

**KUEBLER - INCREMENTAL ENCODER,
SENDIX H120**
SERIE H120

- High durability
- Many mounting options
- High degree of enclosure
- Wide temperature range



Product description

The Sendix H120 series is designed to fit in tough environments. Specialized for high voltage motors, generators, steel and crane industry. The sensor has a high enclosure degree, IP66, IP67 and a wide temperature range -40 to +100 ° C. It is also equipped with "HD-Safety Lock™, which includes double gaskets, against moisture and dust. All layers are also sturdier and stronger.

The many choices of contact types make this pulse sensor very flexible, sometimes the optical fiber, M12, M23 and terminal boxes are selected. The H120 can be delivered with a fastening lever in different lengths.

Please refer to the image below for ordering information.

Order code Hollow shaft version		8.H120 . XXXXX . XXXX
		Type a b c d e
a Flange	c Output circuit / power supply	
1 = without mounting aid	4 = RS422 (with inverted signal) / 5 V DC	
2 = with fastening arm 70 mm [2.76"] ²⁾	1 = RS422 (with inverted signal) / 10 ... 30 V DC	
3 = with fastening arm 100 mm [3.93"] ²⁾	5 = push-pull (with inverted signal) / 10 ... 30 V DC	
4 = with fastening arm 150 mm [5.91"] ²⁾	6 = push-pull (with inverted signal) / 10 ... 30 V DC, power version up to 350 m	
5 = with stator coupling, ø 119 mm [4.69"]	B = optical fiber + RS422 (with inverted signal) / 5 V DC ³⁾	
	A = optical fiber + RS422 (with inverted signal) / 10 ... 30 V DC ³⁾	
	C = optical fiber + push-pull (with inverted signal) / 10 ... 30 V DC ³⁾	
b Through hollow shaft	d Type of connection	
2 = ø 16 mm [0.63"]	1 = radial cable, 1 m [3.28'] PVC	
3 = ø 20 mm [0.79"]	A = radial cable, special length PVC *)	
5 = ø 25 mm [0.98"]	2 = radial M12 connector, 8-pin, ccw	
7 = ø 28 mm [1.10"]	4 = radial M23 connector, 12-pin, ccw	
6 = ø 1"	D = radial M23 connector, 12-pin, cw	
Blind hollow shaft, with central fastening insertion depth max. 53 mm [2.09"]	K = terminal box with plug-in spring terminal connectors, rotatable through 180°	
A = ø 12 mm [0.47"]	L = optical fiber connector + radial M23 connector, 12-pin, cw ⁴⁾	
B = ø 16 mm [0.63"]	*) Available special lengths (connection type A):	
Blind hollow shaft, cone with central fastening insertion depth max. 22.5 mm [0.89"]	2, 3, 5, 8, 10, 15 m [6.56, 9.84, 16.40, 26.25, 32.80, 49.21']	
K = ø 17 mm [0.67"], 1 : 10	order code expansion .XXXX = length in dm	
	ex.: 8.H120.121A.2048.0030 (for cable length 3 m)	
	e Pulse rate	
	50, 360, 512, 600, 1000, 1024, 1500, 2000, 2048, 2500, 4096, 5000	
	(e.g. 360 pulses => 0360)	
	Optional on request	
	- other pulse rates	
	- Ex 2/22 ⁵⁾	

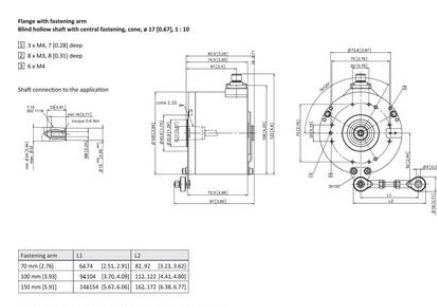
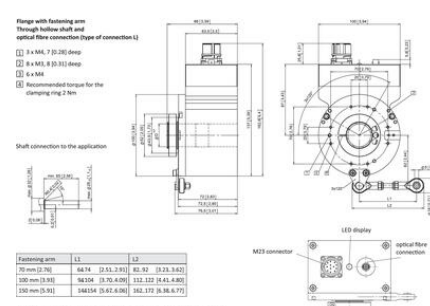
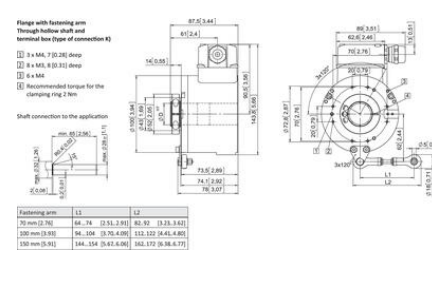
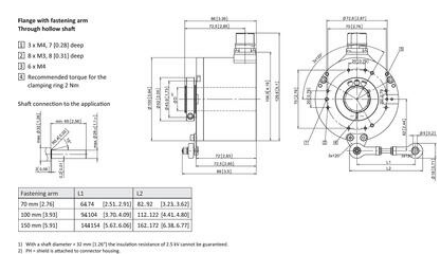
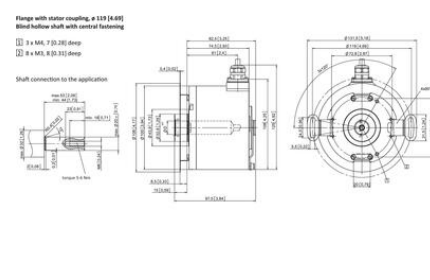
Connection Thread	Cable, M12, M23 contact
Housing diameter	120
IP Class	IP66, IP67
Mounting	Hollow shaft
Output	Push/Pull, RS422
Pulse Max	5000
Sensor type	Incremental
Shaft Diameter max	25
Shaft Diameter min	12
Supply Voltage DC Max	30
Supply Voltage DC Min	5
Temperature range from	-40
Temperature range to	100
Version	Multiturn

Output circuit	Type of connection	Cable (Isolate around wires individually before initial start-up)
1, 4, 5, 6	1	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Cable colour: WHT, BRN, GY PK, RD BR, GRN, YEL, GY, PK, BLU, RD, Sheld
Output circuit	Type of connection	M12 connector, 8 pin
1, 4, 5, 6	2	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Pin: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Output circuit	Type of connection	M23 connector, 12 pin
1, 4, 5, 6, 7, 8, 9, 10, 11, 12	3	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Pin: 10, 12, 11, 2, 5, 6, 8, 1, 3, 4, Pin 9
Output circuit	Type of connection	Terminal connections
1, 4, 5, 6	4	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Pin: 0, A, - +, PE, 0, A, B, 0

+V: Encoder power supply +V DC
 0 V: Encoder power supply ground GND (0 V)
 0 V (Max) / 0 V (Min): Using the sensor outputs of the encoder, the voltage present (can be measured and if necessary increased) accordingly.
 A, B: Incremental output channel A
 A, B: Incremental output channel B
 A, B: Reference signal
 PE: Plug connector housing (shield)

Top view of mating side, male contact base

M12 connector, 8 pins, c/w
 M23 connector, 12 pins, c/w
 M23 connector, 12 pins, c/w

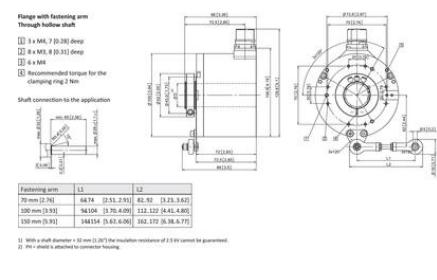
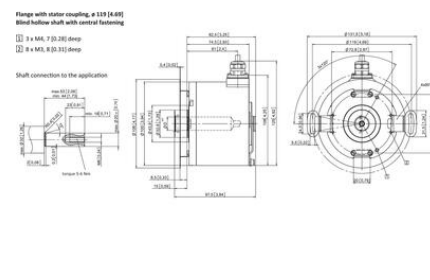


Output circuit	Type of connection	Cable (Isolate around wires individually before initial start-up)
1, 4, 5, 6	1	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Cable colour: WHT, BRN, GY PK, RD BR, GRN, YEL, GY, PK, BLU, RD, Sheld
Output circuit	Type of connection	M12 connector, 8 pin
1, 4, 5, 6	2	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Pin: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
Output circuit	Type of connection	M23 connector, 12 pin
1, 4, 5, 6, 7, 8, 9, 10, 11, 12	3	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Pin: 10, 12, 11, 2, 5, 6, 8, 1, 3, 4, Pin 9
Output circuit	Type of connection	Terminal connections
1, 4, 5, 6	4	Signal: 0 V, +V, 0 V (Max), 0 V (Min) Pin: 0, A, - +, PE, 0, A, B, 0

+V: Encoder power supply +V DC
 0 V: Encoder power supply ground GND (0 V)
 0 V (Max) / 0 V (Min): Using the sensor outputs of the encoder, the voltage present (can be measured and if necessary increased) accordingly.
 A, B: Incremental output channel A
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 PE: Plug connector housing (shield)

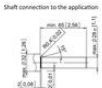
Top view of mating side, male contact base

M12 connector, 8 pins, c/w
 M23 connector, 12 pins, c/w
 M23 connector, 12 pins, c/w



Flange with fastening arm
Through hollow shaft and
terminal box type of connection K)

- 1) 3 x M4, 7 (3.28) deep
- 2) 3 x M4, 8 (3.15) deep
- 3) 3 x M4
- 4) Recommended torque for the
clamping ring 2 Nm



Fastening arm	L1	L2
75 mm (2.95)	66.74 (2.63)	81.92 (3.22)
100 mm (3.94)	94.104 (3.70)	111.122 (4.37)
150 mm (5.91)	144.154 (5.67)	162.172 (6.38)



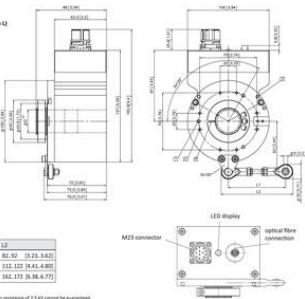
Flange with fastening arm
Through hollow shaft and
optical fibre connection (type of connection L)

- 1) 3 x M4, 7 (3.28) deep
- 2) 3 x M4, 8 (3.15) deep
- 3) 3 x M4
- 4) Recommended torque for the
clamping ring 2 Nm



Fastening arm	L1	L2
75 mm (2.95)	66.74 (2.63)	81.92 (3.22)
100 mm (3.94)	94.104 (3.70)	111.122 (4.37)
150 mm (5.91)	144.154 (5.67)	162.172 (6.38)

1) With a shaft diameter > 32 mm (1.26") the installation resistance of 2.5 kN cannot be guaranteed.



Flange with fastening arm
Blind hollow shaft with central fastening, cone, ø 17 (0.67), 1:10

- 1) 3 x M4, 7 (3.28) deep
- 2) 3 x M4, 8 (3.15) deep
- 3) 3 x M4
- 4) Recommended torque for the
clamping ring 2 Nm



Fastening arm	L1	L2
75 mm (2.95)	66.74 (2.63)	81.92 (3.22)
100 mm (3.94)	94.104 (3.70)	111.122 (4.37)
150 mm (5.91)	144.154 (5.67)	162.172 (6.38)

1) With a shaft diameter > 32 mm (1.26") the installation resistance of 2.5 kN cannot be guaranteed.

