

MAIN FEATURES

Encoder series designed to be mounted directly on motors. Our integrated elastic coupling allows radial and axial play compensation.

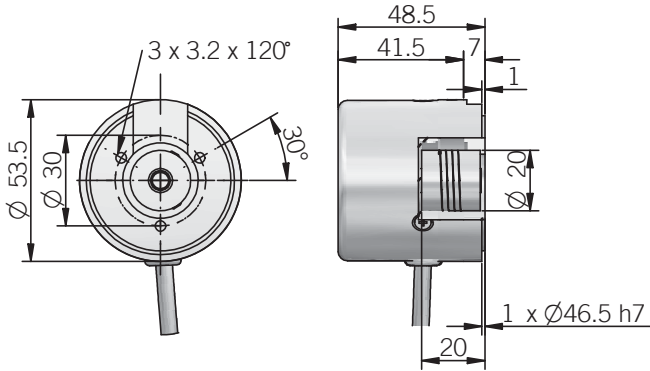
- Resolution up to 10000 ppr with zero signal for EL series, up to 1024 ppr for EH series.
- Different output types available.
- Up to 28 V DC power supply for EL series and up to 24 V DC for EH series.
- Up to 300 kHz output frequency for EL series and up to 100 kHz for EH series.
- Cable or connector output.
- Several flanges available.
- Up to 6000 RPM rotation speed.
- Up to IP 64 sealing.



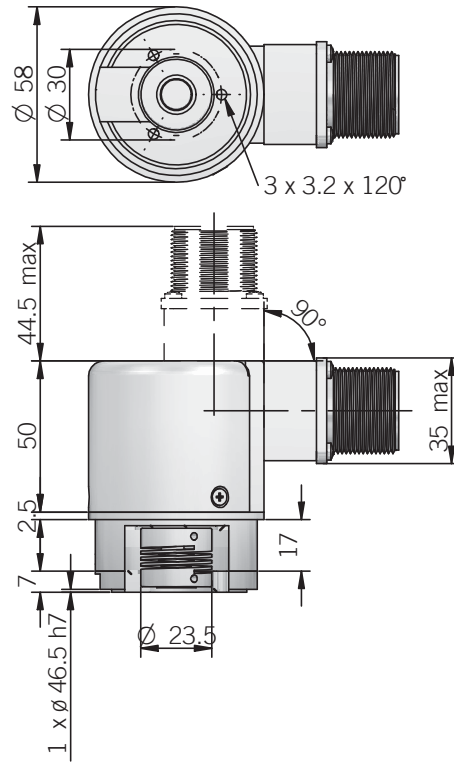
ORDERING CODE

EL	53	A	M*	1000	Z	5/28	N	6	X	6	M	R	.	XXX
SERIES incremental encoder series EL incremental encoder series EH														VARIANT XXX custom version
	SIZE mm 53													DIRECTION TYPE A axial (EL series) R radial
	TYPE adjustable flange model A adjustable flange model B													OUTPUT TYPE P cable output (standard length 1.5 m) (EL series) cable output (standard length 0.5 m) (EH series) M M connector output J J connector output
	METAL COVER M <i>* add for metal cover (only EL series)</i>													MAX ROTATION SPEED 3 3000 rpm 6 6000 rpm
	RESOLUTION (EL series) ppr from 1 to 10000 (EH series) ppr from 50 to 1024 <i>N.B.: please directly contact our offices for pulses availability</i>													ENCLOSURE RATING X IP 54 S IP 64 (available for EL series)
	ZERO PULSE without zero pulse S with zero pulse Z													BORE DIAMETER 6 mm 8 mm 10 mm
	POWER SUPPLY (available only with L electronic output) 5 V DC 5 (available only with L or PC electronic output) 8 ... 24 V DC 8/24 (available only with EL series) 5 ... 28 V DC 5/28													ELECTRONIC INTERFACE N NPN C NPN open collector P push-pull PC protected push-pull (AEIC-7272) L line driver

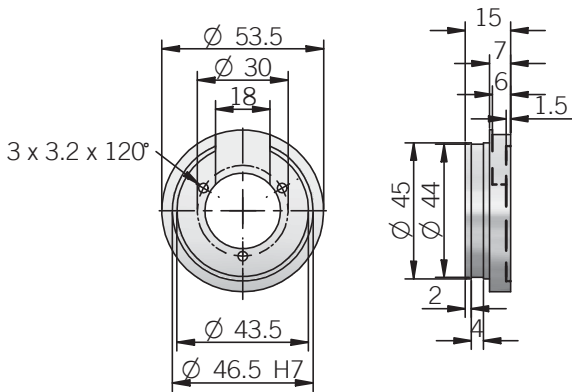
EH 53 A



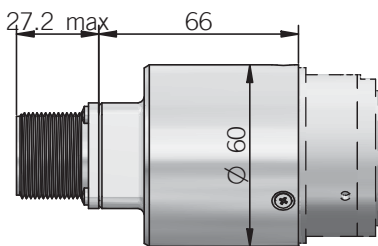
EL 53 A



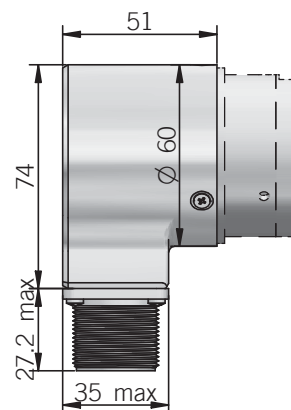
Flange version EH - EL 53 B



Dimensions with metal cover axial output



Dimensions with metal cover radial output



Electrical specifications (EL series)

Resolution	from 1 to 10000 ppr
Power supply	5 V DC \pm 10% 5 ... 28 V DC \pm 5% 8 ... 24 V DC \pm 5% (reverse polarity protection)
Current consumption without load	100 mA max
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN / NPN open collector / push-pull / line driver
Max output frequency	300 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Electrical specifications (EH series)

Resolution	from 50 to 1024 ppr
Power supply	5 V DC \pm 10% 8 ... 24 V DC \pm 5%
Current consumption without load	100 mA max
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN / NPN open collector / push-pull / line driver
Max output frequency	100 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Mechanical specifications

Bore diameter	\varnothing 8 / 9,52 / 10 mm
Enclosure rating	IP 54 (IEC 60529) IP 64 (available for EL series) (IEC 60529)
Max rotation speed	3000 rpm 6000 rpm
Max shaft load	200 N (20 kp)
Shock	50 G, 11 ms up to 2500 ppr (IEC 60068-2-27) 20 G, 11 ms from 3000 ppr (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA 66 glass fiber reinforced / painted aluminum
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	-10° ... +60°C
Storage temperature	-25° ... +70°C
Weight	150 g (EH ser ies) 350 g (EL ser ies)

Connections

Function	N / C / P cable output	Line driver cable output	Output J7 N / C / P	Output J7 Line Driver without Zero	Output M7 N / C / P	Output M7 Line Driver without Zero	Output J10 Line Driver with Zero	Output M10 Line Driver with Zero
+V DC	red	red	6	4	F	D	4 - 5	D - E
0 V	black	black	1	6	A	F	6	F
Ch. A	green	green	3	1	C	A	1	A
Ch. A-	/	brown	/	3	/	C	7	G
Ch. B	yellow	yellow	5	2	E	B	2	B
Ch. B-	/	orange	/	5	/	E	8	H
Ch. Z	blue	blue	4	/	D	/	3	C
Ch. Z-	/	white	/	/	/	/	9	I
\equiv	shield	shield	7	7	G	G	10	J