

Encoder WDG 58V



Especially for food and beverage industry
Acid- and alkaline resistance

- EHEDG: Tested hygienic design
- Resistance to Salt mist acc. (IEC 60068-2-11)
- Up to 25000 PPR by use of high grad electronics
- Ecolab: Certificate on resistance to cleaning and disinfection agents
- High protection rating IP67 all around and IP69K (high pressure / steam cleaning)
- Radial shaft sealing ring with no dead-room (PTFE)
- Full connection protection with 10 VDC up to 30 VDC
- With light reserve warning

Available PPR up to 25000 PPR

Mechanical Data

Housing

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

Shaft

Ø 10 mm

- 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 10⁹ revs. at 100 % rated shaft load, 1 x 10¹⁰ revs. at 40 % rated shaft load, 1 x 10¹¹ 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) Resistance to salt mist (IEC 60068-2-11) after 672 hours

Operating temperature: -20 °C up to +80 °C, 1 Vss: -10 °C up to +70 °C
Storage temperature: -20 °C up to +80 °C

Machinery Directive: basic data safety integrity level

MTTF_r: 200 a
Mission time (T_m): 25 a
Nominale service life (L_{10h}): 1 x 10¹¹ revs. at 3600 rpm and 20 % rated shaft load
Diagnostic coverage (DC): 0 %

Electrical Data

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

Output circuit: TTL, RS422 compatible
HTL
1 Vss Sin/Cos

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, 1 Vss Sin/Cos: max. 100 kHz

Channels: AB, ABN and inverted signals

Load: max. 40 mA/channel, @ 1 Vss Sin/Cos: 120 Ohm termination

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 %

www.wachendorff-automation.com/wdg58v

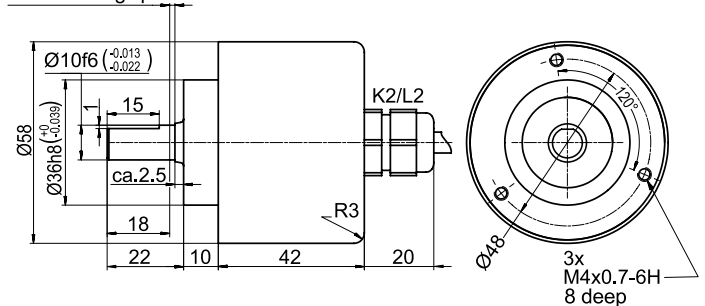
Further technical information on:

www.wachendorff-automation.com/gtd

Matching accessories on: www.wachendorff-automation.com/acs

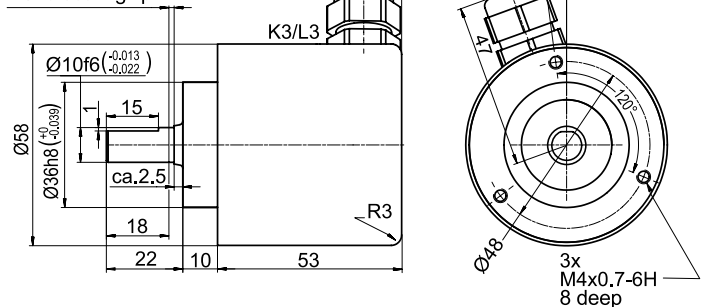
Cable connection K2, L2 with 2 m cable

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:

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
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



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.	●	I24
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"/> HTL inverted	-	P24
1024 2048	4,75 - 5,5	<input type="checkbox"/> TTL, RS422 comp., inv.	-	G45
		<input type="checkbox"/> 1 Vss Sin/Cos	-	SIN

Channels: AB, ABN (SIN: AB)

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, 5000, 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.
Cable: (Length 2 m standard)			
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
In decimetres = Cable length

Order No.:

Example

Your encoder