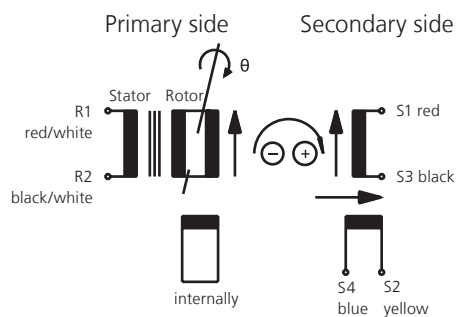




RESOLVER  
R71

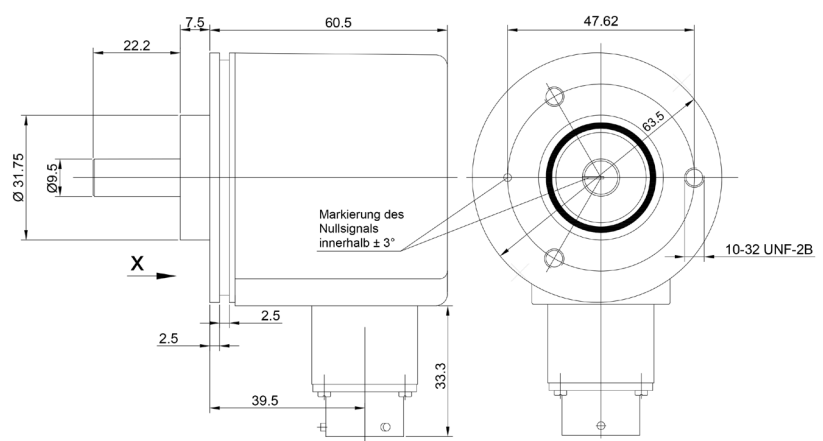
## FACTS

- Outer Ø: 71 mm
- Hollow shaft Ø: max. 20 mm
- Shaft Ø: max. 12 mm
- 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	$0.5 \pm 10\%$	$0.5 \pm 10\%$
Input voltage	7 V	7 V
Input current	47 mA	35 mA
Input frequency	5 kHz	8 kHz
Phase shift	$8^\circ \pm 3^\circ$	$-3^\circ \pm 3^\circ$
Null voltage	30 mV max.	30 mV max.
<b>Impedance</b>		
Zro	$92 \Omega + j \cdot 120 \Omega$	$110 \Omega + j \cdot 170 \Omega$
Zrs	$82 \Omega + j \cdot 100 \Omega$	$95 \Omega + j \cdot 153 \Omega$
Zso	$154 \Omega + j \cdot 275 \Omega$	$210 \Omega + j \cdot 387 \Omega$
Zss	$140 \Omega + j \cdot 240 \Omega$	$178 \Omega + j \cdot 347 \Omega$
<b>D.C. resistance</b>		
Rotor	$56 \Omega \pm 10\%$ at 20 °C	$56 \Omega \pm 10\%$ at 20 °C
Stator	$53 \Omega \pm 10\%$ at 20 °C	$53 \Omega \pm 10\%$ at 20 °C
Accuracy	$\pm 6'$	$\pm 6'$
Accuracy ripple	1'	1'
Operating temperature	-55 °C ... +155 °C	-55 °C ... +155 °C
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

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