Stainless steel Type 5826

- Only 42 mm clearance needed
- Stainless steel housing
- Very easy mounting. The encoder is mounted directly on the drive shaft without couplings. This saves up to 30 % cost and 60 % clearance compared to shaft versions.
- Many variations
- Temperature and ageing compensation
- Short-circuit proof outputs
- Reverse connection protection for voltage supply
- RS 422 or push-pull output
- Resolution up to 5000 ppr
- Protection up to IP 66
- Ex available as explosion proof zone 2 and 22

Mechanical characteristics:

Speed without sealing:	max. 12000 min^{-1}
Speed with sealing[1]:	max. 6000 min^{-1}
Rotor moment of inertia:	appr. 6 x 10^{-6} k gm^2
Starting torque without sealing:	< 0,01 Nm
Starting torque with sealing:	< 0,05 Nm
Weight:	appr. 0,4 kg
Protection acc. to EN 60 529 with sealing:	IP 66
Working temperature with sealing:	-20° C ... +80 °C[2)3)]
Operating temperature with sealing:	-20° C ... +85 °C[2)4)]
Shaft:	stainless steel
Shock resistance acc. to DIN-IEC 68-2-27	2000 m/s^2, 6 ms
Vibration resistance acc. to DIN-IEC 68-2-6:	100 m/s^2, 10 ... 2000 Hz

[1] for continuous operation max. 3000 min^{-1} ventilated
[2] non-condensing
[3] 70 °C with Cable
[4] 80 °C with Cable

Pulse rates available at short notice:

10, 20, 25, 30, 50, 60, 100, 120, 125, 127, 150, 180, 200, 216, 240, 250, 254, 256, 300, 314, 360, 375, 400, 500, 512, 600, 625, 720, 745, 750, 762, 800, 900, 927, 1000, 1024, 1250, 1270, 1400, 1500, 1800, 2000, 2048, 2250, 2400, 2500, 3000, 3600, 4000, 4096, 5000

Other pulse rates on request

Electrical characteristics:

Output circuit:	RS 422 (TTL-compatible)	RS 422 (TTL-compatible)	Push-pull	Push-pull
Supply voltage:	5 V (±5 %) or 10 ... 30 V DC	5 ... 30 V DC	10 ... 30 V DC	5 ... 30 V DC
Power consumption (no load) without inverted signal:	–	–	typ. 55 mA / max. 125 mA	typ. 55 mA / max. 125 mA
Power consumption (no load) with inverted signals:	typ. 40 mA / max. 90 mA	typ. 40 mA / max. 90 mA	typ. 80 mA/ max.150 mA	typ. 80 mA/ max.150 mA
Permissible load/channel:	max. ±20 mA	max. ±20 mA	max. ±30 mA	max. ±30 mA
Pulse frequency:	max. 300 kHz	max. 300 kHz	max. 300 kHz	max. 300 kHz
Signal level high:	min. 2,5 V	min. 2,5 V	min. U_B–2,5 V	min. U_B–1,5 V
Signal level low:	max. 0,5 V	max. 0,5 V	max. 2,0 V	max. 2,0 V
Rise time t_r	max. 200 ns	max. 200 ns	max. 1 µs	max. 1 µs
Fall time t_f	max. 200 ns	max. 200 ns	max. 1 µs	max. 1 µs
Short circuit proof outputs:[1]:	yes[2]	yes[2]	yes	yes
Reverse connection protection at U_B:	5 V: no; 10 ... 30 V: yes	yes yes	yes yes	no no
Conforms to CE requirements acc. to EN 61000-6-1, EN 61000-6-4 and EN 61000-6-3				

[1] When supply voltage correctly applied
[2] Only one channel at a time: When U_B = 5 V, short-circuit to channel, 0 V, or +U_B is permitted.
When U_B = 10 ... 30 V short-circuit to channel or 0 V is permitted.

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Terminal assignment

Sig.:	0 V	0 V Sens[2)]	+U_B	+U_B Sens[2)]	A	$\overline{A}$	B	$\overline{B}$	0	$\overline{0}$	⏚
Col.:	WH	GY PK	BN	BU RD	GN	YE	GY	PK	BU	RD	

[1)] PH = Shield is attached to connector housing

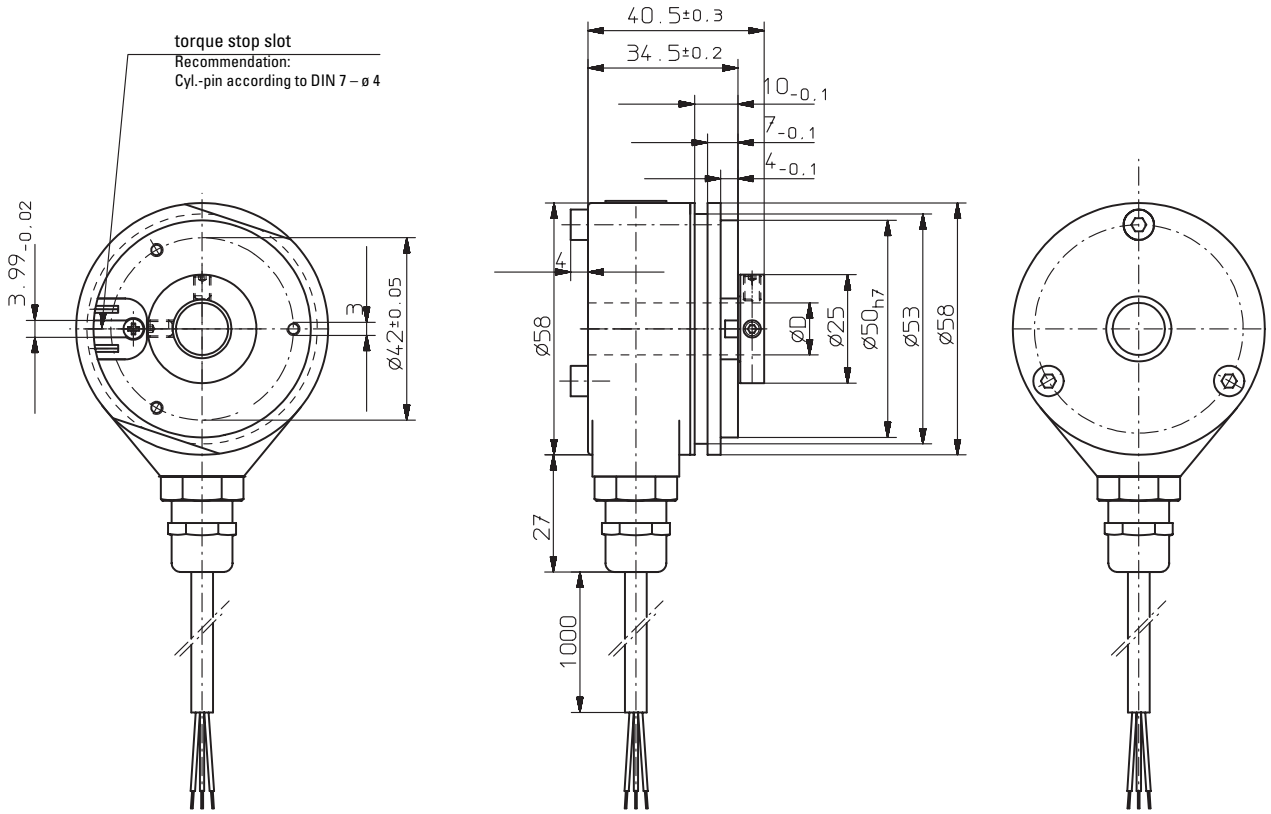
[2)] The sensor cables are connected to the supply voltage internally if long feeder cables are involved they can be used to adjust or controll the voltage at the encoder

If the sensor cables are not in use, they have to be insulated or 0 V_{Sensor} has to be connected to 0 V and $U_{BSensor}$ has to be connected to U_B.

Using RS 422 outputs and long cable distances, a wave impedance has to be applied at each cable end.

Insulate unused outputs before initial startup.

Dimensions



Mounting advice:

1) Do not connect encoder and drive rigidly to one another at shafts and flanges!

2) To mount a hollow shaft encoder, we recommend to use a torque stop pin that fits into the torque stop slot or a stator coupling.

3) When mounting the encoder ensure that Lmin. is larger than the axial play of the drive.

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Order code:

8.5826.1XXX.XXXX

Range

Flange with trough shaft

Shaft
- 6 = ø 10 mm
- **8 = ø 12 mm**

Pulse rate
(e.g. 250 pulses=> 0250)

Type of connection
- **1 = Cable radial (1 m PVC-cable)**

Output circuit and voltage supply
- **1 = RS 422 (with inverted signal) 5 V supply voltage**
- 2 = Push-pull (without inverted signal) 10 ... 30 V supply voltage
- **3 = Push-pull (with inverted signal) 10 ... 30 V supply voltage**
- 4 = RS 422 (with inverted signal) 10 ... 30 V supply voltage
- 5 = Push-pull (without inverted signal) 5 ... 30V supply voltage
- **6 = Push-pull (with inverted signal) 5 ... 30V supply voltage**
- 7 = RS 422 (with inverted signal) 5 ... 30 V Supply voltage

Prefered types are ***fat*** *marked*

Mounting kit for hollow shaft encoder ø 58 mm:

Various mounting variations can be supplied
Delivery includes:

1 x cylindric pin with thread
Ord.-No. 8.0010.4700.0000

1 x mounting bracket
Art.-no. T.035.009

Screw M3x5
Ord.-No. N.630.305

1 x long torque support slot
Ord.-No. T.051.672

Complete set:
Ord.-No. 8.0010.4600.0000

Stator coupling two wings

– for high dynamic application
Includes:

1x coupling two wings
2x 2 screws

Complete as set:
Order-No.: 8.0010.4D00.0000
(see page 235)

Tether arm short

Order-No.: 8.0010.4R00.0000
(see page 238)