

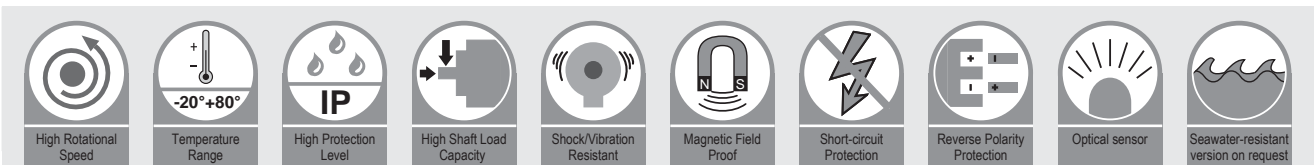
Incremental Encoders

Hollow shaft

11-E5HN



- Heavy duty
- Max bore size 72 mm
- Balanced stainless-steel clamping ring
- Optional isolated insertion available to protect against shaft currents



Highlight:

- 145 mm outer diameter, max bore size 72 mm
- Wide temperature range from -40°C up to +80°C
- High shock and vibration resistance
- Protection acc. to EN 60 529, up to IP 65
- Connection via cable, M12 or M23 connector
- With Push-pull, RS422 output

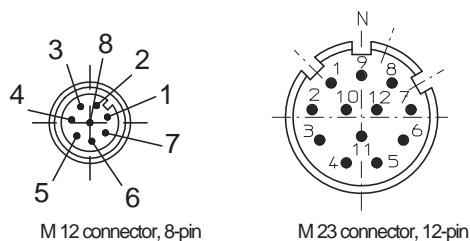
Mechanical characteristics	
Max. Speed	2000 rpm
Starting torque	≤ 2 Ncm (at 20 °C)
Moment of inertia	≤ 40 gcm ²
Shaft load capacity	Radial 300 N; Axial 150 N
Weight	Approx. 1.700 kg
Protection acc. to EN 60 529	IP 65
Ex approval for hazardous areas	optional zone 2 and 22
Working temperature range	- 40°C ... 80°C
Materials	Shaft: Stainless Steel ; Flange/Housing: Aluminium
Shock resistance acc. to EN 60068-2-29	1000 m/s ² (6 ms)
Vibration resistance acc. to EN 60068-2-6	50 m/s ² (10-2000 Hz)

Electrical characteristics		
Output circuit	RS422	Push-pull
Power supply	5 V	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. 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	no;10 ... 30 VDC	yes
UL approval	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	
M23 connector, 12-pin	12	10	5	6	8	1	3	4	

Top view of mating side, male contact base



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Order Code
Hollow Shaft

11-E5HN-X X X X-X X X X
Type a b c d e

a Flange

- 1 = without mounting accessory
- 4 = 3xspring couplings, by clamping ring
- 6 = Tether arm, by clamping ring

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

- 1024,2500
- Other pulse rates on request

b Hollow shaft

- L = \varnothing 45 mm
- M = \varnothing 48 mm
- N = \varnothing 50 mm
- P = \varnothing 55 mm
- Q = \varnothing 60 mm
- R = \varnothing 65 mm
- S = \varnothing 72 mm

d Type of connection

- 2 = Radial cable, 2m
- 5 = M23 connector, 12-pin, radial (without mating connector)
- 7 = M12 connector, 8-pin, radial (without mating connector)

Incremental encoder

Accessories

Connection technology:

Connector, self-assembly

M12 female connector with coupling nut
M23 female connector with coupling nut

E1-1208-0101
E1-3212-0000

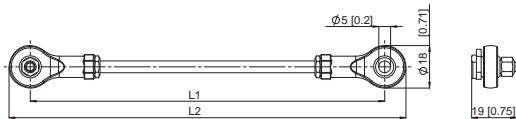
Mounting accessory for hollow shaft version

Stator coupling



Further accessories and exact order code please refer to the accessories section.

Tether arm



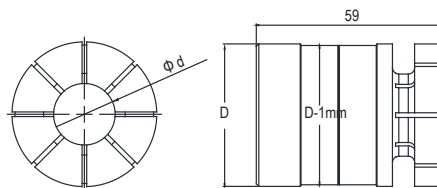
L1= 70 mm, (Other lengths on request)

T2-0000-5000-0070

Isolated insertion

Applicable to 11-E5HN

Isolation inserts prevent currents from passing through the encoder bearings. These currents can occur when using inverter controlled three-phase or AC motor motors and considerably shorten the service life of the encoder bearings.



\varnothing d
25 mm T2-0000-4101-4525
30 mm T2-0000-4101-4530
Other bore size see accessories section

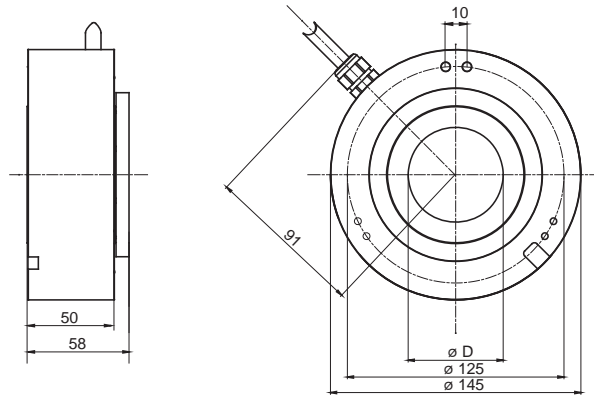
Incremental Encoders

Hollow shaft

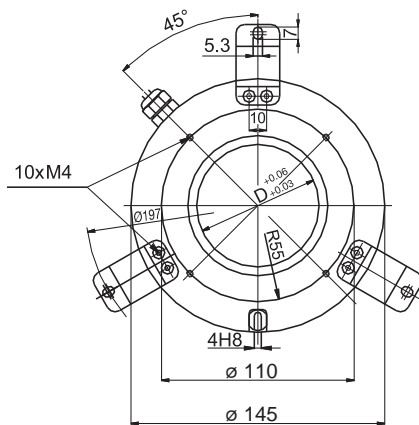
11-E5HN

Dimensions

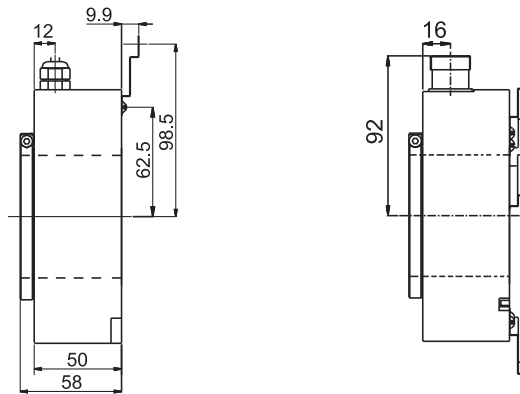
Flange type 1, type of connection 2



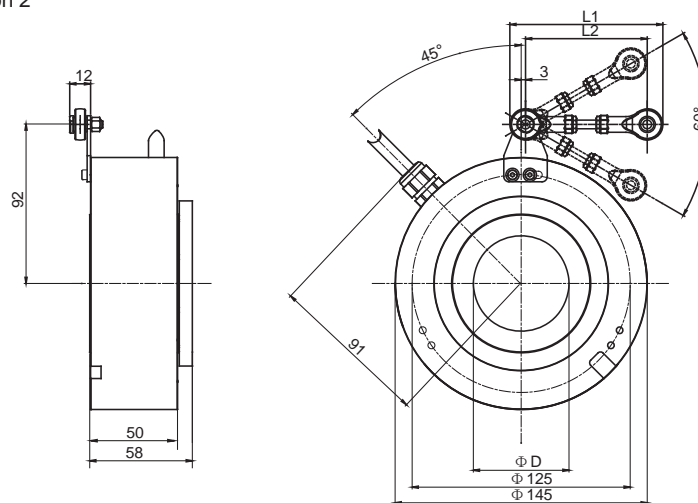
Flange type 4, type of connection 2



Flange type 4, type of connection 5



Flange type 6, type of connection 2



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