

# Resolvers

Solid shaft  $\varnothing 6$  mm with synchro flange

Number of pole pairs 1 (= 2 poles)

## RTD 1 B14 Y 1



RTD 1 B14 Y 1 with synchro flange

### Features

- Robust resolver with solid shaft  $\varnothing 6$  mm
- Rotation speed max. 10000 rpm
- Centering alignment  $\varnothing 50$  mm
- Mounting hole circle  $\varnothing 68$  mm
- Wide operating temperature range
- Flange connector radial

### Technical data - electrical ratings

Number of pole pairs	1 = 2 poles
Input voltage $U_i$	7 V <sub>rms</sub>
Input frequency	$\leq 10$ kHz
Input current $I_i$ max.	$\leq 65$ mA
Transformation ratio	$0.5 \pm 5\%$
Phase shift	$0^\circ \pm 10^\circ$
Electrical error max.	10 Angular minutes
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

### Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 6$ mm solid shaft
Protection DIN EN 60529	IP 65
Operating speed	$\leq 10000$ rpm
Starting torque	$\leq 0.01$ Nm (+20 °C)
Admitted shaft load	$\leq 20$ N axial $\leq 40$ N radial
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20...+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.	450 g
Connection	Connector M23 type 2, 12-pin

# Resolvers

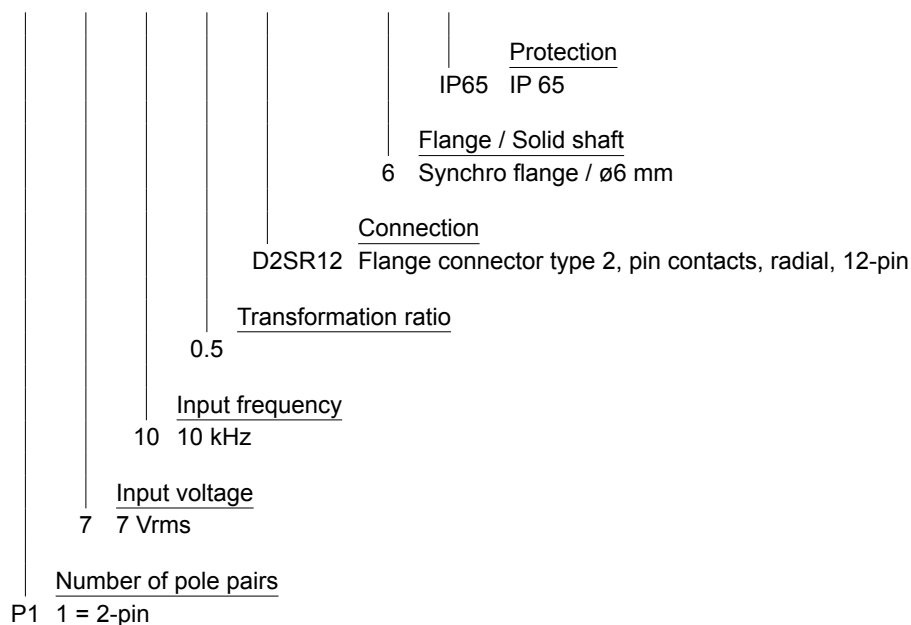
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## Part number

RTD 1 B14 Y 1 | P1 | 7 | 10 | 0.5 | D2SR12 | 6 | IP65



## 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)

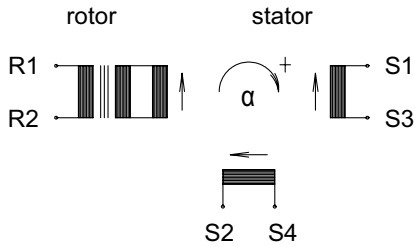
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### Circuit diagram



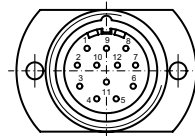
$$U_{S1-S3} = TR \cdot U_{R1-R2} \cdot \cos \alpha$$

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

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 $\Omega$
$R_S$ (stator winding)	Approx. 60 $\Omega$
Max. zero voltage	20 mV

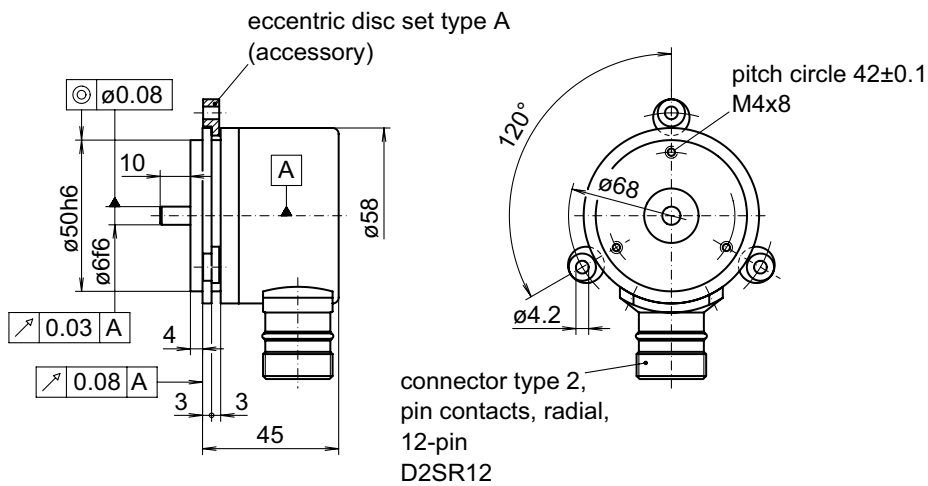
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## Dimensions



026-41 Y 1