

EV90P

ARTICLE PROPERTIES

TYPE	Heavydic large hollow shaft incremental encoder
SIZE	Ø 90

TECHNICAL DATA

SHAFT DIAMETER	Ø 20H7 mm / Ø 24H7 mm / Ø 25H7 mm / Ø 28H7 mm / Ø 30H7 mm / Ø 38H7 mm / Ø 40H7 mm / Ø 45H7 mm	STARTING TORQUE	< 0.1 N·m with oil seal
SPEED	3500 rpm	BODY MATERIAL	Aluminum
BEARING LIFE	10 ⁹ revolution	HOUSING MATERIAL	Aluminum
MOMENT OF INERTIA	15 x 10 ⁻⁶ kgm ²	WEIGHT	900 g

ENVIRONMENTAL CONDITIONS

PROTECTION CLASS	IP65	OPERATING TEMPERATURE	-20 ... +80 °C (-40 ... +80 °C optional)
MAX LOAD CAPACITY OF THE SHAFT	80 N axial, 140 N radial	STORAGE TEMPERATURE	-45 ... +85 °C
SHOCK RESISTANCE (EN 60068-2-27)	50 g, 11 ms	RELATIVE HUMIDITY / CONDENSATION	90%, condensation not permitted
VIBRATION RESISTANCE (EN 60068-2-6)	10 g, 10 ... 2000 Hz		

Regular resolution: 1024, 2048

Attention: the products with above resolutions are available from stock, others on request.

ELECTRICAL PARAMETERS

OUTPUT CIRCUIT	RS422	PUSH-PULL
RESOLUTION	Max. 4096 ppr	Max. 4096 ppr
SUPPLY VOLTAGE	5±0.25 or 10 ... 30 V DC	10 ... 30 V DC
POWER CONSUMPTION (NO LOAD)	≤ 80 mA	≤ 100 mA
PERMISSIBLE LOAD	± 20 mA	± 30 mA
PULSE FREQUENCY	Max. 300 kHz	Max 300 kHz
SIGNAL LEVEL HIGH	Min. 3.4 V	Min. Ub-1.8
SIGNAL LEVEL LOW	Max. 0.4 V	Max. 2.0 V
RISE TIME TR	Max. 200 ns	Max. 1 µs
FALL TIME TF	Max. 200 ns	Max. 1 µs

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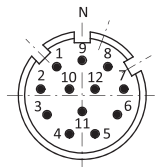
STANDARDS AND DIRECTIVES

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR EN IEC 61000-6-2
EN IEC 61000-6-4

APPROVALS



TERMINAL ASSIGNMENT

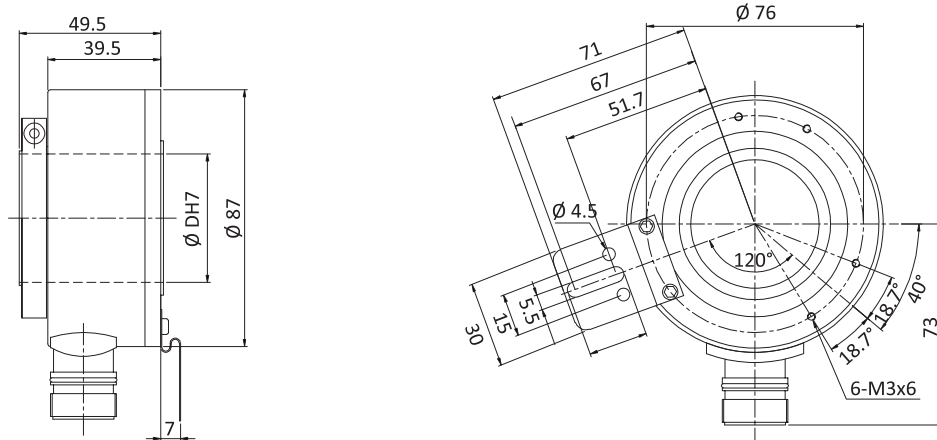


M23 12pin layout (Male)

Signal	0 V	+U _B	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	$\frac{1}{\equiv}$
Pin	10	12	5	6	8	1	3	4	PH

DIMENSIONS (mm)

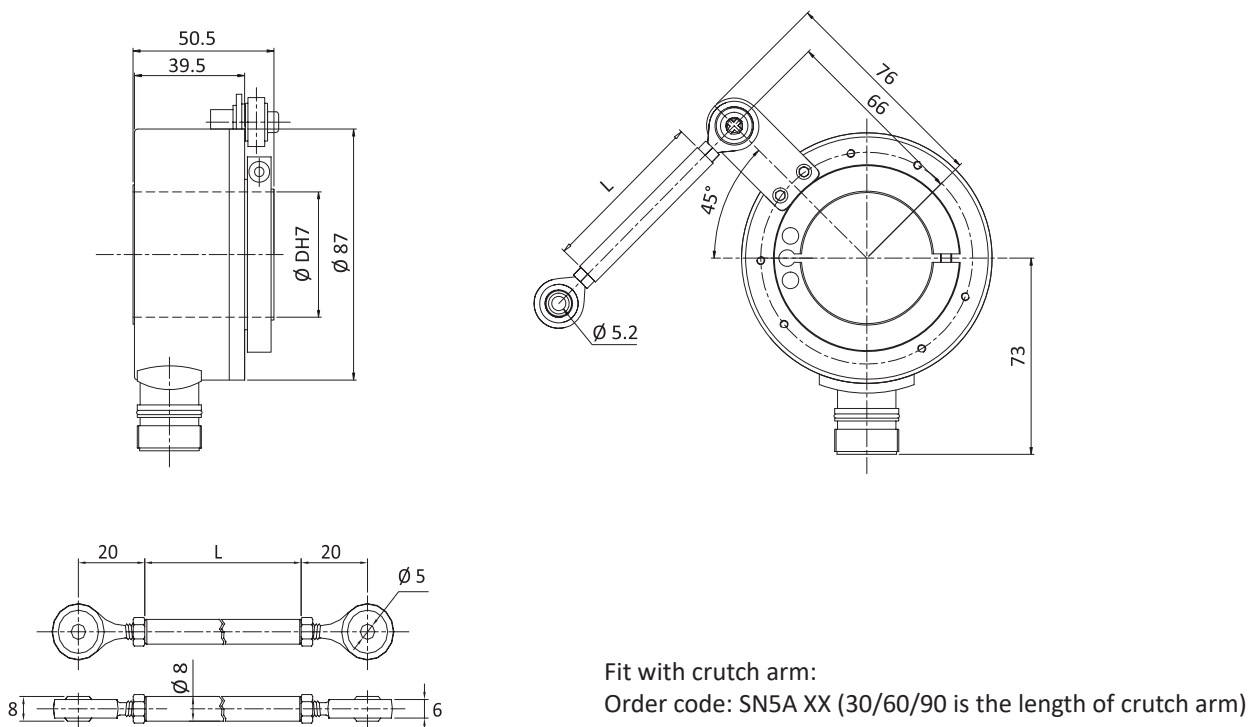
EV90P M23



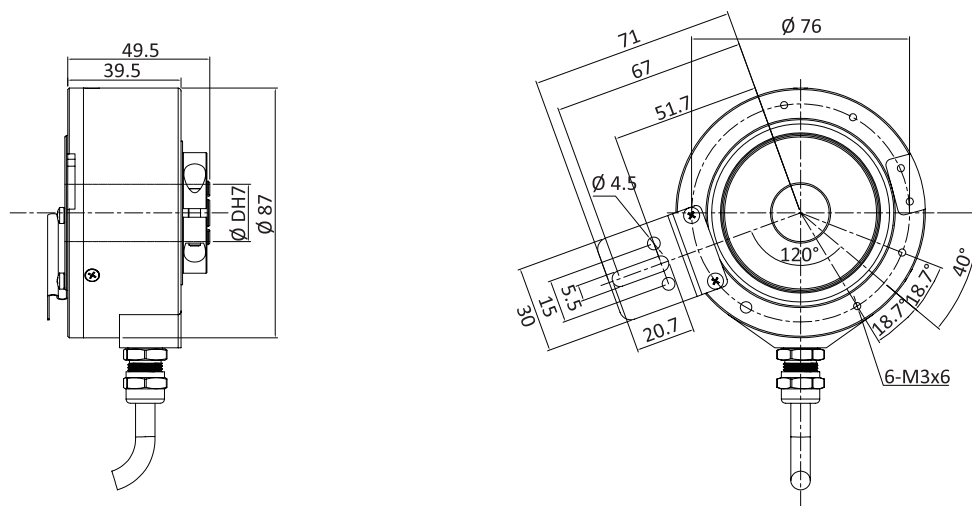
EV90P

DIMENSIONS (mm)

EV90R M23



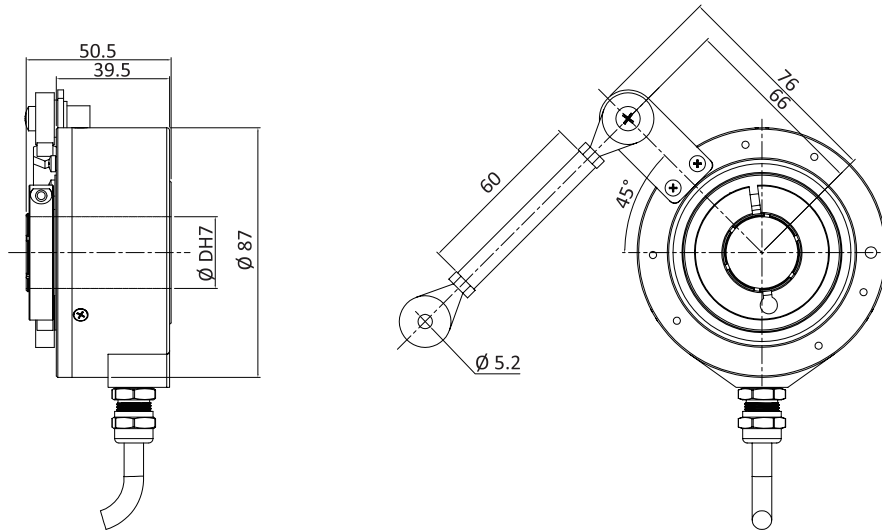
EV90P Cable



EV90P

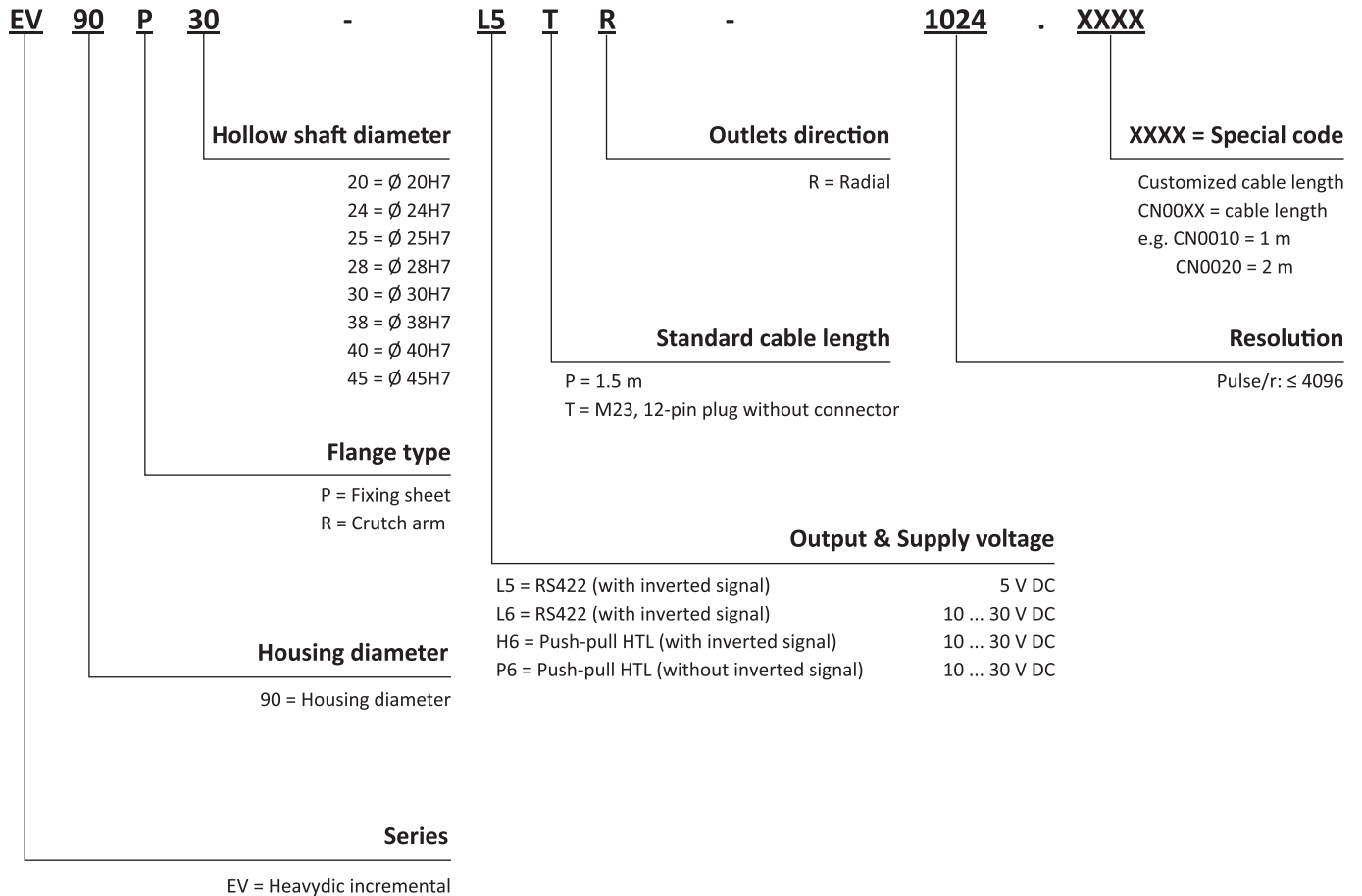
DIMENSIONS (mm)

EV90R Cable



EV90P

ORDER CODE



When the voltage supply within the limited range and only one signal channel is connected improperly at certain moment:
 If $U_b = 5\text{ V}$, it's permitted to connect to signal channels, 0V or U_b ;
 If $U_b > 5\text{ V}$, it's permitted to connect to signal channels or 0V.

Matched connector: For connection type "T": TMSP1612F

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