

## Encoder WDG 58V



**Especially for food  
and beverage industry**

- EHEDG: Tested hygienic design
- Up to 25000 PPR by use of high grad electronics
- Ecolab: Certificate on resistance to cleaning and disinfection agents
- High protection rating all around and IP69K
- Radial shaft sealing ring with no dead-room (PTFE)
- Full connection protection with 10 VDC up to 30 VDC
- With light reserve warning
- Optional: -40 °C up to +80 °C

[www.wachendorff-automation.com/wdg58v](http://www.wachendorff-automation.com/wdg58v)

**Available PPR** up to 25000 PPR

### Mechanical Data

Housing  
- Clamping flange: stainless steel, V4A  
- Cap: stainless steel, V4A

Shaft  
- Material: stainless steel, V4A  
- Permitted load on shaft end: max. 100 N radial  
max. 100 N axial  
- Starting torque: approx. 1 Ncm at ambient temperature

Bearings  
- Type: 2 precision ball bearings  
- Service life: 1 x 10<sup>9</sup> revs. at 100 % rated shaft load  
1 x 10<sup>10</sup> revs. at 40 % rated shaft load  
1 x 10<sup>11</sup> revs. at 20 % rated shaft load

Max. operating speed: 3600 rpm  
Weight: approx. 600 g  
Connections: cable outlet (TPE)

Protection rating: IP67 all around and IP69K  
(EN 60529)

Operating temperature: -20 °C up to +80 °C  
Storage temperature: -30 °C up to +80 °C

### Electrical Data

Power supply/ 4.75 VDC up to 5.5 VDC: max. 100 mA  
Open circuit current 5 VDC up to 30 VDC: max. 70 mA  
consumption: 10 VDC up to 30 VDC: max. 100 mA

Output circuit: TTL, RS422 compatible  
HTL

Pulse frequency: TTL ≤ 5000 PPR: max. 200 kHz  
HTL ≤ 5000 PPR: max. 200 kHz  
TTL > 5000 PPR: max. 2 MHz  
HTL > 5000 PPR: max. 600 kHz

Channels: AB, ABN and inverted signals

Load: max. 40 mA/channel

Circuit protection: circuit type F24, G24, H24, I24, P24, R24 only

Accuracy: Phase offset: 90° ± max. 7.5 %  
of the pulse length  
pulse-/pause-ratio: 50 % ± max. 7 %

### Further technical information on:

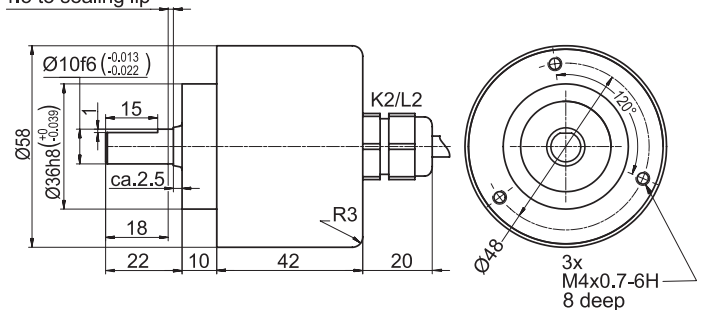
[www.wachendorff-automation.com/gtd](http://www.wachendorff-automation.com/gtd)

### Matching accessories on:

[www.wachendorff-automation.com/acs](http://www.wachendorff-automation.com/acs)

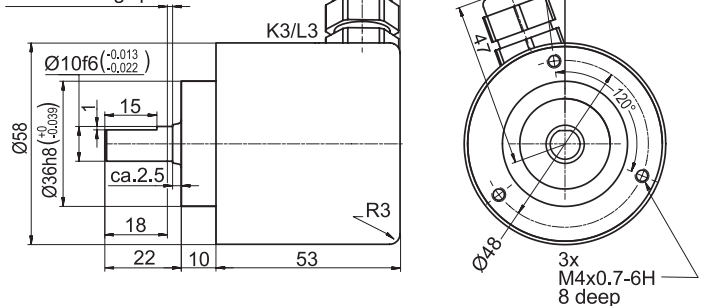
### Cable connection K2, L2 with 2 m cable

Minimum distance of 1.5 to sealing lip



### Cable connection K3, L3 with 2 m cable

Minimum distance of 1.5 to sealing lip



All dimensional specifications in mm.

**Options:**

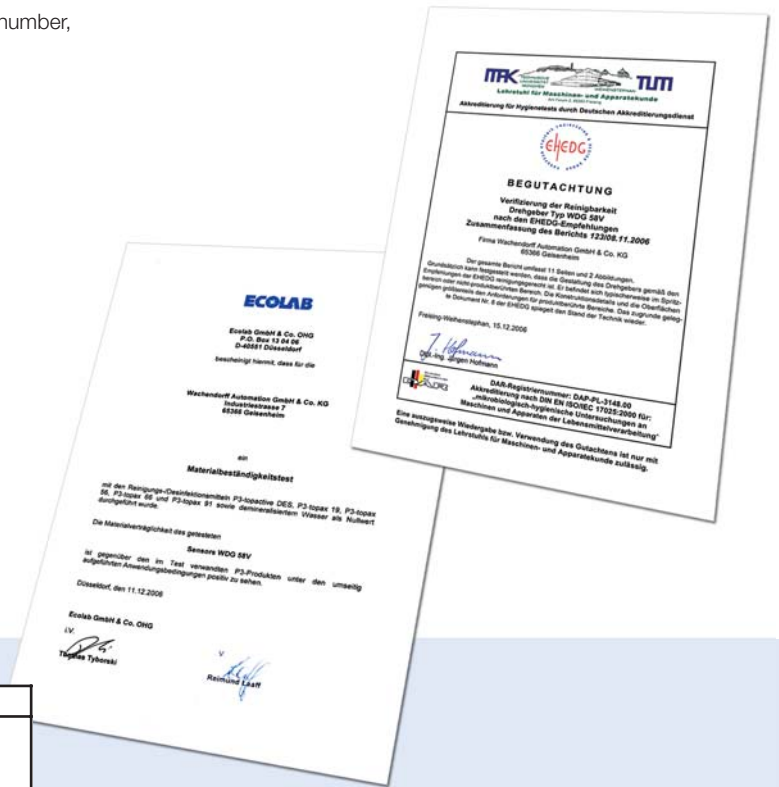
**Low-temperature:**

The encoder WDG 58V with the output circuit types F24, G24, H24, I24, P24, R24, F05, G05, I05, P05, 245 and 645 is also available with the extended temperature range -40 °C up to +80 °C (measured at the flange). When ordering please add the suffix code - ACA.

**Cable length:**

The encoder WDG 58V can be supplied with more than 2 m cable. The maximum cable length depends on the supply voltage and the frequency; see "General Technical Data": [www.wachendorff-automation.com/gtd](http://www.wachendorff-automation.com/gtd)  
Please extend the standard order code with a three figure number, specifying the cable length in decimetres.  
Example: 3 m cable = 030

Please see our general technical data at: [www.wachendorff-automation.com/gtd](http://www.wachendorff-automation.com/gtd)



**Ordering information:**

Output circuit:				
Resolution PPR	Power supply VDC	Output circuit	Light reserve warning	Order Key
up to 1024	5 - 30	<input type="checkbox"/> HTL	-	H30
		<input type="checkbox"/> HTL inverted	-	R30
up to 5000	4,75 - 5,5	<input type="checkbox"/> TTL	●	G05
		<input type="checkbox"/> TTL, RS422 comp., inverted	-	H05
		<input type="checkbox"/> TTL, RS422 comp., inverted	●	I05
	10 - 30	<input type="checkbox"/> HTL	●	G24
		<input type="checkbox"/> HTL inverted	-	H24
		<input type="checkbox"/> TTL, RS422 comp., inv.	●	245
10000 up to 25000	4,75 - 5,5	<input type="checkbox"/> TTL	-	F05
		<input type="checkbox"/> TTL, RS422 comp., inv.	-	P05
	10 - 30	<input type="checkbox"/> HTL	-	F24
		<input type="checkbox"/> TTL, RS422 comp., inv.	-	645

**Channels:** AB, ABN

**Pulses per revolution PPR:**  
2, 10, 15, 20, 24, 25, 30, 36, 40, 48, 50, 60, 64, 72, 87, 90, 100, 120, 125, 127, 128, 150, 160, 180, 200, 216, 240, 250, 254, 256, 300, 314, 320, 360, 400, 500, 512, 571, 600, 625, 720, 750, 768, 800, 810, 900, 1000, 1024, 1200, 1250, 1270, 1440, 1500, 1800, 2000, 2048, 2400, 2500, 3000, 3600, 4000, 4096, 10000, 12500, 20000, 25000.  
1 Vss Sin/Cos 1024 PPR and 2048 PPR only  
Other PPRs on request

Electrical connections:			
Order key	Outgoing	Description	ABN inv.
<b>Cable: (Length 2 m standard)</b>			
K2	axial	shield not connected	●
L2		shield connected to encoder housing	●
K3	radial	shield not connected	●
L3		shield connected to encoder housing	●

**Options:**  
Empty = Without option  
ACA = Low-temperature -40 °C up to +80 °C  
In decimetres = Cable length

**Order No.:**

Example                                   

Your encoder