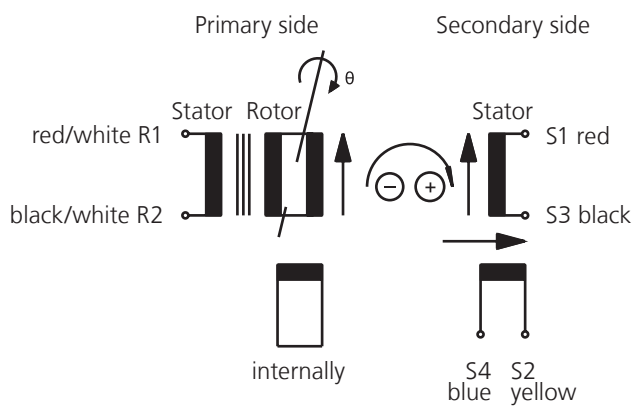




RESOLVER
RE 43

FACTS

- Hollow shaft Ø: max. 65 mm
- Outer Ø: 110 mm
- Length: 30 mm



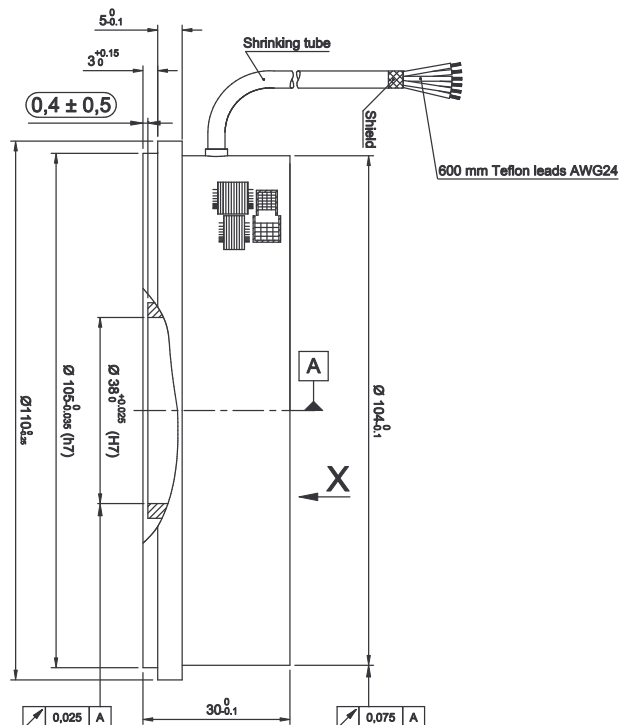
Input: $E(R1-R2) = E \cdot \sin(\cos)$

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	R1 - R2
Pole Pairs	1	1
Transformation ratio	$1 \pm 10\%$	$1 \pm 10\%$
Input voltage	7 V	7 V
Input current	55 mA	39 mA
Input frequency	5 kHz	10 kHz
Phase shift	$10^\circ \pm 3^\circ$	$-7^\circ \pm 3^\circ$
Null voltage	max. 30 mV	max. 30 mV
Impedance		
Zro	$109 \Omega + j \cdot 72 \Omega$	$129 \Omega + j \cdot 120 \Omega$
Zrs	$96 \Omega + j \cdot 64 \Omega$	$114 \Omega + j \cdot 115 \Omega$
Zso	$204 \Omega + j \cdot 238 \Omega$	$279 \Omega + j \cdot 380 \Omega$
Zss	$185 \Omega + j \cdot 211 \Omega$	$240 \Omega + j \cdot 355 \Omega$
D.C. resistance		
Rotor	$76 \Omega \pm 10\%$ at 20 °C	$76 \Omega \pm 10\%$ at 20 °C
Stator	$74 \Omega \pm 10\%$ at 20 °C	$74 \Omega \pm 10\%$ at 20 °C
Accuracy	$\pm 20'$	$\pm 20'$
Accuracy ripple	max. 1'	max. 1'
Operating temperature	-55 °C ... +155 °C (-67 °F ... +311 °F)	-55 °C ... -155 °C (-67 °F ... +311 °F)
Max. permissible speed	5.000 min ⁻¹	5.000 min ⁻¹
Shock (11ms)	$\leq 1.000 \text{ m/s}^2$	$\leq 1.000 \text{ m/s}^2$
Vibration (10 to 500 Hz)	$\leq 500 \text{ m/s}^2$	$\leq 500 \text{ m/s}^2$
Weight rotor/stator	400 g / 500 g	400 g / 550 g
Hi-pot housing/winding	min. 500 V _{AC}	min. 500 V _{AC}
Hi-pot winding/winding	min. 250 V _{AC}	min. 250 V _{AC}
Rotor/Stator	Completely impregnated	Completely impregnated