



Online Datasheet

Encoder WDGR 58B redundant incremental

www.wachendorff-automation.com/wdgr58b

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 WDGR 58B incremental redundant, optical and magnetic, with bus cover



- Redundant: two independent encoders in one
- Diversity: two measuring principles (optical / magnetic)
- Compact design with bus cover
- optical up to 5000 ppr - magnetic up to 1024 ppr
- Highest bearing loads up to 220 N radial, 120 N axial

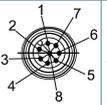
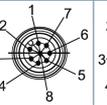
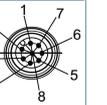
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Mechanical Data	
Housing	
Flange	clamping flange
Flange material	aluminum
Housing cap	steel case chrome-plated, magnetic shielding
Connection cover	zinc-plated
Housing	Ø 58 mm
Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature
Shaft	Ø 10 mm shaft with flat
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
Nominale service life	1 x 10 ⁹ revs. at 100 % rated shaft load 1 x 10 ¹⁰ revs. at 40 % rated shaft load 1 x 10 ¹¹ revs. at 20 % rated shaft load
Max. operating speed	8000 rpm

Machinery Directive: basic data safety integrity level	
MTTF _d	133 a
Mission time (TM)	20 a
Nominale service life (L10h)	1 x 10 ¹¹ revs. at 20 % rated shaft load and 8000 rpm
Diagnostic coverage (DC)	0 %
Environmental data	
ESD (DIN EN 61000-4-2)	8 kV
Burst (DIN EN 61000-4-4)	2 kV
Vibration (IEC 68-2-6)	tbd.
Schock (IEC 68-2-27)	tbd.
Design:	according DIN VDE 0160
General Data	
Weight	approx. 440.5 g
Connections	connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65
Operating temperature	Connector: -40 °C up to +85 °C, 1 Vpp: -10 °C up to +70 °C
Storage temperature	Connector: -30 °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	

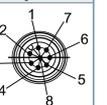
WDGR 58B: Sensor-connector optical (M12x1) SC, radial, 5-, 8-pin (PORT A)

Description	ABN inv. poss.
SC5 radial, 5-pin, connector connected to encoder housing	-
SC8 radial, 8-pin, connector connected to encoder housing	•

Assignments				
	SC5	SC8	SC8	SC8
	5-pin	8-pin	8-pin	8-pin
				
Circuit	15,16,1F	15,16,1F	1C, 1D 1E, 1B,	1A
GND	3	1	1	1
+UB	1	2	2	2
A	4	3	3	3
B	2	4	4	5
N	5	5	5	-
Light reserve warning	-	-	-	-
A inv.	-	-	6	4
B inv.	-	-	7	6
N inv.	-	-	8	-
n.	-	6, 7, 8	-	7, 8
Shield	-	-	-	-

WDGR 58B: Sensor-connector magnetic (M12x1) SC, radial, 5-, 8-pin (PORT C)

Description	ABN inv. poss.
SC5 radial, 5-pin, connector connected to encoder housing	-
SC8 radial, 8-pin, connector connected to encoder housing	•

Assignments			
	SC5	SC8	SC8
	5-pin	8-pin	8-pin
			
Circuit	1H	1H	1G
GND	3	1	1
+UB	1	2	2
A	4	3	3
B	2	4	4
N	5	5	5
Light reserve warning	-	-	-
A inv.	-	-	6
B inv.	-	-	7
N inv.	-	-	8
n.	-	6, 7, 8	-
Shield	-	-	-

Example Order No. Type					Your encoder
WDGR 58B	WDGR 58B				WDGR 58B
Shaft				Order key	
10	Ø 10 mm shaft with flat			10	10
Pulses per revolution PPR optical					
05000	100, 120, 127, 180, 200, 250, 254, 300, 360, 512, 600, 628, 720, 750, 800, 810, 900, 1000, 1024, 1200, 1250, 1270, 1440, 1500, 1800, 2000, 2048, 2400, 2500, 3000, 3600, 4000, 4096, 4685, 5000 1 Vpp Sin/Cos only 1024, 2048				
Pulses per revolution PPR magnetic					
0002	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 256, 512, 1024				
Channels optical and magnetic					
3	ABN				3
Output circuit optical					
16	Resolution PPR	Power supply VDC	Output circuit	Light reserve warning	Order key
	up to 2500	5 - 30	HTL	-	1F
		5 - 30	HTL inverted	-	1E
	up to 5000	4,75 - 5,5	TTL	-	15
		4,75 - 5,5	TTL, RS422 comp., inverted	-	1C
		10 - 30	HTL	-	16
		10 - 30		-	1D
		10 - 30	TTL, RS422 comp., inverted	-	1B
1024, 2048	4,75 - 5,5	1 Vpp sin/cos	-	1A	
Electrical connections optical					
SC8	Description			ABN inv. poss.	Order key
	Connector: (connector connected to encoder housing)				
	Sensor-connector, M12x1, 5-pin, radial			-	SC5
	Sensor-connector, M12x1, 8-pin, radial			•	SC8
Output circuit magnetic					
1G	Resolution PPR	Power supply DC	Output circuit	Light reserve warning	Order key
	bis 1024	5 - 30	HTL invertiert	-	1G
		5 - 30	HTL	-	1H
Electrical connections magnetic					
SC8	Description			ABN inv. poss.	Order key
	Connector: connector connected to encoder housing				
	Sensor-connector, M12x1, 5-pin, radial			-	SC5
	Sensor-connector, M12x1, 8-pin, radial			•	SC8
Options					
Description			Order key		
Without option			Empty		

Example Order No	WDGR 58B	10	05000	0002	3	16	SC8	1G	SC8		WDGR 58B	10			3					Your encoder
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WACHENDORFF
The Encoder Experts

Authorized Distributor

For further information please contact our local distributor.
Here you find a list of our distributors worldwide.

<https://www.wachendorff-automation.com/contact-sales-en/>

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