

# ROTACOD

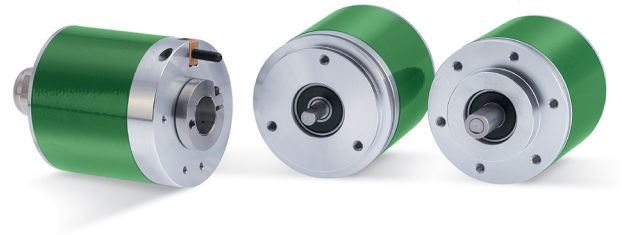
Absolute encoders

Series

HM58 P • HM58S P • HMC58 P



- Compact programmable encoder
- Singleturn resolution up to 18 bit, multiturn up to 14 bit
- SSI or Bit parallel output
- Programmable SSI protocol, clock rate and timing



HMx58x P

## ENVIRONMENTAL SPECIFICATIONS

Shock:	100 g, 6 ms (acc. to MIL STD 202F)
Vibrations:	10 g, 5-2000 Hz (acc. to MIL STD 202F)
Operating temperature range:	-40°C +85°C (-40°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H. without condensation)
Protection:	IP67, IP65 shaft side
Option:	• Operating temperature range: -40°C +100°C (-40°F +212°F)

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Solid shaft:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft:	Ø 14, 15 mm
Reducing sleeves BR1-xx from Ø15mm:	to 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial and radial):	100 N max.
Shaft rotational speed:	12000 rpm, 9000 rpm continuous operation
Bearing life:	400x10 <sup>6</sup> rev. min. (10 <sup>9</sup> rev. min. with shaft loading of 20 N max.)
Weight:	~ 0,3 kg (10,6 oz)
Electrical connections:	SSI: M23 or M12 connector, cable 1 m, MIL pin inline connector Bit parallel: cable, MIL or DSub inline connector
Option:	• additional cable

## ELECTRICAL SPECIFICATIONS

Resolution:	singleturn = programmable, 1-262144 cpr multiturn = programmable, 1-16384 turns
Output code:	Gray, Binary, BCD
Power supply:	+10Vdc ÷ 30Vdc
Power consumption:	SSI: 1 W Bit parallel: 2,16 W
Output circuits:	SSI (RS422), Bit parallel Push-Pull, NPN
Output current:	40 mA (each channel)
Counting frequency:	> 150 kHz
Accuracy:	± 30% LSB
Protection:	against inversion of polarity, short-circuit
EMC:	according to: EN-61000-4-2/A1 EN-61000-4-4
Optoelectronic life:	> 100.000 h
Functions:	<ul style="list-style-type: none"> <li>• Programmable resolution</li> <li>• Teach-in of resolution</li> <li>• Counting direction (programmable + input)</li> <li>• Zero setting / Preset (programmable + input) <ul style="list-style-type: none"> <li>• Parity bit (even/odd)</li> </ul> </li> <li>• SSI protocol (alignment, clock, timing) <ul style="list-style-type: none"> <li>• Latch, Tristate inputs</li> </ul> </li> </ul>

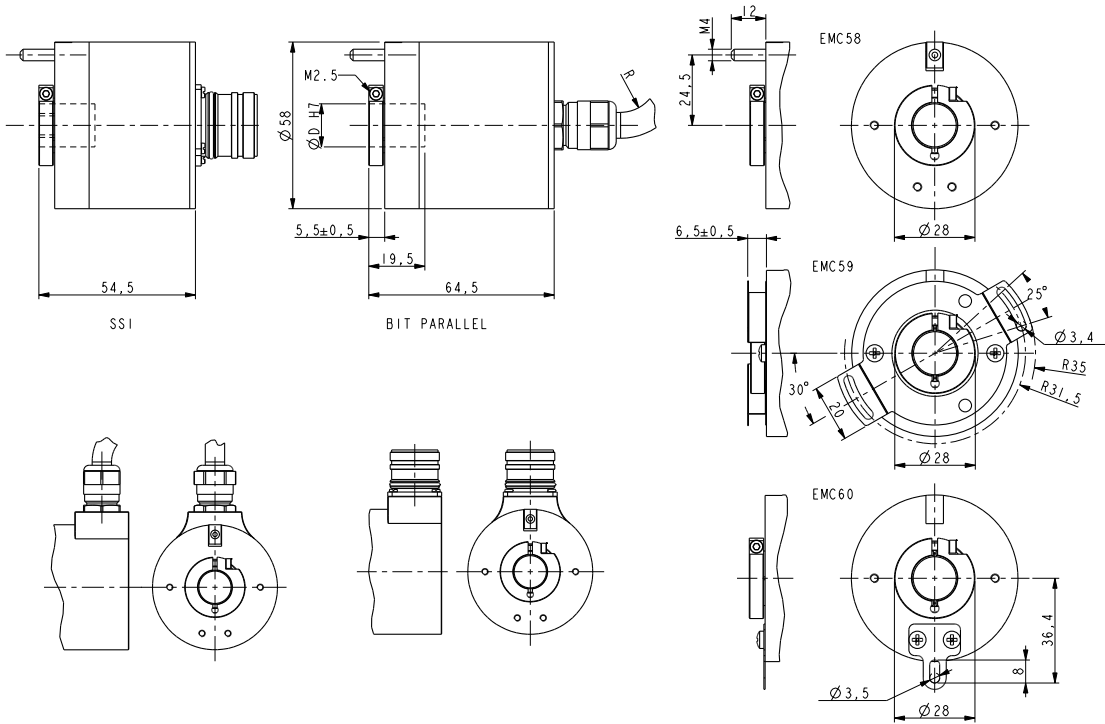
## MATERIALS

Flange:	non corroding, UNI EN AW-6082
Housing:	non corroding, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non magnetic, UNI EN 4305

## ACCESSORIES

E41MLS:	MIL 41 pin connector
E32MLS:	MIL 32 pin connector
E19MLS:	MIL 19 pin connector
E10MLS:	MIL 10 pin connector
E7MLS:	MIL 7pin connector
EDA 15S:	DSub 15 pin connector
EDB 25S:	DSub 25 pin connector
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
LKM-386:	fixing clamps





HMC58 - HMC59 - HMC60

Order code - Bit parallel

Additional code (optional)

HM58	XX	/	XXXXX	X	X	XX	X	XXX	X	/Sxxx - /Pxxx
HM58S	(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
HMC58										
HMC59										
HMC60										

<p><b>(a) RESOLUTION</b> 18 = 18 bit</p> <p><b>(b) REVOLUTIONS</b> 16384 = 16384 turns</p> <p><b>(c) P = programmable</b></p> <p><b>(d) OUTPUT</b> Y = Push-Pull N = NPN</p>	<p><b>(e) SHAFT DIAMETER</b> 6 = 6 mm 8 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (HMCxx) 15 = 15 mm (HMCxx)</p> <p><b>(f) CONNECTION POSITION</b> - = axial R = radial</p>	<p><b>(g) CONNECTIONS</b> Lx = cable output x m Z1 = 1 m cable + DSub 15 pin inline plug W1 = 1 m cable + DSub 25 pin inline plug Y1 = 1 m cable + MIL 41 pin inline plug V1 = 1 m cable + MIL 32 pin inline plug X1 = 1 m cable + MIL 19 pin inline plug</p>	<p><b>(h) OPERATING TEMPERATURE RANGE</b> K = -40°C +100°C (-40°F +212°F)</p> <p><b>(i)</b> /Sxxx: Custom version /Pxxx: Factory programmed encoder on customers request</p>
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Order code - SSI output

Additional code (optional)

HM58	XX	/	XXXXX	X	X	XX	X	XXX	X	/Sxxx - /Pxxx
HM58S	(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
HMC58										
HMC59										
HMC60										

<p><b>(a) RESOLUTION</b> 18 = 18 bit</p> <p><b>(b) REVOLUTIONS</b> 16384 = 16384 turns</p> <p><b>(c) P = programmable</b></p> <p><b>(d) OUTPUT</b> S = SSI</p>	<p><b>(e) SHAFT DIAMETER</b> 6 = 6 mm 8 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (HMCxx) 15 = 15 mm (HMCxx)</p>	<p><b>(f) CONNECTION POSITION</b> - = axial R = radial</p> <p><b>(g) CONNECTIONS</b> Lx = cable output x m M2 = M23 connector P1 = 1 m cable + MIL 7 pin inline plug D1 = 1 m cable + MIL 10 pin inline plug</p>	<p><b>(h) OPERATING TEMPERATURE RANGE</b> K = -40°C +100°C (-40°F +212°F)</p> <p><b>(i)</b> /Sxxx: Custom version /Pxxx: Factory programmed encoder on customers request</p>
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