

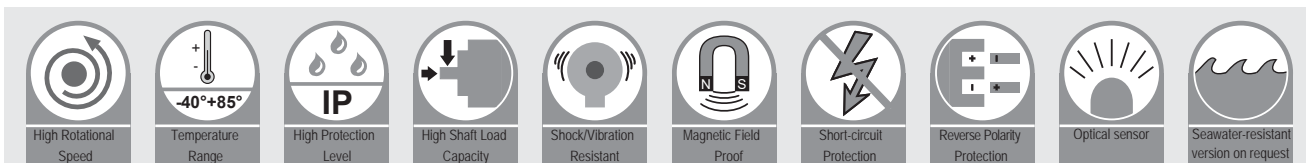
Absolute Encoders — Multiturn

Standard Optical ProfiNET

6E-58SX/58HX



- Outdiameter 58 mm, standard industrial design
- Optical sensor technology, resolution up to 16 bits
- Mechanical gear multiturn system, revolution up to 14 bits
- Wide working temperature range
- Profinet ethernet interface
- Optional working mode: NRT,RT and IRT



Highlight :

- Outdiameter 58 mm, compact and strong structure, Suitable for industrial field and outdoor.
- Temperature -40°C ... +85°C
- High Protection Level up to IP67
- Mechanical gear multiturn system, anti-electromagnetic interference
- Blind hollow shaft up to 15mm
- Profinet ethernet interface, according to Profinet 4.0/4,1
- With quick connecting M12 terminal box

Mechanical characteristics

Max. Speed	12000 rpm		
Starting torque	≤ 3 Ncm (at 20°C)		
Moment of inertia	≤ 30 gcm ²		
Shaft load capacity	Axial 40 N ; Radial 110 N		
Weight	approx. 0.400 kg		
Protection acc. to EN 60 529	IP 65 optional IP 67		
Explosion protection Ex (optional)	Zone 2, 22		
Working temperature range	-40°C ... 85°C		
Materials	Shaft : Stainless steel(V2A) Flange : Aluminium Housing : Steel		
Shock resistance acc. to EN 60068-2-27	≤ 100 g (6 ms)		
Vibration resistance acc. to EN 60068-2-6	≤ 10 g (10 Hz ... 1000Hz)		
Mechanical lifetime (Fa/Fr)	40/60	40/80	40/110
	247	110	42

Interface characteristics ProfiNET

Interface	ProfiNET		
Output driver	Ethernet		
Baud rate	10 / 100 Mbit		
Interface Cycle Time	> 1 ms		
Code	Binary		
Singleturn resolution	Max. 16 bits		
Number of revolutions	Max. 14 bits		
Protocol	acc. to ProfiNET 4.0/4.1 version NRT, RT and IRT operating mode		
LED indication	Status LEDs and Diagnostic LEDs for indicating the link status and running status, further functions please refer to the manual.		
Electrical lifetime	> 10 ⁵ h		

Electrical characteristics

Power supply	10 ... 30 VDC		
Current consumption	Typ. 100 mA, Max.230 mA		
Output driver	Industrial Ethernet protocol		
Start-up time	< 250 ms		
Short circuit protection	yes		
Reverse polarity protection	yes		
UL approval	E468583		
CE compliant acc. to	EN 61000-6-4; EN61326-1		
RoHS compliant acc. to	Guideline 2002/95/EG		

ProfiNET protocol acc. to industrial ethernet standard,

ProfiNET 4.0/4.1 version functions

Protocol Features :

- Settable count direction
- Settable singleturn resolution
- Settable total resolution
- Integrated Boot loader for customer firmware upgrades
- Optional working mode: NRT,RT and IRT
- Different filters for velocity
- Neighbouring detection
- Engineering identification call

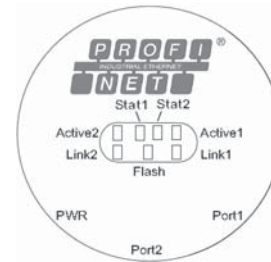
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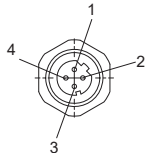
LED Status indication

Encoder has several LEDs for indicating the current working status like the link status, running status, etc. Further information please refer to the manual.



M12 Connector terminal

Port 1, 2



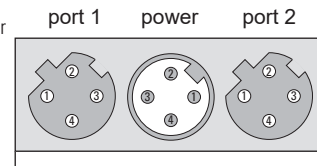
Port	Port 1				Port 2			
Signal	TxD+	RxD+	TxD-	RxD-	TxD+	RxD+	TxD-	RxD-
M12 Connector	1	2	3	4	1	2	3	4

Power supply (female)



Signal	+V	--	0V	--
Pin	1	2	3	4

Top view of connector



Abs. Encoder - MT

Order Code Shaft version

6E-58SX-X X X X-B XX XX X
Type **i a b c d e f g h**

- a** Flange
1 = Clamping flange, IP65
2 = Clamping flange, IP67
3 = Synchro flange, IP65
4 = Synchro flange, IP67
- b** Shaft
2 = $\varnothing 6 \times 10$ mm
5 = $\varnothing 10 \times 20$ mm
6 = $\varnothing 12 \times 20$ mm
- c** Interface / Power supply
3 = ProfiNET / 10 ... 30 VDC
- d** Type of connection
2 = Bus terminal cover, radial 3X M12 connector
- e** Code
B = Binary
- f** Singleturn resolution
13 = 13 bit
16 = 16 bit
- g** Number of revolutions
12 = 12 bit
14 = 14 bit
- h** Function
1 = No additional function
- i** Type
N = Industrial type
S = Stainless steel type

Order Code hollow version

6E-58HX-X X X X-B XX XX X
Type **i a b c d e f g h**

- a** Flange
8 = With D-wing spring coupling, IP65
- b** Hollow shaft (Blind)
3 = $\varnothing 6$ mm
4 = $\varnothing 8$ mm
5 = $\varnothing 10$ mm
6 = $\varnothing 12$ mm
7 = $\varnothing 14$ mm
8 = $\varnothing 15$ mm
- c** Interface / Power supply
3 = ProfiNET / 10 ... 30 VDC
- d** Type of connection
2 = Bus terminal cover, radial 3X M12 connector
- e** Code
B = Binary
- f** Singleturn resolution
13 = 13 bit
16 = 16 bit
- g** Number of revolutions
12 = 12 bit
14 = 14 bit
- h** Function
1 = No additional function
- i** Type
N = Industrial type
S = Stainless steel type

Absolute Encoders — Multiturn

Standard Optical Profinet

6E-58SX/58HX

Accessories

Connection technology:

Connector, self-assembly

M12 self-assembly connector (female)

E1-1204-0001

M12 self-assembly connector

E1-1104-0113

Mounting accessory for shaft version:

Coupling

Bellows coupling (aluminium alloy) \varnothing 25mm for shaft 6 mm T1-1000-3025-0606

Bellows coupling (spring steel) \varnothing 25mm for shaft 10 mm T1-2000-5025-1010

Mounting accessory for hollow shaft version:

Stator coupling

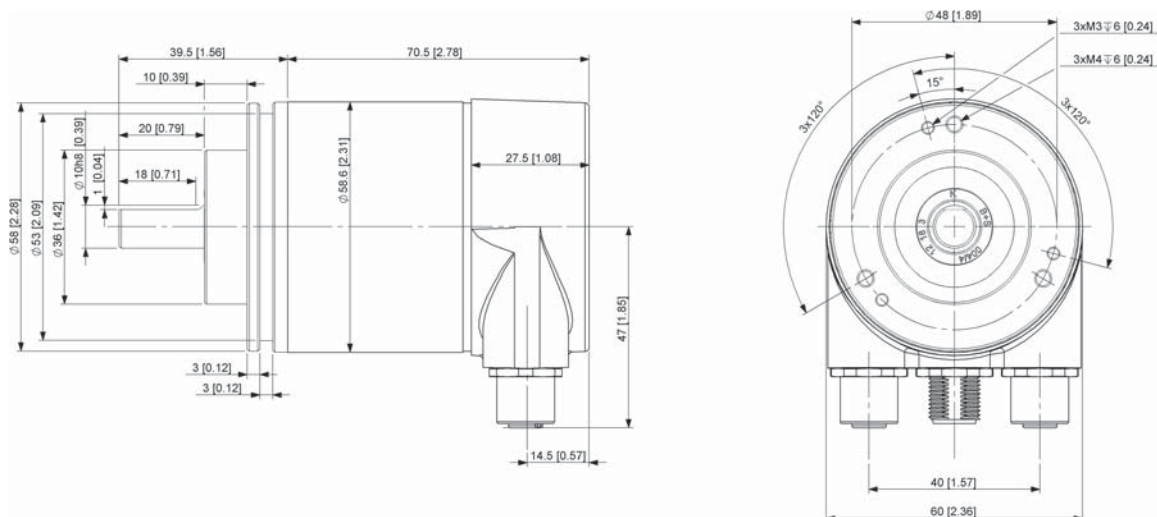


Further accessories and exact order code please refer to the accessories section.

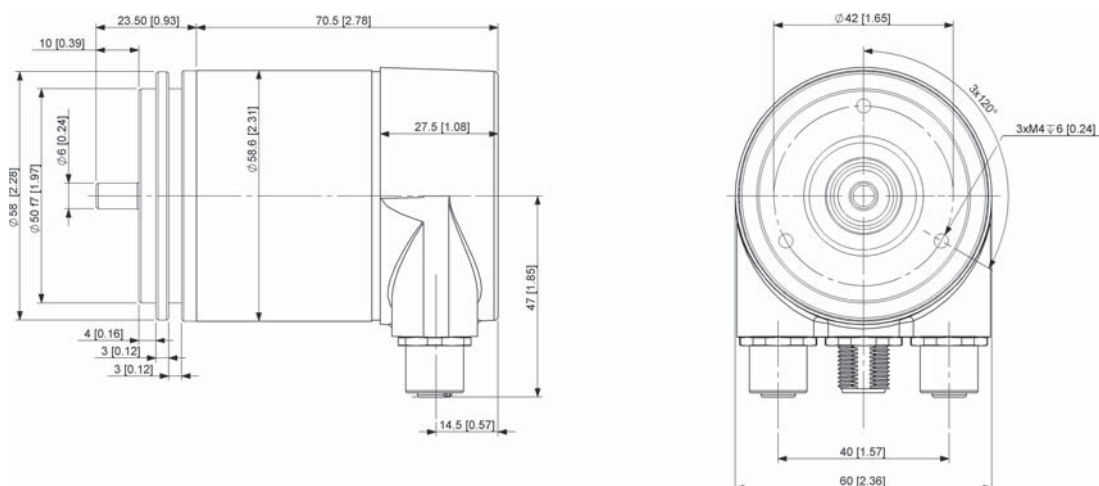
Dimensions

Shaft encoder:

Clamping flange, \varnothing 10 mm shaft, type of connection 2



Synchro flange, \varnothing 6 mm shaft, type of connection 2



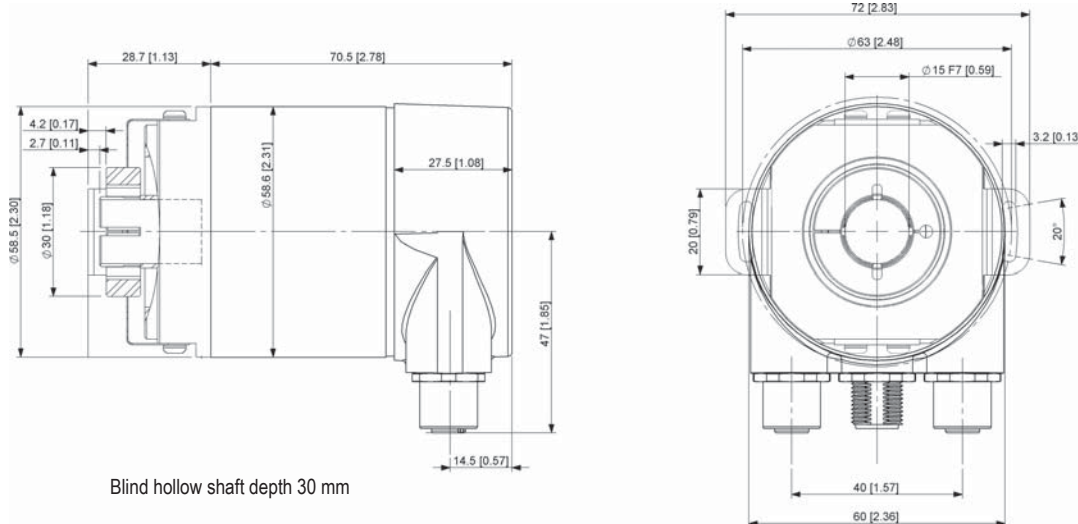
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Hollow encoder :

Blind hollow shaft, Type of connection 2



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