

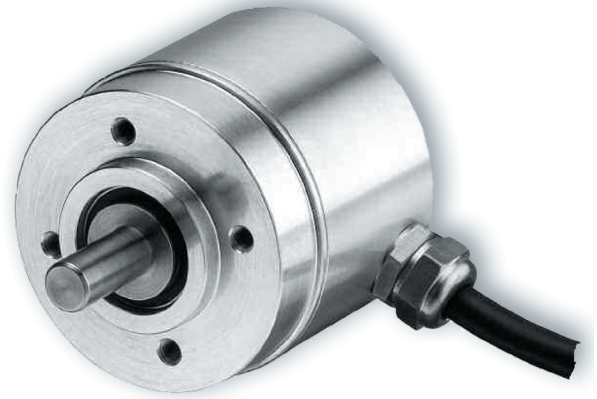
# SERIES AC36

# HENGSTLER

## Absolute Encoder

### Key Features

- Up to 22 bit singleturn and 12 bit multiturn true absolute positioning
- Available Interfaces include BiSS or SSI Interface
- Small 38mm diameter housing
- Solid or Hubshaft version available
- Wide -40 to +100C temperature range



E321846



## SPECIFICATIONS

### STANDARD OPERATING CHARACTERISTICS:

**Code:** Absolute, Optical  
**Resolution Single-turn:** 12 - 22 Bit  
**Resolution Multi-turn:** 12 Bit  
**Absolute Accuracy:**  $\pm 35''$   
**Repeatability:**  $\pm 0.2^\circ$

### ELECTRICAL:

**Interface:** BiSS, SSI  
**Input Power:** 5 VDC -5 %/+10 %, 7 - 30 VDC  
**Current w/o Load:** 100 mA (ST), 150 mA (MT)  
**Permissible Load:** Max. 30 mA  
**Output Code:** Gray, Binary  
**Drives:** Clock and Data / RS422  
**Incremental signals:** Sine-Cosine 1 Vpp  
**Number of pulses:** 2048  
**3dB limiting frequency:** 500 kHz  
**Alarm output:** Alarm bit (SSI Option), warning and alarm bit (BiSS)  
**Noise Immunity:** Tested to EN61326-1  
**Electrical Immunity:** Tested to EN61326-1  
**Termination:** Cable, Axial or Radial

### MECHANICAL

**Housing Diameter:** 38.1 mm  
**Shaft Size:** 6 mm (Solid shaft), 8 mm (Hubshaft)  
**Axial Endplay of Mounting Shaft:** (Hubshaft)  $\pm 0.5$  mm  
**Radial Runout of Mating Shaft:** (Hubshaft)  $\pm 0.05$  mm  
**Maximum Speed:** max. 10 000 rpm (continuous), max. 12 000 rpm (short term)  
**Starting Torque typ.:**  $\leq 1$  Ncm (at 20°C)  
**Moment of Inertia:** ca.  $2,5 \times 10^{-6}$  kgm<sup>2</sup>  
**Housing Material:** Stainless Steel  
**Shaft Material:** Stainless Steel  
**Disc Material:** Glass  
**Weight:**  
 Single-Turn: approx. 2.8 oz (80 g)  
 Multi-Turn: approx. 4.6 oz. (130 g)

### ENVIRONMENTAL

**Operating Temperature:** -40 °C ...+100°C  
**Storage Temperature:** -25 °C ...+85 °C  
**Shock:** 100G, 1000 m/s<sup>2</sup> (6 ms)  
**Vibration:** 10G, 100 m/s<sup>2</sup> (10 ... 2000 Hz)  
**Humidity:** 75% without condensation  
**Enclosure Rating:** IP64 (housing), IP50, IP64 (shaft)

### ELECTRICAL CONNECTIONS

SIGNAL	CABLE COLOR
5 / 7-30 V ( $U_B$ )	White
0 V ( $U_N$ )	Brown
Clock	Yellow
Clock	Green
Data	Pink
Data	Grey
<u>A</u>	White/Green <sup>1</sup>
<u>A</u>	Brown/Green <sup>1</sup>
<u>B</u>	Red/Blue <sup>1</sup>
<u>B</u>	Grey/Pink <sup>1</sup>
5V Sensor	Violet <sup>1</sup>
0V Sensor	Black <sup>1</sup>

<sup>1</sup>only with "SC"

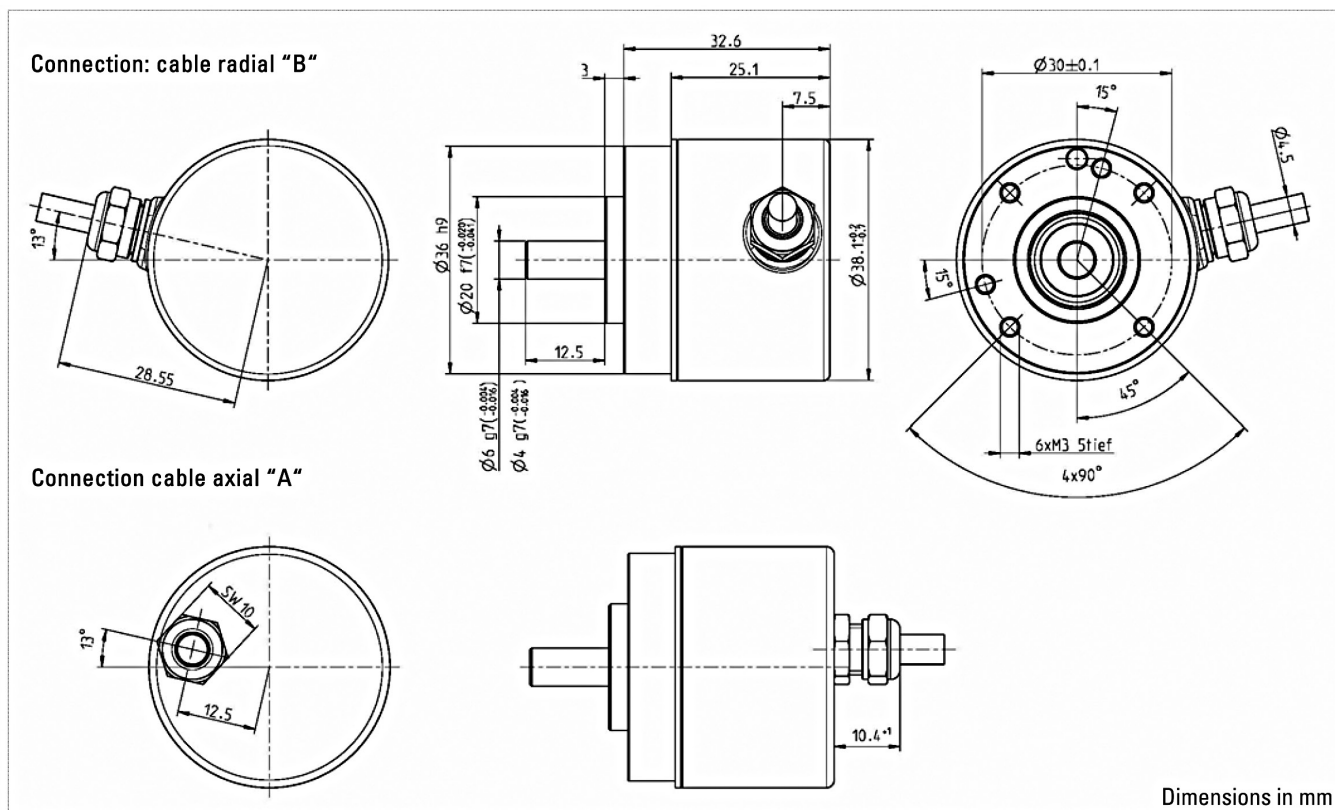
### Ordering Information

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: Resolution	Code 3: Output	Code 4: Flange/Protection/Shaft	Code 5: Interface	Code 6: Termination	Code 7: Cable
<b>AC36</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<b>R.41</b>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ordering Information						
Series AC36 Absolute Encoder	<b>0012</b> 12 Bit ST <b>0013</b> 13 Bit ST <b>0014</b> 14 Bit ST <b>0017</b> 17 Bit ST <b>0019</b> 19 Bit ST <b>0022</b> 22 Bit ST  <b>1212</b> 12 Bit MT, 12 Bit ST <b>1213</b> 12 Bit MT, 13 Bit ST <b>1214</b> 12 Bit MT, 14 Bit ST <b>1217</b> 12 Bit MT, 17 Bit ST <b>1219</b> 12 Bit MT, 19 Bit ST <b>1222</b> 12 Bit MT, 22 Bit ST	<b>A</b> 5 VDC  <b>E</b> 7-30 VDC	<b>R.41</b> Pilot Flange, IP64, 6 mm  <b>F.1R</b> Spring Tether, IP50, 8mm Hubshaft  <b>U.1R</b> Spring Tether, IP50, 8mm Hubshaft	<b>BI</b> BiSS-B <b>BC</b> BiSS-B (+SinCos 1Vpp) <b>BE</b> BiSS-C <b>BV</b> BiSS-C (+SinCos 1Vpp) <b>SB</b> SSI Binary <b>SD</b> SSI Binary (+SinCos 1Vpp) <b>SG</b> SSI Gray <b>SC</b> SSI Gray (+Sin/Cos 1Vpp)	<b>A</b> Cable, axial, 12 pole  <b>B</b> Cable, radial, 12 pole	<b>Blank</b> 1.5 M cable <b>DO</b> 3 M cable <b>FO</b> 5 M cable <b>KO</b> 10 M cable <b>PO</b> 15 M cable <b>UO</b> 20 M cable <b>VO</b> 25 M cable

## DIMENSIONS

### Pilot Flange "R"



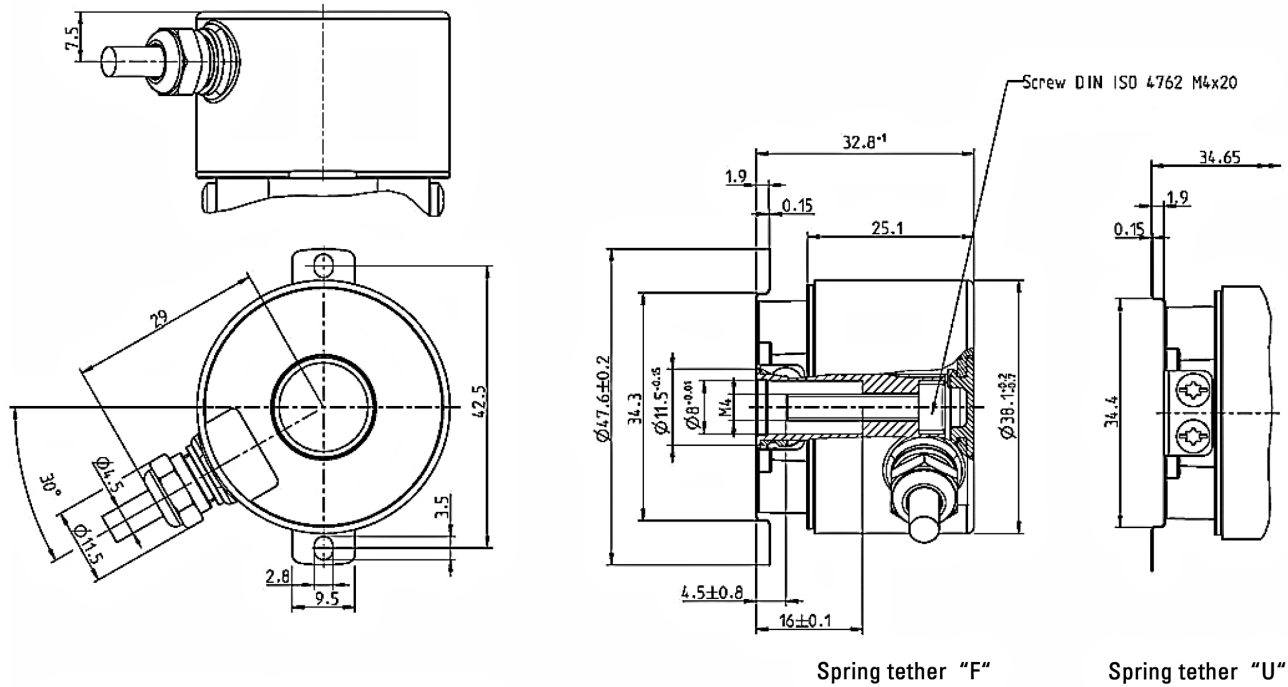
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## DIMENSIONS (Cont.)

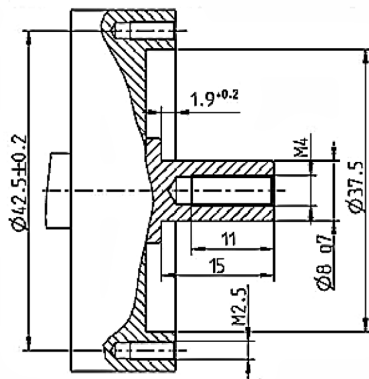
### Hubshaft

Connection: cable radial "B"

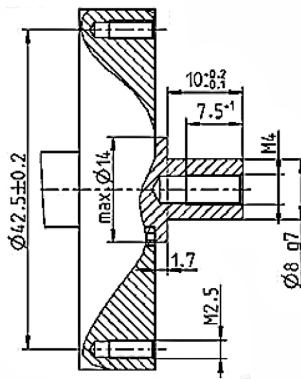


required mating dimensions

Flange "F"



Flange "U"



Dimensions in mm

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