



BDG abbcc-ddee-fghhi-jkk-llmm-nnoo

**BDG**  
Encoder

**a Principle**  
F = absolute

**bb Version**  
BF = Steel mag. shielded axial (36)  
BP = Steel mag. shielded radial (36)

**cc Flange size**  
36 = 36 mm

**dd Shaft shape, flange**  
SS = flat shaft, synchro flange

**ee Shaft diameter**  
06 = 6 mm  
08 = 8 mm

**f Interface category**  
N = Absolute digital, bidirectional

**g Interface**  
U = IO-Link

**hh Interface details**  
S0 = SSP 2, 3.2, v1

**i Power supply**  
L = 18...30 VDC

**jj Resolution single turn**  
1 - 16 = 1 - 16 Bit

**kk Resolution multi turn**  
0 - 43 = 0 - 43 Bit (interface-dependent)

**ll Connection cable shielded**  
00 = no cable

**mm Cable length**  
00 = no cable

**oo Pin assignment (connector / cable)**  
S5 = M12 connector 5 pin A coded

**oo Pin assignment (connector / cable)**  
L4 = IO-Link Class A

## Basic features

Approval/Conformity	CE cULus WEEE UKCA
Measuring principle	absolute measuring system

## Display/Operation

Function indicator	LED red/green
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## Electrical connection

Connection	Connector
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## Electrical data

Mean life expectancy	1,4x 10 <sup>8</sup> revs. at 100 % rated shaft load 2x 10 <sup>9</sup> revs. at 40 % rated shaft load 1,7x 10 <sup>10</sup> revs. at 20 % rated shaft load
Multi turn technology	Wiegand wire
Operating voltage U <sub>b</sub>	18 ... 30 VDC
Single turn accuracy	± 0.0878° (≤ 12 bits)
Single turn repeat accuracy	± 0.0878° (≤ 12 bits)
Single turn technology	Hall sensor
Speed max.	12000 U/min
Switch-on delay max.	1.5 s

## Environmental conditions

Ambient temperature	-40...85 °C
IP rating	Housing: IP65, IP67 Shaft entrance: IP65
Storage temperature	-40...100°C

## Functional safety

Diagnostic coverage	0 %
MTTF (40 °C)	1300 a
Mission Time	20 a

## Interface

Interface	IO-Link 1.1
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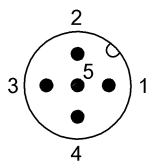
## Material

Housing material	Stainless
Material flange	Aluminium

## Mechanical data

Bearings type	2x precision ball bearings
Flange type	Synchro flange
Housing diameter	36 mm
Shaft length	ee = 06: 12 mm ee = 08: 20 mm
Shaft load axial max.	50 N
Shaft load radial max.	D = 6: 80 N D = 8: 50 N
Starting torque typ.	ca. 0,3 Ncm bei Raumtemperatur

### Connector Diagram



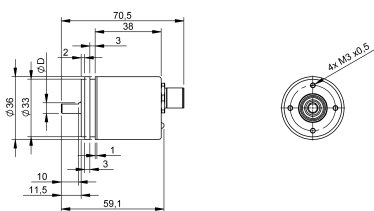
### Wiring diagramm

N/A

Pin	Signal
1	L+ (UB)
2	I
3	L- (GND)
4	C/Q
5	n.c.

### Product View

N/A



N/A

