

Standard, optical

Sendix 5858 / 5878 (Shaft / Hollow shaft)

PROFINET



The singleturn encoders 5858 and 5878 with PROFINET interface and optical sensor technology are ideal for use in all applications with a PROFINET interface.

The encoder supports the IRT mode and is therefore ideal for realtime applications.

Easy start-up thanks to the "Ezturn for PROFINET" software supplied with the encoder.























High rotational

Temperature

High protection

High shaft load capacity

Shock / vibration resistant

Magnetic field

Short-circuit

Reverse polarity

Optical sensor

Seawater-resistant

Reliable

- Ideally suited for all PROFINET applications thanks to the use of encoder profile 4.1
- · Perfect for use in harsh outdoor environments, as a result of IP67 protection and rugged housing construction

Flexible

- IRT-Mode
- Cycle time ≤ 1 ms
- Firmware updater allows for easy expansion of characteristics without having to disassemble the encoder.
- M12 connector ensures fast, simple, error-free connection

Order code **Shaft version**

8.5858

X X C 2



If for each parameter of an encoder the underlined preferred option is selected, then the delivery time will be 10 working days for a maximum of 10 pieces. Ots. up to 50 pcs. of these types generally have a delivery time of 15 working days



a Flange

1 = clamping flange, ø 58 mm, IP65 2 = synchro flange, ø 58 mm, IP65

3 = clamping flange, ø 58 mm, IP67

4 = synchro flange, ø 58 mm, IP67

5 = square flange, 63.5 mm (2.5"), IP65 7 = square flange, 63.5 mm (2.5"), IP67

b Shaft (ø x L), with flat

1 = 6 x 10 mm 1) 2 = 10 x 20 mm 2)

 $3 = 6.35 \times 22.2 \text{ mm} (1/4" \times 7/8")$

 $4 = 9.5 \times 22.2 \text{ mm} (3/8" \times 7/8")$

Interface / Power supply **C** = PROFINET / 10 ... 30 V DC

e Fieldbus profile C1= PROFINET

Type of connection removable bus terminal cover

 $2 = 3 \times M12$ connector

optional on request

- Ex 2/22

- seawater-resistant

Order code Hollow shaft

8.5878 Type





If for each parameter of an encoder the underlined preferred option is selected, then the delivery time will be 10 working days for a maximum of 10 pieces. Ots. up to 50 pcs. of these types generally have a delivery time of 15 working days.



a Flange

1 = with torque stop set, IP65

2 = with torque stop set, IP67

3 = with stator coupling, ø 65, IP65 4 = with stator coupling, ø 65, IP67

5 = with stator coupling, ø 63, IP65 6 = with stator coupling, ø 63, IP67

b Blind hollow shaft

 $3 = \emptyset 10 \text{ mm}$

 $4 = 0.12 \, \text{mm}$ $5 = 0.14 \, \text{mm}$

 $6 = \emptyset 15 \text{ mm}$

 $8 = \emptyset 9.5 \text{ mm } (3/8")$ $9 = \emptyset 12.7 \text{ mm } (1/2")$

Interface / Power supply **C** = PROFINET / 10 ... 30 V DC

Type of connection

removable bus terminal cover 2 = 3 x M12 connector

Fieldbus profile C1= PROFINET

optional on request - Ex 2/22

- seawater-resistant

¹⁾ Preferred type only in conjunction with flange type 2

²⁾ Preferred type only in conjunction with flange type 1



Standard, optical	Sendix 5858 / 5878 (Shaft / Hollow shaft)	PROFINET
Mounting accessory for shaft encoders		
Coupling	Bellows coupling ø 19 mm for sha Bellows coupling ø 19 mm for sha	
Mounting accessory for hollow shaft enc	oders	
Cylindrical pin, long for torque stops	With fixing thread	8.0010.4700.0000
Connection technology		
Connector, self-assembly (straight))	Coupling M12 for Port 1 and Port Connector M12 for supply voltage	
Cordset, pre-assembled with 2 m PUR cab	M12 for Port 1 and Port 2 M12 for power supply	05.00.6031.4411.002M 05.00.6061.6211.002M

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.

Mechanical cl	haracteristics				
Max. speed					
without shaft seal (IP65) up to 70°C		9 000 min ⁻¹ , 7 000 min ⁻¹ (continuous)			
without shaft seal (IP65) up to T _{max}		7 000 min ⁻¹ , 4 000 min ⁻¹ (continuous)			
with shaft seal (IF	P67) up to 70°C	8 000 min ⁻¹ , 6 000 min ⁻¹ (continuous)			
with shaft seal (IP67) up to T _{max}		6 000 min ⁻¹ , 3 000 min ⁻¹ (continuous)			
Starting torque w	vithout shaft seal (IP65)				
- ,		< 0.01 Nm			
Starting torque w	vith shaft seal (IP67)				
	shaft version	< 0.05 Nm			
	hollow shaft version	< 0.03 Nm			
Moment of inertia	a				
	shaft version	3.0 x 10 ⁻⁶ kgm ²			
	hollow shaft version	6.0 x 10 ⁻⁶ kgm ²			
Load capacity of	shaft radial	80 N			
	axial	40 N			
Weight		approx. 0.50 kg			
Protection	housing side	IP67			
acc. to EN 60529	shaft side	IP65, opt. IP67			
Ex approval for h	azardous areas	optional Zone 2 and 22			
Working tempera	ture range	-40°C +85°C			
Materials	shaft / hollow shaft	stainless steel			
	flange	aluminium			
	housing	zinc die-cast housing			
Shock resistance	acc. EN 60068-2-27	2500 m/s ² , 6 ms			
Vibration resistar	nce acc. EN 60068-2-6	100 m/s², 55 2000 Hz			

General electrical characteristics			
Power supply	10 30 V DC		
Power consumption (no load)	max. 200 mA		
Reverse polarity protection of the power supply (U_B)	yes		
UL approval	File 224618		
CE compliant acc. to	EN 61000-6-2, EN 61000-6-4, EN 61000-6-3		
RoHS compliant acc. to	EU guideline 2002/95/EC		

Device characteristics	
Singleturn resolution	1 65535 (16 bit), (scaleable: 1 65535)
Default value	8192 (13 bit)
Total resolution	scaleable from 1 up to 65535 (13 bit)
Code	binary
Protocol	PROFINET

Link 1 and 2, LED (green / yellow)				
two coloured	green	active link		
	yellow	data transfer		

Error LED (red) / PWR LED (green)

Functionality see manual

Ezturn software for PROFINET (supplied with the encoder)

- Monitoring of cyclic data (e.g. position, speed)
- Monitoring of acyclic data (e.g. IMO, electronic name plate, encoder parameters, warnings and error messages, preset)
- Setting of preset values
- Firmware updates via the bus



Standard, optical

Sendix 5858 / 5878 (Shaft / Hollow shaft)

PROFINET

General information about PROFINET

The PROFINET encoder implements the Encoder Profile 4.1. (according to the specification Encoder Version 4.1 Dec 2008")

It permits scaling and preset values, as well as many other additional parameters to be programmed via the PROFINET-Bus.

When switching on, all parameters are loaded from an EEPROM, where they were saved previously to protect them against power-failure, or taken over by the controller in the start-up phase.

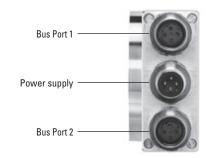
Position, speed and many other states of the encoder can be transmitted.

PROFINET

The complete encoder profile according to Profile Encoder Version 4.1 as well as the Identification & Maintenance functionality Version 1.16 has been implemented. IM blocks 0, 1, 2, 3 and 4 are supported.

Terminal assignment

Interface	Type of connection	Function	M12 connector					
С	Bus Port 1 2 (3 x M12 connector) Bus Port 2	- 3	Signal:	Transmit data +	Receive data +	Transmit data -	Receive data -	12
			Abbreviation:	TxD+	RxD+	TxD-	RxD-	D-coded
			Pin:	1	2	3	4	4 3
			Signal:	Voltage +	-	Voltage -	-	4 3
		supply Abbreviation	Abbreviation:	+ V	_	0 V	_	
			Pin:	1	2	3	4	1 2
		Bus Port 2	Signal:	Transmit data +	Receive data +	Transmit data -	Receive data -	12
			Abbreviation:	TxD+	RxD+	TxD-	RxD-	D-coded
		Pin:	Pin:	1	2	3	4	4 3





Standard, optical

Sendix 5858 / 5878 (Shaft / Hollow shaft)

PROFINET

Dimensions shaft version, with removable bus terminal cover

Synchro flange, ø 58 mm Flange type 2 and 4

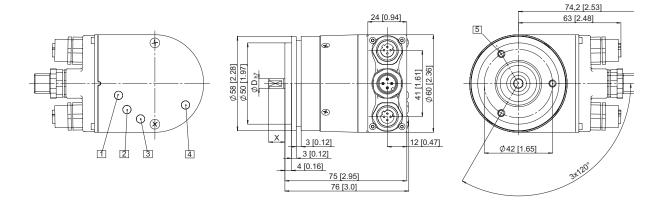
1 LINK 1, yellow/green LED

3 RUN, green LED

5 3 x M4, 6,0 [0.24] deep

2 LINK 2, yellow/green LED

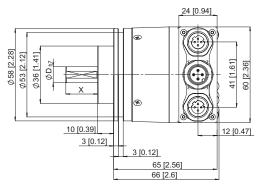
4 ERR, red LED

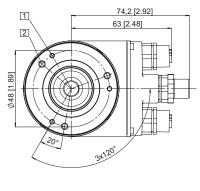


Clamping flange, ø 58 mm Flange type 1 and 3

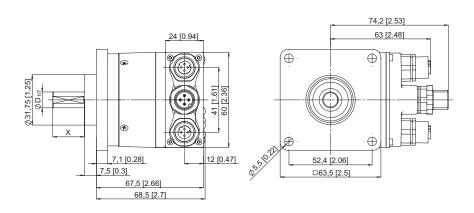
1 3 x M3, 6.0 [0.24] deep

2 3 x M4, 8.0 [0.31] deep





Square flange, \square 63.5 mm Flange type 5 and 7



89



Standard, optical

Sendix 5858 / 5878 (Shaft / Hollow shaft)

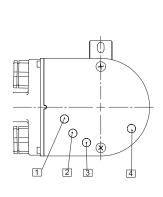
PROFINET

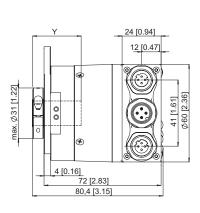
Dimensions hollow shaft version (blind hollow shaft), with removable bus terminal cover

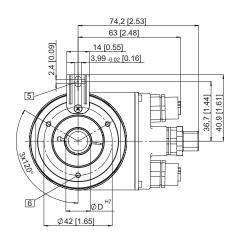
Flange with torque stop set, \emptyset 58 mm

Flange type 1 and 2

- 1 LINK 1, yellow/green LED
- 3 RUN, green LED
- 2 LINK 2, yellow/green LED
- 4 ERR, red LED
- 5 Torque stop slot,
 - Recommendation: Cylindrical pin DIN7, ø 4 mm
- 6 3 x M3, 5,5 [0.21] deep



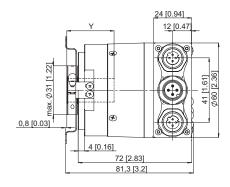


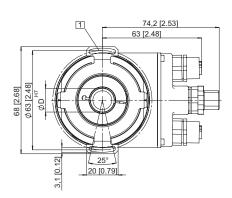


Flange with stator coupling, \emptyset 58 mm

Flange type $\mathbf{5}$ and $\mathbf{6}$

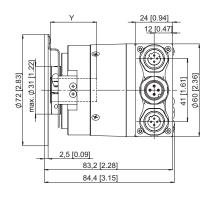
1 Fixing screws DIN 912 M3 x 8 (Washer included in delivery)

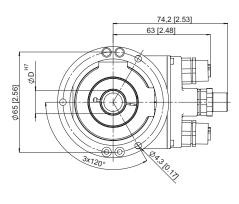




Flange with stator coupling, ø 58 mm

Flange type 3 and 4





Y: Insertion depth for blind hollow shaft: 30 mm