

Incremental Shaft Encoders Type RI 58-H with Hollow Shaft



- Through shaft
- High accuracy by means of integrated flexible coupling
- Safe shaft mounting
- Application e.g.:
 - textile machines
 - motors
 - drives
 - copiers

NUMBER OF PULSES

1 / 2 / 3 / 4 / 5 / 10 / 15 / 20 / 25 / 29 / 30 / 35 / 50 / 60 / 70 / 72 / 80 / 100 / 117 / 120 / 125 / 128 / 136 / 144 / 150 / 180 / 200 / 226 / 230 / 250 / 256 / 280 / 300 / 314 / 350 / 360 / 375 / 400 / 460 / 480 / 500 / 512 / 600 / 720 / 900 / 1,000 / 1,024 / 1,250 / 1,270 / 1,500 / 1,600 / 1,800 / 1,885 / 2,000 / 2,048 / 2,400 / 2,500 / 3,000 / 3,400 / 3,480 / 3,600 / 3,925 / 4,000 / 4,096 / 5,000

Other numbers of pulses available on request

TECHNICAL DATA mechanical

Shaft diameter	10 mm hollow shaft 12 mm hollow shaft Required dimension of mounting shaft: Ø 10 mm, tolerance g8 (-0.005 ... -0.027 mm) Ø 12 mm, tolerance g8 (-0.006 ... -0.033 mm)
Balance tolerances	Misalignment axial ± 0.4 mm Misalignment parallel 0.4 mm Misalignment angular 1°
Absolute maximum speed	max. 3,000 RPM
Torque	≤ 2 Ncm (IP 64)
Moment of inertia	approx. 65 gcm ² (10 mm shaft) approx. 95 gcm ² (12 mm shaft)
Protection class (EN 60529)	Housing IP 64, bearings IP 64
Operating temperature	-10 ... +70 °C
Storage temperature	-25 ... +85 °C
Vibration proof (IEC 68-2-6)	10 g = 100 m/s ² (10 ... 2 kHz)
Shock resistance (IEC 68-2-27)	100 g = 1,000 m/s ² (6 ms)
Type of connection radial	cable, 1.5 m ¹⁾
Housing	aluminium
Flange	synchro flange
Weight	210 g approx.

¹⁾ Other cable length on request



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TECHNICAL DATA electrical

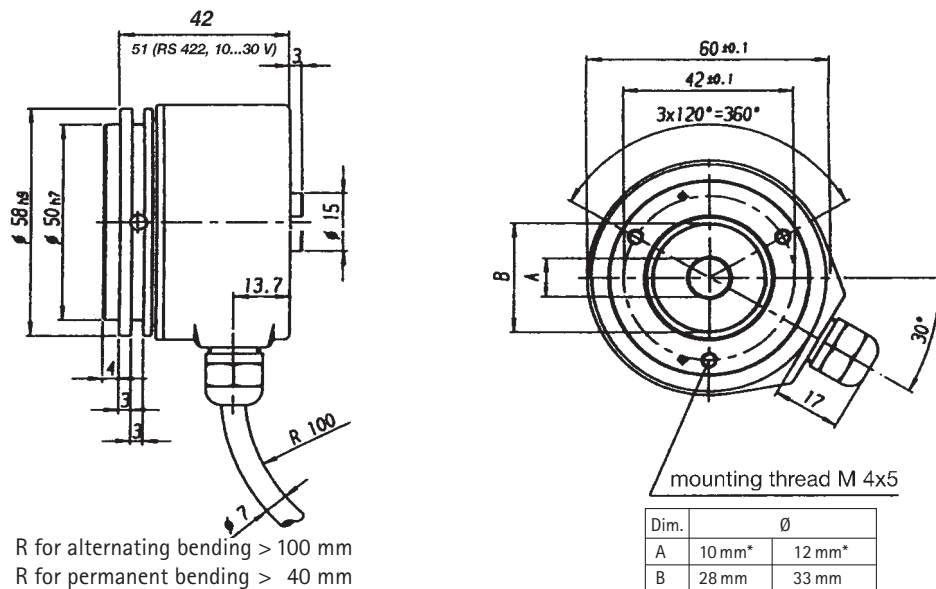
General design	as per DIN VDE 0160, protection class III, contamination level 2, overvoltage class II	
Supply voltage	with RS 422 + Sense (T):	5 VDC \pm 10 %
	with RS 422 + Alarm (R):	5 VDC \pm 10 % oder 10 ... 30 VDC ¹⁾
(SELV)	with push-pull (K, I):	10 ... 30 VDC ¹⁾
Power consumption	40 mA (5 VDC), 60 mA (10 VDC), 30 mA (24 VDC)	
Standard-Output versions ²⁾	RS 422 (R):	A, B, N, \bar{A} , \bar{B} , \bar{N} , \bar{Alarm}
	RS 422 (T):	A, B, N, \bar{A} , \bar{B} , \bar{N} , Sense
	push-pull (K):	A, B, N, \bar{Alarm}
	push-pull complementary (I):	A, B, N, \bar{A} , \bar{B} , \bar{N} , \bar{Alarm}

¹⁾ Pole protection with supply voltage 10...30 VDC

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

DIMENSIONED DRAWING

Synchro flange



Dim.	Ø	
A	10 mm*	12 mm*
B	28 mm	33 mm

* Tolerance
H7 = 0 ... + 0.018 mm

Dimensions in mm

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CONNECTION DIAGRAM

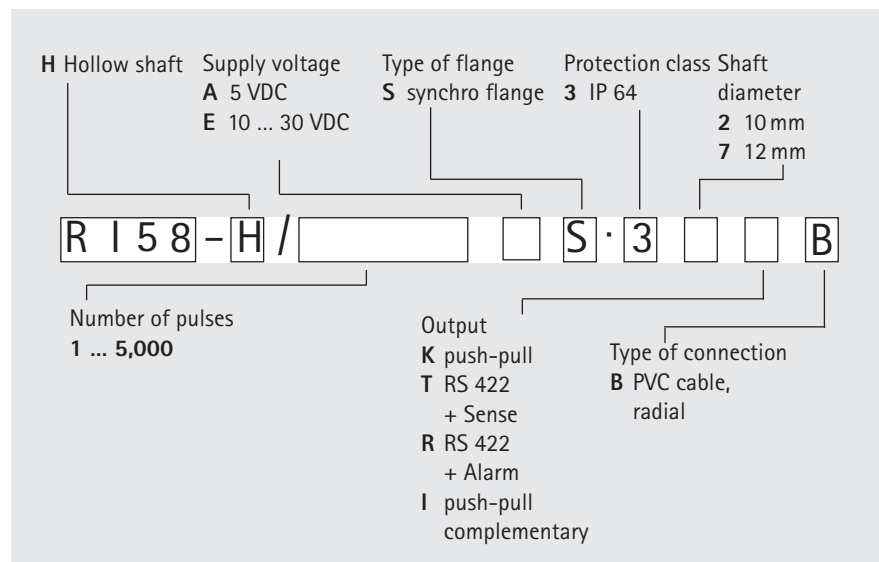
Connection cable		Output	
Colour	Lead Ø mm ²	RS 422 T and R	push-pull K and I
red	0.5 mm ²	5/10...30 VDC	10...30 VDC
red/yellow	0.14 mm ²	Sense V _{CC}	Sense V _{CC}
white	0.14 mm ²	Channel A	Channel A
white/brown	0.14 mm ²	Channel \bar{A}	Channel \bar{A} ¹⁾
green	0.14 mm ²	Channel B	Channel B
green/brown	0.14 mm ²	Channel \bar{B}	Channel \bar{B} ¹⁾
yellow	0.14 mm ²	Channel N	Channel N
yellow/brown	0.14 mm ²	Channel \bar{N}	Channel \bar{N} ¹⁾
black	0.5 mm ²	GND	GND
black/yellow	0.14 mm ²	$\bar{\text{Alarm}}$ /Sense GND ²⁾	$\bar{\text{Alarm}}$
screen ³⁾		screen ³⁾	screen ³⁾

¹⁾ only push-pull complementary (I)

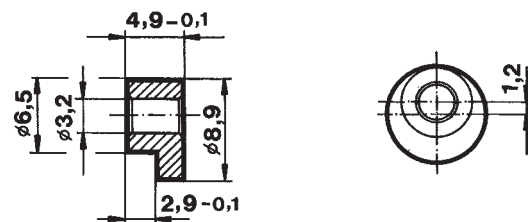
²⁾ depending on ordering code

³⁾ connected to housing

ORDERING DATA



ACCESSORIES



Clamping eccentric (set of three)

Ordering code 0 070 655