

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

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:	Ø 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 ²
Bearing life:	400x10 ⁶ rev. min. (10 ⁶ 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 (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
Flange:	non corroding
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic
Light source:	GaAl diodes

ELECTRICAL CONNECTIONS

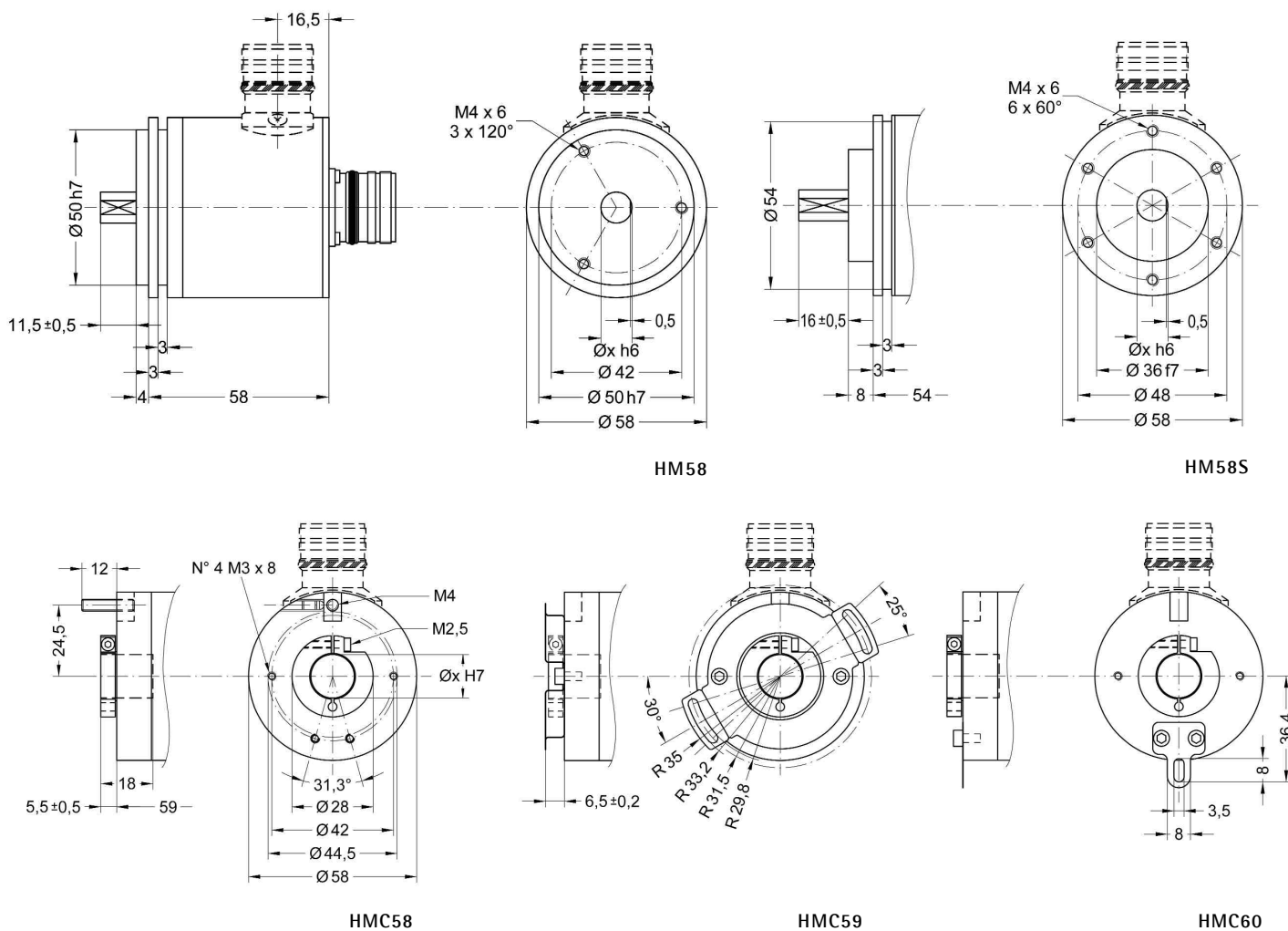
1	2	Function
1	Yellow	Clock -
2	Violet	Clock +
3	Grey	Data +
4	Pink	Data -
5	Green	A (sin)
6	Brown	/A (sin-)
7	Red	B (cos)
8	Blue	Complementary
9	White	Zero setting
10	Black	/B (cos-)
11	Brown/Green	+Vdc
12	White/Green	0 Vdc

1 = EML121H M23 12 pin connector

2 = Cable Lika 4x2x0,14 mm²+ 4x0,25 mm²

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)

XXXXX

SERIES

HM58 - HM58S - HMC58
HMC59 - HMC60

XX

XX

-

XX

SHAFT DIAMETER

6 mm	6
8 mm	8
9.52 mm / 3/8"	P9
10 mm	10
12 mm	12

HM58-HM58S

SHAFT DIAMETER

14	14 mm
15	15 mm

HMCxx

-

X

XX

RESOLUTION Counts x rev./rev.

8192 x 4096 **13/4096**
65536 x 16384 **16/16384**

OUTPUT CIRCUITS

GV	SSI, Gray code + 2048 PPR sin/cos
BV	SSI, Binary code + 2048 PPR sin/cos
GA	SSI, Gray code
BA	SSI, Binary code
I7	BiSS + 2048 PPR sin/cos (only 16/16384)

Cable output and length
Ex. L4 = 4 m (13.2 ft)
L7 = 7 m (23.0 ft)

R Side mount connector or cable