

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

Especially for food and beverage industry
Acid- and alkaline resistance



EnDra
Technology

CANopen

- Resistance to salt mist acc. to (IEC 60068-2-11)
- EnDra®: maintenance-free and environmentally friendly
- Acid- and alkaline resistance
- CANopen, Single- and Multiturn
- Communication Profile according to CiA 301
- Device Profile for encoder CiA 406 V3.2 class C2
- Single-/Multiturn (14 bit/40 bit)
- Forward-looking technology with 32 Bit processor

www.wachendorff-automation.com/wdga58vcan

Specifications:

Mechanical Data

Housing	
- Clamping flange:	stainless steel, V4A
- Cap:	stainless steel, V4A
Shaft	Ø 10 mm
- Material:	stainless steel, V4A
- Permitted load on shaft end:	max. 100 N radial max. 100 N axial
- Starting torque:	approx. 1 Ncm at ambient temperature

Bearings

- Type:	2 precision ball bearings
- 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
Weight:	approx. 600 g
Connections:	cable outlet (TPE)

Machinery Directive:

basic data safety integrity level

MTTF _d :	1000 a
Mission time (T _M):	20 a
Normal service life (L _{10h}):	1 x 10 ¹¹ revs. at 3,600 min ⁻¹ and 20 % rated shaft load
Diagnostic coverage (DC):	0

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 and no gear
Multiturn resolution:	up to 262,144 revolutions (18 bit) with high precision value up to 40 bit

Environmental data

Operating temperature:	- 20 °C up to + 80 °C
Storage temperature:	- 20 °C up to + 100 °C
Protection rating:	IP67 all around and IP69K Resistance to salt mist (IEC 60068-2-11) after 672 hours

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:	50 m/s ² (10-2000 Hz)
(DIN EN 60068-2-6)	
Shock:	1000 m/s ² (6 ms)
(DIN EN 60068-2-27)	
Design:	appropriate DIN VDE 0160

Interface

Protocol:

CAN

CANopen

- Communication profil CiA 301
- Device profile for encoder CiA 406 V3.2 class C2

Node number:

0 up to 127 (default 127)

Baud rate:

10 kBaud up to 1 MBaud
with automatic bit rate detection

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, Scaleing, 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.)

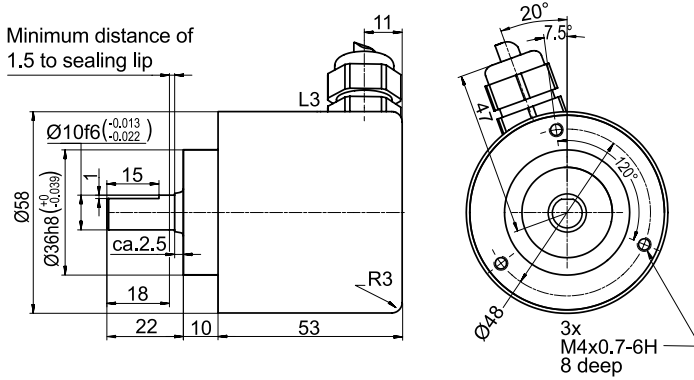
Electrical Data:

Supply voltage:	10 VDC up to 30 VDC max. 50 mA
Power consumption:	max. 0.5 W

Connection configuration radial

Definition	Cable L3, radial
U _B	brown
Ground (GND)	orange
CAN _{High}	green
CAN _{Low}	yellow
CAN _{GND} / shield	shield

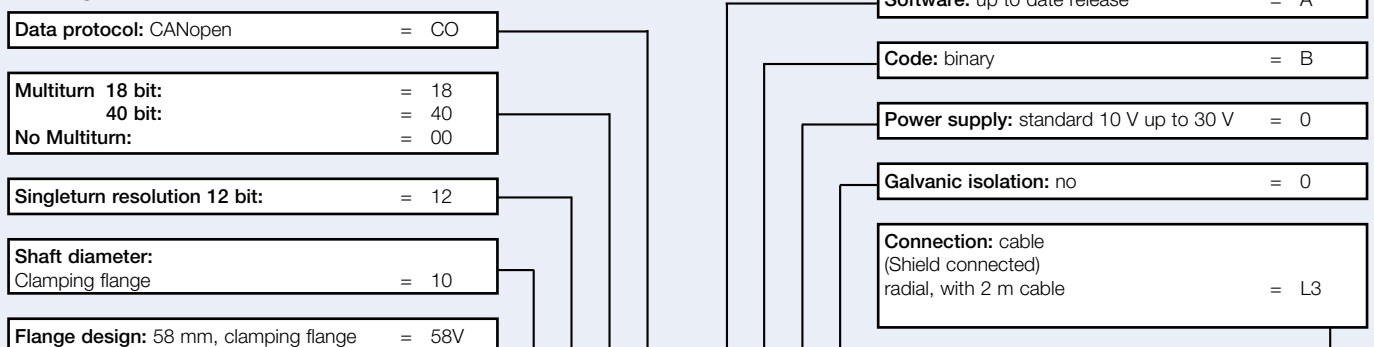
WDGA 58V: Cable connection L3 with 2 m cable



All dimensional specifications in mm.

Suitable accessories for encoders WDGA absolute CANopen can be found on our website:
www.wachendorff-automation.com/wdgaacc

Ordering information:



Order-No.:

Example	WDGA	58V	10	12	18	CO	A	B	0	0	L3
Your encoder	WDGA	58V	10	12		CO	A	B	0	0	L3