

Rotary Measuring Technology

Incremental encoders

Economy Type 5810 (shaft)



- \varnothing 58 mm housing
- Short-circuit proof outputs
- Customized versions also available
- High mechanical protection
- Push-pull output
(10 ... 30 V supply voltage)



Mechanical characteristics:

Speed:	max. 6000 min ⁻¹
Rotor moment of inertia:	approx. 0.6×10^{-6} kgm ²
Starting torque:	< 0.01 Nm
Radial load capacity of shaft:	40 N
Axial load capacity of shaft:	20 N
Weight:	approx. 0.4 kg
Protection acc. to EN 60 529:	IP 64 Housing (IP 67 with cable, IP 50 with connector)
EX approval for hazardous areas:	optional zone 2 and 22
Working temperature:	0° C ... +65 °C
Shaft:	stainless steel
Shock resistance acc. to DIN-IEC 68-2-27	1000 m/s ² , 6 ms
Vibration resistance acc. to DIN-IEC 68-2-6:	100 m/s ² , 10...2000 Hz

Electrical characteristics:

Output circuit:	Push-pull
Supply voltage:	10 ... 30 V DC
Power consumption (no load)	
without inverted signal:	max. 80 mA
Permissible load/channel:	max. ± 30 mA
Pulse frequency:	max. 20 kHz
Signal level high:	min. $U_B - 2.5$ V
Signal level low:	max. 1.5V
Rise time t_r :	max. 1 μ s
Fall time t_f :	max. 1 μ s
Short circuit proof outputs: ¹⁾	yes
Reverse connection protection at UB:	yes
Conforms to CE requirements acc. to EN 61000-6-2, EN 61000-6-4 and EN 61000-6-3	
RoHS compliant acc. to EU guideline 2002/95/EG	

¹⁾ If supply voltage correctly applied

Terminal assignment

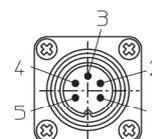
Signal:	0 V	+U _B	A	B	0 or 0 ⁻	Shield
5 pin plug, Pin:	1	2	3	4	5	PH ¹⁾
Colour	WH	BN	GN	YE	GY	

¹⁾ PH = Shield is attached to connector housing

Isolate unused outputs before initial startup.

Top view of mating side, male contact base:

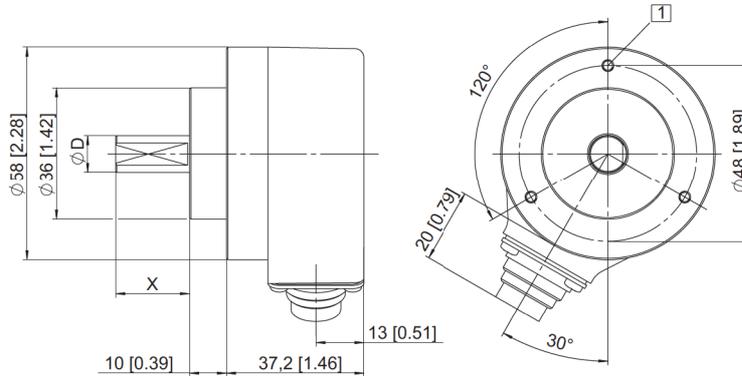
5-pin plug



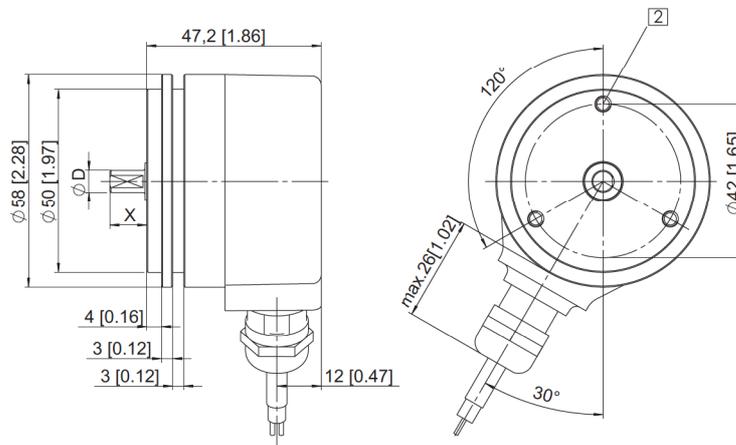
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Dimensions

Clamping flange \varnothing 58



Synchronous flange \varnothing 58



1 3xM3, 6 [0,24] deep

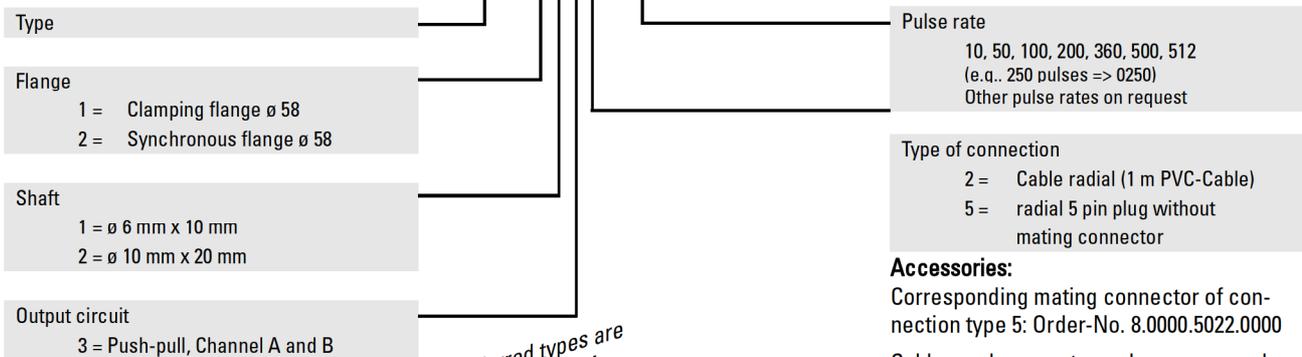
2 3xM4, 6 [0,24] deep

Mounting advice:

The flanges and shafts of the encoder and drive should not both be rigidly coupled together at the same time! We recommend the use of suitable couplings (see Accessories section).

Order code:

8.5810.XXXX.XXXX



Preferred types are indicated in **bold**

Accessories:

Corresponding mating connector of connection type 5: Order-No. 8.0000.5022.0000

Cables and connectors, also pre-assembled, can be found in the chapter Connection Technology

Mounting attachments and couplings can be found in the chapter Accessories