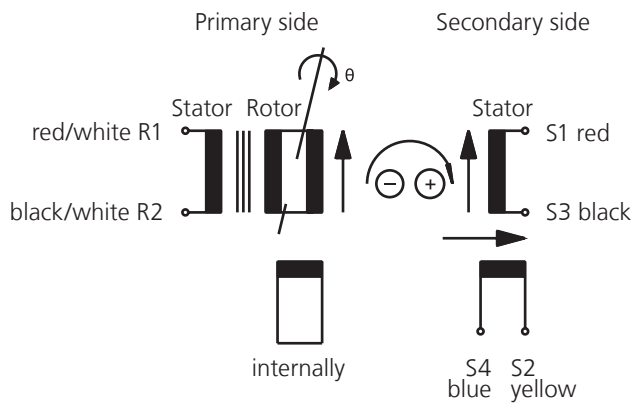




RESOLVER
RE 27

FACTS

- Hollow shaft Ø: max. 30 mm
- Outer Ø: 72 mm
- Length: 30 mm



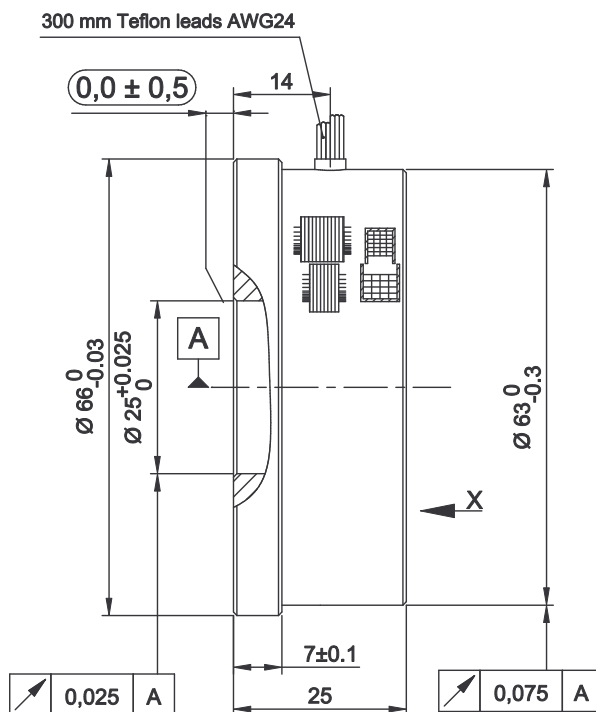
Input: $E(R1-R2) = E \cdot \sin(\cos)$

Output: $E(S1-S3) = TR \cdot E(R1-R2) \cdot \cos \theta$

$E(S2-S4) = TR \cdot E(R1-R2) \cdot \sin \theta$

TR = Transformation ratio

Positive counting direction: Rotor cw as viewed (X →)



SELECTION GUIDE FOR ELECTRICAL DATA

Primary side	R1 - R2
Pole Pairs	1
Transformation ratio	$0,5 \pm 10\%$
Input voltage	7 V
Input current	30 mA
Input frequency	10 kHz
Phase shift	$-8^\circ \pm 3^\circ$
Null voltage	max. 30 mV
Impedance	
Z _{ro}	$138 \Omega + j \cdot 210 \Omega$
Z _{rs}	$116 \Omega + j \cdot 191 \Omega$
Z _{so}	$271 \Omega + j \cdot 462 \Omega$
Z _{ss}	$223 \Omega + j \cdot 420 \Omega$
D.C. resistance	
Rotor	$62 \Omega \pm 10\%$ at 20 °C
Stator	$53 \Omega \pm 10\%$ at 20 °C
Accuracy	$\pm 10'$
Accuracy ripple	max. 1'
Operating temperature	-55 °C ... +155 °C (-67 °F ... +311 °F)
Max. permissible speed	16.000 min ⁻¹
Shock (11ms)	$< = 1.000 \text{ m/s}^2$
Vibration (10 to 500 Hz)	$< = 500 \text{ m/s}^2$
Weight rotor/stator	142 g / 188 g
Hi-pot housing/winding	min. 500 V _{AC}
Hi-pot winding/winding	min. 250 V _{AC}
Rotor/Stator	Completely impregnated