

MAIN FEATURES

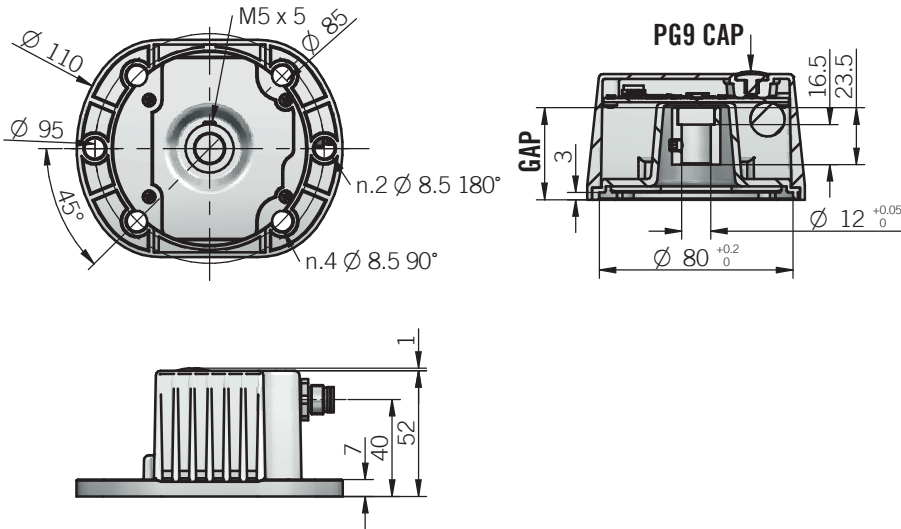
Magnetic multiturn absolute encoder with a buffer battery and Modbus RTU communication. It is design for installation, for example, on 050/063 series gearmotors.

- Total resolution 25 bit (9 bit singleturn + 16bit multiturn)
- Power supply up to +30 VDC, battery life up to 10 years
- Radial cable or metallic M12 connector output
- IP65 enclosure rating
- Mounting in kit without bearings, hub for 12 mm diameter shaft
- Battery activation via dip-switch



ORDERING CODE	EAM	110M	16	9	B	10/30	RS485	12	T	X	M12R	.162	+XXX
SERIES magnetic multiturn absolute encoder series EAM													
MODEL 050/063 flange 110M													
MULTITURN RESOLUTION bit 16													
SINGLETURN RESOLUTION bit 9													
CODE TYPE binary B													
POWER SUPPLY 10 ... 30 V DC 10/30													
ELECTRICAL INTERFACE RS-485 RS485													
BORE DIAMETER mm 12													
LINE TERMINATION with termination resistor T without termination resistor X													
ENCLOSURE RATING IP 65 X													
OUTPUT TYPE radial cable (standard length 0,5 m) PR preferred cable lengths 1,5 / 2 / 3 / 5 / 10 m, to be added after DIRECTION TYPE (eg. PR5) M12 radial connector M12R													
SOCKET socket not included .162 to be reported only with connector output (eg. M12R.162), for socket see Accessories													
VARIANT custom version +XXX													

110M



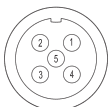
dimensions in mm

ELECTRICAL SPECIFICATIONS

Sensing principle	Magnetic asic
Singleturn resolution	9 bit
Multiturn resolution	16 bit (battery buffered)
Power supply¹	+10 ... 30 V DC (reverse polarity protection)
Current consumption without load	30 mA
Battery life (at +20°C / +68°F)	10 anni (depending on the usage)
Electrical interface	RS-485
Code type	binary
Communication protocol	Modbus RTU
Maximum permissible electrical acceleration	100 rad/s ²
Counting direction	decreasing clockwise (shaft view)
Start-up time	150 ms with main power
Accuracy	± 0,75°
Cable type	shielded - fixed installation conductors section 0,22 mm ² / AWG 24 bending radius min 60 mm
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive

CONNECTIONS

Function	Cable	M12 5 pin
+V DC	red	1
0 V	black	3
A	green	2
B	yellow	4
NC	/	5
Shield	shield	/

M12 connector (5 pin)
M12 A coded
front view


MECHANICAL SPECIFICATION

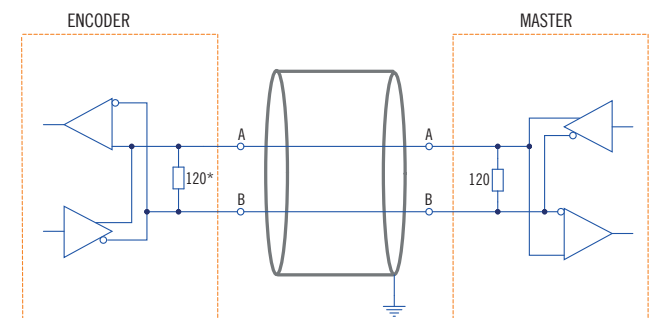
Bore diameter	Ø 12 mm
Magnet positioning (GAP)	31,5 ... 38 mm
Enclosure rating	IP 65 (IEC 60529) when properly installed
Max rotation speed	6000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibrations	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,1 x 10 ⁻⁶ kgm ² (2,4 x 10 ⁻⁶ lbfm ²)
Magnet hub material	PA66 glass fiber reinforced
Housing material	PA66 glass fiber reinforced
Operating temperature^{2,3}	-20° ... +70°C (-4° ... +158°F)
Storage temperature^{2,3}	-20° ... +70°C (-4° ... +158°F)
Weight	160 g (5,64 oz)

¹ as measured at the transducer without cable influences

² measured on the transducer flange

³ condensation not allowed

RS-485 ELECTRICAL INTERFACE



* with line termination (T ordering code)