

Absolute Encoders - Singleturn

Standard, optical	Sendix 5858 / 5878 (Shaft / Hollow shaft)	PROFINET
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Mounting accessory for shaft encoders

Coupling	Bellows coupling ø 19 mm for shaft 6 mm	8.0000.1101.0606
	Bellows coupling ø 19 mm for shaft 10 mm	8.0000.1101.1010

Mounting accessory for hollow shaft encoders

Cylindrical pin, long for torque stops		With fixing thread	8.0010.4700.0000
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Connection Technology

Connector, self-assembly (straight)	Coupling M12 for Port 1 and Port 2 Connector M12 for supply voltage	05.WASCSY4S 05.B8141-0
Cordset, pre-assembled with 2 m PUR cable	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 characteristics		
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 (IP67) 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 without shaft seal (IP65)		< 0.01 Nm
Starting torque with shaft seal (IP67)		
shaft version		< 0.05 Nm
hollow shaft version		< 0.03 Nm
Moment of inertia		
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 EN 60 529	housing side	IP67
	shaft side	IP65, opt. IP67
EX approval for hazardous areas		optional Zone 2 and 22
Working temperature 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 resistance acc. EN 60068-2-6		100 m/s ² , 55 ... 2000 Hz

General electrical characteristics	
Power supply	10 ... 30 V DC
Power consumption (no load)	max. 200 mA
Reverse connection of the supply voltage (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/EG

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) |
|---|
| <ul style="list-style-type: none"> 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 |

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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.

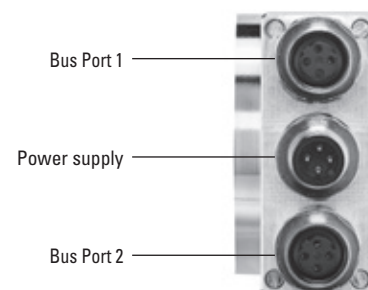
Position, speed and many other states of the encoder can be transmitted.

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				Diagram	
			Signal:	Transmit data +	Receive data +	Transmit data -		Receive data -
C	2 (3 x M12 connector)	Bus Port 1	Signal:	Transmit data +	Receive data +	Transmit data -	Receive data -	
			Abbreviation:	TxD+	RxD+	TxD-	RxD-	
			Pin:	1	2	3	4	
		Power supply	Signal:	Voltage +	–	Voltage -	–	
			Abbreviation:	+ V	–	0 V	–	
			Pin:	1	2	3	4	
		Bus Port 2	Signal:	Transmit data +	Receive data +	Transmit data -	Receive data -	
			Abbreviation:	TxD+	RxD+	TxD-	RxD-	
			Pin:	1	2	3	4	



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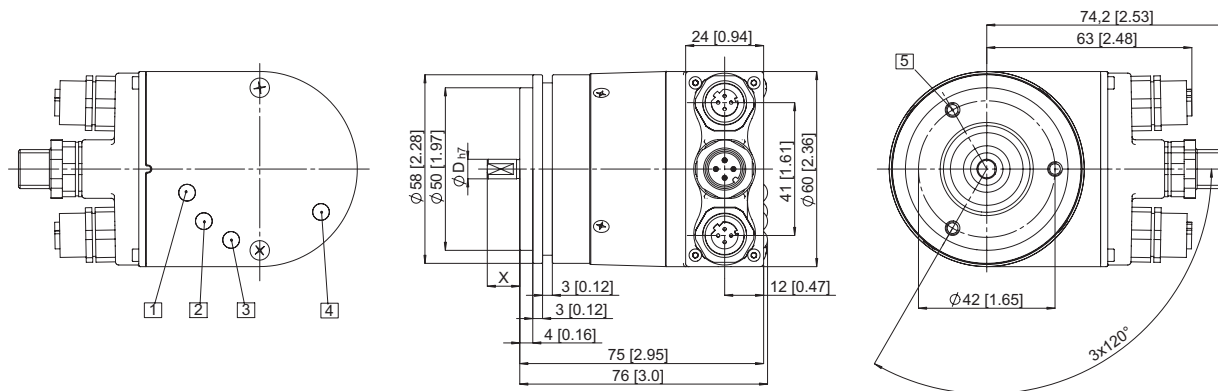
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Dimensions shaft version, with removable bus terminal cover

Synchro flange, \varnothing 58 mm

Flange type 2 and 4

- 1 LINK 1, yellow/green LED
- 2 LINK 2, yellow/green LED
- 3 RUN, green LED
- 4 ERR, red LED
- 5 3 x M4, 6,0 [0.24] deep

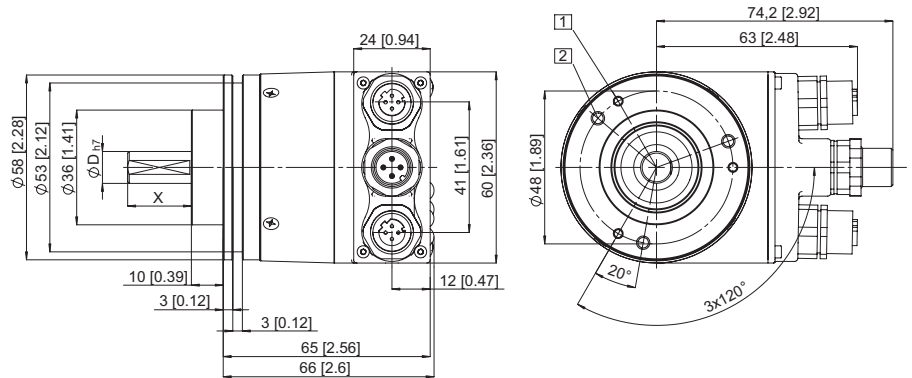


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Clamping flange, \varnothing 58 mm

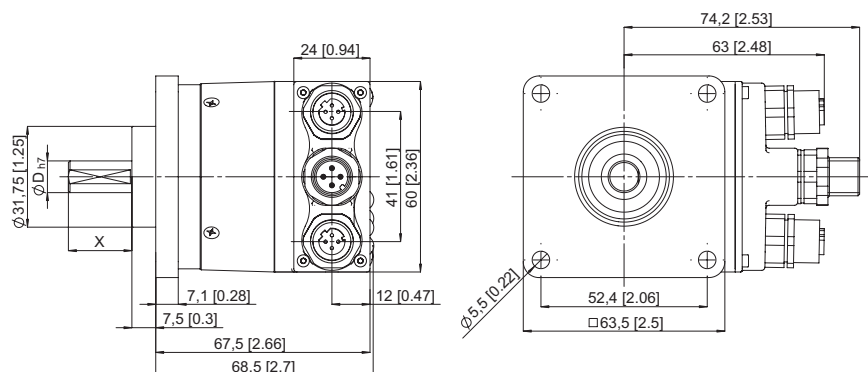
Flange type 1 and 3

- 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



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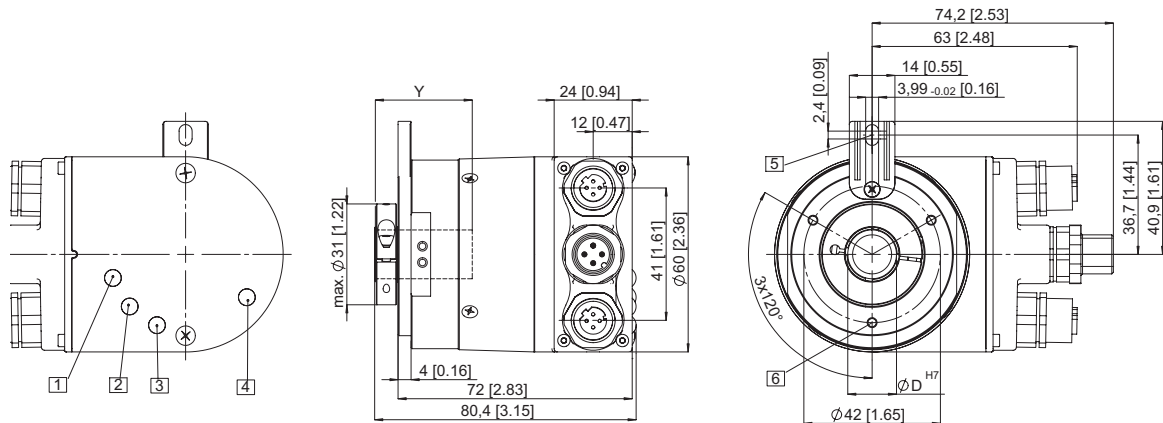
PROFINET

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

Flange with torque stop set, \varnothing 58 mm

Flange type 1 and 2

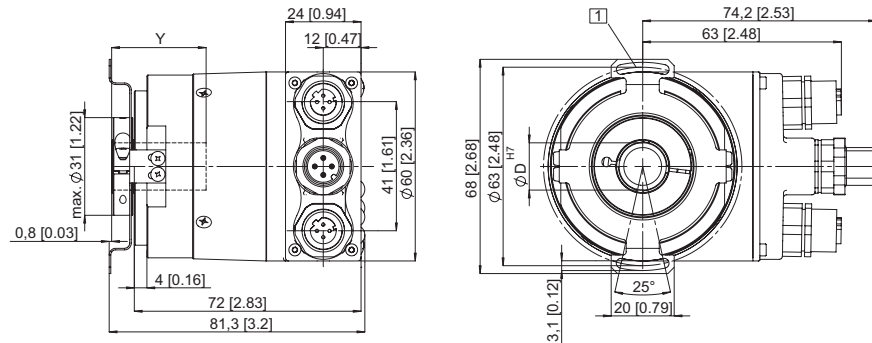
- 1 LINK 1, yellow/green LED
- 2 LINK 2, yellow/green LED
- 3 RUN, green LED
- 4 ERR, red LED
- 5 Torque stop slot,
Recommendation: Cylindrical pin DIN7, \varnothing 4 mm
- 6 3 x M3, 5,5 [0.21] deep



Flange with stator coupling, \varnothing 58 mm

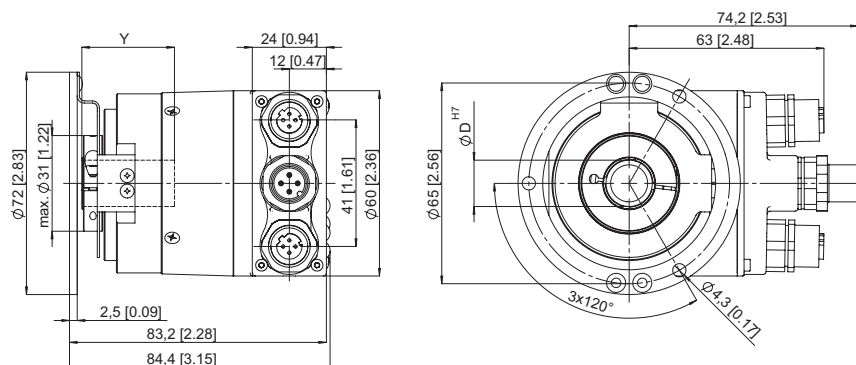
Flange type 5 and 6

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



Flange with stator coupling, \varnothing 58 mm

Flange type 3 and 4



Y: Insertion depth for blind hollow shaft: 30 mm