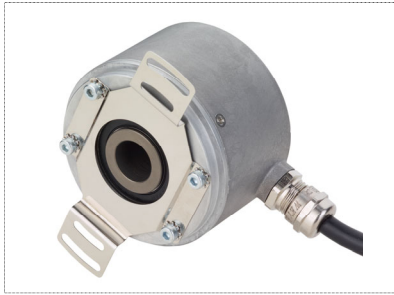


TECHNICAL DATASHEET

Incremental Encoder RI64



- Through hollow shaft and hub shaft up to 16 mm
- Up to 20,000 steps with 5,000 pulses
- Robust design
- High shock and vibrations resistance
- Electrically insulated shaft: protection from shaft currents
- Wide operating temperature range of -40°C ... +100°C
- Wide power supply range DC 5-26 V
- Protection class up to IP67



NUMBER OF PULSES

1000 / 1024 / 2000 / 2048 / 4096

TECHNICAL DATA
mechanical

| | |
|--|---|
| Housing diameter | 63 mm |
| Mounting depth | 54 mm |
| Shaft diameter | 10 mm / 12 mm / 14 mm / 15 mm / 16 mm (Hub shaft) 12 mm / 14 mm / 15 mm / 16 mm (Through hollow shaft) |
| Flange (Mounting of housing) | Tether |
| Mounting of shaft | Front clamping ring, Rear clamping ring |
| Protection class shaft input (EN 60529) | IP64 or IP67 |
| Protection class housing (EN 60529) | IP64 or IP67 |
| Axial endplay of mounting shaft | ± 0,8 mm |
| Radial runout of mating shaft | ± 0,2 mm |
| Max. speed | Hub shaft: max. 12.000 rpm Through hollow shaft: max. 6.000 rpm |
| Vibration resistance (DIN EN 60068-2-6) | 200 m/s ² (10 ... 2000 Hz) |
| Shock resistance (DIN EN 60068-2-27) | 2000 m/s ² (6ms) |
| Operating temperature | -40 °C ... +100 °C |
| Storage temperature | -40 °C ... +100 °C |
| Material shaft | Aluminum, ceramic coating |
| Material housing | Aluminum |
| Weight | approx. 245 g |
| Connection | Cable, axial or radial Cable with M23 connector |

Specifications subject to change without notice

TECHNICAL DATASHEET

Incremental Encoder RI64

TECHNICAL DATA
electrical

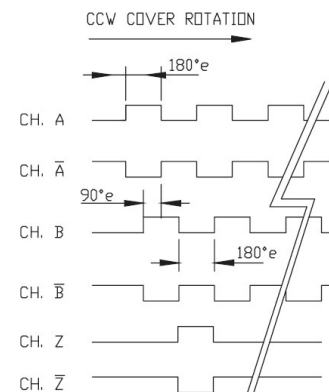
| | |
|--------------------------|--|
| Supply voltage | DC 5 V ±10 % DC 5 - 26 V |
| Max. pulse frequency | 300 kHz (data and index) |
| Standard output versions | RS422 (T): A, B, Z, \bar{A} , \bar{B} , \bar{Z} Push-pull complementary (I): A, B, Z, \bar{A} , \bar{B} , \bar{Z} |
| Number of pulses | 1000 / 1024 / 2000 / 2048 / 4096 |
| Index pulse width | 180° electrical |
| Pulse shape | Square wave |

ELECTRICAL CONNECTIONS

M23 connector, 12 pole
Cable PVC

| Colour | PIN | Signal |
|---------------|-----|-------------------|
| red | 12 | DC 5 / 5-26 V |
| black | 10 | GND |
| blue | 5 | Channel A |
| green | 8 | Channel B |
| violet | 3 | Channel Z |
| blue/ black | 6 | Channel \bar{A} |
| green/ black | 1 | Channel \bar{B} |
| violet/ black | 4 | Channel \bar{Z} |
| Screen | | Screen |

SIGNAL FORMAT

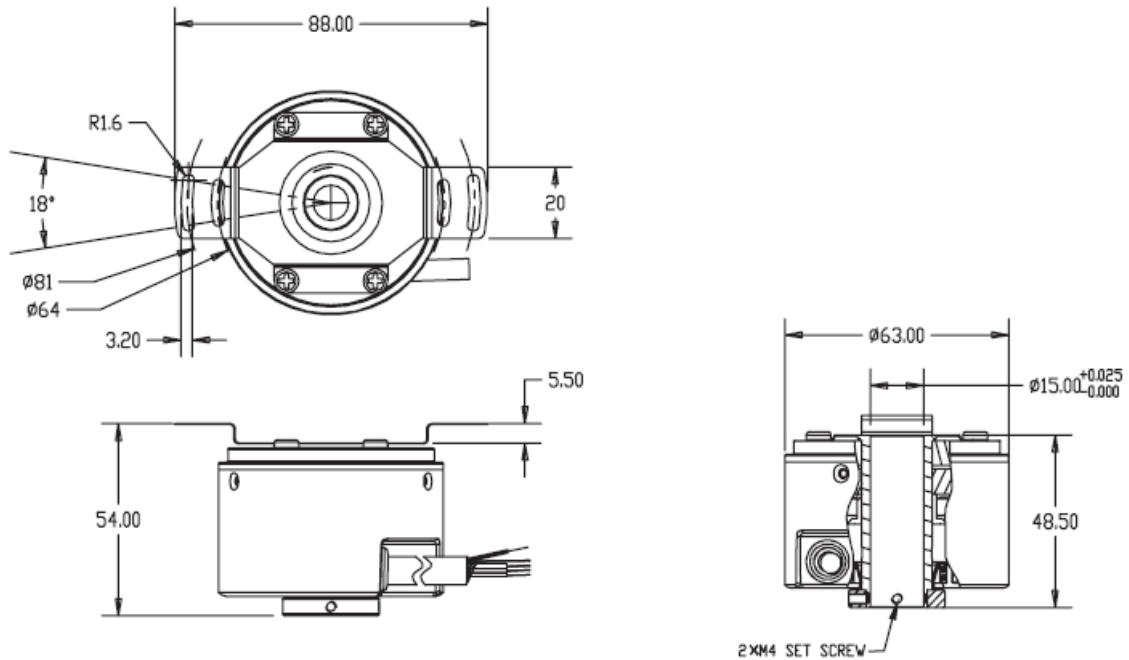


Specifications subject to change without notice

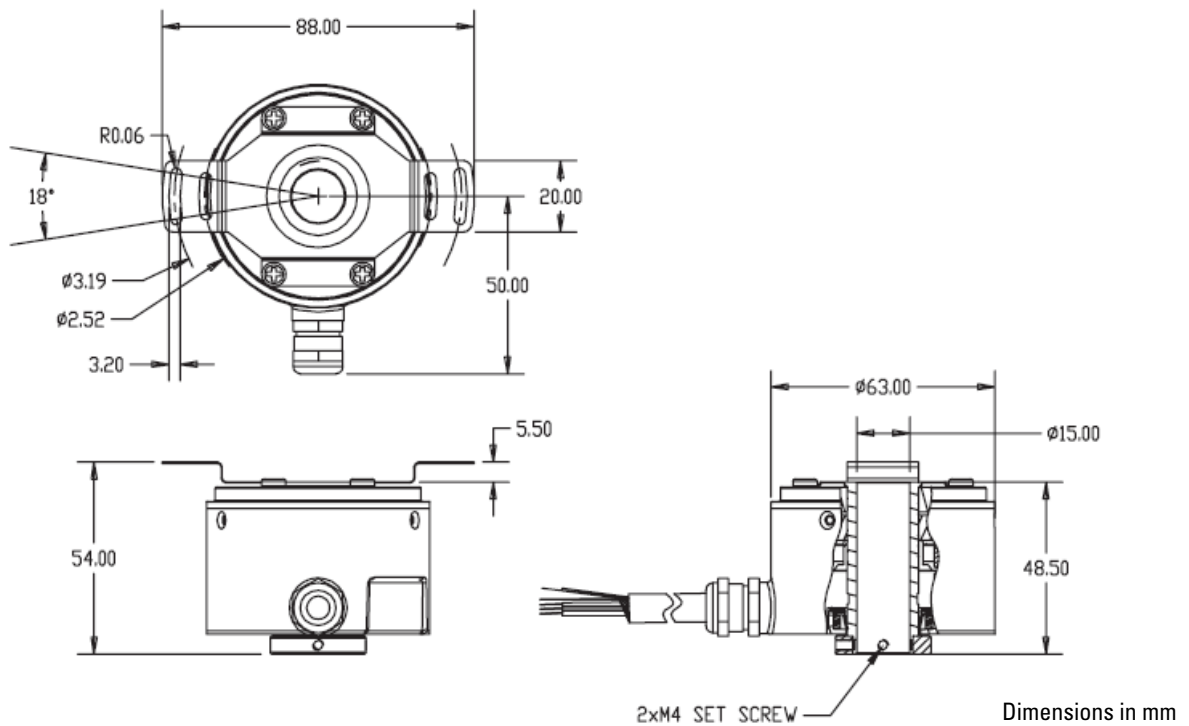
TECHNICAL DATASHEET
Incremental Encoder RI64

DIMENSIONED DRAWINGS

Through hollow shaft - IP64



Through hollow shaft - IP67



Specifications subject to change without notice

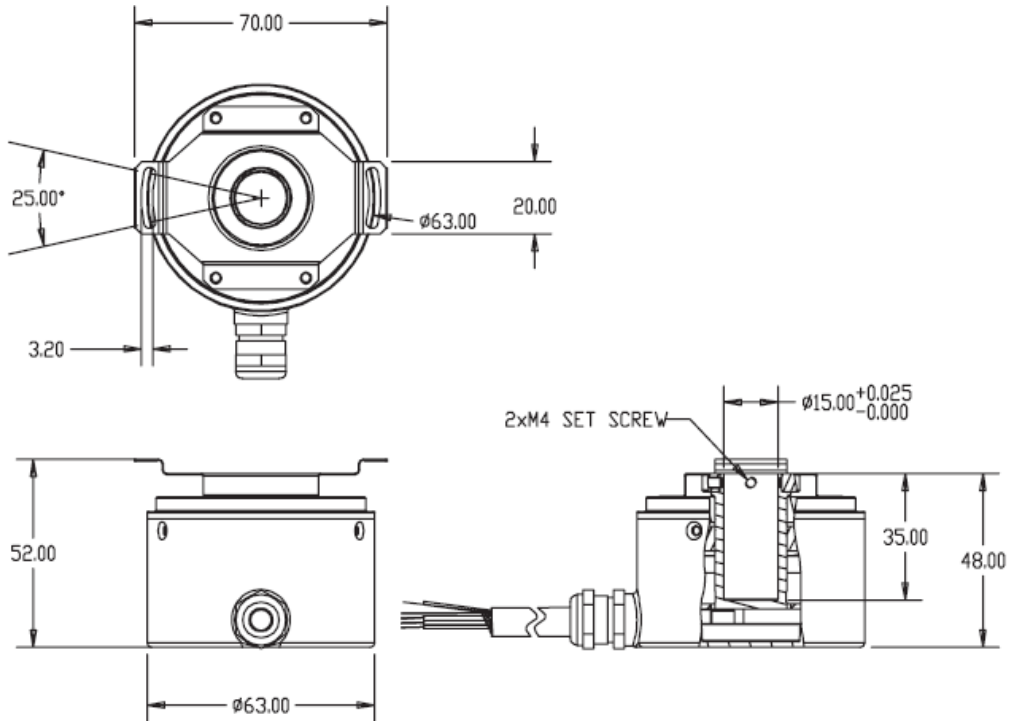
| | | |
|--------------------|---|------|
| Datasheet | © Hengstler GmbH Umlandstr. 49 D-78554 Aldingen/ Germany ☎ +49 74 24 - 89 0 Fax +49 74 24 - 89 500 | Page |
| Version 3 110321TK | E-mail: info@hengstler.com Internet: www.hengstler.com | 3/5 |

TECHNICAL DATASHEET

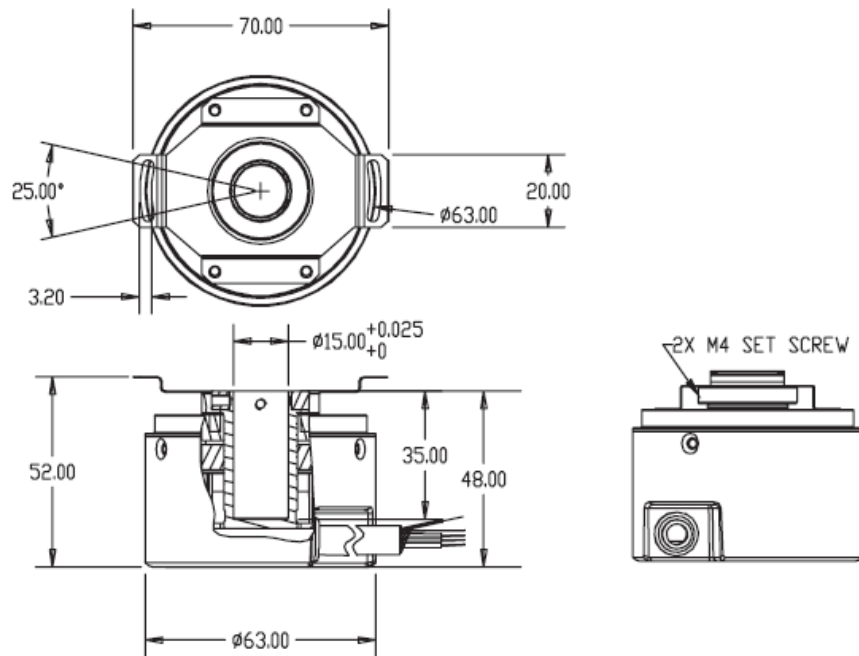
Incremental Encoder RI64

DIMENSIONED DRAWINGS
(continued)

Hub shaft - IP67



Hub shaft - IP64



Dimensions in mm

Specifications subject to change without notice

| | | |
|--------------------|---|------|
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TECHNICAL DATASHEET
Incremental Encoder RI64
ORDERING INFORMATION

| Type | Pulses | Supply voltage | Tether | Pro-tection | Shaft mounting | Shaft diameter | Output | Connection | Cable length | Connector on cable end |
|--------------------------|---|---|--|--------------------------------|---|--|--|---------------------------|---|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| RI64 | 1000 1024 2000 2048 4096 | A DC 5V ¹ B DC 5 - 26V ² | V 63 W 81/64 O without tether | 4 IP64 7 IP67 | F hub shaft with clamping front H Through hollow shaft with clamping ring rear | 2 10 mm 7 12 mm 9 14 mm D 15 mm G 16 mm | T RS422 I Push-pull complementary | B PVC cable radial | -B5 1,5m (standard length) -A5 0,5 m -D0 3 m -F0 5 m -K0 10 m -P0 15 m -U0 20 m -V0 25 m | -0 no connector -I M23 connector cw -D M23 connector ccw |

¹ DC 5 V only available with output T

² DC 5–26 V only available with output I