



# Online Data Sheet

## Encoder WdGI 58B

[www.wachendorff-automation.com/wdgi58b](http://www.wachendorff-automation.com/wdgi58b)

### Wachendorff Automation

#### ... systems and encoders

- Complete systems
- Industrial rugged encoders to suit your application
- Standard range and customer versions
- Maximum permissible loads
- 48-hour express production
- Made in Germany
- Worldwide distributor network

# Encoder WDGI 58B



- Rugged industrial standard encoder
- Housing cap die cast aluminum, with particularly eco-friendly powder coating
- Up to 25000 PPR by use of high grad electronics
- Protection to IP67, shaft sealed to IP65
- Maximum mechanical and electrical safety
- Full connection protection with 10 VDC up to 30 VDC
- High output frequency 600 kHz/2 MHz
- Optional:  
-40 °C up to +85 °C,  
Protection to IP67 all around,  
Pressure equalising membrane

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## Resolution

Max. pulses per revolution PPR	up to 25000 PPR
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## Mechanical Data

### Housing

Flange	clamping flange
Flange material	aluminum
Housing cap	die cast aluminum, powder coated
Housing	Ø 58 mm
Cam mounting	pitch 69 mm

### Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature
Shaft	Ø 10 mm
Shaft length	L: 20 mm
Max. Permissible shaft loading radial	220 N
Max. Permissible shaft loading axial	120 N

### Bearings

Bearings type	2 precision ball bearings
Nominal 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	8000 rpm

### Machinery Directive: basic data safety integrity level

MTTF <sub>d</sub>	200 a
Mission time (TM)	25 a
Nominal service life (L10h)	1 x 10 <sup>11</sup> revs. at 20 % rated shaft load and 8000 rpm
Diagnostic coverage (DC)	0 %

### Electrical Data

Power supply VDC	4.75 - 5.5 VDC
Current consumption	typ. 70 mA
Signal shape	square-wave
Output circuit	TTL, RS422 comp., inverted
Channels	AB, ABN, and inverted signals
Output	push-pull
Load	max. 40 mA / channel
Signal level mA	at 20 mA

Signal level H>	H > 2.5 VDC
Signal level L<	L < 0.5 VDC
Output frequency	max. 200 kHz
Circuit protection	no
Light reserve warning	yes

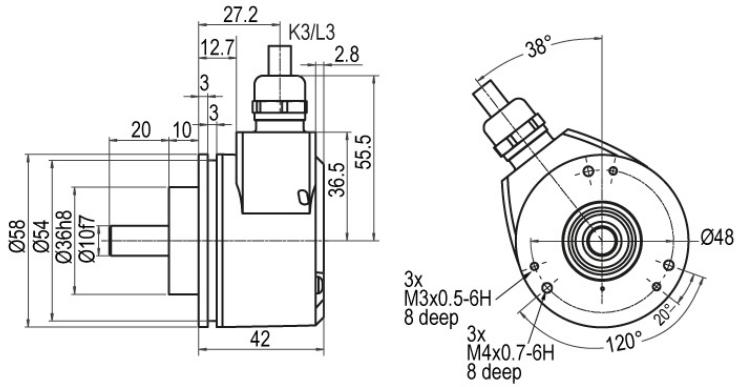
### General Data

Weight	approx. 250 g
Connections	cable or connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65
Operating temperature	Connector: -20 °C up to +85 °C, cable: -20 °C up to +80 °C, (Option ACA: -40 °C up to +85 °C) 1 Vpp: -10 °C up to +70 °C
Storage temperature	Connector: -30 °C up to +85 °C, cable: -30 °C up to +80 °C, option ACA: -40 °C up to +85 °C

### More Information

General technical data and safety instructions  
<http://www.wachendorff-automation.com/gtd>

Options  
<http://www.wachendorff-automation.com/acc>

**WDGI 58B: Cable connection K3, L3, radial, with 2 m cable**

**Description**
**ABN inv. poss.**
**K3** radial, shield not connected

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Assignments	
	<b>K3</b>
<b>Circuit</b>	I05
<b>GND</b>	WH
<b>(+) Vcc</b>	BN
<b>A</b>	GN
<b>B</b>	YE
<b>N</b>	GY
<b>Light reserve warning</b>	PK
<b>A inv.</b>	RD
<b>B inv.</b>	BK, (BU at ACA)
<b>N inv.</b>	VT
<b>Shield</b>	flex

Example Order No.	Type					Your encoder
WDGI 58B	WDGI 58B					WDGI 58B
<b>Shaft</b>						
10	10					10
<b>Pulses per revolution PPR:</b>						
2	2, 10, 15, 20, 24, 25, 30, 36, 40, 48, 50, 60, 64, 72, 5, 87, 90, 100, 120, 125, 127, 128, 150, 160, 180, 200, 250, 256, 300, 314, 360, 400, 216, 236, 240, 254, 320, 512, 500, 571, 600, 625, 720, 750, 768, 800, 810, 900, 1000, 1024, 1200, 1250, 1270, 1440, 1500, 1800, 2000, 2048, 3000, 2400, 2500, 3600, 4000, 4096, 4685, 5000					
<b>Channels:</b>						
ABN	ABN					ABN
<b>Output circuit</b>						
I05	<b>Resolution PPR</b>	<b>Power supply VDC</b>	<b>Output circuit</b>	<b>Light reserve warning</b>	<b>Order key</b>	I05
	up to 5000	4.75 - 5.5	TTL, RS422 comp., inverted	•	I05	
<b>Electrical connections</b>						
K3	<b>Description</b>			<b>ABN inv. poss.</b>	<b>Order key</b>	K3
	Cable: length (2 m standard, WDG 58T: 1 m) radial, shield not connected			•	K3	
<b>Options</b>						
<b>Description</b>			<b>Order key</b>			
Without option			Empty			

<b>Example Order No.=</b>	WDGI 58B	10	2	ABN	I05	K3		WDGI 58B	10		ABN	I05	K3		<b>Your encoder</b>
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For further information please contact our local distributor.  
Here you find a list of our distributors worldwide.  
[http://www.wachendorff-automation.com/distributors\\_worldwide.html](http://www.wachendorff-automation.com/distributors_worldwide.html)



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