

# ROTACOD

Absolute multi-turn encoders

series

HM58 • HM58S • HMC58



- For motor feedback applications
- Resolution up to 16 + 14 bit
- Additional incremental track, 2048 PPR sin/cos



HMx58x



[www.lika.biz](http://www.lika.biz)  
 • Data-sheet  
 • User manual

## 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:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-40°C +100°C (-40°F +212°F) (98% R.H.without condensation)
Protection:	IP65

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft:	∅ 6, 8, 9.52, 10, 12, 14, 15 mm
Shaft loading (axial and radial):	40 N max.
Shaft rotational speed:	6000 rpm max.
Moment of inertia:	~95 gcm <sup>2</sup>
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:	EML121H connector
Options:	• cable output 1 m

## ELECTRICAL SPECIFICATIONS

Resolution:	SSI, BiSS, 16x14 bit max. sin/cos: 2048 PPR
STD codes:	Gray, Binary
Power supply:	+10V +30V
Power consumption:	1 W
Output circuits:	SSI, SSI + 1Vpp, BiSS (B-mode and C-mode) + 1Vpp
Output current:	40 mA max.
Counting frequency:	220 kHz max.
Accuracy:	± 0,007°
Protection:	Protected against inversion of polarity, Push-Pull protected against short-circuit
Optoelectronic life:	100.000 h min.
Functions:	• Counting direction (complementary) • Electronic zero setting

## MATERIALS

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

## ELECTRICAL CONNECTIONS

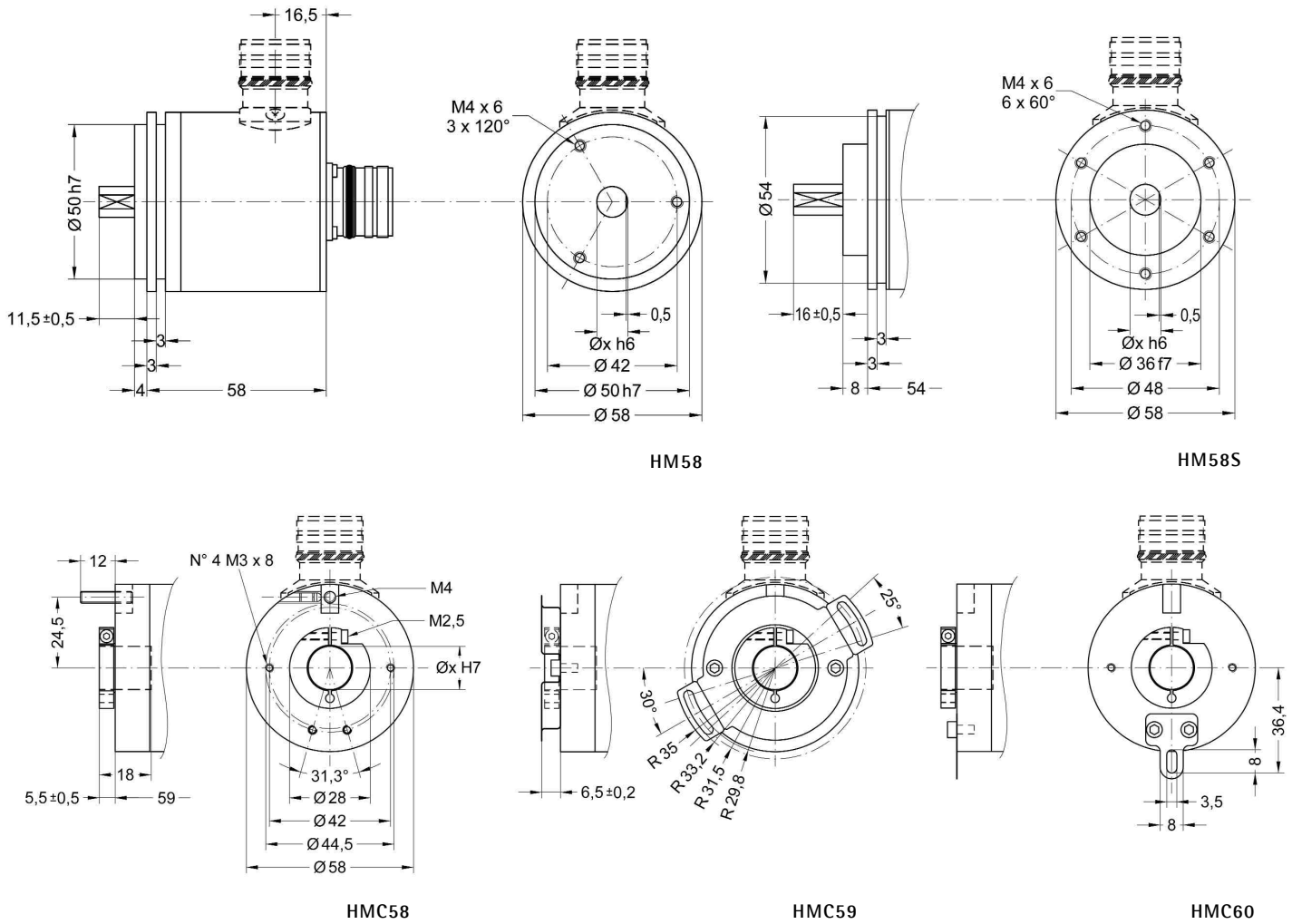
1	2	Function
1	Yellow	Clock -
2	Violet	Clock +
3	Grey	Data +
4	Pink	Data -
5	Green	A (cos+)
6	Brown	/A (cos-)
7	Red	B (sin+)
8	Blue	Complementary
9	White	Zero setting
10	Black	/B (sin-)
11	Brown/Green	+Vdc
12	White/Green	0 Vdc

1 = EML121H M23 12 pin connector

2 = Cable Lika 4x2x0,14 mm<sup>2</sup>+ 4x0,25 mm<sup>2</sup>

## ACCESSORIES

EPFL121H:	M23 12 pin connector
PAN/PGF:	flexible couplings
BR1:	reducing sleeves
EC-CR12F-S28-T12-xx:	pre-assembled cable xx m
LKM-386:	fixing clamps



ORDERING CODE

ADDITIONAL CODE (indicate only if necessary)

<b>XXXXX</b>	<b>XX</b>	<b>XX</b>	-	<b>XX</b>	-	<b>X</b>	<b>XX</b>	<b>/Sxxx</b>												
SERIES				SHAFT DIAMETER				custom version												
HM58 - HM58S - HMC58 HMC59 - HMC60				<table border="1"> <tr><td>6 mm</td><td><b>6</b></td></tr> <tr><td>8 mm</td><td><b>8</b></td></tr> <tr><td>9.52 mm / 3/8"</td><td><b>P9</b></td></tr> <tr><td>10 mm</td><td><b>10</b></td></tr> <tr><td>12 mm</td><td><b>12</b></td></tr> </table>	6 mm	<b>6</b>	8 mm	<b>8</b>	9.52 mm / 3/8"	<b>P9</b>	10 mm	<b>10</b>	12 mm	<b>12</b>						
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				HMCxx				Cable output and length Ex. L4 = 4 m (13.2 ft) L7 = 7 m (23.0 ft)												
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RESOLUTION Counts x rev./rev.																				
8192 x 4096 65536 x 16384	<b>13/4096</b> <b>16/16384</b>																			
						<b>R</b>		Side mount connector or cable												