

## TECHNICAL DATASHEET

### Incremental Encoder RI 58-O / RI 58-T / RI58-C



- Universal industry standard encoder
- Up to 40,000 steps with 10,000 pulses
- High signal accuracy
- Protection class up to IP67
- Flexible due to many flange and configuration variants
- Suitable for high shock ratings
- Applications: machine tools, CNC axes, packing machines, motors/ drives, injection moulding machines, sawing machines, textile machines
- For EX version, see RX70TI; for stainless steel version, see RI59
- Operating temperature up to 100 °C (RI 58-T); up to -40 °C (RI58-C)

ICURO®  
industry



NUMBER OF PULSES RI58-O

1 / 3 / 4 / 5 / 10 / 15 / 20 / 25 / 30 / 35 / 40 / 45 / 50 / 60 / 64 / 70 / 72 / 80 / **100** / 125 / 128 / 144 / 150 / 180 / 200 / 230 / **250** / 256 / 300 / 314 / 360 / 375 / 400 / 480 / **500** / 512 / 600 / 625 / 720 / 750 / 900 / **1000** / **1024** / 1200 / **1250** / 1500 / 1600 / 1800 / 2000 / 2048 / **2500** / 3000 / 3480 / **3600** / 3750 / 968 / 4000 / **4096** / 4800 / **5000** / 5400 / 6000 / 7200 / 7680 / 8000 / 8192 / 9000 / 10000

Other number of pulses on request

Preferably available versions are printed in bold type

NUMBER OF PULSES RI58-T

4 / 5 / 10 / 15 / 20 / 25 / 30 / 35 / 40 / 45 / 50 / 60 / 64 / 70 / 72 / 80 / **100** / 125 / 128 / 144 / 150 / 180 / 200 / 230 / **250** / 256 / 300 / 314 / 360 / 375 / 400 / 480 / **500** / 512 / 600 / 625 / 720 / 750 / 900 / **1000** / **1024** / 1200 / **1250** / 1500 / 1600 / 1800 / 2000 / 2048 / **2500**

Other number of pulses on request

Preferably available versions are printed in bold type

NUMBER OF PULSES RI58-C

3000 / 3480 / **3600** / 3750 / 968 / 4000 / **4096** / 4800 / **5000** / 5400 / 6000 / 7200 / 7680 / 8000 / 8192 / 9000 / 10000

Other number of pulses on request

Preferably available versions are printed in bold type

#### TECHNICAL DATA mechanical

|  |   |
|--|---|
| Housing diameter                           | 58 mm   |
| Shaft diameter <sup>1</sup>                | 6 mm / 6.35 mm / 7 mm / 8 mm / 9.52 mm / 10 mm / 12 mm<br>(Solid shaft)                       |
| Flange<br>(Mounting of housing)            | Synchro flange, Clamping flange, Square flange, Synchro clamping flange                       |
| Protection class shaft input<br>(EN 60529) | IP64 or IP67  |
| Protection class housing<br>(EN 60529)     | IP65 or IP67  |
| Shaft load axial / radial                  | Ø 6 mm / 6,35 mm: 20 N / 40 N<br>Ø 7 ... 10 mm: 40 N / 60 N<br>Ø 12 mm: 60 N / 80 N           |
| Max. speed <sup>2</sup>                    | max. 10.000 U/min   |
| Starting torque typ.                       | ≤ 0,5 Ncm<br>≤ 1 Ncm (IP67)   |
| Moment of inertia                          | approx. 14 gcm <sup>2</sup> (Synchro flange)<br>approx. 20 gcm <sup>2</sup> (Clamping flange) |

<sup>1</sup> Other shaft diameters on request

<sup>2</sup> Higher values available upon request

Specifications subject to change without notice

|                    |   |      |
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**TECHNICAL DATASHEET**
**Incremental Encoder RI 58-O / RI 58-T / RI58-C**
**TECHNICAL DATA**  
**mechanical (continued)**

|  |  |
|--|--|
| Vibration resistance<br>(DIN EN 60068-2-6) | 100 m/s <sup>2</sup> (10 - 2000 Hz)  |
| Shock resistance<br>(DIN EN 60068-2-27)    | 1000 m/s <sup>2</sup> (6 ms)   |
| Operating temperature                      | RI58-O: -10 °C ... +70 °C<br>RI58-T: -40 °C ... +100 °C<br>RI58-C: -40 °C ... +70 °C   |
| Storage temperature <sup>1</sup>           | -25 °C ... +85 °C  |
| Material shaft                             | Stainless Steel  |
| Material housing                           | Aluminum   |
| Weight                                     | approx. 360 g  |
| Connection                                 | PVC cable, axial or radial<br>TPE cable, axial or radial<br>M23 connector (Conin), axial or radial<br>M16 (Binder), axial or radial<br>M12 connector, axial or radial<br>MS, axial or radial<br>KPT connector radial |

<sup>1</sup> due to packing

**TECHNICAL DATA**  
**electrical**

|                               |  |
|-------------------------------|--|
| General design                | As per DIN EN 61010-1, protection class III, contamination level 2, overvoltage class II   |
| Supply voltage <sup>1,2</sup> | RS422 + Sense (T): DC 5 V ±10 %<br>RS422 + Alarm (R): ± 10% DC 5 V or DC 10 - 30 V<br>Push-pull (K), Push-pull complementary (I): DC 10-30 V   |
| Current w/o load typ.         | 40 mA (DC 5 V), 60 mA (DC 10 V), 30 mA (DC 24 V)   |
| Max. pulse frequency          | RS422: 300 kHz<br>Push-pull: 200 kHz   |
| Standard output versions      | RS422 + Alarm (R): A, B, N, <b>□A</b> , <b>□B</b> , <b>□N</b> , <b>□A□Ia□r□m</b><br>RS422 + Sense (T): A, B, N, <b>□A</b> , <b>□B</b> , <b>□N</b> , Sense<br>Push-pull (K): A, B, N, <b>A□Ia□r□m</b><br>Push-pull complementary (I): A, B, N, <b>□A</b> , <b>□B</b> , <b>□N</b> , <b>□A□Ia□r□m</b> |
| Pulse width error             | ± max. 25° electrical  |
| Number of pulses              | 1 ... 10,000   |
| Alarm output                  | NPN-O.C., max. 5 mA  |
| Pulse shape                   | Square wave  |
| Pulse duty factor             | 1:1  |

<sup>1</sup> Pole protection with supply voltage DC 10 - 30 V

<sup>2</sup> Wide range power supply DC 3 - 38 V available on request

Specifications subject to change without notice

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**TECHNICAL DATASHEET**
**Incremental Encoder RI 58-O / RI 58-T / RI58-C**
**ELECTRICAL CONNECTIONS**
**Cable PVC**  
(Connection codes A and B)

| Cable PVC (A, B)          | Output circuit            |                              |                              |                                  |
|---------------------------|---------------------------|------------------------------|------------------------------|----------------------------------|
| Colour                    | RS422<br>+ Sense (T)      | RS422<br>+ Alarm (R)         | push-pull<br>(K)             | push-pull com-<br>plementary (I) |
| white                     | Channel A                 | Channel A                    | Channel A                    | Channel A                        |
| white/brown               | Channel $\overline{A}$    | Channel $\overline{A}$       |                              | Channel $\overline{A}$           |
| green                     | Channel B                 | Channel B                    | Channel B                    | Channel B                        |
| green/brown               | Channel $\overline{B}$    | Channel $\overline{B}$       |                              | Channel $\overline{B}$           |
| yellow                    | Channel N                 | Channel N                    | Channel N                    | Channel N                        |
| yellow/brown              | Channel $\overline{N}$    | Channel $\overline{N}$       |                              | Channel $\overline{N}$           |
| yellow/black              | Sense GND                 | $\overline{A} \text{ alarm}$ | $\overline{A} \text{ alarm}$ | $\overline{A} \text{ alarm}$     |
| yellow/red                | Sense V cc                | Sense V cc                   |                              | Sense V cc                       |
| red                       | DC 5 V                    | DC 5/10 - 30 V               | DC 5/10 - 30 V               | DC 5/10 - 30 V                   |
| black                     | GND                       | GND                          | GND                          | GND                              |
| Cable screen <sup>1</sup> | Cable screen <sup>1</sup> |                              | Cable screen <sup>1</sup>    | Cable screen <sup>1</sup>        |

<sup>1</sup> connected with encoder housing

**ELECTRICAL CONNECTIONS**
**Cable TPE**  
(Connection codes E and F)

| Cable TPE (E, F)            | Output circuit            |                              |                              |                                  |
|-----------------------------|---------------------------|------------------------------|------------------------------|----------------------------------|
| Colour                      | RS422<br>+ Sense (T)      | RS422<br>+ Alarm (R)         | push-pull<br>(K)             | push-pull com-<br>plementary (I) |
| brown                       | Channel A                 | Channel A                    | Channel A                    | Channel A                        |
| green                       | Channel $\overline{A}$    | Channel $\overline{A}$       |                              | Channel $\overline{A}$           |
| grey                        | Channel B                 | Channel B                    | Channel B                    | Channel B                        |
| pink                        | Channel $\overline{B}$    | Channel $\overline{B}$       |                              | Channel $\overline{B}$           |
| red                         | Channel N                 | Channel N                    | Channel N                    | Channel N                        |
| black                       | Channel $\overline{N}$    | Channel $\overline{N}$       |                              | Channel $\overline{N}$           |
| violet (white) <sup>1</sup> | Sense GND                 | $\overline{A} \text{ alarm}$ | $\overline{A} \text{ alarm}$ | $\overline{A} \text{ alarm}$     |
| blue                        | Sense V cc                | Sense V cc                   |                              | Sense V cc                       |
| brown/green                 | DC 5 V                    | DC 5/10 - 30 V               | DC 5/10 - 30 V               | DC 5/10 - 30 V                   |
| white/green                 | GND                       | GND                          | GND                          | GND                              |
| Cable screen <sup>2</sup>   | Cable screen <sup>2</sup> | Cable screen <sup>2</sup>    | Cable screen <sup>2</sup>    | Cable screen <sup>2</sup>        |

<sup>1</sup> white with RS422 + Sense (T)

<sup>2</sup> connected with encoder housing

Specifications subject to change without notice

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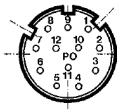
## TECHNICAL DATASHEET

### Incremental Encoder RI 58-O / RI 58-T / RI58-C

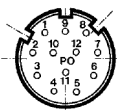
**ELECTRICAL CONNECTIONS**  
M23 connector (Conin), 12 pole  
(Connection codes C, D, G, H)

**M12 connector, 8 pole**  
(Connection codes 7 and 8)

Pin-Adjustment  
M23, cw



Pin-Adjustment  
M23, ccw



| Pin<br>M23, 12 pole | Pin<br>M12, 8 pole | RS422<br>+ Sense (T)   | RS422 +<br>+ Alarm (R) | push-pull<br>(K)   | push-pull<br>complemen-<br>tary (I) |
|---------------------|--------------------|------------------------|------------------------|--------------------|-------------------------------------|
| 1                   | 6                  | Channel $\overline{B}$ | Channel $\overline{B}$ | N.C.               | Channel $\overline{B}$              |
| 2                   |                    | Sense V <sub>cc</sub>  | Sense V <sub>cc</sub>  | N.C.               | Sense V <sub>cc</sub>               |
| 3                   | 7                  | Channel N              | Channel N              | Channel N          | Channel N                           |
| 4                   | 8                  | Channel $\overline{N}$ | Channel $\overline{N}$ | N.C.               | Channel $\overline{N}$              |
| 5                   | 3                  | Channel A              | Channel A              | Channel A          | Channel A                           |
| 6                   | 4                  | Channel $\overline{A}$ | Channel $\overline{A}$ | N.C.               | Channel $\overline{A}$              |
| 7                   |                    | N.C.                   | $\overline{Alarm}$     | $\overline{Alarm}$ | $\overline{Alarm}$                  |
| 8                   | 5                  | Channel B              | Channel B              | Channel B          | Channel B                           |
| 9                   |                    | N.C. <sup>1</sup>      | N.C. <sup>1</sup>      | N.C. <sup>1</sup>  | N.C. <sup>1</sup>                   |
| 10                  | 1                  | GND                    | GND                    | GND                | GND                                 |
| 11                  |                    | Sense GND              | N.C.                   | N.C.               | N.C.                                |
| 12                  | 2                  | DC 5 V                 | DC 5 V / 10 -<br>30 V  | DC 10 - 30 V       | DC 10 - 30 V                        |

<sup>1</sup> screen for cable with CONIN connector

**ELECTRICAL CONNECTIONS**  
KPT connector, 8 pole  
(Connection code 2)

**M16 connector (Binder), 6 pole**  
(Connection codes J and N)

| Pin<br>KPT, 8 pole | RS422 +<br>+ Alarm (R) | push-pull<br>(K)   | push-pull<br>complemen-<br>tary (I) | Pin<br>M16, 6 pole | push-pull<br>(K)   |
|--------------------|------------------------|--------------------|-------------------------------------|--------------------|--------------------|
| A                  | Channel B              | Channel B          | Channel B                           | 1                  | DC 10 - 30 V       |
| B                  | Channel $\overline{B}$ |                    | Channel $\overline{B}$              | 2                  | Channel A          |
| C                  | Channel $\overline{A}$ |                    | Channel $\overline{A}$              | 3                  | Channel N          |
| D                  | Channel A              | Channel A          | Channel A                           | 4                  | Channel B          |
| E                  | DC 5 V /<br>10 - 30 V  | DC 10 - 30 V       | DC 10 - 30 V                        | 5                  | $\overline{Alarm}$ |
| F                  | GND                    | GND                | GND                                 | 6                  | GND                |
| G                  | Channel N              | Channel N          | Channel N                           |                    |                    |
| H                  | Channel $\overline{N}$ | $\overline{Alarm}$ | Channel $\overline{N}$              |                    |                    |



**ELECTRICAL CONNECTIONS**  
MS connector, 10 pole, Euro-pinout  
(Connection codes O and K)

**MS connector, 7 pole**  
(Connection codes P and L)

| Pin<br>10 pole | Pin<br>7 pole | Description RS422<br>(R) | push-pull<br>(K)   | push-pull<br>complementary (I) |
|----------------|---------------|--------------------------|--------------------|--------------------------------|
| 1/A            | 1/A           | Channel A                | Channel A          | Channel A                      |
| 2/B            | 2/B           | Channel B                | Channel B          | Channel B                      |
| 3/C            | 3/C           | Channel N                | Channel N          | Channel N                      |
| 4/D            | 4/D           | DC 5 V / 10 - 30 V       | DC 10 - 30 V       | DC 10 - 30 V                   |
| 5/E            | 5/E           | $\overline{Alarm}$       | $\overline{Alarm}$ | $\overline{Alarm}$             |
| 6/F            | 6/F           | GND                      | GND                | GND                            |
| 7/G            |               | Channel $\overline{A}$   | screen             | Channel $\overline{A}$         |
| 8/H            |               | Channel $\overline{B}$   | N.C.               | Channel $\overline{B}$         |
| 9/I            |               | Channel $\overline{N}$   | N.C.               | Channel $\overline{N}$         |
| 10/J           | 7/G           | Screen                   | Screen             | screen                         |

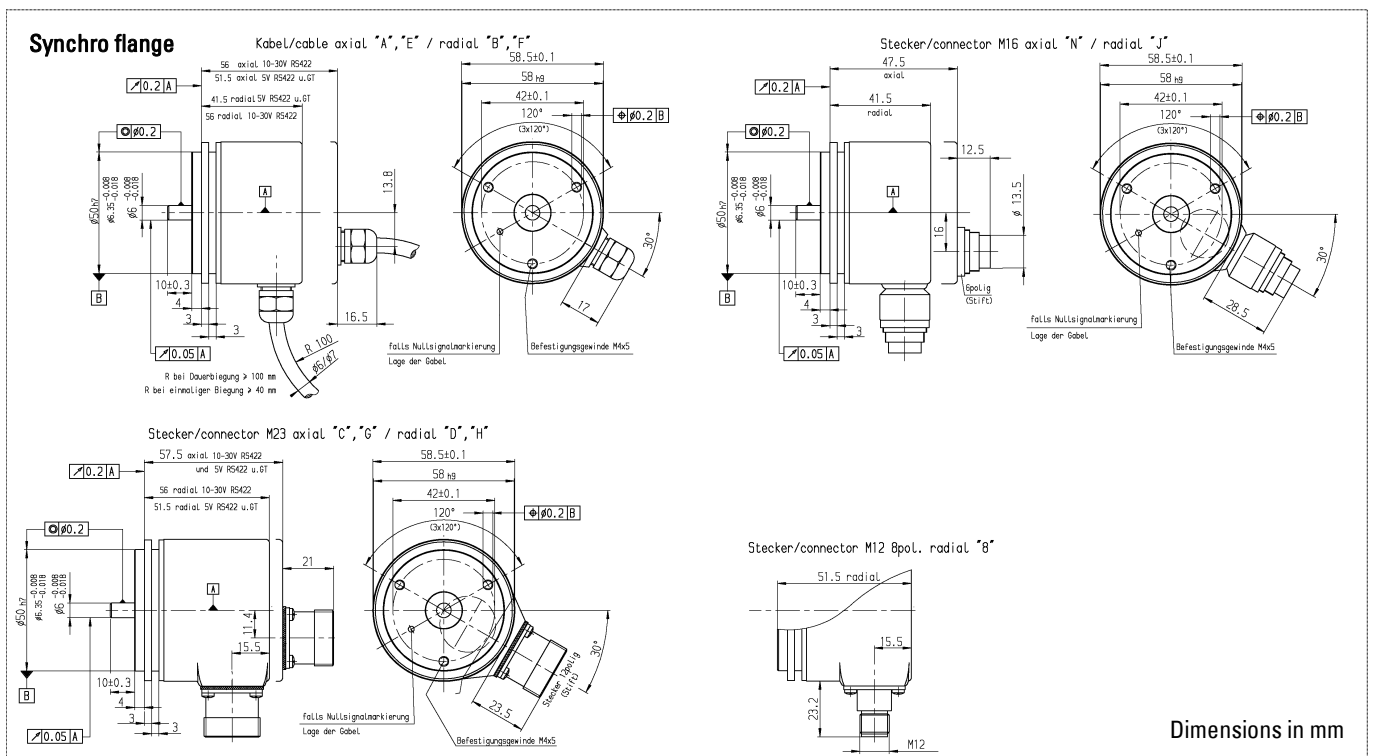
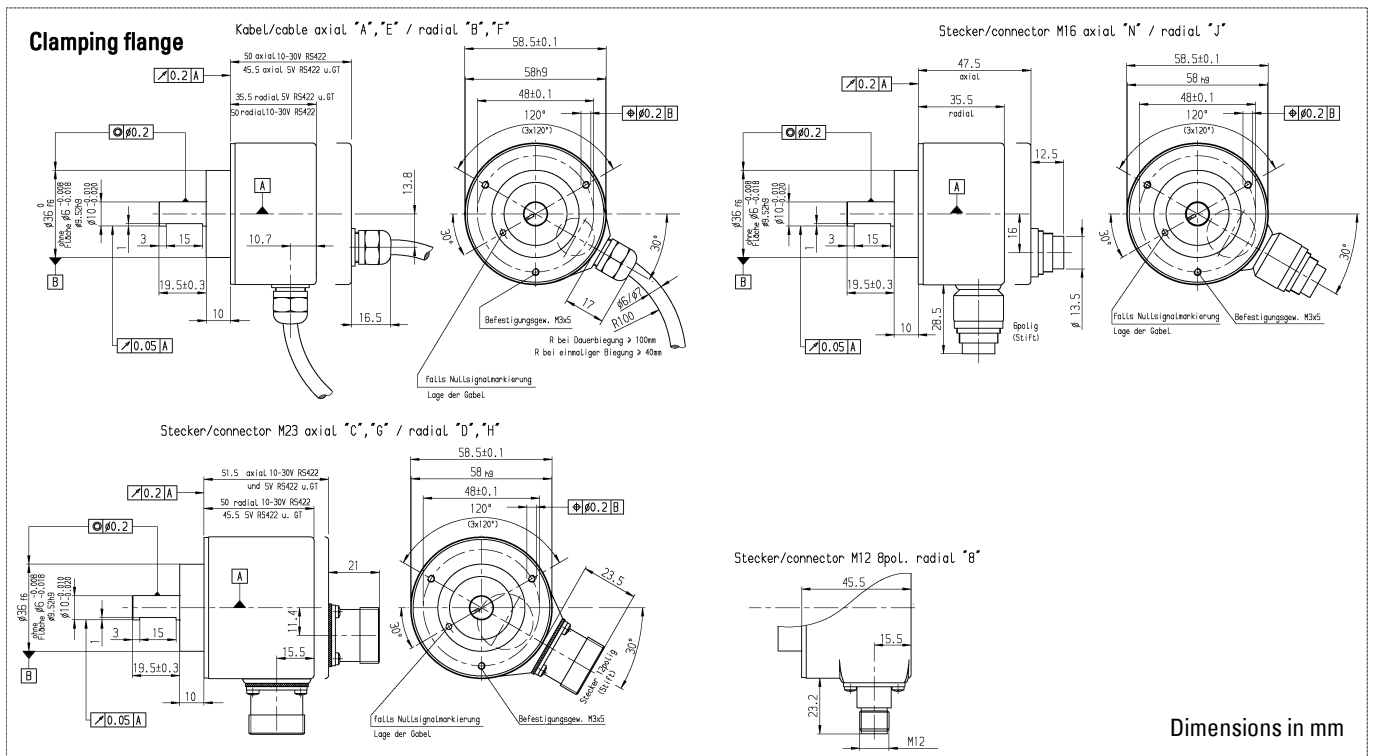
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## TECHNICAL DATASHEET

## Incremental Encoder RI 58-O / RI 58-T / RI58-C

## DIMENSIONED DRAWINGS



Specifications subject to change without notice

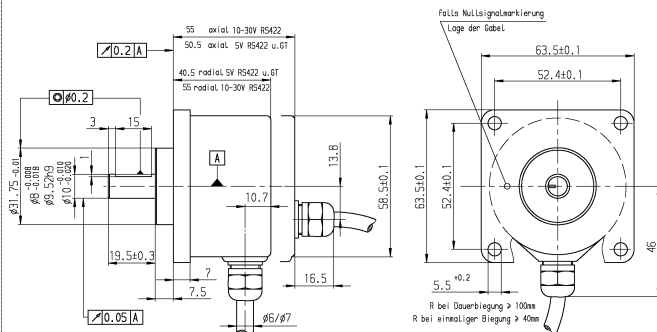
## TECHNICAL DATASHEET

### Incremental Encoder RI 58-O / RI 58-T / RI58-C

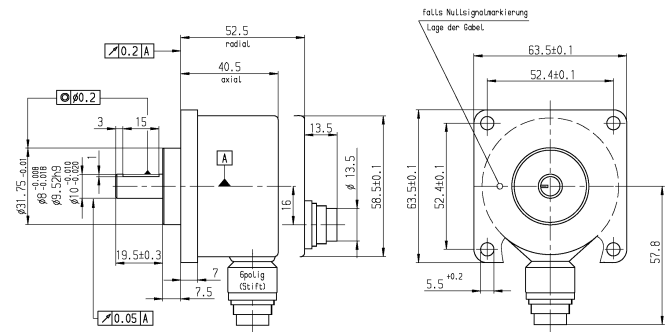
#### DIMENSIONED DRAWINGS (continued)

#### Square flange, 63,5 mm x 63,5 mm (2,5" x 2,5")

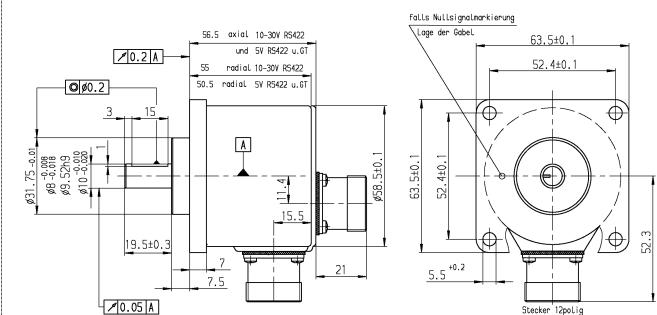
Kabel/cable axial "A", "E" / radial "B", "F"



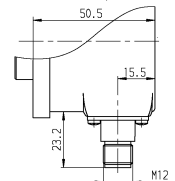
Stecker/connector M16 axial "N" / radial "J"



Stecker/connector M23 axial "C", "G" / radial "D", "H"

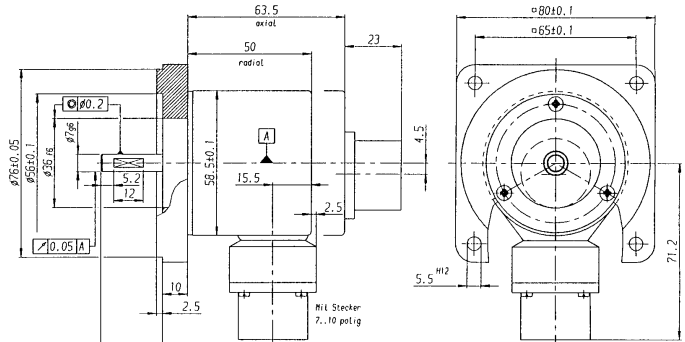
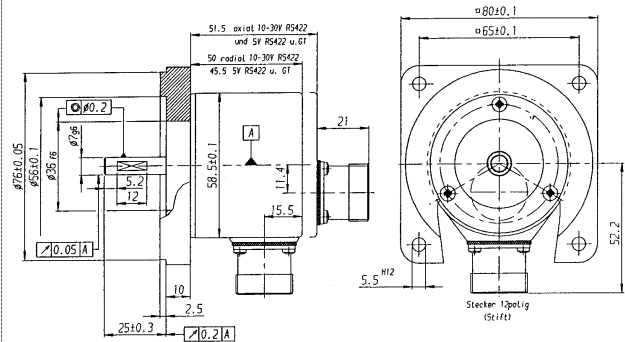
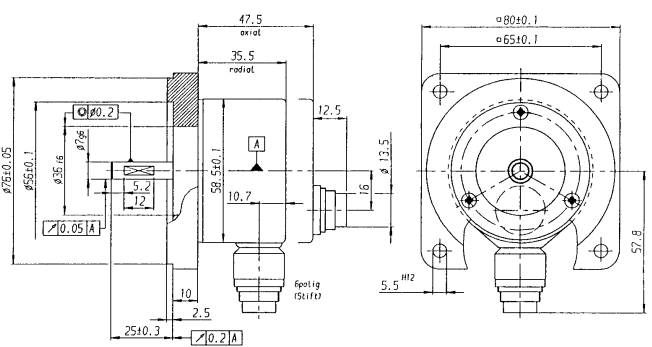
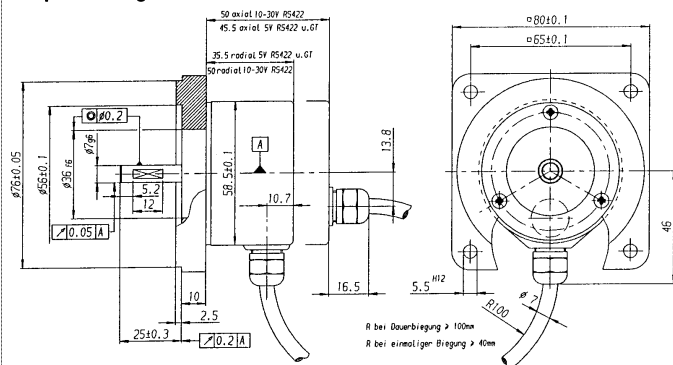


Stecker/connector M12 Bpol. radial "8"



Dimensions in mm

#### Square flange 80 x 80 mm



Dimensions in mm

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**TECHNICAL DATASHEET**

**Incremental Encoder RI 58-O / RI 58-T / RI58-C**

**ORDERING INFORMATION**

| Type  | Number of pulses   | Supply voltage <sup>1</sup>   | Flange, Protection, Shaft <sup>3</sup>  | Output <sup>4</sup>  | Connection <sup>5,6</sup>  |
|---|--|---|---|--|--|
| <input type="text"/>                              | <input type="text"/>   | <input type="text"/>  | <input type="text"/>  | <input type="text"/>   | <input type="text"/>   |
| <b>RI58-O</b><br><b>RI58-T*</b><br><b>RI58-C*</b> | RI 58-O:<br><b>1 ... 10000</b><br><br>RI 58-T:<br><b>4 ... 2500</b><br><br>RI 58-C:<br><b>&gt;2500 ... 10000</b> | <b>A</b> DC 5 V<br><b>E</b> DC 10 - 30 V<br><br><b>H</b> DC 3 - 38 V <sup>2</sup> | <b>S.41</b> Synchro, IP65 <sup>7</sup> , 6 mm<br><b>S.45</b> Synchro, IP65 <sup>7</sup> , 6,35 mm<br><b>S.71</b> Synchro, IP67, 6 mm<br><b>S.75</b> Synchro, IP67, 6,35 mm<br><b>K.41</b> Clamping M3, IP65 <sup>7</sup> , 6 mm<br><b>K.48</b> Clamping M3, IP65 <sup>7</sup> , 6x19,5 mm<br><b>L.48</b> Clamping M4, IP65 <sup>7</sup> , 6x19,5 mm<br><b>K.4C</b> Clamping M3, IP65 <sup>7</sup> , 8 mm<br><b>K.42</b> Clamping M3, IP65 <sup>7</sup> , 10 mm<br><b>L.42</b> Clamping M4, IP65 <sup>7</sup> , 10 mm<br><b>L.72</b> Clamping M4, IP67, 10 mm<br><b>K.47</b> Clamping M3, IP65 <sup>7</sup> , 12 mm<br><b>K.43</b> Clamping M3, IP65 <sup>7</sup> , 7 mm<br><b>K.46</b> Clamping M3, IP65 <sup>7</sup> , 9,52 mm<br><b>K.72</b> Clamping M3, IP67, 10 mm<br><b>K.76</b> Clamping M3, IP67, 9,52 mm<br><b>M.46</b> Syn.clamping, IP65 <sup>7</sup> , 9,52 mm<br><b>M.76</b> Syn.clamping, IP67, 9,52 mm<br><b>Q.4C</b> Square, IP65 <sup>7</sup> , 8 mm<br><b>Q.46</b> Square, IP65 <sup>7</sup> , 9,52 mm<br><b>Q.42</b> Square, IP65 <sup>7</sup> , 10 mm<br><b>Q.76</b> Square, IP67, 9,52 mm<br><b>Q.72</b> Square, IP67, 10 mm<br><b>G.43</b> Square 80x80, IP65 <sup>7</sup> , 7 mm | <b>R</b> RS422 + Alarm<br><b>T</b> RS422 + Sense<br><b>K</b> Push-pull<br><b>I</b> Push-pull complementary | <b>A</b> PVC-cable, axial<br><b>B</b> PVC-cable, radial<br><b>E</b> TPE-cable, axial<br><b>F</b> TPE-cable, radial<br><b>C</b> M23 connector (Conin), 12 pole, axial, cw<br><b>D</b> M23 connector (Conin), 12 pole, radial, cw<br><b>G</b> M23 connector (Conin), 12-pole, axial, ccw<br><b>H</b> M23 connector (Conin), 12 pole, radial, ccw<br><b>7</b> M12 connector, 8 pole, axial<br><b>8</b> M12 connector, 8 pole, radial<br><b>J</b> M16 connector (Binder), 6 pole, radial<br><b>N</b> M16 connector (Binder), 6 pole, axial<br><b>O</b> MS connector, 10 pole (Insert arrangement 18-1), axial<br><b>K</b> MS connector, 10 pole (Insert arrangement 18-1), radial<br><b>P</b> MS connector, 7 pole (Insert arrangement 16-S), axial<br><b>L</b> MS connector, 7 pole (Insert arrangement 16-S), radial<br><b>2</b> KPT connector, 8 pole, radial |

<sup>1</sup> DC 10 - 30 V available with output K, I, R/ DC 5 V available with output R, T

<sup>2</sup> Wide range power supply DC 3 - 38 V with output K, I, R available on request

<sup>3</sup> other flange versions can be realized by combination of clamping flange + flange adapter (see Accessories), e.g. RI58 with synchro flange and 10 mm-shaft: version clamping flange with 10 mm shaft + synchro flange adapter (1 522 328)

<sup>4</sup> Output code "K" and "I": short-circuit-proof

<sup>5</sup> Connection code "O", "K": according to MIL-C-5015

<sup>6</sup> IP67 on cover with connector only if IP67 mating connector mounted properly.

<sup>7</sup> Protection class shaft input (EN 60529) IP64

\*RI58-T and RI58-C not available with connection code "A" and "B"

**ORDERING INFORMATION**

**Selection of cable length**

Versions with cable outlet (connection A, B, E or F) are available with various lengths of cable. To order your desired cable length, please add the respective code to the end of your ordering code. For variants with connector on cable end please add cable length code in between. Further cable lengths on request.

| Code         | Cable length | Code | Cable length |
|--------------|--------------|------|--------------|
| without Code | 1,5 m        | -U0  | 20 m         |
| -D0          | 3 m          | -V0  | 25 m         |
| -F0          | 5 m          | -W0  | 30 m         |
| -K0          | 10 m         | -X0  | 40 m         |
| -P0          | 15 m         | -Y0  | 50 m         |

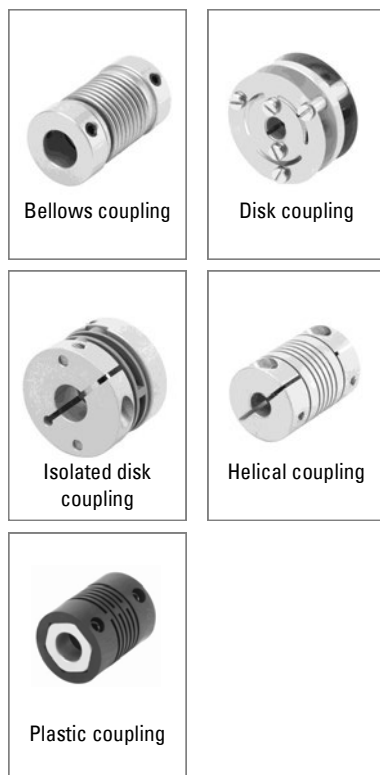
Example: Cable 3 m length: ... B - D0

Example: Cable mit 3 m length and M23 connector, cw: ... F - D0 - I

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**TECHNICAL DATASHEET**
**Incremental Encoder RI 58-O / RI 58-T / RI58-C**
**Accessories**
**FLEXIBLE COUPLINGS**


|                        | Hub diameter d1/d2 | Ordering code |
|------------------------|--------------------|---------------|
| Bellows coupling       | 12 mm / 12 mm      | 0 070 666     |
| Bellows coupling       | 10 mm / 10 mm      | 3 520 037     |
| Bellows coupling       | 9.53 mm / 9.53 mm  | 3 520 038     |
| Bellows coupling       | 6 mm / 6 mm        | 3 520 068     |
| Bellows coupling       | 8 mm / 10 mm       | 3 520 077     |
| Disk coupling          | 6 mm / 6 mm        | 0 070 663     |
| Helical coupling 19/28 | 6 mm / 6 mm        | 0 070 653     |
| Helical coupling 25/32 | 6 mm / 9.53 mm     | 3 520 052     |
| Helical coupling 25/32 | 6 mm / 10 mm       | 3 520 066     |
| Helical coupling 25/32 | 10 mm / 12 mm      | 3 520 065     |
| Helical coupling 25/32 | 10 mm / 10 mm      | 3 520 074     |
| Isolated disk coupling | 6 mm / 6 mm        | 3 520 081     |
| Isolated disk coupling | 6 mm / 10 mm       | 3 520 082     |
| Isolated disk coupling | 6 mm / 9.53 mm     | 3 520 084     |
| Isolated disk coupling | 7 mm / 7 mm        | 3 520 086     |
| Isolated disk coupling | 10 mm / 10 mm      | 3 520 088     |
| Plastic coupling       | 5 mm / 6 mm        | 3 520 033     |
| Plastic coupling       | 6 mm / 6 mm        | 1 761 026     |
| Plastic coupling       | 5 mm / 5 mm        | 3 520 034     |

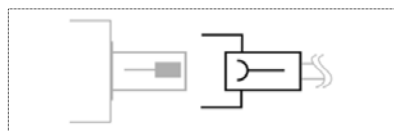
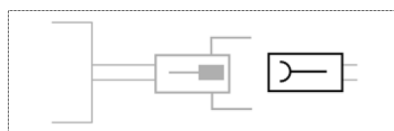
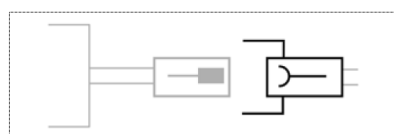
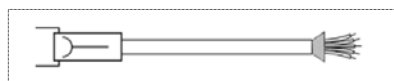
**MOUNTING**

|   | Ordering code |
|---|---------------|
| Fastening angle (plastic), for clamping flange RI 58, AC 58 (fastening material included)                     | 1 522 329     |
| Mounting bell (plastic), for synchro flange RI 58, AC 58 (clamping eccentric and fastening material included) | 1 522 330     |
| Square flange adapter 58 x 58 mm, for clamping flange RI 58, AC 58 (fastening material included)              | 1 522 326     |
| Square flange adapter 80 x 80 mm, for clamping flange RI 58, AC 58 (fastening material included)              | 1 522 327     |
| Synchro flange adapter , for clamping flange RI 58, AC 58 (fastening material included)                       | 1 522 328     |
| Clamping eccentric for synchro flange, d6,5 for M3 (set of three)   | 0 070 655     |
| Clamping eccentric for synchro flange, d9 for M3 (set of three)   | 0 070 657     |
| Clamping eccentric for synchro flange for M4 (set of three)   | 1 522 300     |
| Spring arm for clamping flange RI58, AC58   | 1 522 886     |
| Mounting bracket spring loaded  | 1 522 883     |

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**TECHNICAL DATASHEET**
**Incremental Encoder RI 58-O / RI 58-T / RI58-C**
**Accessories**
**CONNECTORS**

**CONNECTORS**

**CONNECTORS**

**CONNECTING CABLES**


| Connector (socket) matching with encoder connector                        | Ordering code |
|---|---------------|
| M16 (Binder), 6 pole, bent, IP40, mating connector for connection J/N     | 3 539 209     |
| M16 (Binder), 6 pole, straight, IP67, mating connector for connection J/N | 3 539 472     |
| M23 (Conin), 12 pole, PG9, cw, mating connector for connection C/D/-I     | 3 539 202     |
| MS, 10 pole, mating connector for connection K/O/R/T                      | 3 539 258     |
| MS, 7 pole, mating connector for connection L/P                           | 3 539 262     |
| PT, 8 pole, mating connector for connection 1/2                           | 3 539 333     |

| Coupling (socket) matching with encoder cable with connector                        | Ordering code |
|---|---------------|
| M23 (Conin), 12 pole, cw, mating connector for connection -C (cable plug 3 539 186) | 3 539 187     |
| M23 (VDW), 12 pole, cw, mating connector for connection -B (cable plug 3 539 252)   | 3 539 304     |

| Connector (socket) matching with encoder cable with connector                       | Ordering code |
|---|---------------|
| M23 (Conin), 12 pole, cw, mating connector for connection -C (cable plug 3 539 186) | 3 539 229     |
| M23 (VDW), 12 pole, cw, mating connector for connection -B (cable plug 3 539 252)   | 3 539 305     |

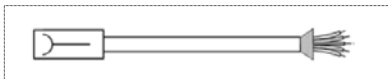
| Connecting cables with plug (socket) on one end                                   | Ordering code |
|---|---------------|
| M16 (Binder), 6 pole, PVC cable, mating connector for connection J/N, 3 m         | 1 522 405     |
| M16 (Binder), 6 pole, PVC cable, mating connector for connection J/N, 5 m         | 1 522 404     |
| M16 (Binder), 6 pole, PVC cable, mating connector for connection J/N, 10 m        | 1 522 340     |
| M16 (Binder), 6 pole, PVC cable, mating connector for connection J/N, 15 m        | 1 522 833     |
| M16 (Binder), 6 pole, PVC cable, mating connector for connection J/N, 50 m        | 1 522 836     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 3 m  | 1 522 348     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 5 m  | 1 522 349     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 10 m | 1 522 350     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 15 m | 1 522 454     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 20 m | 1 522 456     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 25 m | 1 522 457     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 30 m | 1 522 464     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 40 m | 1 522 643     |

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**TECHNICAL DATASHEET**
**Incremental Encoder RI 58-O / RI 58-T / RI58-C**
**Accessories**
**CONNECTING CABLES (continued)**


| Connecting cables with plug (socket) on one end                                       | Ordering code |
|---|---------------|
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection C/D/-I, 50 m     | 1 522 793     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 3 m  | 1 522 394     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 5 m  | 1 522 395     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 10 m | 1 522 396     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 15 m | 1 522 447     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 20 m | 1 522 461     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 25 m | 1 522 462     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 30 m | 1 522 463     |
| M23 (Conin), 12 pole, TPE cable, ccw, mating connector for connection G/H/-D/-H, 40 m | 1 522 779     |
| MS, 10 pole, TPE cable, mating connector for connection O/K, 3 m                      | 1 522 610     |
| MS, 10 pole, TPE cable, mating connector for connection O/K, 5 m                      | 1 522 754     |

**CONNECTING CABLES**


| Connecting cables with coupling (socket) on one end                           | Ordering code |
|---|---------------|
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection -C, 10 m | 1 522 735     |
| M23 (Conin), 12 pole, TPE cable, cw, mating connector for connection -C, 20 m | 1 522 621     |

**CONNECTING CABLES**

| Cable not made up with connectors | Ordering code      |
|-----------------------------------|--------------------|
| PVC cable, 10-core + screen       | 3 280 114 + length |
| PVC cable, 6-core + screen        | 3 280 113 + length |
| TPE cable, 12-core + screen       | 3 280 112 + length |

**COUNTERS**

| Counters                         | Art.-Nr.          |
|----------------------------------|-------------------|
| Multifunctional counter tico 732 | www.hengstler.com |
| Multifunctional counter tico 772 | www.hengstler.com |

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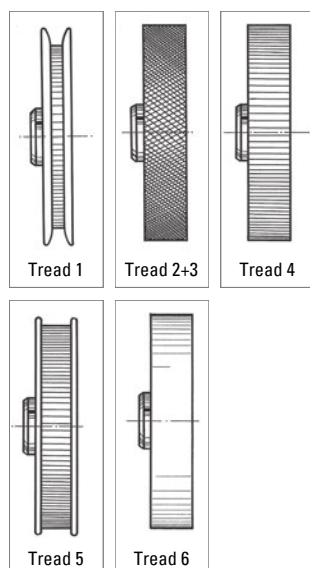
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## TECHNICAL DATASHEET

### Incremental Encoder RI 58-O / RI 58-T / RI58-C

#### Accessories

#### MEASURING WHEELS



#### ORDERING INFORMATION Aluminum

|   |
|---|
| <b>Tread 1</b><br>with rim and fine crosshatched knurl<br>Applications such as threads and yarns  |
| <b>Tread 2</b><br>with glued-on rubber profile (white), low-wear rubber surface with good grip.<br>Applications such as paper and cardboard, measuring cables, non-greasy metals, fleece, undressed or surface-treated wood, soft and hard plastics |
| <b>Tread 3</b><br>vulcanized rubber surface with parallel knurl<br>Applications such as rubber, leather, fabrics, flooring and glass  |
| <b>Tread 4</b><br>Aluminum with parallel knurl<br>Applications such as rubber, soft plastics, wood with rough surface, and to a limited extent for fabrics  |
| <b>Tread 5</b><br>with rim, aluminum with parallel knurl<br>Applications such as threads, yarns and bands   |
| <b>Tread 6</b><br>plastic surface<br>Applications such as wire, greasy metals and steel sections  |

| Diameter | Circumference | Tread | Width of bearing surface (mm) | Bore diameter (mm) | Ordering code          |
|----------|---------------|-------|-------------------------------|--------------------|------------------------|
| 6,37cm   | 0,2 m         | 1     | 4                             | 7 H7               | 0 601 017              |
| 6,37cm   | 0,2 m         | 2     | 12                            | 6 H7               | 0 601 048              |
| 6,37cm   | 0,2 m         | 2     | 12                            | 10 H7              | 0 601 049              |
| 6,37cm   | 0,2 m         | 2     | 24                            | 7 H7               | 0 601 092              |
| 6,37cm   | 0,2 m         | 2     | 24                            | 7 H7               | 0 601 192              |
| 6,37cm   | 0,2 m         | 4     | 20,5                          | 7 H9               | 0 601 093              |
| 6,37cm   | 0,2 m         | 5     | 16,5                          | 7 H7               | 0 601 094              |
| 15,92 cm | 0,5 m         | 2     | 25                            | 7 H7               | 0 601 050              |
| 15,92 cm | 0,5 m         | 2     | 25                            | 7 H7               | 0 601 150              |
| 15,92 cm | 0,5 m         | 2     | 25                            | 10 H7              | 0 601 151              |
| 15,92 cm | 0,5 m         | 3     | 25                            | 7 H7               | 0 601 160              |
| 15,92 cm | 0,5 m         | 3     | 25                            | 10 H7              | 0 601 161              |
| 15,92 cm | 0,5 m         | 3     | 25                            | 12 H7              | 0 601 166              |
| 15,92 cm | 0,5 m         | 4     | 25                            | 7 H7               | 0 601 121 <sup>1</sup> |
| 15,92 cm | 0,5 m         | 4     | 25                            | 10 H7              | 0 601 157              |
| 15,92 cm | 0,5 m         | 6     | 25                            | 7 H7               | 0 601 063 <sup>1</sup> |
| 15,92 cm | 0,5 m         | 6     | 25                            | 10 H7              | 0 601 163              |
| 15,92 cm | 0,5 m         | 6     | 25                            | 12 H7              | 0 601 165              |
| 9,70 cm  | 1 Fuß         | 2     | 25                            | 7 H7               | 0 601 171              |
| 15,92 cm | 0,5 m         | 4     | 25                            | 7 H8               | 0 601 301              |
| 15,92 cm | 0,5 m         | 6     | 25                            | 7 H8               | 0 601 300              |

<sup>1</sup> complies with PTB requirements

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