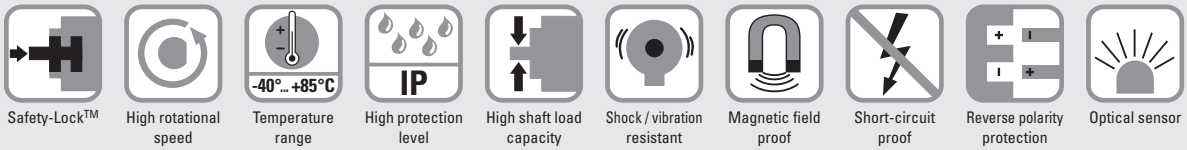
Standard
Stainless steel, shaft, optical

Sendix 5006 (Shaft)

Push-Pull / RS422

The Sendix incremental 5006 in stainless-steel offers optimum material resistance and thus virtually unlimited durability.

The high-grade Viton seals, the IP67 level of protection as well as the wide temperature range additionally ensure impermeability and ruggedness.



Safety-Lock™ | High rotational speed | Temperature range | High protection level | High shaft load capacity | Shock / vibration resistant | Magnetic field proof | Short-circuit proof | Reverse polarity protection | Optical sensor

Durable and sealed

- Protection rating IP67
- Rugged stainless-steel housing
- Viton seals
- Wide temperature range -40 ... +85°C
- Sturdy bearing construction in Safety Lock™ Design for resistance against vibration and installation errors

Flexible in use

- Compatible with all common US and European standards
- Supply voltage 5 ... 30 V DC, various interface options, max. 5000 PPR
- Compact dimensions:
  Outer diameter 50 mm, installation depth max. 47 mm

Order code Shaft version

8.5006	.	X	X	X	4	.	XXXX
Type		a	b	c	d		e

a *Flange*
7 = clamping flange ø 58 mm [2.28"]
A = synchro flange ø 58 mm [2.28"]
C = square flange □63.5 mm [2.5"]

b *Shaft (ø x L), with flat*
1 = ø 6 x 10 mm [0.24 x 0.39"]
3 = ø 10 x 20 mm [0.39 x 0.79"]
8 = ø 3/8" x 7/8"

c *Output circuit / Power supply*
2 = Push-Pull (7272 compatible with inverted signal) / 5 ... 30 V DC
5 = Push-Pull (with inverted signal) / 10 ... 30 V DC
4 = RS422 (with inverted signal) / 5 V DC

d *Type of connection*
4 = M12 connector, 8-pin, radial

e *Pulse rate*
360, 512, 1000, 1024, 2000, 2048, 2500, 3600, 4096, 5000
(e.g. 100 pulses => 0100)
Other pulse rates on request

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Technical data

Electrical characteristics

Output circuit		**RS422** (TTL compatible))	**Push-Pull**	**Push-Pull** (7272 compatible)
Power supply		5 V DC ±5%	10 ... 30 V DC	5 ... 30 V DC
Current consumption with inverted signal (no load)		typ. 40 mA / max. 90 mA	typ. 50 mA / max.100 mA	typ. 50 mA / max.100 mA
Permissible load/channel		max. ±20 mA	max. ±20 mA	max. ±20 mA
Pulse frequency		max. 300 kHz	max. 300 kHz	max. 300 kHz
Signal level	HIGH LOW	min. 2.5 V max. 0.5 V	min +V - 1 V max. 0.5 V	min. +V - 2.0 V max. 0.5 V
Rising edge time t_r		max. 200 ns	max. 1 µs	max. 1 µs
Falling edge time t_f		max. 200 ns	max. 1 µs	max. 1 µs
Short circuit proof outputs [1]		yes [2]	yes	yes
Reverse polarity protection of the power supply		no	yes	no
UL approval		File 224618		
CE compliant acc. to		EMC guideline 2004/108/EC		
RoHS compliant acc. to		guideline 2002/95/EC		

Mechanical characteristics

Speed [3]		max. 6000 min^{-1}
Moment of intertia		approx. 1.8 x 10^{-6} kgm^2
Starting torque – at 20°C [68°F]		< 0.05 Nm
Weight		approx. 0.4 kg [14.11 oz]
Load capacity of shaft	radial axial	80 N 40 N
Protection acc. to EN 60529		IP67

EX approval for hazardous areas		optional Zone 2 and 22
Working temperature		-40°C ... +85°C [-40°F ... +185°F]
Material	housing, flange, shaft connector seals	stainless steel, 1.4305 stainless steel Viton
Shock resistance acc. to EN 60068-2-27		2500 m/s^2, 6 ms
Vibration resistance acc. to EN 60068-2-6		100 m/s^2, 10...2000 Hz

Terminal assignment

Output circuit	Type of connection	M12 connector, 8-pin									
2, 4, 5	4	Signal:	0 V	+V	A	$\overline{A}$	B	$\overline{B}$	0	$\overline{0}$	⏚
		Pin:	1	2	3	4	5	6	7	8	PH [4]

+V: Encoder power supply +V DC
0 V: Encoder power supply ground GND (0 V)
A, $\overline{A}$: Incremental output channel A
B, $\overline{B}$: Incremental output channel B
0, $\overline{0}$: Reference signal
PH ⏚: Plug connector housing (Shield)

Top view of mating side, male contact base

M12 connector, 8-pin

1) If supply voltage correctly applied
2) Only one channel allowed to be shorted-out:
At +V = 5 V DC, short-circuit to channel, 0 V, or +V is permitted.
At +V = 5 ... 30 V DC, short-circuit to channel or 0 V is permitted.
3) For continuous operation max. 3000 min^{-1}
4) PH = Shield is attached to connector housing

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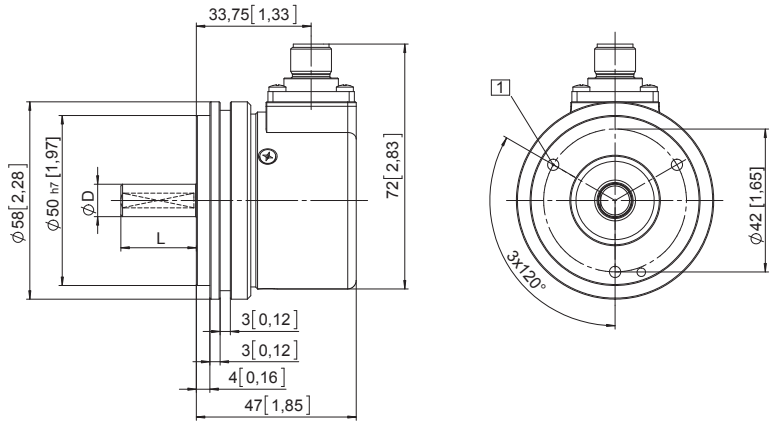
Dimensions

Dimensions in mm [inch]

Synchro flange, ø 58 [2.28]
Flange type A

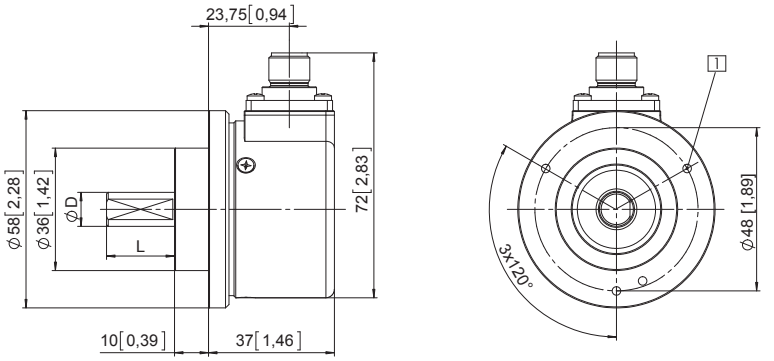
1 3 x M4, 6 [0.24] deep



D = ø 6 h7 [0.24]
ø 10 f7 [0.39]
ø 3/8" h8

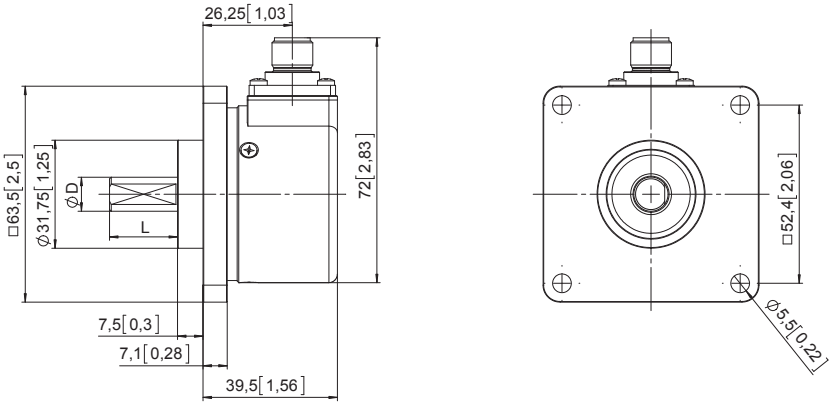
Clamping flange, ø 58 [2.28]
Flange type 7

1 3 x M3, 5.5 [0.21] deep



D = ø 6 h7 [0.24]
ø 10 f7 [0.39]
ø 3/8" h8

Square flange, □ 63.5 [2.5]
Flange type C



D = ø 6 h7 [0.24]
ø 10 f7 [0.39]
ø 3/8" h8