

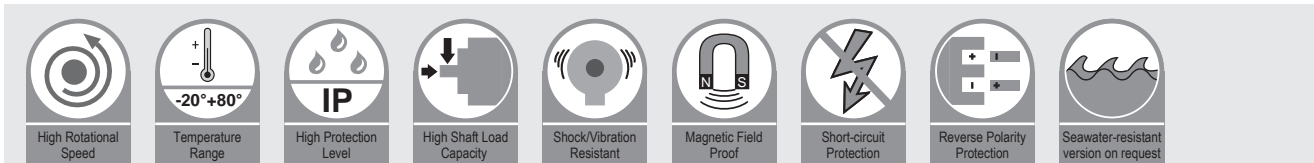
Incremental Encoders

Miniature, Programmable

M11-36SN / 36HN



- Newest magnetoelectricity sensor technology
- Programmable resolution, up to 16384
- Protection acc. to EN 60 529, up to IP 65, IP 69K optional
- RS422 or HTL output signal programmable
- Wide temperature range from -40°C up to +85°C



Highlight:

- Outer diameter 36 mm, ideal for use in tight space
- Wide temperature range from -40°C up to +85°C
- High shock and vibration resistance
- Connection via cable, M12 or M23 connector
- Programmable resolution, up to 16384

Mechanical characteristics

Max. Speed	Industrial type: 12000 rpm; Heavy duty and Stainless Steel : 6000 rpm		
Starting torque	≤ 3 Ncm (at 20 °C)		
Moment of inertia	≤ 30 gcm ²		
Shaft load capacity	Industrial type: Axial 40 N/Radial 110 N; Heavy duty: Axial 180 N/Radial 180 N; Stainless-steel: Axial 300 N/Radial 300 N		
Weight	Approx. 0.105 kg		
Protection acc. to EN 60 529	IP 65 or IP 69K		
Ex approval for hazardous areas	optional zone 2 and 22		
Working temperature range	-40°C ... 85°C		
Materials	Shaft: Stainless Steel(V2A); Flange: Aluminium or Stainless Steel; Housing: Steel or Stainless Steel		
Shock resistance acc. to EN 60068-2-27	Industrial type: ≤ 1000 m/s ² (6 ms); Heavy duty and Stainless Steel: ≤ 3000 m/s ² (6 ms)		
Vibration resistance acc. to EN 60068-2-6	Industrial type: ≤ 100 m/s ² (10 Hz ... 1000Hz); Heavy duty and Stainless Steel: ≤ 300 m/s ² (10 Hz ... 1000Hz)		
Mechanical lifetime(Fa/Fr)	40/60	40/80	40/110
	224	104	40

Electrical characteristics

Output circuit	RS422	Push-pull
Power supply	5 VDC or 8 ... 30 VDC	5 ... 30 VDC
Power consumption (no load)	Max. 100 mA	Max. 100 mA
Permissible load / channel	Max.40 mA	Max.40 mA
Pulse frequency	Max. 2 MHz	Max. 200 kHz
Signal level	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	yes	yes
UL approval	yes	
CE compliant acc. to	EN 61326-1:2006; EN 61000-6-2:2006 ; EN 61000-6-3:2007	

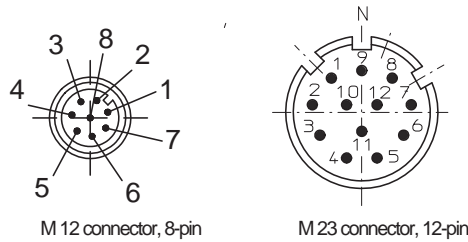
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Terminal assignment

Signal	Ub	GND	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	Shield
Cable (Colour)	BN	WH	GN	YW	GY	PK	BU	RD	Shield
M12 connector, 8-pin	2	1	3	4	5	6	7	8	
M23 connector, 12-pin	12	10	5	6	8	1	3	4	

Top view of mating side, male contact base



Incremental encoder

Order Code Shaft version	M11-36SN-X X X X-XXXXX						
	Type	f	a	b	c	d	e
a Flange 3 = Synchro flange	c Output circuit / Power supply 1 = RS422 (with inverted signal) / 5 VDC 2 = RS 422 (with inverted signal) / 8 ... 30 VDC 4 = Push-pull (with inverted signal) / 5 ... 30VDC	e Pulse rate 2,5,15,20,25, 100,120, 500,512, 600,720, ... 1000,1024,1200,1250, 4096,5000, 10000, 12500, 16384 Pulse rates on request		d Type of connection 1 = Axial cable, 1m 2 = Radial cable, 1m 5 = M23 connector, 12-pin, radial (without mating connector) 6 = M12 connector, 8-pin, axial (without mating connector) 7 = M12 connector, 8-pin, radial (without mating connector)			f Type N = Industrial type H = Heavy duty (IP69 K) S = Stainless Steel type (IP69 K)
b Hollow shaft 2 = \varnothing 6 x 11.5 mm (Only for type N) 5 = \varnothing 10 x 20 mm							

Order Code Hollow Shaft	M11-36HN-X X X X-XXXXX					
	Type	a	b	c	d	e
a Flange 1 = without mounting accessory 3 = with fastening arm 8 = with D-wing spring coupling	c Output circuit / Power supply 1 = RS422 (with inverted signal) / 5 VDC 2 = RS 422 (with inverted signal) / 8 ... 30 VDC 4 = Push-pull (with inverted signal) / 5 ... 30VDC	e Pulse rate 2,5,15,20,25, 100,120, 500,512, 600,720, ... 1000,1024,1200,1250, 4096,5000, 10000, 12500, 16384 Pulse rates on request		d Type of connection 1 = Axial cable, 1m 2 = Radial cable, 1m 5 = M23 connector, 12-pin, radial (without mating connector) 6 = M12 connector, 8-pin, axial (without mating connector) 7 = M12 connector, 8-pin, radial (without mating connector)		
b Hollow shaft (blind hollow shaft) 2 = \varnothing 6 mm 4 = \varnothing 8 mm 5 = \varnothing 10 mm 6 = \varnothing 12 mm						

Accessories		
Connection technology:		
Connector, self-assembly	M12 self-assembly	E1-1208-0101
Cordset, pre-assembled	M12 female connector with coupling nut, 1 m PVC cable	E2-2110-0010
Mounting accessory for shaft version:		
Coupling	Bellows coupling (aluminium alloy) \varnothing 25mm for shaft 6 mm	T1-6000-2525-0606
Mounting accessory for hollow shaft version:		
Stator coupling	Further accessories and exact order code please refer to the accessories section.	

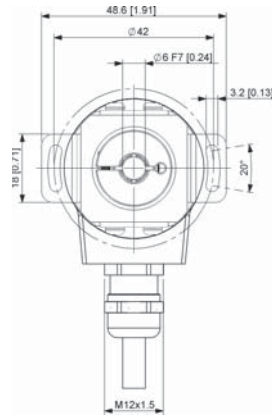
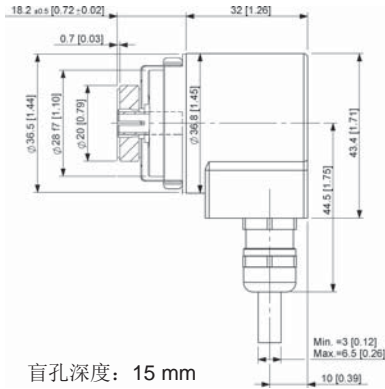
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Hollow encoder:

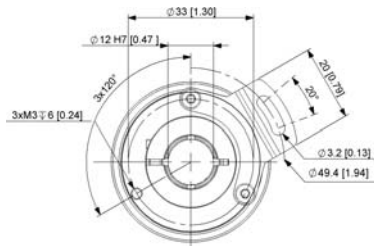
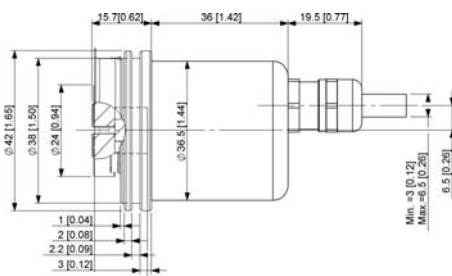
With D-wing spring coupling, type of connection 2



Incremental encoder

Hollow encoder:

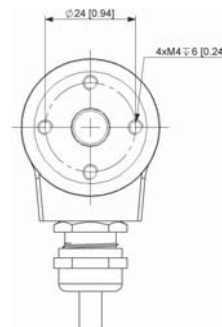
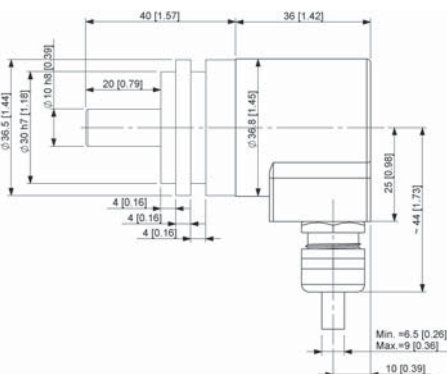
With fastening arm, type of connection 1



Other mounting types and accessories on your request, please send us an email: sales@heinlanz.com

Hollow encoder:

Type of connection 2



Stainless Steel:

Type of connection 6

