



Online Data Sheet

엠플루트 CAN통신 마그네틱 로터리 엔코더 WDGA 58D 시리즈 - 갈바닉 절연 타입 (Galvanic isolation)

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 58D absolute CANopen galv. isolation, magnetic, with EnDra®- Technology



EnDra®
Technologie

CANopen®

Heavy duty

- 1. CANopen 프로토콜 절대형 로터리 엔코더 - 산업 표준 58mm**
 - 통신 프로파일 CiA301
 - 디바이스 프로파일 CiA406 V3.2 class C2

- 2. EnDra® 기술을 활용한 멀티턴 분해능**
 - 최대 39bit 대응
 - 위치 기억을 위한 배터리, 기어 불필요

- 3. 갈바닉 절연 타입(Galvanic isolation)**
 - 노이즈내성, 전기적 쇼크내성, 과전류 방지

- 4. IP67의 보호 기능 - 방수/방진 로터리 엔코더**
 - Shaft sealing - IP65 **IP67선택 가능

Mechanical Data	
Housing	
Flange	clamping flange
Flange material	aluminum
Housing cap	steel case chrome-plated, magnetic shielding
Housing	Ø 58 mm

Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature

Shaft	Ø 12 mm
Shaft length	L: 25 mm
Max. Permissible shaft loading radial	400 N
Max. Permissible shaft loading axial	400 N

Bearings	
Bearings type	2 precision ball bearings
Nominal 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

Electrical Data	
Power supply/Current consumption	10 VDC up to 32 VDC: typ. 100 mA
Power consumption	max. 1 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
Multi-turn technology	patented EnDra® technology no battery and no gear.
Multi-turn resolution	up to 262,144 revolutions (18 bit) with high precision value up to 39 bit.

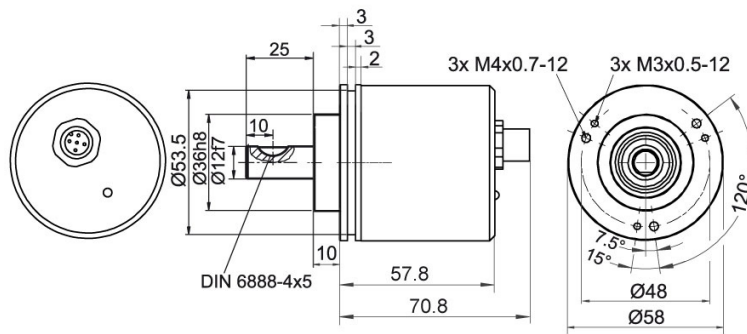
Environmental data	
ESD (DIN EN 61000-4-2):	8 kV

Burst (DIN EN 61000-4-4):	2 kV
includes EMC:	DIN EN 61000-6-2 DIN EN 61000-6-3
Vibration: (DIN EN 60068-2-6)	50 m/s ² (10 Hz up to 2000 Hz)
Shock: (DIN EN 60068-2-27)	1000 m/s ² (6 ms)
Design:	according DIN VDE 0160
Turn on time:	<1,5 s

Interface	
Interface:	CAN
Protocol:	CANopen • Communication profil CiA 301 • Device Profile for encoder CiA 406 V3.2 class C2
Node number:	1 up to 127 (default 127)
Baud rate:	50 kBaud up to 1 MBaud with automatic bit rate detection.
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.
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.)

General Data	
Connections	connector outlet
Protection rating (EN 60529)	IP67, shaft sealed to IP65
Operating temperature	-40 °C up to +85 °C
Storage temperature	-40 °C up to +100 °C

More Information	
General technical data and safety instructions http://www.wachendorff-automation.com/gtd	
Options http://www.wachendorff-automation.com/acc	

WDGA 58D CANopen, galv. isolation, with M12x1, axial CB5, 5-pin

Description

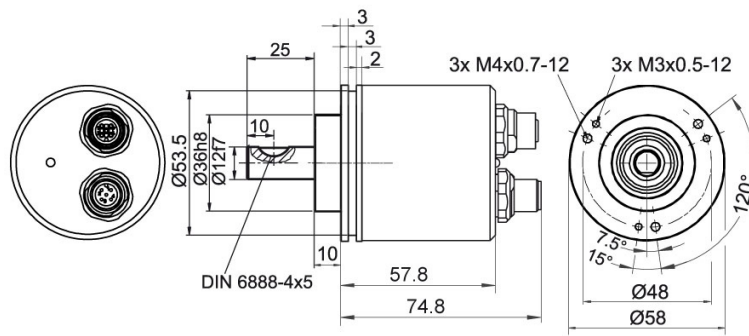
CB5 axial, 5-pin, shield connected to encoder housing

Assignments	
	CB5
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

CC5 radial, 5-pin, shield connected to encoder housing

Assignments	
	
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

WDGA 58D CANopen, galv. isolation, with 2x M12x1, axial DB5



Description

DB5 axial, 5-pin, shield connected to encoder housing

Assignments	
Female connector	M12x1, 5-pin
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

Assignments	
Connector	M12x1, 5-pin
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

Options

120 Ohm terminating resistor

Order key

The encoder WDGA 58D CANopen galv. is also available with fixed 120 Ohm terminating resistor. **AEO**

Example Order No.	Type	Your encoder
WDGA 58D	WDGA 58D	WDGA 58D
	Shaft	Order key
12	Ø 12 mm	12
	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 (galv. isolation)	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
1	yes	1
	Electrical connections	Order key
CB5	Connector:	
	sensor-connector, M12x1, 5-pin, axial, IP67, shield connected to encoder housing	CB5
	sensor-connector, M12x1, 5-pin, radial, IP67, shield connected to encoder housing	CC5
	sensor-connector/female connector, 2x M12x1, 5-pin, axial, IP67, shield connected to encoder housing	DB5
	Options	Order key
	Without option	Empty
	120 Ohm terminating resistor	AEO

Example Order No.	WDGA 58D	12	12	18	CO	A	B	0	1	CB5	
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WDGA 58D											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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