

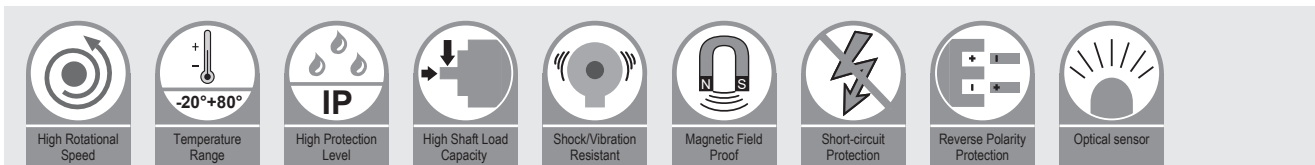
Incremental Encoders

Miniature

11-36SN / 36HN



- Outer diameter 36 mm, ideal for use in tight space
- Optical sensor technology offer a resolution of up to 3600 ppr
- High quality mechanical structure guarantees a long service life



Highlight :

- Only 36 mm outer diameter
- Wide temperature range from -20°C up to +80°C
- Can be supplied with radial or axial cable outlet
- Solid or hollow shaft version

Mechanical characteristics	
Max. Speed	6000 rpm
Starting torque	≤ 0.5 Ncm (at 20 °C)
Moment of inertia	Shaft: ≤ 3 gcm ² ; hollow Shaft: ≤ 2 gcm ²
Shaft load capacity	Shaft: Radial 40 N; Axial 20 N hollow Shaft: Radial 15 N; Axial 15 N
Weight	approx. 0.08 kg
Protection acc. to DIN 40050	IP 64
Working temperature range	-20°C ... 80°C
Materials	Shaft: Stainless Steel/Brass Housing: Aluminium
Shock resistance acc. to EN 60068-2-29	1000 m/s ² (6ms)
Vibration resistance acc. to EN 60068-2-6	100 m/s ² (10 Hz ... 2000 Hz)

Electrical characteristics		
Output circuit	RS422	HTL
Power supply	5 V DC ± 5%	10...30 VDC
Power consumption (no load)	max. 150 mA	max. 150 mA
Permissible load/channel	max. 20 mA	max. 30 mA
Pulse frequency	max. 300 kHz	max. 200 kHz
Signal level	High min. 2.5 V	High min. Ub - 3 V
	Low max. 0.5 V	Low max. 2.5 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
CE approval	EN 61000-6-2,	EN 55011 Class B

Terminal assignment

Signal	Ub	GND	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	Shield
Cable (Colour) *	BN	WH	GN	YW	GY	PK	BU	RD	Shield
Cable (Colour) **	BN	WH	GN	-	YW	-	GY	-	Shield

* for Output circuit / Power supply type 1 and type 5

** for Output circuit / Power supply type 3

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Order Code Shaft Version	11-36SN-X X X X-X X X X					
	Type	a	b	c	d	e
a Flange 1 = Clamping flange	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 2,5,15,20,25, 100, 500,512, 600,720, ... 1000,1024,1200,1250, 3600 Other pulse rates on request		
b Shaft 3 = $\varnothing 6 \times 12,5$ mm	d Type of connection 1 = Axial cable, 2m 2 = Radial cable, 2m 7 = M12 connector, 8-pin, Radial (without mating connector)					

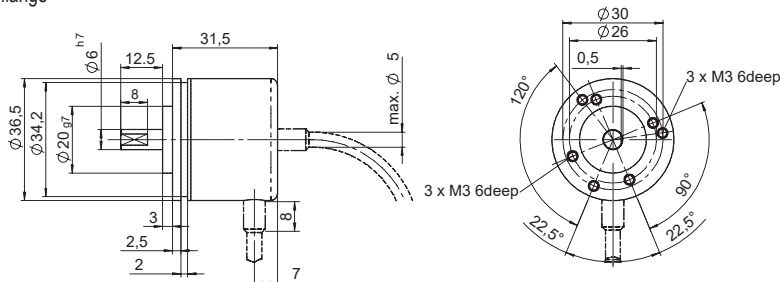
Order Code Hollow Shaft Version	11-36HN-X X X X-X X X X					
	系列	a	b	c	d	e
a Flange 1 = with Torque stop slot 8 = with D-wing spring coupling	c Output circuit / Power supply 1 = RS422 (with inverted signal) / 5 VDC 3 = Push-pull (without inverted signal) / 10 ... 30VDC 5 = Push-pull (with inverted signal) / 10 ... 30VDC			e Pulse rate 2,5,15,20,25, 100, 500,512, 600,720, ... 1000,1024,1200,1250, 3600 Other pulse rates on request		
b Hollow shaft (blind) 3 = $\varnothing 6$ mm 4 = $\varnothing 8$ mm	d Type of connection 2 = Radial cable, 2m					

Accessories

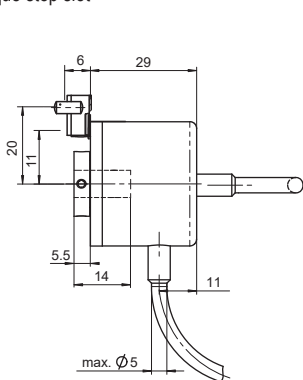
Mounting accessory for shaft version:
Coupling Bellows coupling $\varnothing 15$ mm , for shaft 6 mm T1-1000-2525-0606

Dimensions

Shaft encoder
Clamping flange



Hollow Shaft encoder
with Torque stop slot



with D-wing spring coupling

