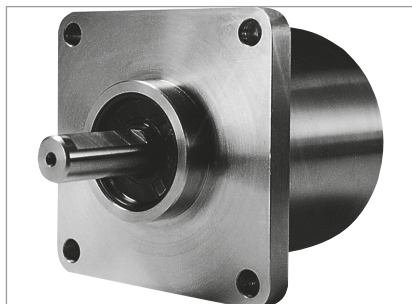


Incremental



- Stainless steel encoder with high protection class
- High corrosion resistance
- Use in the area of food production
- Applications: packing machines, bottling machines, washing plants, mixers, cranes, hoists, marine outfitters



NUMBER OF PULSES

1 / 2 / 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 / 350 / 360 / 375 / 400 / 460 / 480 / **500** / 512 / 600 / 625 / 635 / 720 / 900 / **1000** / **1024** / 1200 / **1250** / 1500 / 1600 / 1800 / 2000 / 2048 / **2500** / 3000 / 3480 / **3600** / 3750 / 3968 / 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	9.52 mm / 10 mm (Solid shaft)
Flange (Mounting of housing)	Square flange 63.5 mm
Protection class shaft input (EN 60529)	IP67
Protection class housing (EN 60529)	IP67
Shaft load axial / radial	40 N / 60 N
Max. speed	max. 10 000 rpm
Starting torque typ.	≤ 1 Ncm
Moment of inertia	approx. 20 gcm ²
Vibration resistance (DIN EN 60068-2-6)	100 m/s ² (10 ... 2000 Hz)
Shock resistance (DIN EN 60068-2-27)	1000 m/s ² (6 ms)
Operating temperature	-10 °C ... +70 °C
Storage temperature	-25 °C ... +85 °C
Material housing	Stainless Steel
Weight	approx. 620 g
Connection	Cable, axial or radial

TECHNICAL DATA

electrical

General design	as per DIN VDE 0160, protection class III, contamination level 2, overvoltage class II
Supply voltage ¹	RS422 + Sense (T): DC 5 V ±10 % RS422 + Alarm (R): ± 10% DC 5 V or DC 10 - 30 V Push-pull (K), Push-pull antivalent (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 Push-pull: 200 kHz
Standard output versions ²	RS422 + Alarm (R): A, B, N, \bar{A} , \bar{B} , \bar{N} , Alarm RS422 + Sense (T): A, B, N, \bar{A} , \bar{B} , \bar{N} , Sense Push-pull (K): A, B, N, Alarm Push-pull complementary (I): A, B, N, \bar{A} , \bar{B} , \bar{N} , Alarm

Incremental

TECHNICAL DATA electrical (continued)

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

¹ Pole protection with supply voltage DC 10 - 30 V

² Output description and technical data see chapter "Technical basics"

ELECTRICAL CONNECTIONS Cable PVC

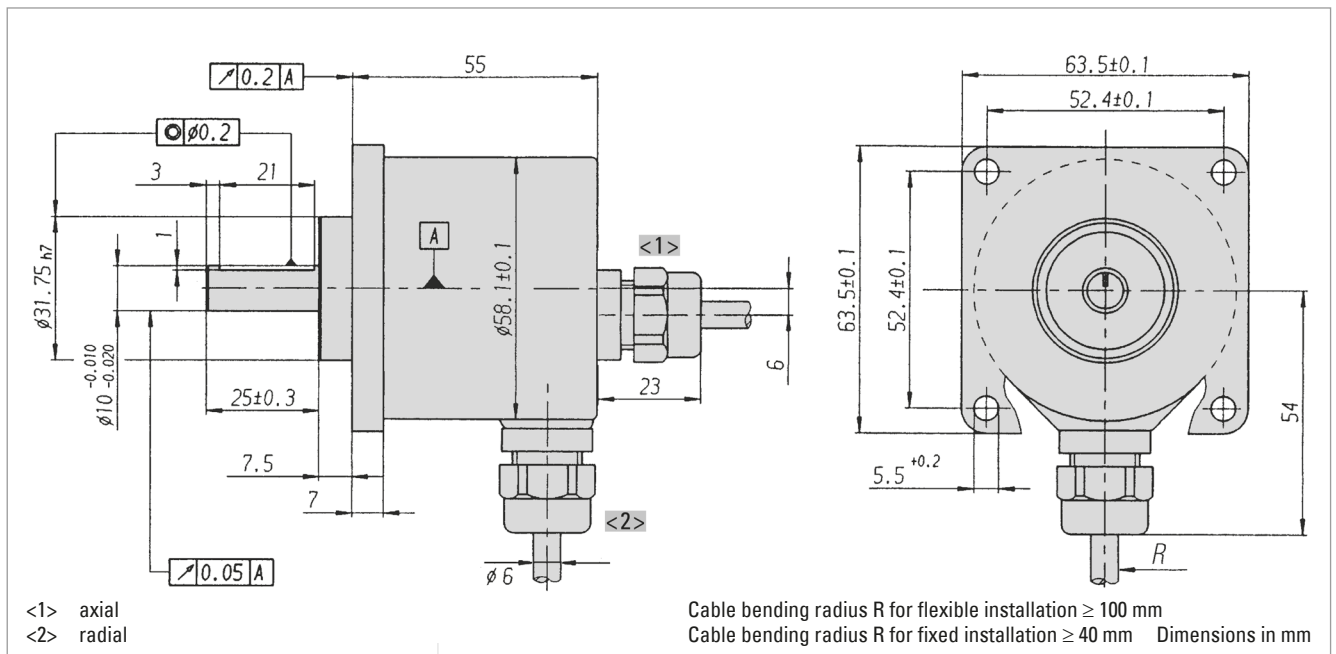
Connecting cable Colour	Lead \square	Output RS422 T and R	push-pull K and I
red	0.5 mm ²	DC 5/10 - 30 V	DC 10 - 30 V
red/yellow	0.14 mm ²	Sense V _{CC}	Sense V _{CC}
white	0.14 mm ²	Channel A	Channel A
white/brown	0.14 mm ²	Channel \bar{A}	Channel \bar{A} ¹
green	0.14 mm ²	Channel B	Channel B
green/brown	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	Alarm/Sense GND ²	Alarm
screen ³		screen ³	screen ³

¹ only push-pull complementary (I)

² depending on ordering code

³ connected with encoder housing

DIMENSIONED DRAWINGS



Incremental

ORDERING INFORMATION

Type	Number of pulses	Supply voltage	Flange, Protection, Shaft	Output ¹	Connection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RI59-0	1 ... 10000	A DC 5 V E DC 10 - 30 V	Q.76 Square, IP67, 9.52 mm x 19,5 mm Q.72 Square, IP67, 10 mm x 19,5 mm Q.7B Square IP67, 9.52 x 25 mm Q.7A Square IP67, 10 x 25 mm	R RS422 +Alarm T RS422 +Sense K Push-pull I Push-pull complementa- ry	A PVC cable, axial B PVC cable, radial

¹ Output code "K" and "I": short-circuit-proof

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
without code	1.5 m
-D0	3 m
-F0	5 m
-K0	10 m
-P0	15 m
-U0	20 m
-V0	25 m

Example:

Cable 3 m length: ... B - D0

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

ACCESSORIES

see chapter "Accessories"