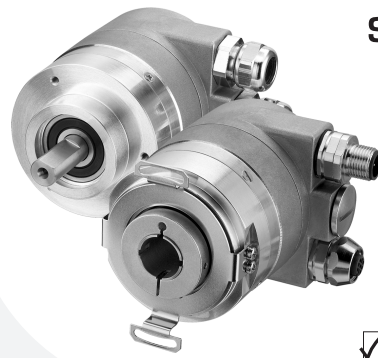


Sendix absolute, singleturn type 5858 (shaft) / 5878 (blind hollow shaft) PROFIBUS®-DP



Reliable

- **Increased ability to withstand vibration and installation errors.** Sturdy Safety-Lock™ Design bearing structure eliminates machine downtime and repairs.
- **Fewer components and connection points increase the operational reliability.** TURCK OptoASIC technology with highest integration density (Chip-on-Board).
- Die cast housing and protection up to IP67: **Remains sealed even when subjected to harsh everyday use.**
- Wide temperature range.



Sendix® absolute
PROFIBUS



Fast

- **Fast data availability with reduced loading on the bus and controller:** Intelligent functions such as transmission of speed/velocity, acceleration or leaving a working area.
- **Fast, simple, error-free connection.**

Versatile

- **Up-to-the minute fieldbus performance:** PROFIBUS-DP V0 with the current encoder profile supports Class I and Class II.
- **Connection options:** Bus cover with M12 connector or cable connection.
- **Fast start-up:** with pre-defined GSD file. A variety of scaling options for the most diverse applications: 16 bit singleturn resolution; comprehensive diagnostics, programmable to Class II.

Mechanical characteristics:

Max. speed without shaft sealing (IP65) up to 158°F (70°C):	9,000 RPM, continuous 7,000 RPM
Max. speed without shaft sealing (IP65) up to Tmax:	7,000 RPM, continuous 4,000 RPM
Max. speed with shaft sealing (IP67) up to 158°F (70°C):	8,000 RPM, continuous 6,000 RPM
Max. speed with shaft sealing (IP67) up to Tmax:	6,000 RPM, continuous 3,000 RPM
Starting torque without shaft sealing (IP65):	< 1.4 oz-in (< 0.01 Nm)
Starting torque with shaft sealing (IP67):	Shaft version: < 7 oz-in (0.05 Nm) Hollow shaft version: < 4.25 oz-in (< 0.03 Nm)
Moment of inertia:	Shaft version: 0.16 oz-in² (3.0 x 10⁻⁶ kgm²) Hollow shaft version: 0.328 oz-in² (6.0 x 10⁻⁶ kgm²)
Radial load capacity of shaft:	18 lbs (80 N)
Axial load capacity of shaft:	9 lbs (40 N)
Weight:	approx. 1.17 lbs (0.53 kg) with bus terminal cover approx. 1.10 lbs (0.50 kg) with fixed connection
Protection acc. to EN 60 529:	Housing: IP67, Shaft: IP65, opt. IP67
EX approval for hazardous areas:	optional zone 2 and 22
Working temperature:	-40 to +176°F (-40 to +80°C)
Materials:	Shaft: stainless steel, Flange: aluminum, Housing: die cast zinc, cable: PVC
Shock resistance acc. to DIN-IEC 68-2-27:	> 250 g (> 2,500 m/s²), 6 ms
Vibration resistance acc. to DIN-IEC 68-2-6:	> 10 g (> 100 m/s²), 55-2,000 Hz

General electrical characteristics:

Supply voltage:	10-30 VDC
Current consumption (without output load):	Max. 110 mA
Reverse polarity protection at power supply (+V):	Yes
UL certified:	File 224618
Conforms to CE requirements acc. to EN 61000-6-2, EN 61000-6-4 and EN 61000-6-3	
RoHS compliant acc. to EU guideline 2002/95/EG	

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Interface characteristics PROFIBUS-DP:

Singleturn resolution (max, scalable):	1-65536 (16 bits), default scale value is set to 8192 (13 bits)
Code:	Binary
Interface:	Specification according to PROFIBUS-DP 2.0 Standard (DIN 19245 part 3)/RS485 driver galvanically isolated
Protocol:	PROFIBUS Encoder Profile V1.1 Class I and Class II with manufacturer-specific enhancements
Baud rate:	Max. 12 Mbits/s
Node address:	1-127 (set by rotary switches)
Termination switchable:	Set by DIP switches

SET control button (zero or defined value, option):

Protected against accidental activation, can only be pushed in with the tip of a ballpoint pen or similar.

Diagnostic LED (yellow):

LED on with:
Sensor error: PROFIBUS error

PROFIBUS Encoder-Profile V1.1

The PROFIBUS-DP device profile describes the functionality of the communication and the user-specific component within the PROFIBUS fieldbus system. For encoders, the encoder profile is definitive. Here the individual objects are defined independent of the manufacturer. Furthermore, the profiles offer space for additional manufacturer-specific functions; this means that PROFIBUS-compliant device systems may be used with the guarantee that they are ready for 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 according to RS485; max. 12 MB
- Address programmable via DIP switches
- Diagnostics LED
- Full Class I and Class II functionality

Pin configuration with terminal box (Connection 1):

Signal:	BUS IN				BUS OUT			
	B	A	Common (0 V)	+V	Common (0 V)	+V	B	A
Pin:	1	2	3	4	5	6	7	8

Pin configuration M12 eurofast® - 3 connector version (Connection 2):

Bus In	Signal:	-	BUS-A	-	BUS-B	Shield
Pin:		1	2	3	4	5

Power Supply	Signal:	+V	-	Common (0 V)	-
Pin:		1	2	3	4

Bus Out	Signal:	BUS-VDC ¹⁾	BUS-A	BUS_GND ¹⁾	BUS-B	Shield
Pin:		1	2	3	4	5

Wiring Diagrams:

Bus In	Power Supply	Bus Out
Male encoder view	Male encoder view	Female encoder view
M12 eurofast pinout	M12 eurofast pinout	M12 eurofast pinout
Mating cordset: ^{2) 3)} RKSW-455-*M	Mating cordset: ²⁾ RK 4.4T-*	Mating cordset: ^{2) 3)} RSSW-455-*M

¹⁾ For powering an external PROFIBUS-DP terminating resistor.

²⁾ See cable section for additional options.

³⁾ "S" denotes shield tied to coupling nut.

* Length in meters. Available in 0.1 meter increments ≥ 0.2 meters.

Sendix absolute, singleturn type 5858 (shaft) / 5878 (blind hollow shaft) PROFIBUS®-DP

Part number key: 5858 shaft version

T8.5858.XX3X.311X

Type		Options
		2 = no option 3 = SET button
Flange		Fieldbus profile
1 = clamping flange Ø 58 IP65 2 = servo flange Ø 58 mm, IP65 3 = clamping flange Ø 58 mm, IP67 4 = servo flange Ø 58 mm, IP67 5 = square flange 2.5" / 63.5 mm, IP65 6 = servo flange 2.5" / 63.5 mm, IP65 7 = square flange 2.5" / 63.5 mm, IP67 8 = servo flange 2.5" / 63.5 mm, IP67		31 = PROFIBUS-DP-V0, encoder profile Class 2
Shaft (Ø x L)		Type of connection
1 = Ø 6 mm x 10 mm 2 = Ø 10 mm x 20 mm 3 = Ø 1/4" x 7/8" 4 = Ø 3/8" x 7/8"		1 = with removable bus terminal cover, with radial cable passage 2 = removable bus terminal cover with 3 x M12 eurofast ® radial connectors
Power supply and output circuit		
3 = 10-30 VDC, PROFIBUS-DP V0 Encoder Profile V 1.1		

Part number key: 5878 blind hollow shaft version

T8.5878.XX3X.311X

Type		Options
		2 = no option 3 = SET
Flange		Fieldbus profile
1 = flange with torque stop IP65 2 = flange with torque stop IP67 3 = flange with flex mount pitch circle Ø 65, IP65 4 = flange with flex mount pitch circle Ø 65, IP67 5 = flange with slotted flex mount pitch circle Ø 63, IP65 6 = flange with slotted flex mount pitch circle Ø 63, IP67		31 = PROFIBUS-DP-V0, encoder profile Class 2
Blind hollow shaft (30 mm depth)		Type of connection
3 = Ø 10 mm 4 = Ø 12 mm 5 = Ø 14 mm 6 = Ø 15 mm 8 = Ø 9.52 mm (3/8") 9 = Ø 12.7 mm (1/2")		1 = with removable bus terminal cover, with radial cable passage 2 = removable bus terminal cover with 3 x M12 eurofast radial connectors
Power supply and output circuit		
3 = 10-30 VDC, PROFIBUS-DP V0 Encoder Profile V 1.1		

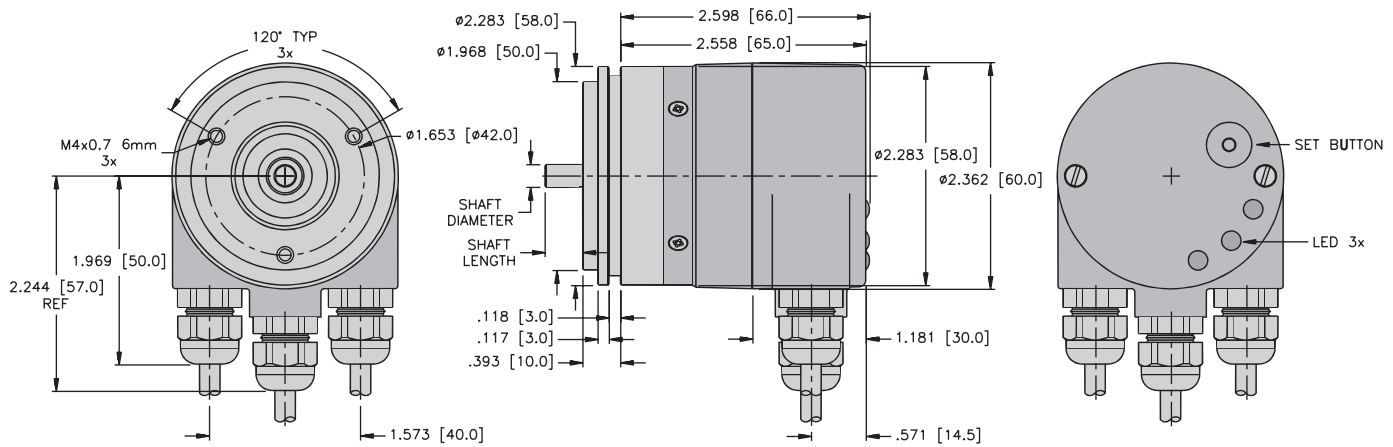
Accessories:

- See page J1, Connectivity, for cables and connectors
- See page G1, Accessories, for mounting attachments and couplings

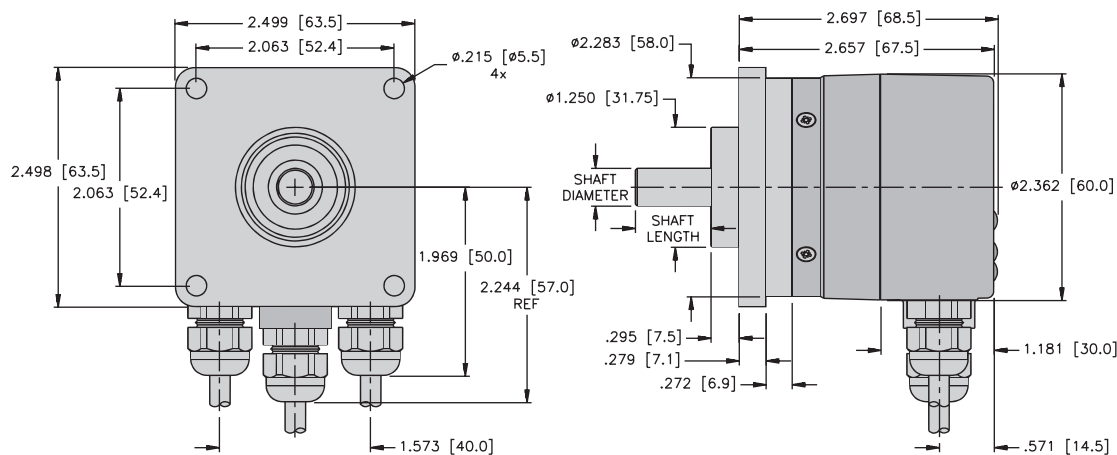
Sendix absolute, singleturn type 5858 (shaft) / 5878 (blind hollow shaft) PROFIBUS®-DP

Dimensions: 5858 shaft version

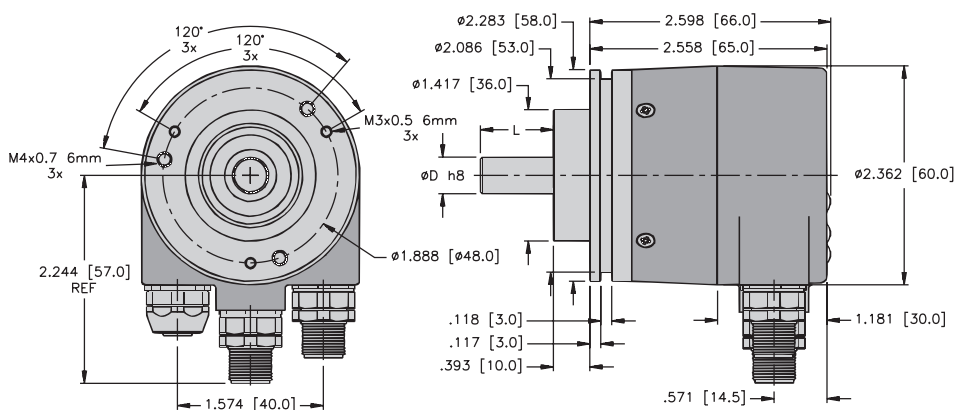
5858 flanges 2 & 4
Cable connection 1



5858 flanges 5 & 7
Cable connection 1



5858 flanges 1 & 3
M12 eurofast® connection 2



B1027 F67