

Resolvers

Solid shaft $\varnothing 10$ mm with clamping flange

Number of pole pairs 1 (= 2 poles)

RTD 1 B14 Y 3



RTD 1 B14 Y 3 with clamping flange

Technical data - electrical ratings

Primary element	Rotor
Number of pole pairs	1 = 2 poles
Transformation ratio	0.5 $\pm$ 5 %
Phase shift	0° $\pm$ 10°
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

Features

- Robust resolver with solid shaft $\varnothing 10$ mm
- Rotation speed max. 5000 rpm
- Centering alignment $\varnothing 36$ mm, mounting hole circle $\varnothing 48$ mm
- Wide operating temperature range
- High protection IP 67 at the shaft input
- Flange socket radial

Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 10$ mm solid shaft (clamping flange)
Protection DIN EN 60529	IP 65 (IP 67 at shaft input)
Operating speed	≤ 5000 rpm
Starting torque	≤ 0.01 Nm (+20 °C)
Shaft loading	≤ 40 N axial ≤ 60 N radial
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-40...+100 °C
Resistance	DIN EN 60068-2-6 Vibration 20 g, 60-2000 Hz DIN EN 60068-2-27 Shock 100 g, 11 ms
Weight approx.	310 g
Connection	Connector M23 type 2, 12-pin

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Part number

RTD 1 B14 Y 3 **P1** **7** **10** **0.5** **D2SR12** **E** **10** **IP65**

P1 Number of pole pairs
 1 = 2-pin
 7 Input voltage
 7 Vrms
 10 Input frequency
 10 kHz
 0.5 Transformation ratio
 D2SR12 Connection
 Flange socket type 2, pin contacts, radial, 12-pin
 E Operating temperature
 -40...+100 °C
 10 Flange / Solid shaft
 Clamping flange / ø10 mm
 IP65 Protection
 IP 65

Accessories

Connectors and cables

11069601	Connector S2BG12, 2 m cable (RTD)
11069603	Connector S2BG12, 5 m cable (RTD)
11069605	Connector S2BG12, 10 m cable (RTD)

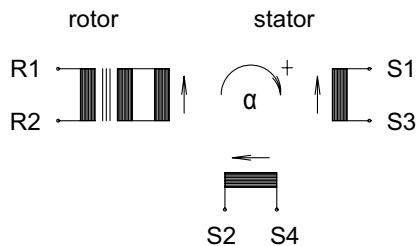
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Circuit diagram



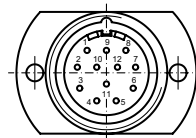
$$U_{S1-S3} = TR \cdot U_{R1-R2} \cdot \cos \alpha$$

$$U_{S2-S4} = TR \cdot U_{R1-R2} \cdot \sin \alpha$$

Schematic diagram, diagrammed during direction of rotation against counter-clockwise direction (ccw) when looking at the end of the mounting side.

Terminal assignment

Connector	Assignment
Pin 1	R1
Pin 2	R2
Pin 3	S2
Pin 4	S4
Pin 5	S1
Pin 6	S3
Pin 7	–
Pin 8	–
Pin 9	–
Pin 10	–
Pin 11	–
Pin 12	–



Impedances

Z_{RO}	$[70+j100] \Omega$
Z_{SO}	$[180+j300] \Omega$
Z_{SS}	$[175+j275] \Omega$

DC resistance

R_R (rotor)	Approx. 36 Ω
R_S (stator winding)	Approx. 60 Ω
Max. zero voltage	20 mV

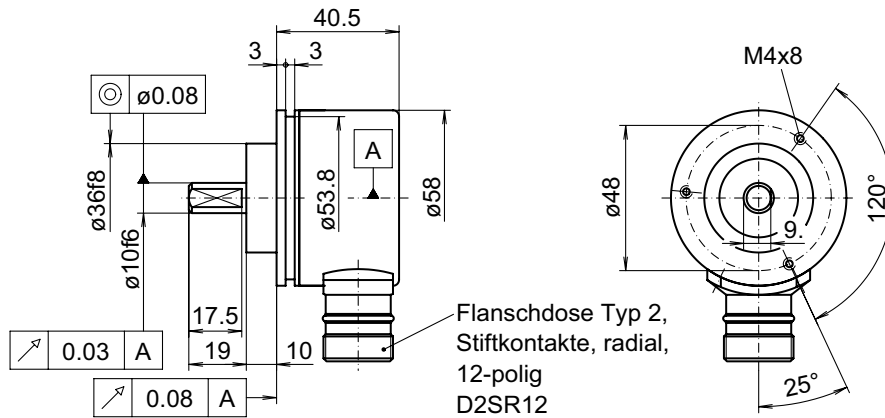
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Dimensions



026-41 Y 3