












Absolute electrically isolated encoders

  				
Type	WDGA 58A	WDGA 58B	WDGA 58D	WDGA 58E
Interfaces	CANopen, CANopen Lift, CAN SAE J1939,			
Single-turn Resolution (steps/revolution) Accuracy Repeat accuracy	up to 16 bit < ± 0.35° < ± 0.20°			
Multi-turn number of revolutions	up to 43 bit			
Code	Binary or Gray			
Flange	Synchro flange	Clamping flange		Hollow shaft
Material housing	Steel case chrome-plated, magnetic shielding			
Dimensions housing	Ø 58 mm, L 63.8 mm	Ø 58 mm, L 57.8 mm		Ø 58 mm, L 66.3 mm
Material shaft	Stainless steel			
Dimensions shaft	Ø 6 mm, L: 12 mm; Ø 8 mm, L: 19 mm; Ø 10 mm, Ø 3/8", L: 20 mm		Ø 12 mm, L: 25 mm	Ø 12 mm or 14 mm; 6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10 mm with adapter sleeve
Permissible shaft load max.	125 N radial (Ø 6 mm, Ø 8 mm), 120 N axial 220 N radial (Ø 10 mm, Ø 3/8"), 120 N axial		400 N radial, 400 N axial	80 N radial, 50 N axial
Operating speed	max. 8,000 min ⁻¹			max. 6,000 min ⁻¹
Power supply	10 VDC to 32 VDC			
Protection class	IP67, shaft sealed to IP65			
Operating temperature	-40 °C to +85 °C			
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PROFIBUS absolute encoders

				
Type	WDGA 58A	WDGA 58B	WDGA 58D	WDGA 58E
Interfaces	PROFIBUS			
Single-turn Resolution (steps/revolution) Accuracy Repeat accuracy	up to 14 bit < ± 0.35° < ± 0.20°			
Multi-turn number of revolutions	up to 39 bit			
Code	Binary			
Flange	Synchro flange	Clamping flange		Hollow shaft
Material housing	Steel case chrome-plated, magnetic shielding			
Dimensions housing	Ø 58 mm, L 63.8 mm	Ø 58 mm, L 57.8 mm		Ø 58 mm, L 66.3 mm
Material shaft	Stainless steel			
Dimensions shaft	Ø 6 mm, L: 12 mm; Ø 8 mm, L: 19 mm; Ø 10 mm, Ø 3/8", L: 20 mm		Ø 12 mm, L: 25 mm	Ø 12 mm, 14 mm, 15 mm; Ø 6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10 mm with adapter sleeve
Permissible shaft load max.	125 N radial (Ø 6 mm, Ø 8 mm), 120 N axial 220 N radial (Ø 10 mm, Ø 3/8"), 120 N axial		400 N radial, 400 N axial	80 N radial, 50 N axial
Operating speed	max. 8,000 min ⁻¹			max. 6,000 min ⁻¹
Power supply	10 VDC to 32 VDC			
Electrical connection	Bus cover: connection via terminal strip or 3x M12 Plug connections: 2x M12 and 1x M8 or D-SUB female connector, 9-pin (axial or radial)			
Protection class	IP67, shaft sealed to IP65			
Operating temperature	-40 °C to +85 °C			
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Absolute industrial Ethernet encoders

  					
Type	WDGA 58A	WDGA 58B	WDGA 58D	WDGA 58E	WDGA 58F
Interfaces	PROFINET-IO, EtherCAT, EtherNet/IP, Universal IE				
Single-turn Resolution (steps/revolution) Accuracy Repeat accuracy	up to 16 bit ± 0,0878° (≤ 12 bit) ± 0,0878° (≤ 12 bit)				
Multi-turn number of revolutions	up to 43 bit				
Code	Binary				
Flange	Synchro flange	Clamping flange		Hollow shaft	Clamping flange
Material housing	Steel case chrome-plated, magnetic shielding				
Dimensions housing	Ø 58 mm, L 63.8 mm	Ø 58 mm, L 57.8 mm		Ø 58 mm, L 66.3 mm	Ø 58 mm, L 46.5 mm
Material shaft	Stainless steel				
Dimensions shaft	Ø 6 mm, L: 12 mm; Ø 8 mm, L: 19 mm; Ø 10 mm, Ø 3/8", L: 20 mm		Ø 12 mm, L: 25 mm	Ø 12 mm, 14 mm, 15 mm; Ø 6, 6.35 (1/4"), 7, 8, 9.525 (3/8"), 10 mm with adapter sleeve	Ø 6 mm, L: 12 mm, Ø 8 mm, L: 19 mm, Ø 10 mm, L: 20 mm, Ø 3/8", L: 19 mm
Permissible shaft load max.	125 N radial (Ø 6 mm, Ø 8 mm), 120 N axial 220 N radial (Ø 10 mm, Ø 3/8"), 120 N axial		400 N radial, 400 N axial	80 N radial, 50 N axial	60 N radial, 50 N axial
Operating speed	max. 8,000 min ⁻¹			max. 6,000 min ⁻¹	max. 8,000 min ⁻¹
Power supply	10 VDC to 32 VDC				
Electrical connection	Bus cover: connection via 3x M12 connector				
Protection class	IP65, IP67, shaft sealed to IP65			IP65 outright	IP65, IP67, shaft sealed to IP65
Operating temperature	-40 °C to +85 °C				
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- Highest precision during highly dynamic movements
- Compact construction: Ø 58 mm
- BISS-C, SSI with 19 bit single-turn and up to 2,048 sin/cos
- Incremental up to 25,000 ppr
- Electronic ID label

Highest precision during highly dynamic movements

The WDGf was developed for the most demanding applications. It operates reliably and supplies high-precision signals for a rapid regulation of synchronous motors even under extreme environmental conditions. The optical principle guarantees rapid and precise transmission and the robust design ensures high operational stability.

Motor feedback WDGf

WDGF motor feedback encoder	
Type	58M/R
Interface for single-turn	SSI, BISS-C
Frequency SSI/BISS-C	4/10 MHz
Functions	Direction reversal, preset, status LED
Resolution single-turn absolute	max. 19 bit
Resolution sin/cos	2,048 PPR, optional 512 PPR, 1,024 PPR
Output circuit	sin/cos, 1 Vpp, 120 Ohm
Output channels	AB
Limit frequency (-3 dB)	400 kHz
Resolution incremental	up to 25,000 PPR
Dimensions housing	Ø 58 mm, L 40 mm
Dimensions shaft	cone 1/10, Ø 9.25 mm, L 16.5 mm
Operating speed	max. 12,000 min ⁻¹
Permissible shaft load	max. 80 N radial, max. 60 N axial
Power supply	4.75 VDC to 5.5 VDC 3.5 VDC to 30 VDC
Operating temperature only incremental:	-40 °C to +115 °C -20 °C to +85 °C
Protection class	IP67 outright, shaft sealed to IP65
Connection type	Tangential cable output, 2 m
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