

# ROTACOD

Absolute single turn and multi turn encoder

Series

HSCT • HMCT



HSCT • HMCT

- Compact design, through hollow shaft
- Industrial & feedback applications
- Single turn version up to 18 bits
- Multi turn version, 16 x 12 bits
- Incremental resolution up to 8192 PPR or 2048 sin/cos

## ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Hollow shaft diameter:	Ø 14, 15 mm
Reducing sleeves BR1-xx: from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Starting torque (at 20°C):	1 Ncm (typ.)
Bearings life:	400 x10 <sup>6</sup> rev. min. (10 <sup>9</sup> rev. min. with 20 N shaft loading max.)
Electrical connections:	M12, M23 plug or cable output 1 m (3.3 ft)
Weight:	~ 200 g (7 oz)
Option:	• additional cable

## ELECTRICAL SPECIFICATIONS

Resolution:	SSI, BiSS: HSCT 18 bit max., HMCT 16 x 12 bit sin/cos: 2048 PPR AB /AB: 2048, 4096, 8192 PPR
Accuracy:	± 0,007°
Output circuits:	SSI, SSI + 1Vpp sin/cos, SSI + Line Driver 5Vdc, SSI + Push-Pull 10-30Vdc, BiSS + 1Vpp sin/cos
Output code:	Gray, Binary
Counting frequency:	220 kHz max.
Power supply:	+5Vdc ±5%, +10V +30V
Power consumption:	1 W
Protection:	against inversion of polarity
EMC:	electro-magnetic immunity, according to: EN-61000-4-2 EN-61000-4-4
Optoelectronic life:	100.000 h min.
Functions:	• Counting direction (input) • Electronic zero setting (input)

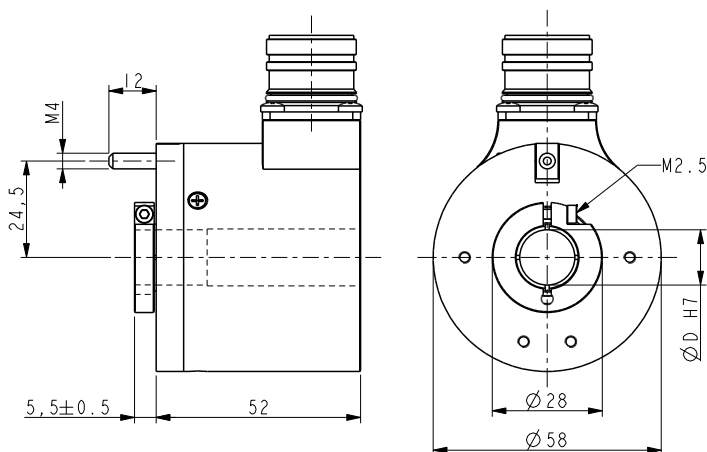
## MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305
Light source:	GaAl diodes

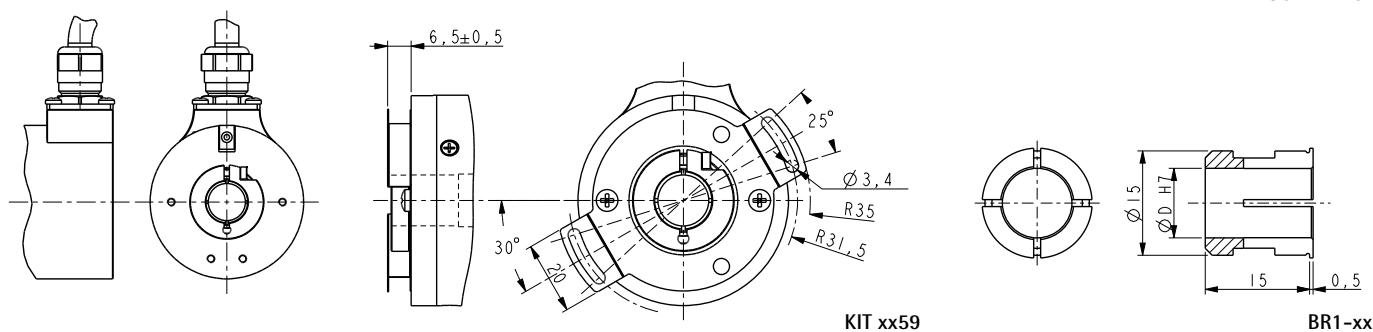
## ACCESSORIES

EPFL121H:	M23 12 pin connector
EM12F8:	M12 8 pin mating connector
EM12F12:	M12 12 pin mating connector
BR1:	reducing sleeves
EC-CR12F-S28-T12-xx:	cordset xx m, M23 connector
EC-M12F8-LK-M8-xx:	cordset xx m, M12 8 pin connector
EC-M12F12-LK-T12-xx:	cordset xx m, M12 12 pin conn.
KIT xx59:	fixing plate

Specifications subject to changes without prior notice



HSCT • HMCT



Order code - Single turn

HSCT	XX a	/	XXX b	-	XX c	-	X d	XX e	/Sxxx f
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<p><b>a</b> RESOLUTION Counts x rev. 16 = 65536 cpr 18 = 262144 cpr</p>	<p><b>b</b> OUTPUT CIRCUITS GV = SSI, LSB aligned, Gray code + 2048 PPR sin/cos BV = SSI, LSB aligned, Binary code + 2048 PPR sin/cos GA = SSI, LSB aligned, Gray code BA = SSI, LSB aligned, Binary code GG = SSI, MSB aligned, Gray code BG = SSI, MSB aligned, Binary code SC1 = BiSS C-mode + 2048 PPR sin/cos (5Vdc) SC2 = BiSS C-mode + 2048 PPR sin/cos G1 = SSI, Gray code + 2048 PPR AB, /AB B1 = SSI, Binary code + 2048 PPR AB, /AB</p>	<p><b>c</b> SHAFT DIAMETER 14 = 14 mm 15 = 15 mm</p> <p><b>d</b> CONNECTOR POSITION R = radial</p>	<p><b>e</b> CONNECTIONS L1 = cable output 1 m (standard) L2 = cable output 2 m Lx = cable output x m M2 = M23 connector M = M12 8 pin plug (only for GA, BA, GG, BG) M1 = M12 12 pin plug (except for GA, BA, GG, BG)</p>	<p><b>f</b> CUSTOM VERSION</p>
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Order code - Multi turn

HMCT	XX/XXXX a	XXX b	-	XX c	-	X d	XX e	/Sxxx f
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<p><b>a</b> RESOLUTION Counts x rev./rev. 13/4096 = 8192 x 4096 16/4096 = 65536 x 4096</p>	<p><b>b</b> OUTPUT CIRCUITS GV = SSI, LSB aligned, Gray code + 2048 PPR sin/cos BV = SSI, LSB aligned, Binary code + 2048 PPR sin/cos GA = SSI, LSB aligned, Gray code BA = SSI, LSB aligned, Binary code GG = SSI, MSB aligned, Gray code BG = SSI, MSB aligned, Binary code SC1 = BiSS C-mode + 2048 PPR sin/cos (5Vdc) SC2 = BiSS C-mode + 2048 PPR sin/cos G1 = SSI, Gray code + 2048 PPR AB, /AB B1 = SSI, Binary code + 2048 PPR AB, /AB</p>	<p><b>c</b> SHAFT DIAMETER 14 = 14 mm 15 = 15 mm</p> <p><b>d</b> CONNECTOR POSITION R = radial</p>	<p><b>e</b> CONNECTIONS L1 = cable output 1 m (standard) L2 = cable output 2 m Lx = cable output x m M2 = M23 connector M = M12 8 pin plug (only for GA, BA, GG, BG) M1 = M12 12 pin plug (except for GA, BA, GG, BG)</p>	<p><b>f</b> CUSTOM VERSION</p>
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