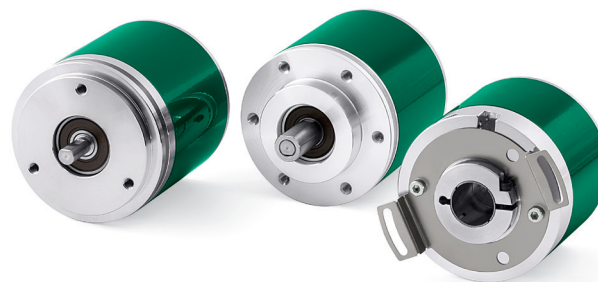


- Programmable absolute encoder (via USB cable)
- Compact housing
- Max. resolution 262144 cpr x 16384 turns
- Programmable scaling factor & Teach-in function
- Free SSI parameters setting
- Roundloop function
- Bit parallel output available



HM58 P • HM58S P • HMC58 P

ENVIRONMENTAL SPECIFICATIONS

Shock:	250 g, 6 ms acc. to CEI EN 60068-2-27
Vibrations:	10 g, 5-2000 Hz acc. to CEI EN 60068-2-6
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:	IP67, IP65 shaft side

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 Ø 15mm to:	Ø 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
Starting torque (at 20°C):	HM58: 0,15 Ncm (typical) HM58S, HMCxx: 0,40 Ncm (typical)
Bearing life:	400 x 10 ⁶ rev. min. (10 ⁹ rev. min. with 20 N shaft loading max.)
Weight:	~ 300 g (10,6 oz)
Electrical connections:	SSI: M12, M23 plug, MIL inline plug or cable output 1 m (3.3 ft) Bit parallel: MIL, DSub inline plug or cable output 1 m (3.3 ft)
Option:	• additional cable

ELECTRICAL SPECIFICATIONS

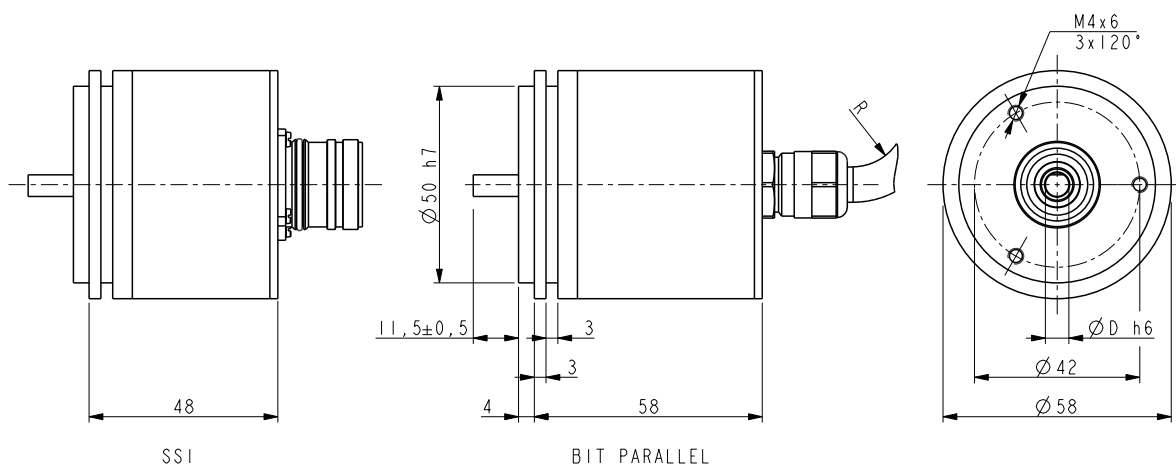
Resolution:	262144 cpr x 16384 turns (programmable)
Accuracy:	typically ± 0,01°
Output code:	Gray, Binary, BCD (programmable)
Power supply:	+10Vdc ÷ 30Vdc
Power consumption:	SSI: 1 W Bit parallel: 2,2 W
Output circuits:	SSI (RS422), Bit parallel Push-Pull, NPN RS232 programming interface
Counting frequency:	SSI: 150 kHz, Bit parallel: 30 kHz
Protection:	against inversion of polarity, short-circuit
EMC:	electro-magnetic immunity, according to: EN-61000-4-2 EN-61000-4-4
Functions:	<ul style="list-style-type: none"> • Programmable resolution • Teach-in of resolution • Counting direction (programmable + input) • Zero setting / Preset (programmable + input) <ul style="list-style-type: none"> • Parity bit (even/odd) • SSI protocol (alignment, clock, timing) <ul style="list-style-type: none"> • Latch, Tristate inputs

MATERIALS

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

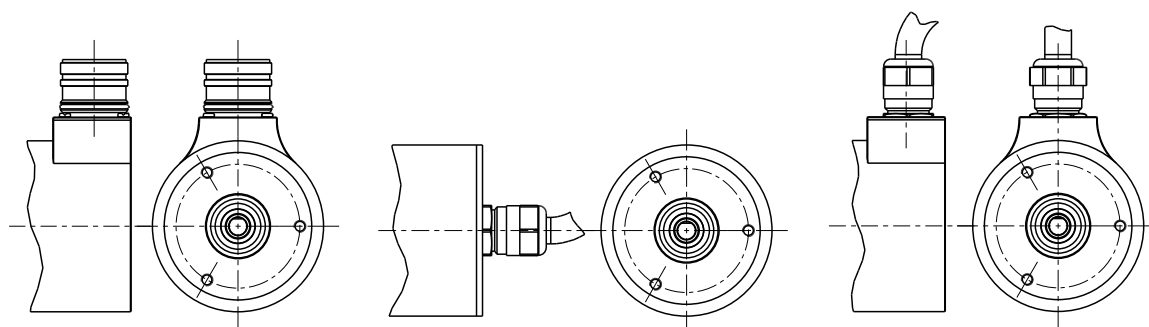
ACCESSORIES

EPFL121H:	M23 12 pin mating connector
EM12F12:	M12 12 pin mating connector
E41MLS:	MIL 41 pin mating connector
E32MLS:	MIL 32 pin mating connector
E19MLS:	MIL 19 pin mating connector
E10MLS:	MIL 10 pin mating connector
E7MLS:	MIL 7pin mating connector
EDA 15S:	DSub 15 pin mating connector
EDB 25S:	DSub 25 pin mating connector
PAN/PGF:	flexible couplings
IF92:	Programming box with USB conn.
EC-HM58PY-M41F:	MIL 41 programming cable
EC-M12F12-S69-I5-005:	M12 programming cable
EC-CR12F-S70-I5-005:	M23 programming cable
BR1:	reducing sleeves
LKM-386:	fixing clamps

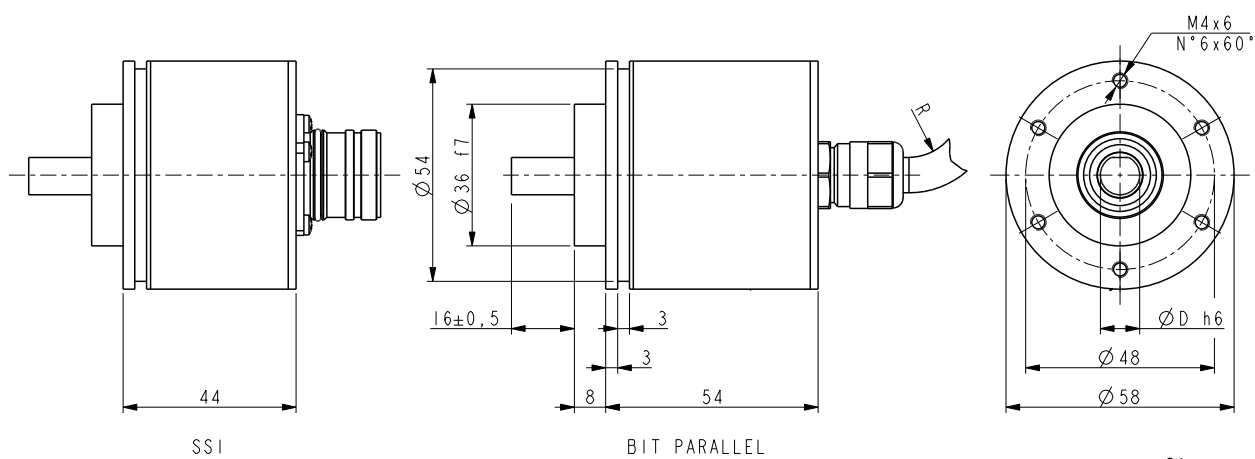


SSI

BIT PARALLEL

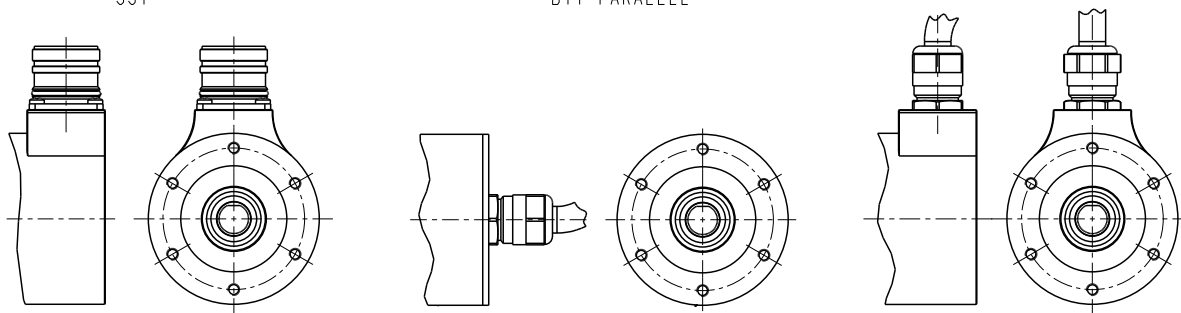


HM58 P

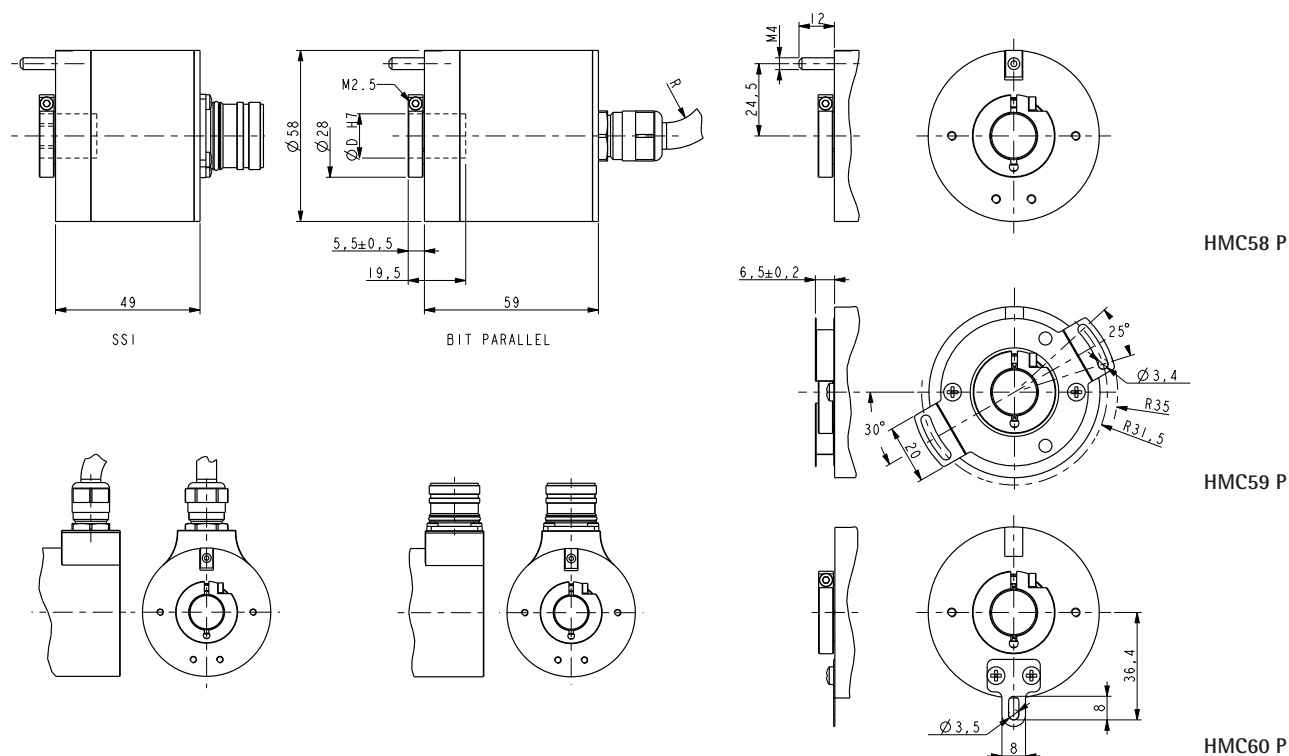


SSI

BIT PARALLEL



HM58S P



Order code - Bit parallel output

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

<p>(a) RESOLUTION (BIT SINGLETURN - BIT MULTITURN) 18-14 = 18x14 bit (262144 cpr x 16384 turns)</p> <p>(b) INTERFACE / POWER SUPPLY PY2 = programm., Push-Pull, +10+30Vdc PN2 = programmable, NPN, +10+30Vdc</p>	<p>(c) SHAFT DIAMETER 06 = 6 mm 08 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (only HMCxx) 15 = 15 mm (only HMCxx)</p> <p>(d) PROTECTION P = IP67, IP65 shaft side</p>	<p>(e) OPER. TEMP. RANGE T = -25°C +85°C (-13°F +185°F)</p> <p>(f) CONNECTION POSITION A = axial R = radial</p> <p>(g) CONNECTION TYPE & CABLE LENGTH Lxx0 = cable out. x m (max. length 10m) Y010 = 1 m cable + MIL 41 pin inline plug</p>	<p>with (h) = /Pxxx Z010 = 1 m cable + DSub 15 pin inline plug W010 = 1 m cable + DSub 25 pin inline plug X010 = 1 m cable + MIL 19 pin inline plug V010 = 1 m cable + MIL 32 pin inline plug Axx0 = A20 type cable, xx m (max. length 10m) Bxx0 = A32 type cable, xx m (max. length 10m)</p> <p>(h) /Sxxx: Custom version /Pxxx: Factory programmed encoder on customer request</p>
--	--	--	--

Order code - SSI output

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

<p>(a) RESOLUTION (BIT SINGLETURN - BIT MULTITURN) 18-14 = 18x14 bit (262144 cpr x 16384 turns)</p> <p>(b) OUTPUT PS2 = programmable, SSI, +10Vdc +30Vdc</p>	<p>(c) SHAFT DIAMETER 06 = 6 mm 08 = 8 mm P9 = 9.52mm / 3/8" 10 = 10 mm 12 = 12 mm 14 = 14 mm (only HMCxx) 15 = 15 mm (only HMCxx)</p> <p>(d) PROTECTION P = IP67, IP65 shaft side</p>	<p>(e) OPER. TEMP. RANGE T = -25°C +85°C (-13°F +185°F)</p> <p>(f) CONNECTION POSITION A = axial R = radial</p> <p>(g) CONNECTION TYPE & CABLE LENGTH Lxx0 = cable out. x m (max. length 10m) M2 = M23 12 pin plug M1 = M12 12 pin plug</p>	<p>with (h) = /Pxxx D010 = 1 m cable + MIL 7 pin inline plug P010 = 1 m cable + MIL 10 pin inline plug Cxx0 = A8 type cable, xx m (max. length 10m)</p> <p>(h) /Sxxx: Custom version /Pxxx: Factory programmed encoder on customer request</p>
--	--	--	--

Document release	Date	Description
1.2	September 2023	New order code
1.1	19.03.2021	Order code review - Ax cable