

## Inductive Angular Transducer

### Series **SM62**



- Housing  $\varnothing$  58mm
- Measuring range up to 120°
- Integrated electronic circuit
- Protection class IP65

#### Construction and operating principle:

A NiFe-rotor turns through two coils of a differential choke. The position of the rotor lead to a inductance variation of the two coils. The integrated electronic circuit converts the variation into an output signal proportional to the angle of rotation.

#### Standard-measuring angle:

30°	60°	90°
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#### Standard versions:

Type	output	Supply voltage $U_B$ *	signal*	mid
SM621	0 .. 20 mA	20 .. 32 V	CW	10 mA
SM622			CCW	
SM623	4 .. 20 mA	20 .. 32 V	CW	12 mA
SM624			CCW	
SM625	$\pm 10$ V	$\pm 13 .. \pm 16$ V	CW	0 V
SM626			CCW	
SM627	0..10 V	20 .. 32 V	CW	5 V
SM628			CCW	

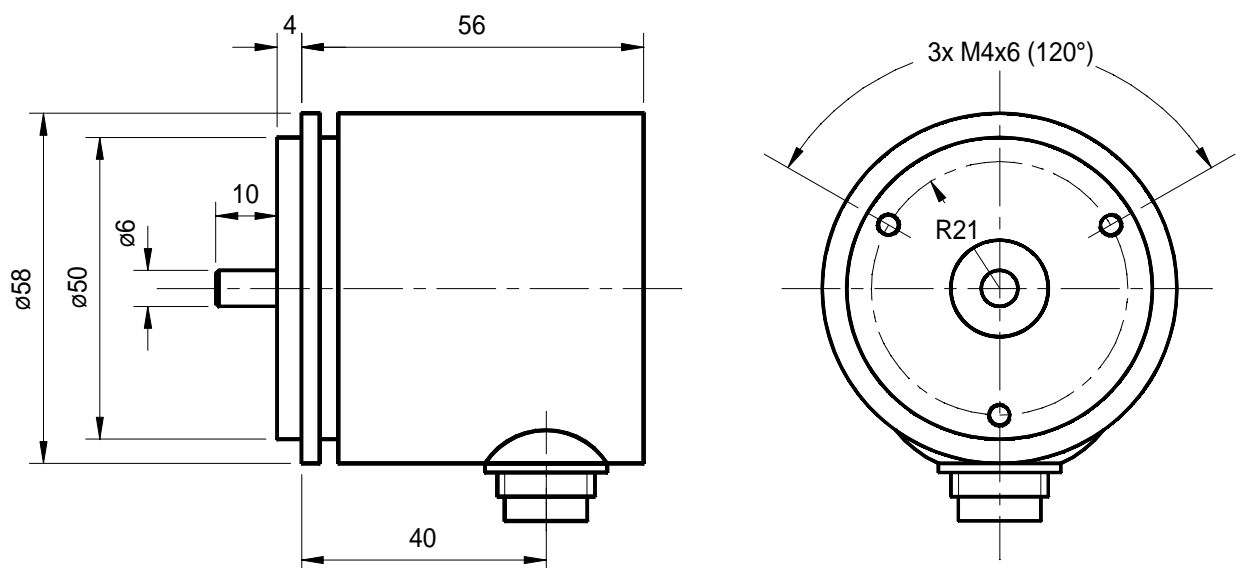
\*CW = signal increases positively for rotation in clockwise direction when viewed on the shaft.

#### Technical data:

Accuracy	< 0,5% or 0,25%
Temperature drift	< 0,01% / °C
Measurement frequency	800 Hz
Temperature range	-20°C up to +85°C
Resistance to shock	20g SRS 20-2000Hz
Resistance to vibration	3g rms (50g peak)
Protection class	IP65 *

\* with mounted mating plug Bi 423

#### Dimensions in mm



### Current output (SM621..624)

Output signal	0..20 mA or 4..20 mA
Supply current $I_B$	max. 60 mA
Load resistance $R_L$	0..500Ω
Residual ripple	< 0,005 mA <sub>SS</sub>
Dependence on $R_L$	< 0,001% for $\Delta R_L = 100\Omega$
Dependence on $V_S$	< 0,05% for $\Delta U_B = 1V$
Max. output current	25 mA

### Voltage output (SM625..628)

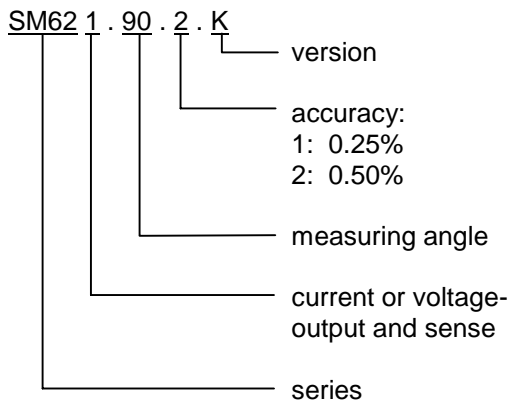
Output signal	$\pm 10$ VDC
Supply current $I_B$	max. 50 mA
Permissible load $R_L$	$\geq 2$ kΩ (short-circuit proof)
Residual ripple	< 5 mV <sub>SS</sub>
Residual voltage SM627/628	max. 0,1VDC
Dependence on $V_S$	< 0,05% for $\Delta U_B = 1V$

**Note:** Unless otherwise stated, all values are valid at +20°C ambient temperature and 30 VDC or  $\pm 15$  VDC supply voltage, starting 10 minutes after switch-on

### Materials and masses

Housing	Alu, powder mould coated
Flange	Alu, anodised
Shaft	Stainless steel
Ball bearing	Stainless steel, sealed
Mass	~ 280g

### Order code



Order codes for customer specified versions will be named at plant

### For example.: SM623.60.2

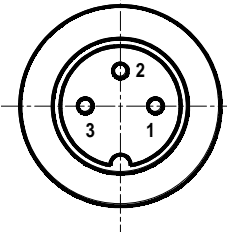
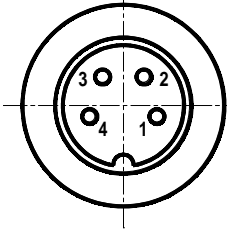
Angular Transducer series 62, output 4-20 mA (CW), 60° measuring angle, accuracy 0.5%

### other versions:

- Cable output with Pg-fastener (.K)
- Low frictional torque (.X01)
- Different supply voltage and output signals

### Electrical connections on plug

(View to the plug at transducer)

3-channel output /1 /2 /3 /4 /7 /8	4-channel output /5 /6
	
1: + $U_B$ 2: - $U_B$ (0V) 3: $I_A$ / $U_A$ (output)	1: + $U_B$ 2: 0V 3: - $U_B$ 4: $U_A$ (output)

### Accessories:

Fixing clamps SM906.620  
coupling

### Mating plugs

IP40: Binder Ser. 681 3PS/4PS  
Metal case  
(must be orderd separately)

IP66: Binder Ser. 423 3PS/4PS  
(must be ordered separately)

Your Distributor



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