

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}

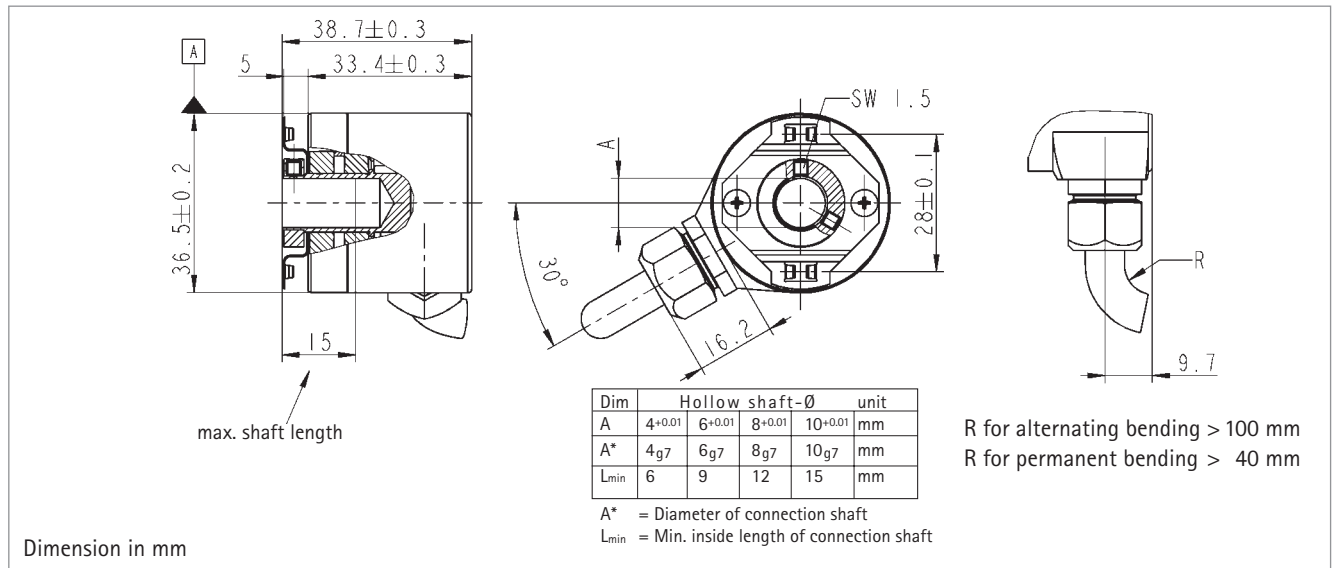
¹⁾ pole protection

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 (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