

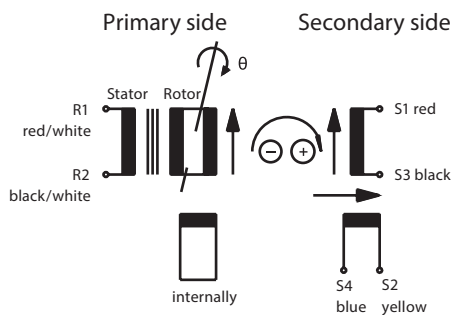


RESOLVE R

R 71

## FACTS

- Shaft Ø: max. 12 mm
- Hollow shaft Ø: max. 20 mm
- Outer Ø: 71 mm
- Operation temp.: -55 °C ... +155 °C
- Perm. Speed: 5.000 min<sup>-1</sup>
- Inside: Resolver size 21



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

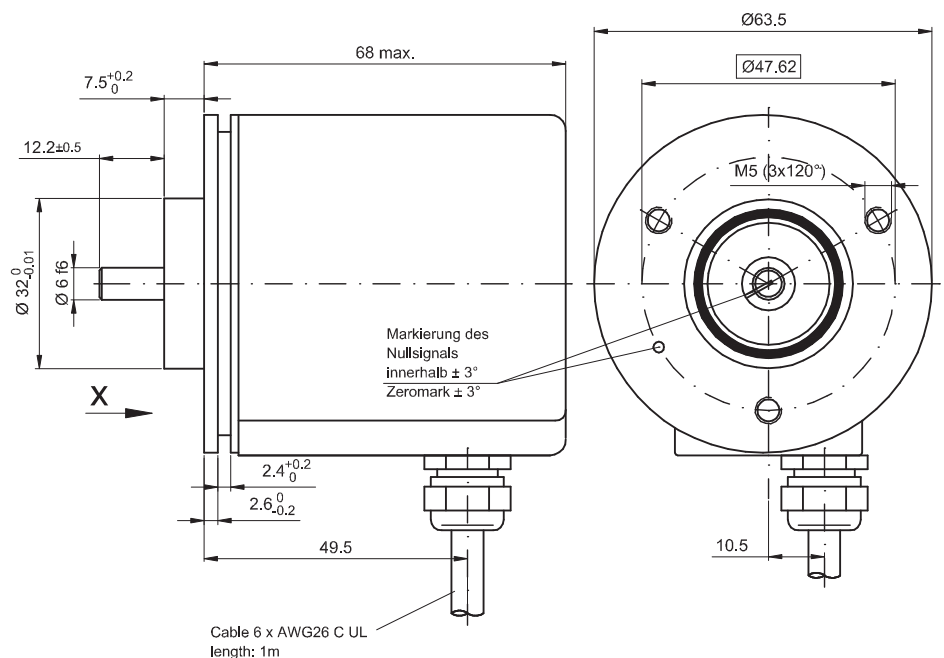
Output:  $E(S1-S3) = TR \cdot E(R1-R2) \cdot \cos \theta$

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

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	0.5 ± 10%	0.5 ± 10%
Input voltage	7 V	7 V
Input current	47 mA	35 mA
Input frequency	5 kHz	8 kHz
Phase shift	8° ± 3°	-3° ± 3°
Null voltage	30 mV max.	30 mV max.
Impedance		
Zro	92 Ω + j · 120 Ω	110 Ω + j · 170 Ω
Zrs	82 Ω + j · 100 Ω	95 Ω + j · 153 Ω
Zso	154 Ω + j · 275 Ω	210 Ω + j · 387 Ω
Zss	140 Ω + j · 240 Ω	178 Ω + j · 347 Ω
D.C. resistance		
Rotor	56 Ω ± 10% at 20 °C	56 Ω ± 10% at 20 °C
Stator	53 Ω ± 10% at 20 °C	53 Ω ± 10% at 20 °C
Accuracy		
Accuracy	± 6'	± 6'
Accuracy ripple	10'	10'
Operating temperature	-55 °C ... +155 °C (-67 °F ... +311 °F)	-55 °C ... +155 °C (-67 °F ... +311 °F)
Max. permissible speed	5.000 min <sup>-1</sup>	5.000 min <sup>-1</sup>
Weight rotor/stator	350 g	350 g
Hi-pot housing/winding	500 V <sub>AC</sub>	500 V <sub>AC</sub>
Hi-pot winding/winding	250 V <sub>AC</sub>	250 V <sub>AC</sub>
Rotor / Stator	Completely impregnated	Completely impregnated

## CABLE LAYOUT

RESOLVER	LEAdS
R1	brown
R2	orange
S1	red
S3	black
S2	yellow
S4	green