

Incremental encoder

Hollow shaft



RI58-F

NUMBER OF PULSES

- Incremental encoder with hollow shaft
- Up to 10.000 number of pulses
- Through hollow shaft or blind shaft with up to 12 mm (14 mm optional)
- Optimized stator coupling
- Fields of application
 - Feedback for asynchronous motors
 - Industrial applications

1 / 2 / 3 / 4 / 10 / 20 / 25 / 30 / 40 / 45 / 50 / 60 / 64 / 70 / 72 / 80 / **100** / 125 / 128 / 144 / 150 / 180 / 200 / **250** / 256 / 300 / 314 / 350 / 360 / 375 / 400 / 460 / 480 / **500** / 512 / 600 / 625 / 720 / 900 / **1000** / **1024** / **1250** / 1500 / 1600 / 1800 / 2000 / 2048 / 2500 / 3000 / 3480 / **3600** / 4000 / **4096** / **5000** / **7854** / **10.000**

Preferably available versions are printed in bold type

TECHNICAL DATA MECHANICAL

Housing diameter	58 mm
Shaft	Through hollow shaft or blind shaft
Shaft diameter	6, 10 and 12 mm
Flange	Spring tether
Shaft mounting	Set screw, clamping ring front, clamping ring rear, clamping ring with set screw
Protection class shaft input	IP64
Protection class housing	IP65
Permissible motion of measured shaft	Axial: ±1,5 mm Radial: ±0,2 mm
Max. Speed	B: max. 4.000 rpm; F: max. 6.000 rpm
Operating temperature	-10°C ... +70°C
Storage temperature	-25°C ... +85°C
Shock resistance	1000 m/s ²
Vibration resistance	100 m/s ²
Material shaft	Stainless steal
Material Housing	Aluminum
Weight	Approx. 180 g
Connection	Cable Conin 12 pole

TECHNICAL DATA ELECTRICAL

General design	As per DIN VDE 0160, protection class III, contamination level 2, over voltage class II	
Supply voltage	With RS422 + Alarm (R): DC 5 V ±10% or DC 10 - 30 V ¹ With RS422 + Sense (T): DC 5 V ±10% With push-pull (K,I): DC 10 - 30 V ¹	
Max. current w/o load	With DC 5 V:	40 mA
	With DC 10 V:	60 mA
	With DC 30 V:	24 mA
Output version	RS 422 + Alarm (R):	A, B, N, \overline{A} , \overline{B} , \overline{N} , Alarm
	RS 422 + Sense (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}

Incremental encoder

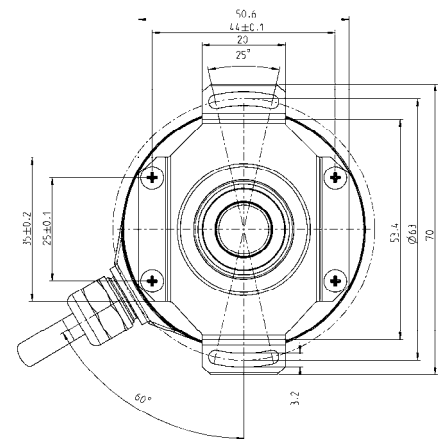
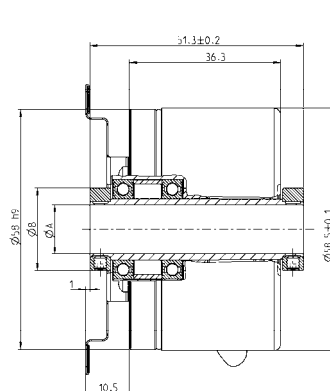
Hollow shaft

PIN ASSIGNEMENT

Color TPE	Color PVC	PIN	RS 422 + Alarm (R)	Push-pull (K)	Push-pull compl. (I)	RS 422 + Sense (T)
Brown	White	5	Channel A	Channel A	Channel A	Channel A
Green	White/Brown	6	Channel \bar{A}		Channel \bar{A}	Channel \bar{A}
Grey	Green	8	Channel B	Channel B	Channel B	Channel B
Pink	Green/Brown	1	Channel \bar{B}		Channel \bar{B}	Channel \bar{B}
Red	Yellow	3	Channel N	Channel N	Channel N	Channel N
Black	Yellow/Brown	4	Channel \bar{N}		Channel \bar{N}	Channel \bar{N}
Violet	Yellow/Black	7	$\bar{\text{Alarm}}$	$\bar{\text{Alarm}}$	$\bar{\text{Alarm}}$	
White	Yellow/Black	11				Sense GND
Blue	Yellow/Red	2	Sense V_{cc}		Sense V_{cc}	Sense V_{cc}
Brown/Green	Red	12	DC5/10 - 30 V	DC5/10 - 30 V	DC5/10 - 30 V	DC5/10 - 30 V
White/Green	Black	10	GND	GND	GND	GND
Screen	Screen		Screen	Screen	Screen	Screen

DIMENSIONED DRAWINGS

Through hollow shaft



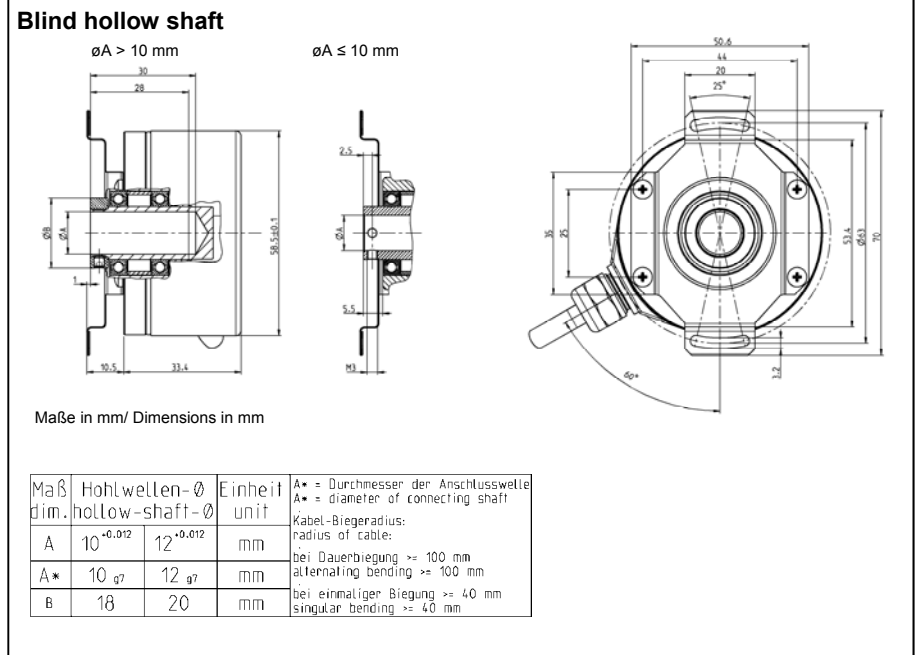
Maße in mm/ Dimensions in mm

Maß dim.	Hohlwellen- \emptyset hollow-shaft- \emptyset	Einheit unit	A* = Durchmesser der Anschlusswelle A* = diameter of connecting shaft Kabel-Biegeradius: radius of cable: bei Dauerbiegung \geq 100 mm alternating bending \geq 100 mm bei einmaliger Biegung \geq 40 mm singular bending \geq 40 mm
A	10 ^{+0.012}	12 ^{+0.012}	mm
A*	10 ^{g7}	12 ^{g7}	mm
B	18	20	mm

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DIMENSIONED DRAWINGS



ORDERING CODE

Type	Version	Number of pulses	Supply Voltage	Flange, Protection, shaft	Output	Connection
RI58-	F	1 ... 5000 7854 10000 Further no. of pulses on request	A DC5 V ¹ E DC10-30 V ²	F.41 Spring tether, IP64, blind hollow shaft, 6 mm, Mounting with set screw F.42 Spring tether, IP64, blind hollow shaft, 10 mm, mounting with set screw F.47 Spring tether, IP64, blind hollow shaft, 12 mm, mounting with clamping ring with set screw B.32 Spring tether, IP64, with through hollow shaft, 10 mm, clamping ring front or rear B.37 Spring tether, IP64, with through hollow shaft, 12 mm, clamping ring front or rear	R RS422 + Alarm T RS422 + Sense K Push-pull I Push-pull complementary	B PVC-cable radial F TPE-cable radial D M23-connector (Conin), radial, cw ³ H M23-connector (Conin), radial, ccw ³
¹ only with output T, R, K ² only with output K, I ³ only with blind hollow shaft						