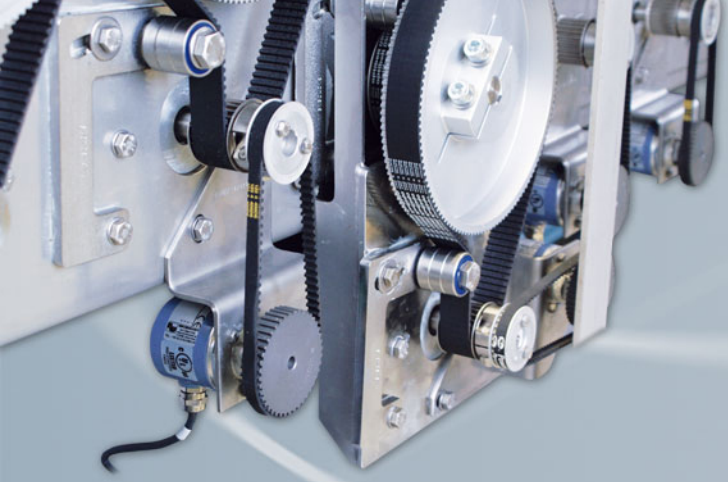


WACHENDORFF
Automation GmbH & Co. KG

Online Data Sheet

Encoder WDGA 58V CAN SAE J1939

www.wachendorff-automation.com/wdga58vsaej1939

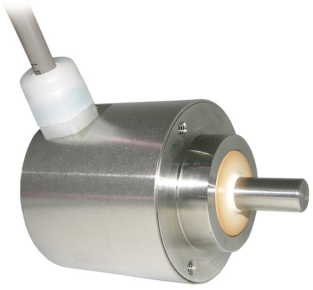
Wachendorff Automation

... 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

IndustrieROBUST

Encoder WDGA 58V absolute CAN SAE J1939 magnetic, with EnDra® Technology



EnDra® Technologie

SAE J1939

- Resistance to salt mist acc. to (IEC 60068-2-11)
- Protection IP67 all around and IP69k (High pressure / steam cleaning)
- EnDra® Technology:
- maintenance-free and environmentally friendly
- Acid- and alkaline resistance
- CAN SAE J1939 protocol
- Single-/Multiturn (14 bit / 18 bit)
- Forward-looking technology with 32 Bit processor

www.wachendorff-automation.com/wdga58vsaej1939

Especially for food and beverage industry, acid- and alkaline resistance

Mechanical Data	
Housing	
Flange	clamping flange
Flange material	stainless steel, V4A
Housing cap	stainless steel, V4A
Housing	Ø 58 mm

Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature
Shaft	Ø 10 mm
Shaft length	L: 18 mm
Max. Permissible shaft loading radial	100 N
Max. Permissible shaft loading axial	100 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	3600 rpm

Machinery Directive: basic data safety integrity level	
$MTTF_d$	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: max. 50 mA
Power consumption	max. 0.5 W

Sensor data	
Singleturn technology	innovative hall sensor technology
Singleturn resolution	16.384 steps/360° (14 bit)
Singleturn accuracy	< ±0.35°
Singleturn repeat accuracy	< ±0.20°
Intern cycle time	≤ 600 µs
Multiturn technology	patented EnDra® technology no battery, no gear.
Multiturn 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/s² (10 Hz up to 2000 Hz)
Shock: (DIN EN 60068-2-27)	1000 m/s² (6 ms)
Design:	according DIN VDE 0160
Turn on time:	<1,5 s

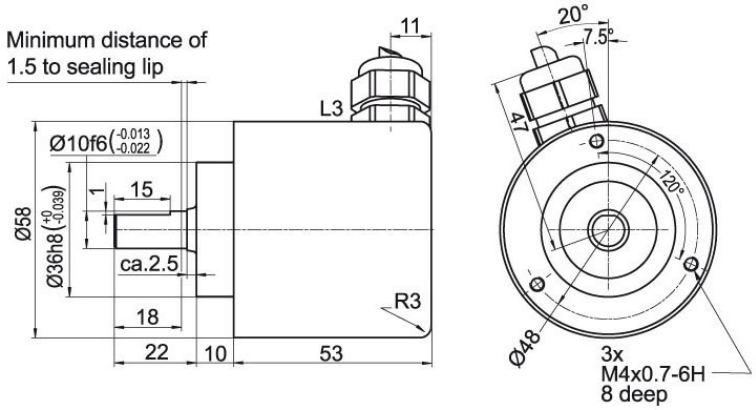
Interface	
Interface:	**CAN**
CAN physical layer:	ISO 11898 (High Speed CAN)
Protocol:	ISO 11898 (High Speed CAN)
Baud rate:	Auto-Baud-Detection
Standard Preset configuration:	(other configurations on request)
Direction of counting:	(View from shaft end) ccw
ECU-adress:	0x 0A
Process data Identifier:	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 configration 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	
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 **http://www.wachendorff-automation.com/gtd**
Options **http://www.wachendorff-automation.com/acc**

Cable connection L3 with 2 m cable



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	
	Singleturn Resolution	**Order key**	
14	Singleturn resolution 14 Bit: (standard) max. 14 Bit possible	14	
	Multiturn Resolution	**Order key**	
18	Multiturn 18 Bit (standard) max. 32 Bit possible No Multiturn = 00	18	
	Data protocol	**Order key**	
CJ	CAN SAE J1939	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**	
0	no	0	
	Electrical connections	**Order key**	
L3	**Cable:** radial, shield connected to encoder housing	L3	

Example Order No.	WDGA 58V	10	14	18	CJ	A	B	0	0	L3
	WDGA 58V										Example Order No.

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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