



Online Data Sheet

엠플루트 CAN SAE J1939 통신 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 SAEJ1939 galv. isolation

www.wachendorff-automation.com/wdga58dsaej1939galv

Industrie ROBUST

Encoder WDGA 58D absolute CAN SAE J1939 galv. isolation, magnetic, with EnDra®- Technology



EnDra®
Technologie

SAE J1939

Heavy duty

1. CAN SAE J1939 프로토콜 절대형 로터리 엔코더
- 프로토콜 : ISO11898(High Speed CAN)
- 중장비 어플리케이션 전용 통신 프로토콜

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

www.wachendorff-automation.com/wdga58dsaej1939galv

Mechanical Data	
Housing	
Flange	clamping flange
Flange material	aluminum
Housing cap	steel case chrome-plated, magnetic shielding
Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature
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, no gear.
Multi-turn resolution	up to 262,144 revolutions (18 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
CAN physical layer:	ISO 11898 (High Speed CAN)
Protocol:	ISO 11898 (High Speed CAN)
Baud rate:	Auto-Baud-Detection
Standard Preset configuration:	(other configurations on request)
Direction of counting:	(View from shaft end) ccw
ECU-address:	0x 0A
Process data Identifier:	0x18FF000A
PGN:	0xFF00
Process data mapping:	Byte 0-3 32 Bit Position Value Byte 4 8 Bit Error Register PDU timer and Position Preset can be adjusted by PGN configuration 0xEF00 (Prop. A)
PDU - Time:	50 ms (default)
Configuration - PGN:	0x EF 00 (Prop.A)
Byte 0:	0x 01
Byte 1:	0x FF
Byte 2:	PDU time LSB
Byte 3:	PDU time MSB
Byte 4:	Preset LSB
Byte 5, 6:	Preset
Byte 7:	Preset MSB

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

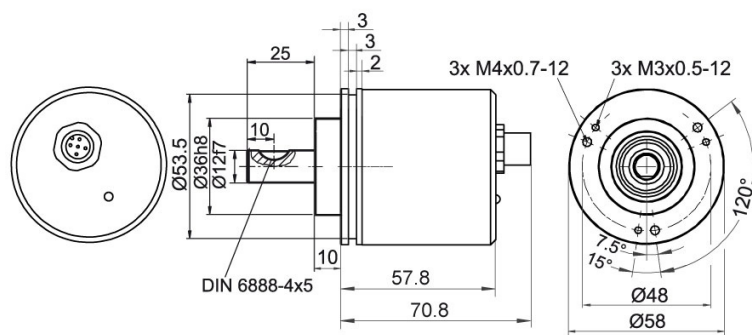
General technical data and safety instructions

<http://www.wachendorff-automation.com/gtd>

Options

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

WDGA 58D CAN SAE J1939, galv. isolation, with M12x1, axial CB5, 5-pin

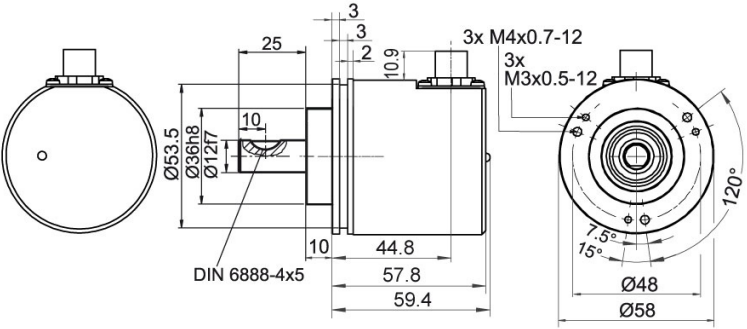


Description

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

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

WDGA 58D CAN SAE J1939, galv. isolation, with M12x1, CC5, radial, 5-pin

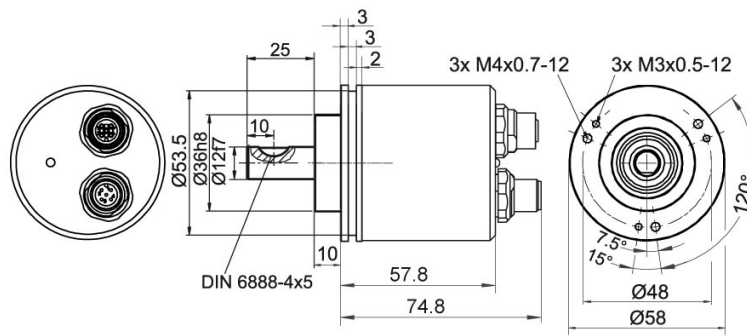


Description

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

Assignments	
	CC5
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

WDGA 58D CAN SAE J1939, galv. isolation, with 2x M12x1, axial DB5



Description

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

Assignments	
	DB5
Female connector	M12x1, 5-pin
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

Assignments	
	DB5
Connector	M12x1, 5-pin
(+) Vcc	2
GND	3
CANHigh	4
CANLow	5
CANGND shield	1

Options

120 Ohm terminating resistor

The encoder WDGA 58D CAN SAE J1939 galv. is also available with fixed 120 Ohm terminating resistor.

Order key

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 14 bit: (standard) max. 14 bit possible	14	
	Multi-turn Resolution	Order key	
18	Multi-turn 18 bit (standard) max. 32 bit possible No Multi-turn = 00	18	
	Data protocol	Order key	
CJ	CAN SAE J1939 (galv. isolation)	CJ	
	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	CJ	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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