

## Encoder WDG 100H



- Rugged and extremely thin hollow shaft encoder for extension on power motors
  - Continuous hollow shaft, max. 45 mm bore
  - With control output
  - Easy mounting
  - Meets protection class IP 54
  - Optional: -40°C ... +80°C
- [www.wachendorff.de/wdg100h-engl](http://www.wachendorff.de/wdg100h-engl)

### Application field

Power motors and three phase current motors with frequency transformation, system construction, crane systems.

**Available PPR** up to 5000

### Mechanical Data

#### Housing

- Flange: Aluminium
- Housing: Aluminium, powder coated
- Torque Support: Incl. 1 spring plate WDGDS10001
- Spring plate axial: max. 2 mm
- Compensation: radial: max. 0,15 mm
- Operating speed: 3.500 rpm

#### Hollow Shaft

- Material: stainless steel
- Diameter: 25, 28, 30, 32, 38, 40, 42, 45 mm
- Load on shaft end: max. 200 N radial
- Starting torque: max. 100 N axial
- Attachment: approx. 1,5 Ncm at ambient temperature
- Attachment: 2 x Hub M4, DIN 913

#### Bearings

- Type: 2 precision ball bearings
- Service life: 3 x 10<sup>10</sup> revs. at 100% of full rated shaft load
- 10<sup>11</sup> revs. at 40%
- 10<sup>12</sup> revs. at 20%

#### Weight:

approx. 720 g

**Protection rating:** IP54  
(EN 60529)

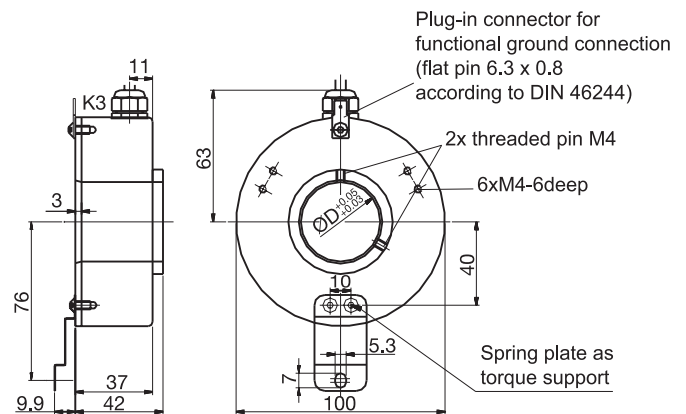
**Operating temperature:** -20... +80°C, 1Vss: -10... +70°C  
**Storage temperature:** -30... +80°C

### Electrical Data

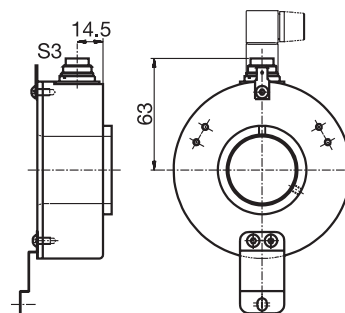
Power supply	Output circuit	Key	Output circuit*	Key
10-30 VDC	HTL	G24	HTL, inv.	I24
5 VDC	TTL	G05	RS422, TTL comp.	I05
5-30 VDC	HTL	H30	HTL, inv.	R30
10-30 VDC	-	-	RS422, TTL comp.	245
5 VDC	-	-	1 Vss Sin./Cos.	SIN

\*Only for cable or connector: K3, L3, S5, SC8, SC12, SD15

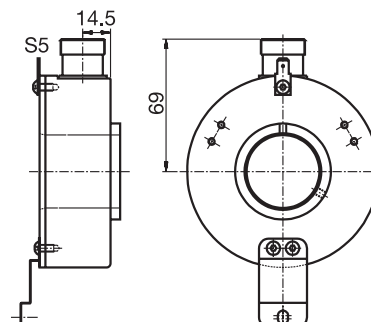
### Cable connection K3



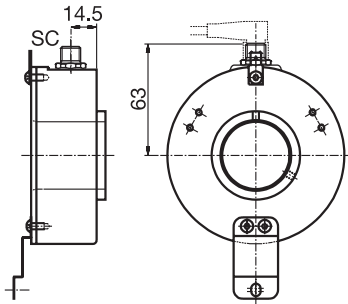
### Connector S3, 7-pin



### Connector S5, 12-pin



**Sensor-connector (M12x1) SC, 4-, 5-, 8-, 12-pin**



**Options:**

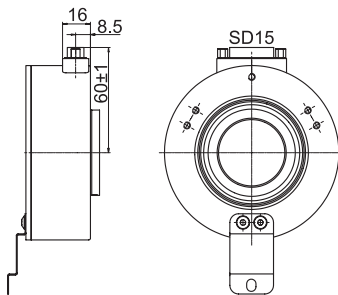
**Low-temperature:**

The encoder WDG 100H with the output switches G24, I24, G05, I05 and 245 is also available with the extended temperature range -40°C...+80°C (measured at the flange). When ordering please add the suffix code - ACA.

**Cable length:**

The encoder WDG 100H can be supplied with more than 2 m cable. Please extend the standard order code with a three figure number, specifying the cable length in decimetres.

**Sub-D-connector SD15, 15-pin**



All dimensional specifications in mm.

Further technical information on [www.wachendorff.de/gtd.pdf](http://www.wachendorff.de/gtd.pdf)  
 Matching accessories on [www.wachendorff.de/acs](http://www.wachendorff.de/acs)

**Ordering information:**

<b>Output circuit:</b> G24 = 10-30 VDC, HTL G05 = 5 VDC, TTL H30 = 5-30 VDC, HTL	<b>Output circuit inv.:</b> I24 = 10-30 VDC, HTL I05 = 5 VDC, RS422 TTL comp. R30 = 5-30 VDC, HTL 245 = 10-30 VDC, RS422 TTL comp. SIN = 5 V, 1 Vss Sinus (only to 512, 1024 and 2048 PPR)
Inverted only for cable or connector: K3, L3, S5, SC8, SC12, SD15	

**Channels:** AB, ABN

**Pulses per revolution:** 512, 1000, 1024, 2048, 2500, 4096, 4500, 5000.  
 Other PPR's on request

**Hollow shaft diameter:** 25, 25.4, 28, 30, 32, 35, 36, 38, 40, 42, 45  
 Other diameters on request

<b>Electrical connections:</b> <b>Cable:</b> K3 = radial, 2 m, shield not connected (standard) L3 = radial, 2 m, shield connected to encoder housing  <b>Connector:</b> S3 = 7-pin radial S5 = 12-pin radial S6 = 6-pin radial  SC4 = 4-pin radial SC5 = 5-pin radial SC8 = 8-pin radial SC12 = 12-pin radial  SD15 = 15-pin radial
Please note the connection configuration under "General technical data", Page 122

**Options:**  
 Empty = \_\_\_\_\_ without option  
 Cable length = \_\_\_\_\_ in decimetres

**Order No.:**

Example	WDG 100H	30	1000	ABN	G24	K3	
Your encoder	WDG 100H						