

MAIN FEATURES

Standard \varnothing 58 encoder series for industrial applications with high mechanical resistance requirements. These encoders are designed to support high radial and axial shaft load and they can be mounted by means of flanges or servo-fasteners.

- Up to 24000 ppr with zero signal
- Several output types available
- Up to 28 V DC power supply
- Up to 300 kHz output frequency
- Cable or connector output
- Several flanges available
- Up to 6000 RPM rotation speed
- Up to IP 66 sealing

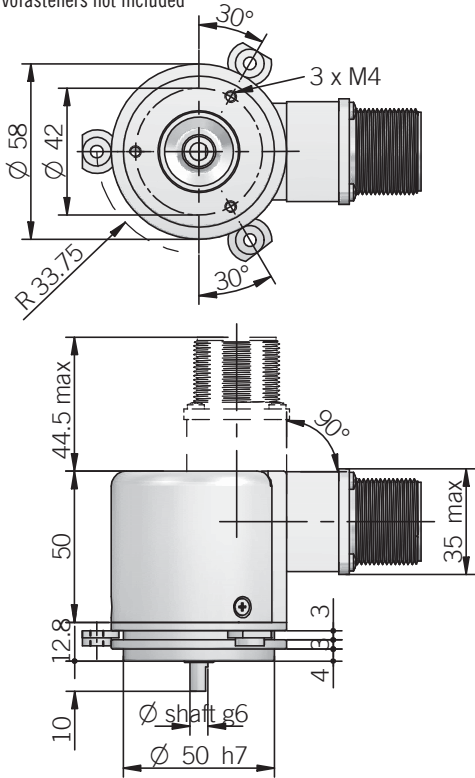


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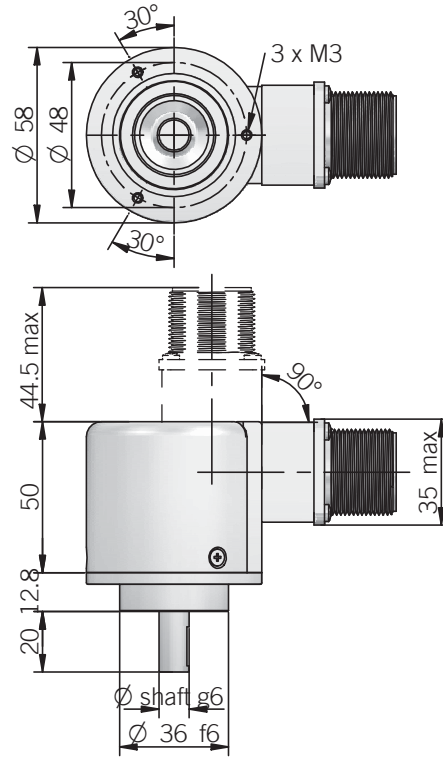
ER	58	B	M*	1000	Z	5/28	P	6	X	6	P	R	.XXX
SERIES incremental encoder series EL incremental encoder series ER	SIZE mm 58	TYPE synchronous flange \varnothing 50 mm B fixing flange \varnothing 36 mm C (EL series only) fixing flange \varnothing 50 mm H coupling flange \varnothing 40 mm T	METAL COVER M <i>* add for the metal cover</i>	RESOLUTION ppr from 1 to 24000 <i>N.B.: please see resolution table or directly contact our offices for pulses availability</i>	ZERO PULSE without zero pulse S with zero pulse Z	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 5 ... 28 V DC 5/28	OUTPUT TYPE P cable output (standard length 1,5 m) M M connector output J J connector output	MAX ROTATION SPEED 3 3000 rpm 6 6000 rpm <i>N.B.: 3000 RPM max with S enclosure rating</i>	ENCLOSURE RATING X IP 54 S IP 66	SHAFT DIAMETER 6 mm (EL 58 B / C / H) 8 mm (EL 58 B / C / H) 9 \varnothing 9,52 (3/8") mm (EL 58 B / C / H) 10 mm (EL 58 B / C / H / T) 12 mm (EL 58 T)	ELECTRONIC INTERFACE N NPN C NPN open collector P push-pull PC protected push-pull (AEIC-7272) L line driver	DIRECTION TYPE A axial R radial	VARIANT XXX custom version

EL - ER 58 B

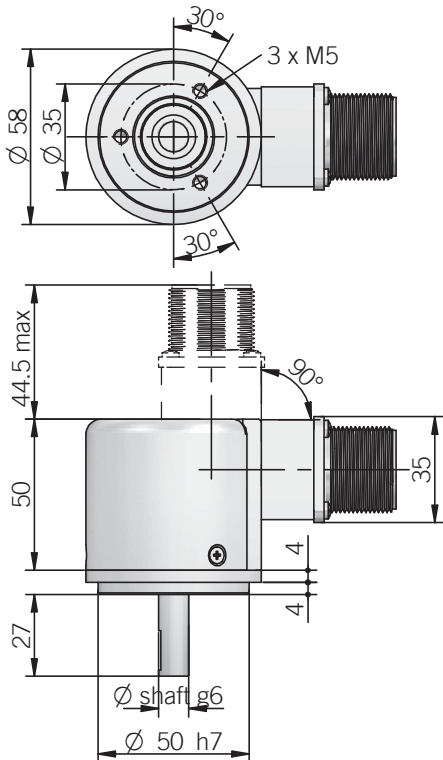
* servofasteners not included



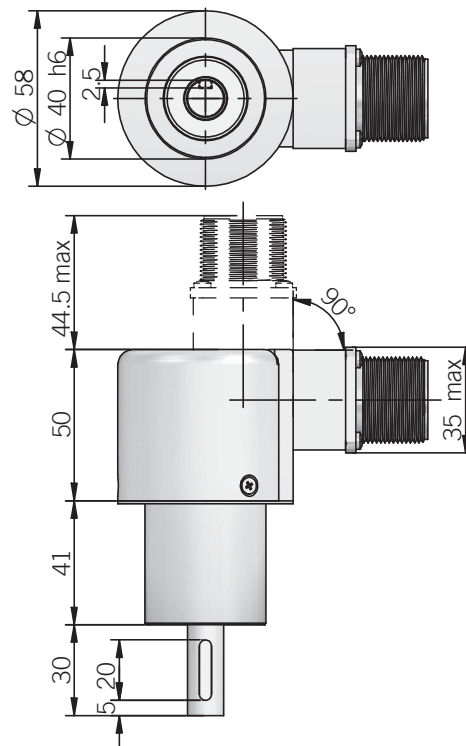
EL - ER 58 C



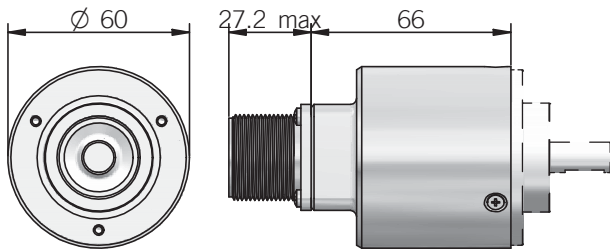
EL - ER 58 H



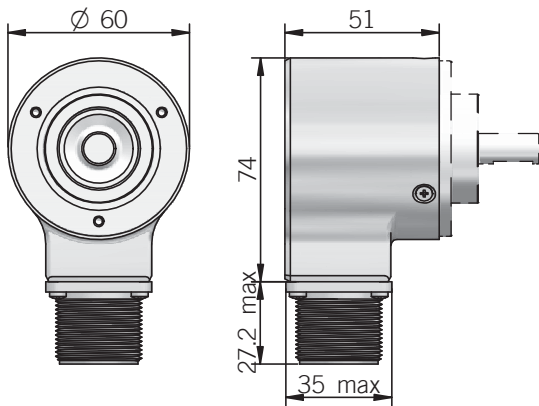
EL - ER 58 T



Dimensions with metal cover axial output



Dimensions with metal cover radial output



ER series resolutions

100 - 120 - 128 - 150 - 200 - 240 - 250 - 256 - 300 - 360 - 400 - 480 - 500 - 512 - 600 - 625 - 720 - 750 - 800 - 900 - 1000 - 1024 - 1200 - 1250 - 1440 - 1500 - 1600 - 1800 - 2000 - 2048 - 2500

EL series resolutions

1 - 2 - 4 - 5 - 10 - 15 - 16 - 20 - 25 - 30 - 32 - 40 - 50 - 60 - 70 - 80 - 90 - 160 - 180 - 350 - 450 - 660 - 700 - 3000 - 3600 - 4000 - 4096 - 5000 - 6000 - 7200 - 8000 - 8192 - 9000 - 10000 - 10240 - 12000 - 14400 - 16000 - 16384 - 18000 - 20000 - 20480 - 24000

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
⊥	shield	shield	7	7	G	G	10	J

Electrical specifications

Resolution	from 1 to 24000 ppr
Power supply	5 V DC \pm 10% 5 ... 28 V DC \pm 5% 8 ... 24 V DC \pm 5% (reverse polarity protection)
Power draw without load	800 mW
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

Mechanical specifications

Shaft diameter	ϕ 6 / 8 / 9,52 (3/8") / 10 mm (EL 58 B / C / H) ϕ 10 / 12 mm (EL 58 T)
Enclosure rating	IP 54 (IEC 60529) IP 66 (IEC 60529)
Max rotation speed	3000 rpm 6000 rpm (only with IP 54)
Max shaft load	10 N (1 kgf) axial with ϕ 6 mm shaft 20 N (2 kgf) radial with ϕ 6 mm shaft 200 N (20 kgf)
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 EL series -20° ... +70°C ER series
Storage temperature	-25° ... +70°C
Weight	300 g