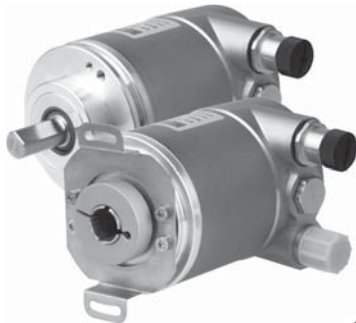


Absolute Encoders — Multiturn

Standard Optical DeviceNET

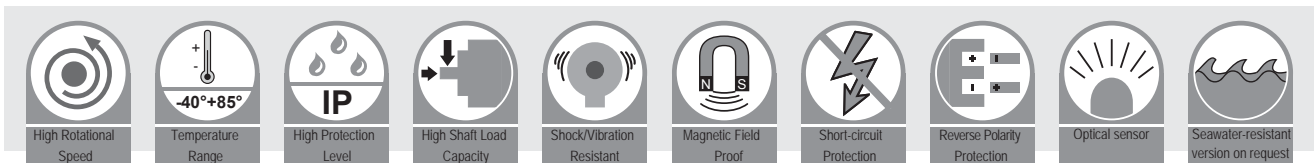
6F-58SX/58HX



- Outdiameter 58 mm
- Optical sensor technology , resolution up to 16 bits
- Mechanical gear, multi turn system, the number of turns up to 14 bits
- Optional incremental output
- 720 hours test of salt spray corrosion



DeviceNet.



Highlight:

- Outdiameter 58 mm , match compact with strong, for mobile hydraulics application
- Temperature -40°C ... +85°C
- High protection level IP67
- Singleturn resolution up to 16 bits
- Mechanical gear, multi turn system, anti electromagnetic interference
- DeviceNET

Mechanical characteristics	
Max. Speed	12000 rpm
Starting torque	≤ 3 Ncm (at 20°C)
Moment of inertia	≤ 20 gcm ²
Shaft load capacity	Axial 40 N; Radial 110 N
Weight	approx. 0.500 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 40/110 262 110 42

General electrical characteristics	
Power supply	10 ... 30 VDC
Current consumption	100 mA
Output driver	RS 485
Start-up time	< 250 ms
Short circuit protection	yes
Reverse polarity protection	yes
UL approval	E468583
CE compliant acc. to	EN 61000-6-4; EN61000-6-2

Interface characteristics DeviceNET	
Interface	DeviceNET
Output driver	Bus interface, galvanically Isolated by opto-couplers
Baud rate	≤ 500 K Baud (can be set via rotary switches or software configurable)
Interface Cycle Time	> 1 ms
Code	Binary
Singleturn resolution	16 bits
Number of revolutions	Max. 14 bits
Protocol	DeviceNET ISO/DIS 11898
Node address	1 ... 64 (can be set via rotary switches or software configurable)
Terminal resistance	Built-in (can be set via DIP switches or software configurable)
Electrical lifetime	> 10 ⁵ h

DeviceNET interface acc. to ISO/DIS 11898 send protocol ,

- Programmable parameters :
- Count direction
 - Resolution
 - Preset
 - Baud rate and node address
 - Terminal resistance

Absolute Encoders — Multiturn

Standard Optical DeviceNET

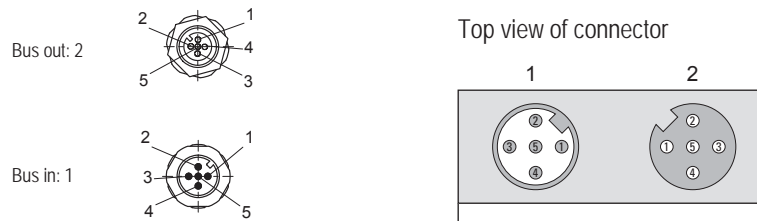
6F-58SX/58HX

Terminal assignment

Connection 2

Description	IN					OUT		
	+V	0 V	CAN(GND)	CAN(Low)	CAN(High)	CAN(GND)	CAN(Low)	CAN(High)
Glands connection	+	--	G	L	H	G	L	H
2 X M12 Connector *	2	3	1	5	4	1	5	4

* 2 x M12 connector connection way, bus in male connector, bus out female connector. power supply pin 2 and 3 are shorted inside encoder.



Order Code Shaft version	6F-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	c Interface / Power supply 6 = DeviceNET / 10 ... 30 VDC	e Code B = Binary	g Number of revolutions 12 = 12 bit 14 = 14 bit	b Shaft(ø x L) 2 = ø 6 x 10 mm 5 = ø 10 x 20 mm 6 = ø 12 x 20 mm	d Type of connection 2 = Bus terminal cover, radial 2X M12 connector	f Singleturn resolution 12 = 12 bit 13 = 13 bit 16 = 16 bit	h Function 1 = No additional function	i Type N = Industrial type S = Stainless steel type

Order Code hollow version	6F-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	c Interface / Power supply 6 = DeviceNET / 10 ... 30 VDC	e Code B = Binary	g Number of revolutions 12 = 12 bit 14 = 14 bit	b Hollow shaft (Blind) 3 = ø 6 mm 4 = ø 8 mm 5 = ø 10 mm 6 = ø 12 mm 7 = ø 14 mm 8 = ø 15 mm	d Type of connection 2 = Bus terminal cover, radial 2X M12 connector	f Singleturn resolution 12 = 12 bit 13 = 13 bit 16 = 16 bit	h Function 1 = No additional function	i Type N = Industrial type S = Stainless steel type

Absolute Encoders — Multiturn

Standard Optical DeviceNET

6F-58SX/58HX

Accessories

Connection technology:

Connector, self-assembly

M12 self-assembly connector (female)

E1-1205-0001

M12 self-assembly connector (male)

E1-1105-0011

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

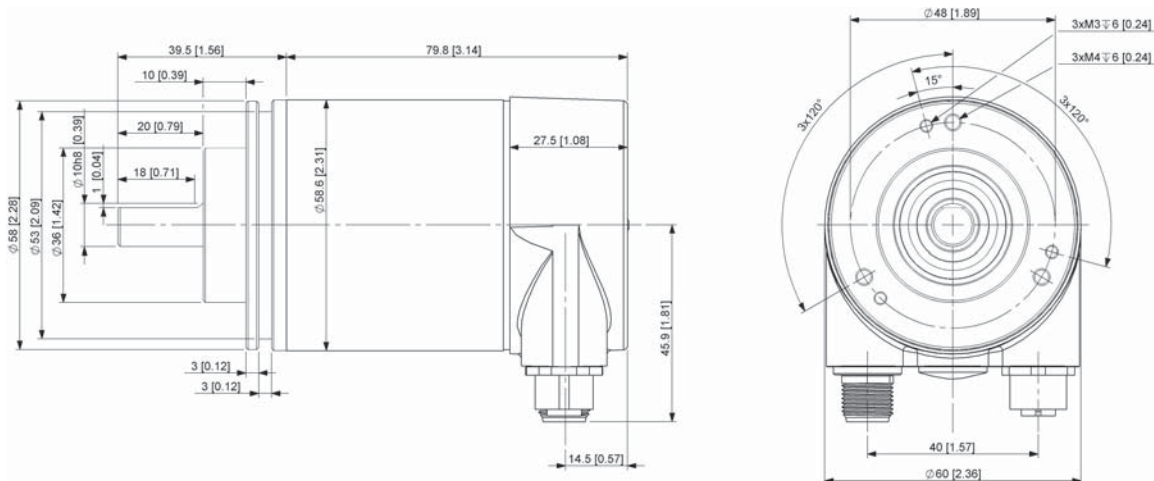


Further accessories and exact order code please refer to the accessories section.

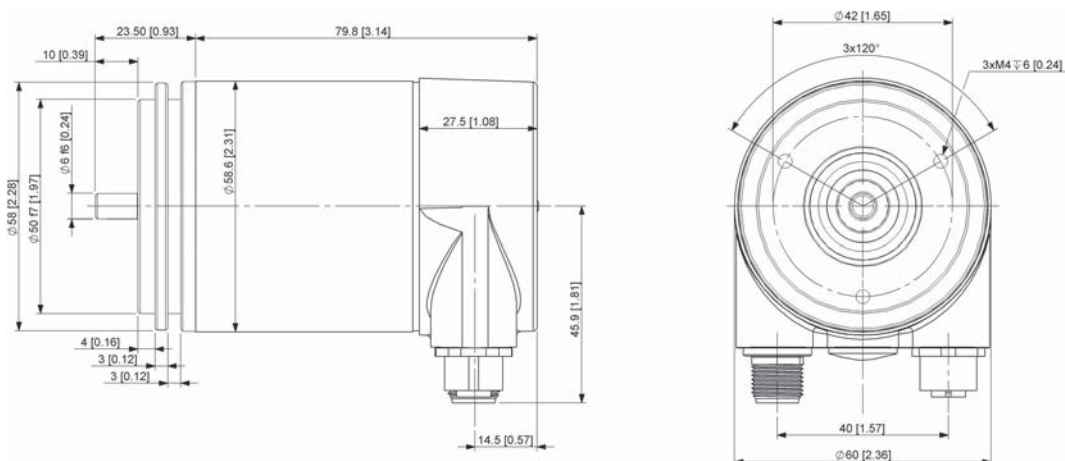
Dimensions

Shaft encoder:

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



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



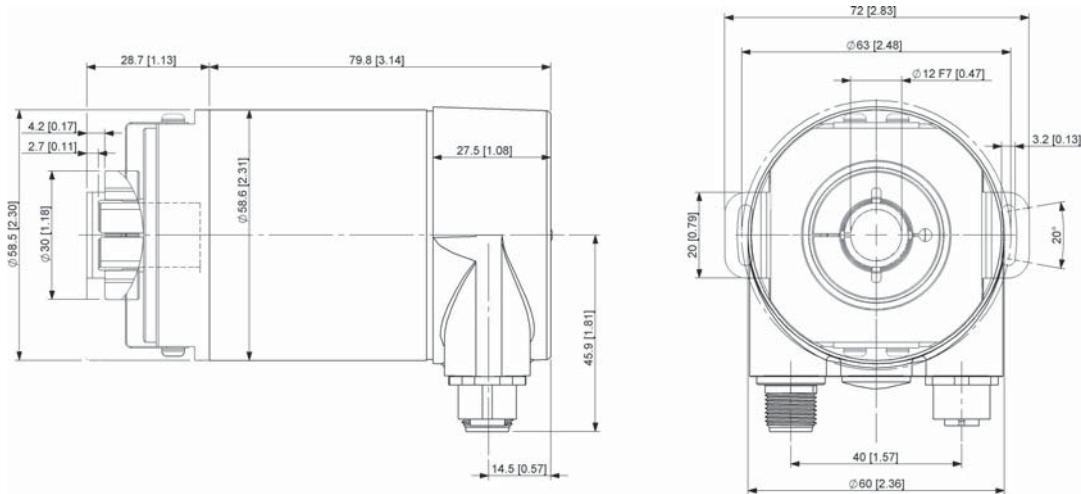
Absolute Encoders — Multiturn

Standard Optical DeviceNET

6F-58SX/58HX

Hollow encoder :

Blind hollow shaft, Type of connection 2



Blind hollow shaft depth 30 mm