

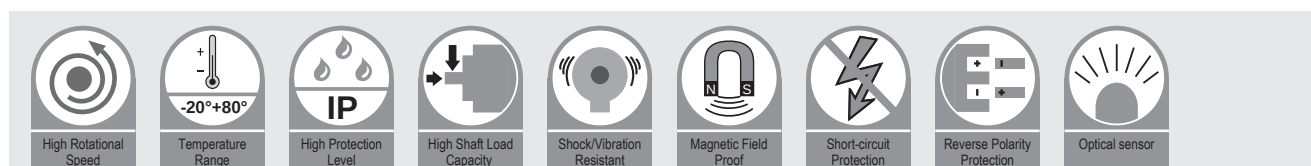
Incremental Encoders

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

Order Code Shaft Version

11-36HN-X X X X-X X X X
Type 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

d Type of connection

2 = Radial cable, 2m

Accessories

Mounting accessory for shaft version:

Coupling

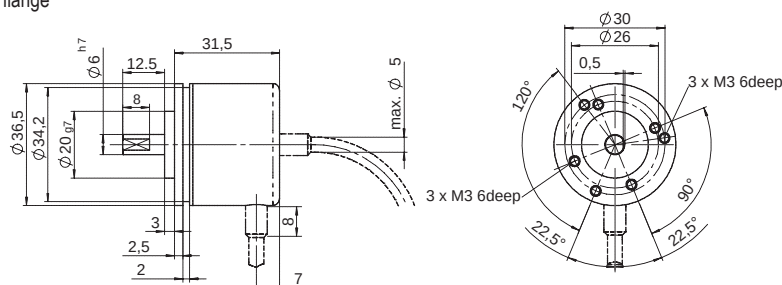
Bellows coupling $\varnothing 15$ mm , for shaft 6 mm

T1-1000-2525-0606

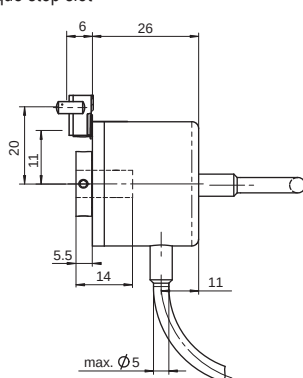
Dimensions

Shaft encoder

Clamping flange



Hollow Shaft encoder
with Torque stop slot



with D-wing spring coupling

