

Absolute Encoders - Singleturn

ATEX, optical

Sendix 7058 (Shaft)

Profibus-DP



The Sendix 7058 absolute singleturn encoders offer Ex protection in a compact 70 mm seawater resistant housing, with a Profibus interface and optical sensor technology.

These shock and vibration-resistant encoders operate flexibly with a resolution of up to 16 bits; they are also available with axial and radial cable outlets.



Ex approval



Safety-Lock™



High rotational speed



High IP value



High shaft load capacity



Shock / vibration resistant



Magnetic field proof



Short-circuit proof



Reverse polarity protection



Optical sensor



Seawater-resistant

Safe

- “Flameproof-enclosure” version: approved for zone 1, 2 and 21, 22
- Zone 1, 2 and 21, 22:
 Ex II 2G Ex d IIC T6 and Ex II 2D Ex tD A21 IP6X T85°C
- Can be operated in marine environments – housing and flange manufactured from seawater-resistant aluminium
- Remains sealed even in harsh everyday use and ensures highest safety against field breakdowns. IP67 protection

Compact

- Can be used even when space is tight
- Minimal installation depth, diameter 70 mm
- Compact cable outlet axial or radial

Order code

8.7058 . 1 X 3 X . 31 11 . XXXX

Shaft version

Type

a

b

c

d

e

f

1)

a Flange

1 = clamping-synchronous flange ø 70 mm, IP67

b Shaft (ø x L)

1 = 12 x 25 mm, with keyway for 4 x 4 mm key
 2 = 10 x 20 mm, with flat

c Interface / Power supply

3 = Profibus-DP V0 / 10 ... 30 V DC

d Type of connection

1 = axial cable (2 m PUR)
 2 = radial cable (2 m PUR)
 A = axial cable (length > 2 m)
 B = radial cable (length > 2 m)
 (preferred lengths, see f, e.g.: 0100 = 10 m)

e Fieldbus profile

31 = Profibus-DP V0 Encoder profile Class 2

f Cable length in dm¹⁾

0050 = 5 m
 0100 = 10 m
 0150 = 15 m

optional on request
 - special cable length

Mounting accessory for shaft encoders

Coupling

Bellows coupling ø19 mm for shaft 10 mm

8.0000.1101.1010

Further accessories can be found in the Accessories section or in the Accessories area of our website at: www.kuebler.com/accessories.
 Additional connectors can be found in the Connection Technology section or in the Connection Technology area of our website at: www.kuebler.com/connection_technology.

1) Not applicable with connection types 1 and 2

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Explosion protection	
EC type-examination certificate	PTB09 ATEX 1106 X
Category (gas)	II 2G Ex d IIC T6
Category (dust)	II 2D Ex tD A21 IP6X T85°C
Directive 94/9 EC	EN 60079-0; DIN EN 60079-1 EN 61241-0; DIN EN 61241-1

Mechanical characteristics	
Max. speed	6 000 min ⁻¹ continuous
Starting torque	< 0.05 Nm
Moment of inertia	4.0 x 10 ⁻⁶ kgm ²
Load capacity of shaft	radial 80 N axial 40 N
Weight	approx. 0.6 kg
Protection EN 60 529	IP67
Working temperature range	-40°C ... +60°C
Materials	shaft stainless steel flange / housing seawater-resistant Al, type AISiMgMn (EN AW-6082) or stainless steel cable PUR
Shock resistance acc. EN 60068-2-27	2500 m/s ² , 6 ms
Vibration resistance acc. EN 60068-2-6	100 m/s ² , 55 ... 2000 Hz

General electrical characteristics	
Power supply	10 ... 30 V DC
Current consumption (w/o output load)	max. 110 mA
Reverse polarity protection for power supply (U_B)	yes
CE compliant acc. to	EN 61000-6-2, EN 61000-6-4 and EN 61000-6-3
RoHS compliant acc. to	EU guideline 2002/95/EG

Interface characteristics Profibus-DP	
Resolution Singleturn	1 ... 65536 (16 bit), scaleable
Default value	8192 (13 bit)
Code	Binary
Interface	Specification according to Profibus-DP 2.0 / Standard (DIN 19245 Part 3) / RS485 galvanically isolated
Protocol	Profibus Encoder Profile V1.1 Class1 and Class 2 with manufacturer-specific add-ons
Baud rate	maximum 12 Mbit/s
Device address	software controlled setting of the device address via the SSA-service with a CLASS 2-Master. Default address: 125
Termination	active termination can only be switched on externally

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Profibus Encoder-Profile V1.1

The PROFIBUS-DP device profile describes the functionality of the communication and the manufacturer-specific component within the PROFIBUS Fieldbus system. The Encoder Profile applies to encoders and defines the individual objects independently of the manufacturer. In addition, the profile makes provision for additional extended functions specific to the manufacturer. The use of PROFIBUS compatible devices ensures that the systems of today are ready to meet the demands of the future.

The following parameters can be programmed

- Direction of rotation
- Scaling – number of steps per revolution
- Preset value
- Diagnostics mode

The following functionality is integrated

- Galvanic isolation of the Bus stage with DC/DC converter
- Line Driver acc. to RS485 max. 12 MB
- Full Class 1 and Class 2 functionality
- Speed value

Terminal assignment

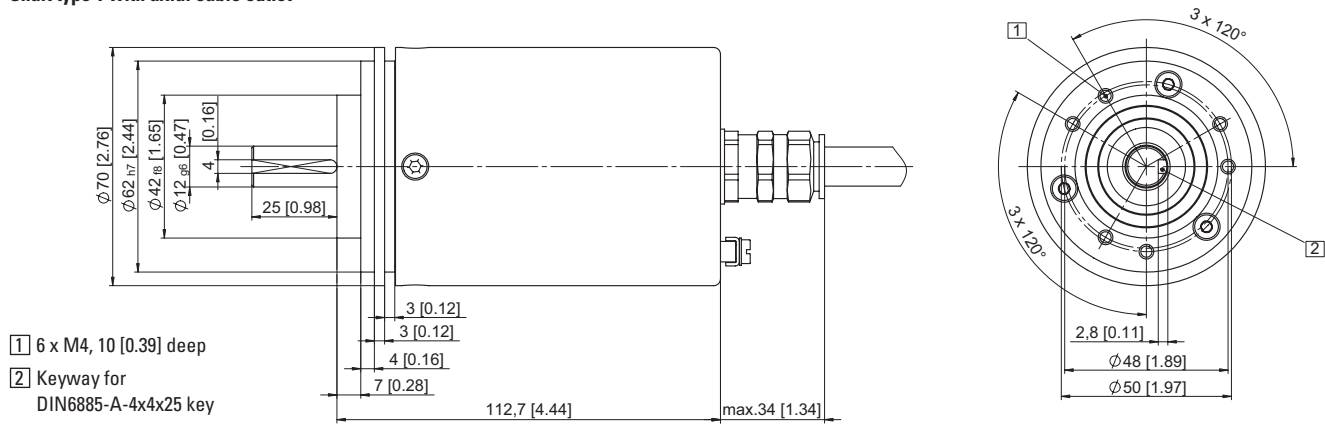
Signal	0 V	+V	BUS A IN	BUS B IN	BUS GND	BUS V DC	BUS A OUT	BUS B OUT
Cable marking	1	2	4	5	6	7	8	9

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Dimensions

Shaft type 1 with axial cable outlet



Shaft type 2 with radial cable outlet

