

Absolute Encoders - Singleturn

Standard ATEX, optical	Sendix 7058 (Shaft)	PROFIBUS DP
---	----------------------------	--------------------




Ex approval


Safety-Lock™


High rotational speed


High protection level


High shaft load capacity


Shock / vibration resistant


Magnetic field proof


Short-circuit proof


Reverse polarity protection


Optical sensor


Seawater-resistant

Compact and Safe

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

Explosion protection

- "Flameproof-enclosure" version
- ATEX with EC type examination certificate
- IECEx with Certificate of Conformity (CoC)

Order code Shaft version	8.7058 . 1 X 3 X . 31 11 . XXXX <small>Type</small>	<small>f ¹⁾</small>
a <i>Flange</i> 1 = clamping-synchronous flange, IP67, ø 70 mm [2.76"]	d <i>Type of connection</i> 1 = axial cable, 2 m [6.56'] PUR 2 = radial cable, 2 m [6.56'] PUR A = axial cable, length > 2 m [6.56'] B = radial cable, length > 2 m [6.56'] <small>preferred length see f, e. g.: 0100 = 10 m [32.81']</small>	f <i>Cable length in dm</i> ¹⁾ 0050 = 5 m [16.40'] 0100 = 10 m [32.81'] 0150 = 15 m [49.21']
b <i>Shaft (ø x L)</i> 2 = 10 x 20 mm [0.39 x 0.79"], with flat 1 = 12 x 25 mm [0.47 x 0.98"], with keyway for 4 x 4 mm [0.16 x 0.16"] key		
c <i>Interface / Power supply</i> 3 = PROFIBUS DP V0 / 10 ... 30 V DC	e <i>Fieldbus profile</i> 31 = PROFIBUS DP V0 encoder profile Class 2	<small>optional on request</small> <small>- special cable length</small>

Mounting accessory for shaft encoders	Order No.
Coupling	Bellows coupling ø 19 mm [0.75"] for shaft 10 mm [0.39"] 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

Absolute Encoders - Singleturn

Standard ATEX, optical	Sendix 7058 (Shaft)	PROFIBUS DP
Technical data		
Explosion protection ATEX		Electrical characteristics
EC type-examination certificate	PTB09 ATEX 1106 X	Power supply 10 ... 30 V DC
Category (gas)	Ex II 2 G Ex d IIC T4 - T6 Gb	Current consumption (no load) max. 110 mA
Category (dust)	Ex II 2D Ex tb IIIC T135°C - T85°C Db IP6x	Reverse polarity protection for power supply (+V) yes
Directive 94/9/EC	EN 60079-0: 2009; EN 60079-1: 2007; EN 60079-31: 2009	CE compliant acc. to EMC guideline 2004/108/EC ATEX guideline 94/9/EC
Explosion protection IECEx		RoHS compliant acc. to guideline 2002/95/EC
Certificate of Conformity (CoC)	IECEx PTB 13.0026 X	
Category (gas)	Ex d IIC T4 - T6 Gb	
Category (dust)	Ex tb IIIC T135°C - T85°C Db IP6x	
IECEx	IEC 60079-0:2007; IEC 60079-1:2007; IEC 60079-31:2008	
Mechanical characteristics		Interface characteristics PROFIBUS DP
Max. speed	continuous 6 000 min ⁻¹	Resolution Singleturn 1 ... 65536 (16 bit), scaleable
Starting torque – at 20°C [68°F]	< 0.05 Nm	Default value 8192 (13 bit)
Moment of inertia	4.0 x 10 ⁻⁶ kgm ²	Code Binary
Load capacity of shaft	radial 80 N axial 40 N	Interface Specification according to PROFIBUS DP 2.0 / Standard (DIN 19245 Part 3) / RS485 galvanically isolated
Weight	approx. 1.3 kg [45.86 oz]	Protocol Profibus Encoder Profile V1.1 Class1 and Class 2 with manufacturer-specific add-ons
Protection acc. to EN 60529	IP67	Baud rate maximum 12 Mbit/s
Working temperature range	-40°C ... +60°C [-40 ... +140°F]	Device address software controlled setting of the device address via the SSA-service with a CLASS 2-Master. Default address: 125
Material	shaft stainless steel flange / housing seawater-resistant Al, type AlSiMgMn (EN AW-6082) (stainless steel on request) cable PUR	Termination active termination can only be switched on externally
Shock resistance acc. to EN 60068-2-27	2500 m/s ² , 6 ms	
Vibration resistance acc. to EN 60068-2-6	100 m/s ² , 55 ... 2000 Hz	

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

Absolute Encoders - Singleturn

Standard
ATEX, optical

Sendix 7058 (Shaft)

PROFIBUS DP

Terminal assignment

Interface	Type of connection	Cable (isolate unused wires individually before initial start-up)							
3	1, 2, A, B	Signal:	0 V	+V	PB_A IN	PB_B IN	BUS_GND	BUS_VDC	PB_A OUT
		Cable marking:	1	2	4	5	6	7	PB_B OUT

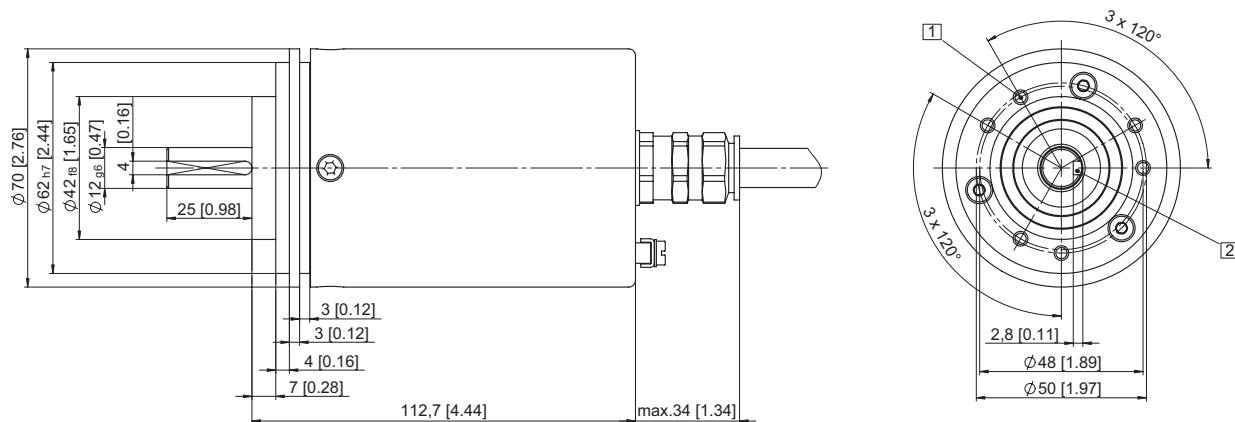
Dimensions

Dimensions in mm [inch]

Clamping-synchronous flange, ø 70 [2.76]

Shaft type 1 with axial cable outlet

- [1] 6 x M4, 10 [0.39] deep
- [2] Keyway for DIN 6885-A-4x4x25 key



Clamping-synchronous flange, ø 70 [2.76]

Shaft type 2 with radial cable outlet

- [1] 6 x M4, 10 [0.39] deep

