

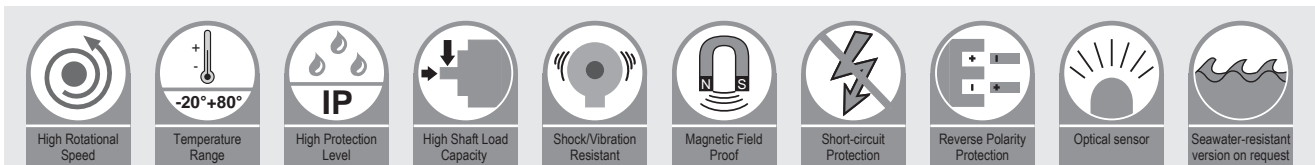
Incremental Encoders

Miniature

11-50SN



- Number of resolution up to 2500 ppr
- High Protection up to IP 67
- High shock and vibration resistance
- Wide temperature range from -40°C up to +80°C



Highlight:

- Only 50 mm outer diameter
- Wide temperature range from -40°C up to +80°C
- RS422 or HTL output signal
- High Protection up to IP 67
- Connection via cable or M12 connector
- Number of resolution up to 2500 ppr

Mechanical characteristics

Max. Speed	12000 rpm
Starting torque	≤ 0.3 Ncm (at 20 °C)
Moment of inertia	≤ 15 gcm ²
Shaft load capacity	Radial 120 N; Axial 70 N
Weight	Approx. 0.16 kg
Protection acc. to EN 60 529	IP 65 optional IP 67
Working temperature range	-40°C ... 80°C
Materials	Shaft: Stainless Steel; Flange/Housing: Aluminium
Shock resistance acc. to EN 60068-2-29	1000 m/s ² (6ms)
Vibration resistance acc. to EN 60068-2-6	50 m/s ² (10 Hz ... 2000 Hz)

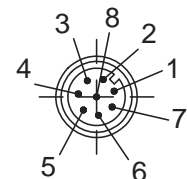
Electrical characteristics

Output circuit	RS422	HTL
Power supply	5 VDC	10... 30 VDC
Power consumption (no load)	Max. 70 mA	Max. 70 mA
Permissible load / channel	Max. 40 mA	Max. 40 mA
Pulse frequency	Max. 200 kHz	Max. 200 kHz
Signal level(at 20mA)	High	Min. 2.5 V
	Low	Max. 0.5 V
Rising edge time tr	Max. 200 ns	Max. 1 µs
Falling edge time tf	Max. 200 ns	Max. 1 µs
Short circuit protection	yes	yes
Reverse polarity protection	no;	yes
UL approval	yes	yes
CE compliant acc. to	EN 61326-1:2006; EN 61000-6-2:2006 ; EN 61000-6-3:2007	

Terminal assignment

Signal	Ub	GND	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	Shield
Cable (Colour)	BN	WH	GN	RD	YW	BK	GY	VT	Shield
M12 connector, 8-pin	2	1	3	6	4	7	5	8	

Top view of mating side, male contact base



M12 connector, 8-pin

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Order Code	11-50SN-X X X X-X X X X					
Shaft Version	Type	a	b	c	d	e
a Flange A = Clamping flange, IP65	c Output circuit / Power supply 1 = RS422 (with inverted signal) / 5 VDC 3 = Push-pull (without inverted signal) / 10 ... 30VDC 5 = Push-pull (with inverted signal) / 10 ... 30VDC	e Pulse rate 4,9,10,15 ... 100,125,128 ... 180,200 235,250 ... 300,314,360,400,500 ... 600,625,635,720 ... 900,1000,1024 1080,1200,1250,1800,2000.2048 2500 Other pulse rates on request				
b Shaft 4 = Ø 8 x 15 mm	d Type of connection 1 = Axial cable, 2m 3 = M12 connector, 8-pin, axial (without mating connector)					

Accessories

Connection technology:

Connector, self-assembly	M12 female connector with coupling nut	E1-1208-0101
Mounting accessory for shaft version:		
Coupling	Bellows coupling (aluminium alloy) Ø 25mm for shaft 8 mm	T1-1000-3025-0808

Dimensions

Shaft encoder

Clamping flange, Ø 8 mm shaft, type of connection 1

M12 Connector

