



# Online Data Sheet

## Encoder WDG 40A

[www.wachendorff-automation.com/wdg40a](http://www.wachendorff-automation.com/wdg40a)

### 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 WDG 40A



- Robust and economical encoder with small dimensions
- Protection to IP67, shaft sealed to IP65
- Optional:  
Protection to IP67 all around  
-40 °C up to +80 °C

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## Resolution

Max. pulses per revolution up to 2500 PPR  
PPR

## Mechanical Data

### Housing

Flange	Servo flange
Flange material	aluminum
Housing cap	aluminum, powder coated
Housing	Ø 40 mm
Cam mounting	pitch 51 mm

### Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 0.2 Ncm at ambient temperature

Shaft	Ø 6 mm
Shaft length	L: 11.5 mm
Max. Permissible shaft loading radial	80 N
Max. Permissible shaft loading axial	50 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	12000 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 12000 rpm
Diagnostic coverage (DC)	0 %

## Electrical Data

Power supply VDC	10 - 30 VDC
Current consumption	typ. 70 mA
Signal shape	square-wave
Output circuit	HTL
Channels	AB, ABN

Output	push-pull
Load	max. 40 mA / channel
Signal level mA	at 20 mA
Signal level H>	H > V <sub>cc</sub> - 2.5 VDC
Signal level L<	L < 2.5 VDC
Output frequency	max. 200 kHz
Circuit protection	yes
Light reserve warning	no

## General Data

Weight	approx. 100 g
Connections	cable or connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65; (IP40 for K1)
Operating temperature	-20 °C up to +80 °C
Storage temperature	-30 °C up to +80 °C

## More Information

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

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



Example Order No.	Type					Your encoder
WDG 40A	WDG 40A					WDG 40A
<b>Pulses per revolution PPR:</b>						
10	10, 15, 20, 25, 30, 36, 40, 50, 60, 4, 9, 28, 90, 100, 120, 125, 128, 150, 160, 180, 200, 235, 250, 300, 314, 318, 360, 400, 500, 600, 625, 635, 720, 900, 1000, 1024, 1200, 1250, 1080, 1500, 1800, 2000, 2048					
<b>Channels:</b>						
ABN	ABN					ABN
<b>Output circuit</b>						
H24	<b>Resolution PPR</b>	<b>Power supply VDC</b>	<b>Output circuit</b>	<b>Light reserve warning</b>	<b>Order key</b>	H24
	up to 2500	10 - 30	HTL	-	H24	
<b>Electrical connections</b>						
K2	<b>Description</b>			<b>ABN inv. poss.</b>	<b>Order key</b>	K2
	Cable: length (2 m standard, WDG 58T: 1 m) axial, shield not connected			•	K2	
<b>Options</b>						
<b>Description</b>				<b>Order key</b>		
Without option				Empty		

<b>Example Order No.=</b>	WDG 40A	10	ABN	H24	K2		WDG 40A		ABN	H24	K2		<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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