range	340° ±5°, (mechanical full-length)	potentiometer type 01
	3600° +10°	potentiometer types 02, 03/0.1

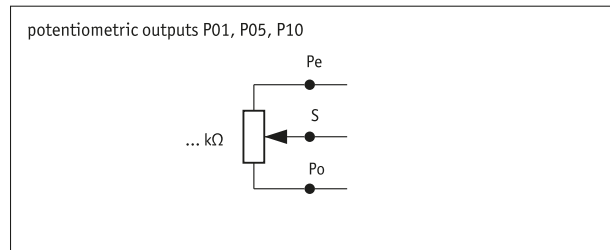
Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	-20 ... 80 °C	without oil fill
	-10 ... 80 °C	with oil fill
Relative humidity		condensation inadmissible
EMC	EN 61000-6-2	interference resistance / immission
	EN 61000-6-4	emitted interference / emission
Protection category	IP52, IP65, IP68	EN 60529

pin assignment

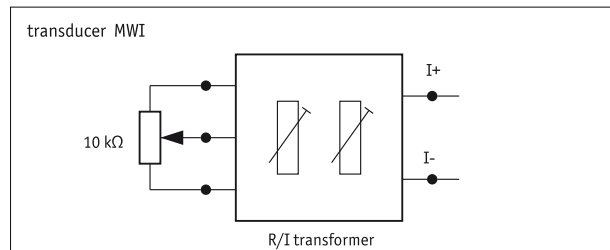
■ without transducer

Signal	Cable color E1	PIN E12
Po	white	1
S	green	2
Pe	brown	3
nc	-	4



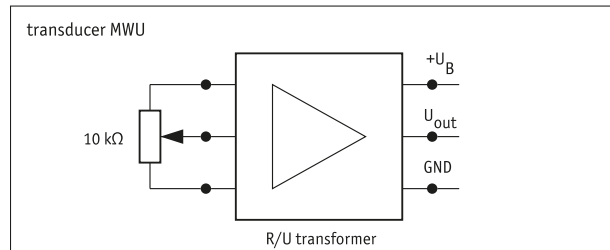
■ MWI transducer

Signal	Cable color E1	PIN E12
I-	white	1
nc	-	2
I+	brown	3
nc	-	4



■ MWU transducer

Signal	Cable color E1	PIN E12
GND	white	1
Uout	green	2
+24 V DC	Braun	3
nc	-	4



Order

■ Gear ratio calculation

$$\text{Formula: } i_1 = \frac{n \times 360^\circ}{\alpha}$$

n = number of revolutions on the driving shaft
 α = potentiometer angle of rotation
 340° with 1-coil potentiometer
 3600° with 10-coil potentiometer
 i_1 = order feature for gear ratio

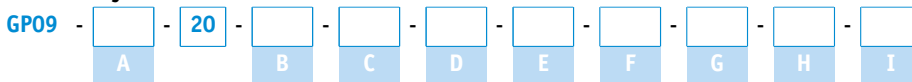
If the calculated ratio " i_1 " is the same as a value in the ordering table for the "ratio" feature, but this is not available, select the next highest ratio.

■ Ordering table

Feature	Ordering data	Spezifikation	Additional information
gear ratio	A ...	0.184, 0.27, 0.361, 0.740, 1, 2, 2.503, 3.048, 4, 5.213, 6, 8.003, 10, 12, 15.238, 20, 24.167, 40.034, 45.494, 53.333, 58.333, 76.190, 100.392, 150.036 others on request	
torque pin/form	B A B	form A, cylindrical pin form B, for tolerance compensation	
potentiometer type	C 01 02 03/0.1	1 helix, hybrid 10 helices, wire 10 helices, hybrid, linear tolerance $\pm 0.1\%$	
analog output	D MWI	transducer 4 ... 20 mA	

Feature	Ordering data	Spezifikation	Additional information
	MWU	transducer 0 ... 10 V	
	P01	potentiometer 1 kΩ	
	P05	Potentiometer 5 kΩ	
	P10	potentiometer 10 kΩ	
Sense of rotation	E	no information required	only for P01, P05, or P10 analog output
	e	counter-clockwise ascending values	only for MWI or MWU analog output
	i	clockwise ascending values	only for MWI or MWU analog output
Type of connection	F	open cable ends	
	E12	connector, M12	
Cable length	G ...	00.3 ... 20.0 m, in intervals of 0.1 m	
Protection category	H	IP52	
		IP65	
		IP68	with oil filling, against condensation
number of revolutions	I	no information required, adjustable by customer	except with IP68
	...	0.17, 0.25, 0.333, 0.6, 1, 2.5, 4, 5, 10, 12, 20, 24, 40, 60, 75, 100	only with IP68 type of protection and analog output MWI, MWU
		others on request	only with IP68 type of protection and analog output MWI, MWU

Order key



Accessories you can find:

- Overview Mating connector www.siko-global.com
- Measurement display MA50 www.siko-global.com
- Mating connector, 4-pole, socket www.siko-global.com

Order key 83526