

Incremental Encoder with Hollow Shaft

Type RI 36-H



- miniature industry encoder for high number of pulses
- short mounting length
- easy mounting procedure
- Application e.g.:
 - Motors
 - Machine tools
 - Packaging Machines
 - Robots
 - Automated SMD equipment

NUMBER OF PULSES

5 / 10 / 20 / 25 / 50 / 60 / 100 / 200 / 250 / 300 / 360 / 500 / 600 / 720 / 1000 / 1024 / 1250 / 1500 / 2000 / 2048 / 2500 / 3000 / 3600
 Other number of pulses available on request

TECHNICAL DATA mechanical

| | |
|---------------------------------|---------------------------------------------------------|
| Mounting | Clamping shaft (one side open) with front clamping ring |
| Coupling | spring plate |
| Shaft diameter | 4, 6, 8, 10 mm hollow shaft |
| Angular shaft misalignment max. | ±0,15 mm radial, ±0,5 mm axial |
| Absolute max. speed | max. 10.000 min ⁻¹ |
| Torque | ≤ 1 Ncm |
| Moment of inertia | ca. 3 gcm ² |
| Protection class (EN 60529) | Housing IP 64, bearings IP 64 |
| Operating temperature | -10...+70 °C |
| Storage temperature | -25 ... +85 °C |
| Vibration performance | 100 m/s ² (10...2000 Hz) |
| Shock resistance | 1000 m/s ² (6 ms) |
| Type of connection | 1,5 m cable ¹⁾ axial or radial |
| Housing | aluminium |
| Weight | ca. 80 g |

¹⁾ other cable length on request

TECHNICAL DATA electrical

| | | |
|---------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| General design | as per DIN EN61010-1, protection class III, contamination level 2, overvoltage class II | |
| Supply voltage (SELV) | with RS 422 (R, T): | 5 VDC 10 % |
| | with push-pull (K, I): | 10 ... 30 VDC ¹⁾ |
| Power consumption | 40 mA (5 VDC), 60 mA (10 VDC), 30 mA (24 VDC) | |
| Standard-Output version ²⁾ | RS 422 (R): | A, B, N, \overline{A} , \overline{B} , \overline{N} , \overline{Alarm} |
| | RS 422 (T): | A, B, N, \overline{A} , \overline{B} , \overline{N} , Sense |
| | push-pull (K): | A, B, N, \overline{Alarm} |
| | push-pull complementary (I): | A, B, N, \overline{A} , \overline{B} , \overline{N} , \overline{Alarm} |

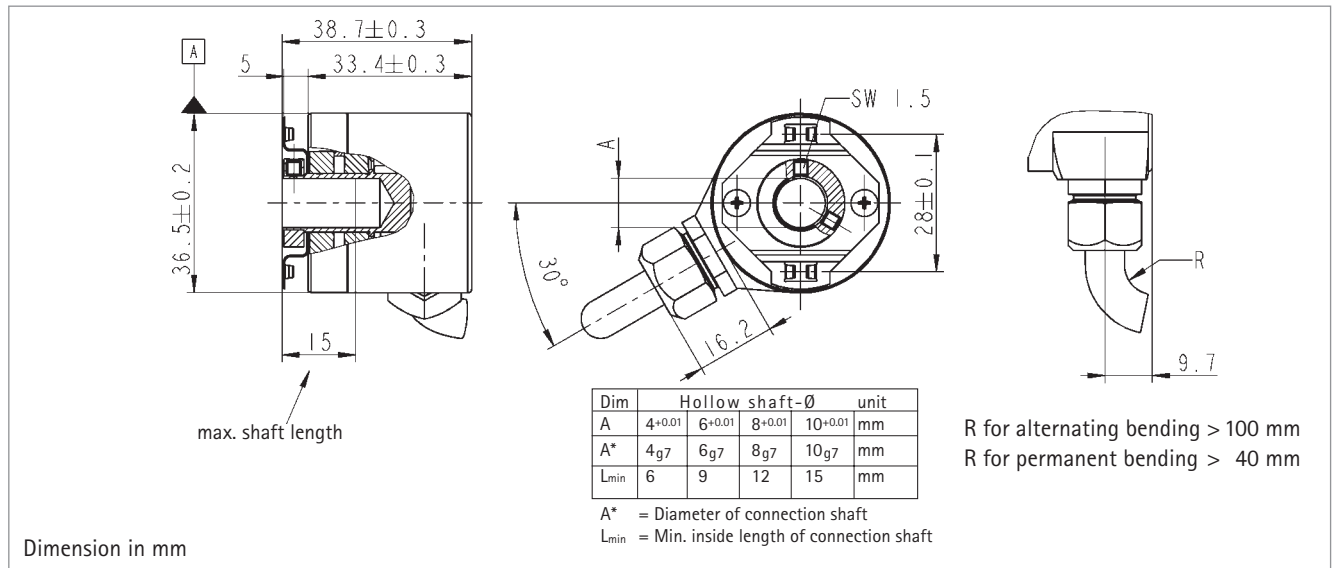
¹⁾ pole protection

²⁾ Output description and technical data see section "output"

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DIMENSIONED DRAWING



The spring plate as torque support must be fixed by a cylindrical pin (2.4 mm Ø) at the machine side

CONNECTION DIAGRAM

| Cable PVC (A, B) | Lead Ø | Output RS 422 (R, T) | push-pull (K) | push-pull complementary (I) |
|----------------------|--------|-------------------------------|-----------------------|-----------------------------|
| red | 0.5 | 5 VDC= | 10...30 VDC= | 10...30 VDC= |
| yellow/red | 0.14 | Sense V _{CC} | Sense V _{CC} | |
| white | 0.14 | Channel A | Channel A | Channel A |
| white/brown | 0.14 | Channel \bar{A} | | Channel \bar{A} |
| green | 0.14 | Channel B | Channel B | Channel B |
| green/brown | 0.14 | Channel \bar{B} | | Channel \bar{B} |
| yellow | 0.14 | Channel N | Channel N | Channel N |
| yellow/brown | 0.14 | Channel \bar{N} | | Channel \bar{N} |
| black | 0.5 | GND | GND | GND |
| yellow/black | 0.14 | Alarm/Sense GND ¹⁾ | Alarm | Alarm |
| Screen ²⁾ | | Screen ²⁾ | Screen ²⁾ | Screen ²⁾ |

¹⁾ depending on ordering code

²⁾ connected to housing

ORDERING DATA

| H Hollow shaft | Supply voltage A 5 VDC E 10 ... 30 VDC (push-pull only) | Mounting F clamping shaft | Shaft diameter O 4 mm 1 6 mm C 8 mm 2 10 mm |
|--------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------|
| RI 36 - H | / | F · 3 | |
| Number of pulses 5 ... 3600 | Protection class 3 IP 64 | Output T RS 422 + Sense K push-pull R RS 422 + Alarm I push-pull complementary | Type of connection A Cable axial B Cable radial |