

Online Data Sheet

Encoder WDGA 58V CANopen

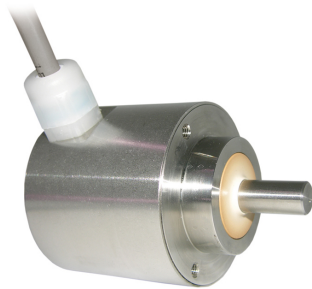
www.wachendorff-automation.com/wdga58vcan

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 WDGA 58V absolute CANopen magnetic, with EnDra®-Technology



EnDra®
Technologie

CANopen®

- Resistance to salt mist acc. to (IEC 60068-2-11)
- EnDra®: maintenance-free and environmentally friendly
- Acid- and alkaline resistance
- CANopen, Single-turn/Multi-turn
- Communication Profile according to CiA 301
- Device Profile for encoder CiA 406 V3.2 class C2
- Single-turn/Multi-turn (14 bit / 39 bit)
- Forward-looking technology with 32 Bit processor

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Especially for food and beverage industry
Acid- and alkaline resistance

Mechanical Data		Multi-turn technology	
Housing		patented EnDra® technology no battery and no gear.	
Flange	clamping flange	Multi-turn resolution	up to 262,144 revolutions (18 bit) with high precision value up to 39 bit.
Flange material	stainless steel, V4A	Environmental data	
Housing cap	stainless steel, V4A	ESD (DIN EN 61000-4-2):	8 kV
Housing	Ø 58 mm	Burst (DIN EN 61000-4-4):	2 kV
Shaft(s)		includes EMC:	DIN EN 61000-6-2 DIN EN 61000-6-3
Shaft material	stainless steel, V4A	Vibration: (DIN EN 60068-2-6)	50 m/s ² (10 Hz up to 2000 Hz)
Starting torque	approx. 1 Ncm at ambient temperature	Shock: (DIN EN 60068-2-27)	1000 m/s ² (6 ms)
Shaft	Ø 10 mm	Design:	according DIN VDE 0160
Shaft length	L: 18 mm	Turn on time:	<1,5 s
Max. Permissible shaft loading radial	100 N	Interface	
Max. Permissible shaft loading axial	100 N	Interface:	CAN
Bearings		Protocol:	CANopen <ul style="list-style-type: none"> • Communication profil CiA 301 • Device Profile for encoder CiA 406 V3.2 class C2
Bearings type	2 precision ball bearings	Node number:	1 up to 127 (default 127)
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	Baud rate:	10 kBaud up to 1 MBaud with automatic bit rate detection.
Max. operating speed	3600 rpm	Advice:	The standard settings as well as any customization in the software can be changed via LSS (CiA 305) and the SDO protocol, e. g. PDOs, Scaling, Heartbeat, Node-ID, Baud rate, etc.
Machinery Directive: basic data safety integrity level		Programmable CAN transmission modes:	Synchronous mode: when a synchronisation telegram (SYNC) is received from another bus node, PDOs are transmitted independently. Asynchronous mode: a PDO message is triggered by an internal event. (e.g. change of measured valued, internal timer, etc.)
MTTF _d	1000 a		
Mission time (TM)	20 a		
Nominale service life (L10h)	1 x 10 ¹¹ revs. at 20 % rated shaft load and 3600 rpm		
Diagnostic coverage (DC)	0 %		
Electrical Data			
Power supply/Current consumption	10 VDC up to 32 VDC: typ. 50 mA		
Power consumption	max. 0.5 W		
Sensor data			
Single-turn technology	innovative hall sensor technology		
Single-turn resolution	16,384 steps/360° (14 bit)		
Single-turn accuracy	< ±0.35°		
Single-turn repeat accuracy	< ±0.20°		
Internal cycle time	600 µs		

General Data

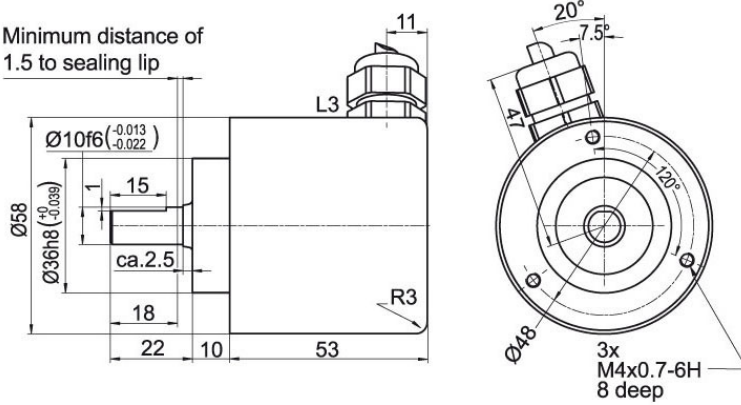
Weight	approx. 600 g
Connections	cable outlet (TPE)
Protection rating (EN 60529)	IP67 all around and IP69K. Resistance to salt mist (IEC 60068-2-11) after 672 hours.
Operating temperature	-20 °C up to +80 °C
Storage temperature	-20 °C up to +80 °C

More Information

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

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

Cable connection L3 with 2 m cable

 Minimum distance of
 1.5 to sealing lip

Description
L3 radial, shield connected to encoder housing

Assignments	
(+) Vcc	BN
GND	OG
CANHigh	GN
CANLow	YE
CANGND shield	shield

Example Order No.	Type	Your encoder
WDGA 58V	WDGA 58V	WDGA 58V
	Shaft	Order key
10	Ø 10 mm	10
	Single-turn Resolution	Order key
12	Single-turn resolution 1 bit up to 14 bit: (e. G. 12 bit)	12
	Multi-turn Resolution	Order key
18	Multi-turn resolution: (examples) 18 bit = 18 39 bit = 39 no Multiturn = 00	18
	Data protocol	Order key
CO	CANopen	CO
	Software	Order key
A	up to date release	A
	Code	Order key
B	binary	B
	Power supply	Order key
0	10 V up to 32 V (standard)	0
	Galvanic isolation	Order key
0	no	0
	Electrical connections	Order key
L3	Cable:	L3
	radial, shield connected to encoder housing	

Example Order No.	WDGA 58V	10	12	18	CO	A	B	0	0	L3
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WDGA 58V											Example Order No.
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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



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