

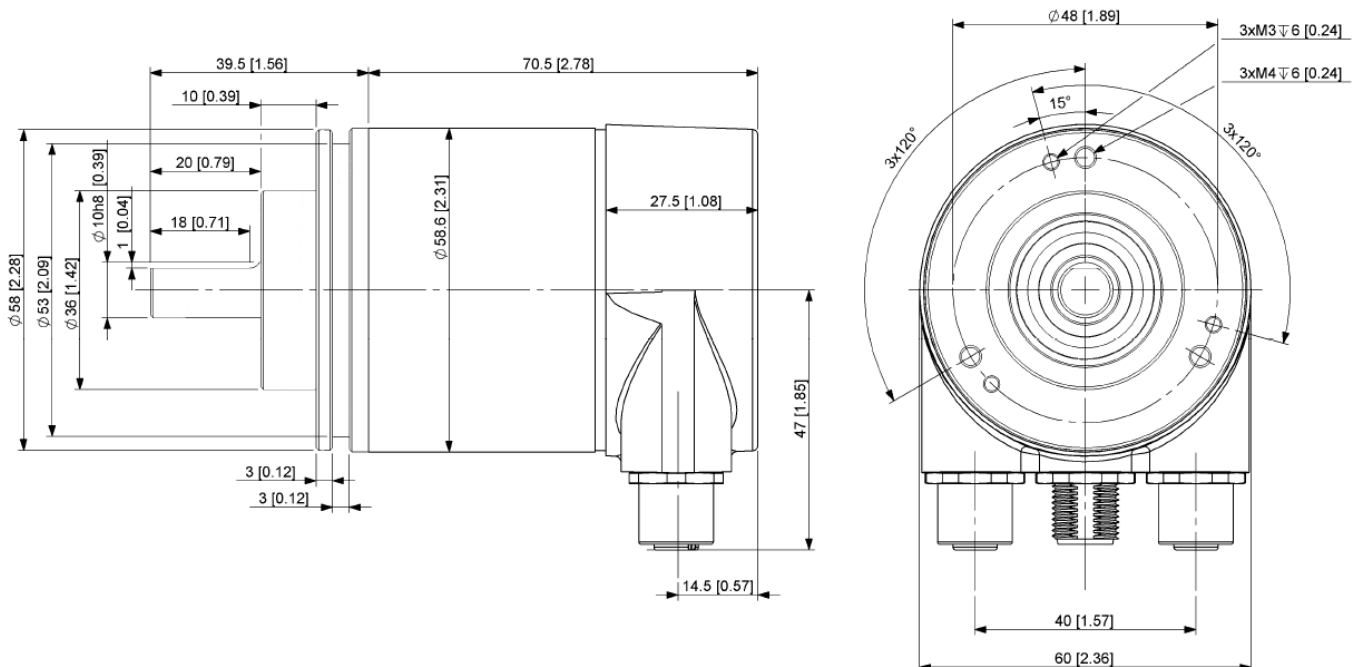
ETHERCAT ABSOLUTE MULTI-TURN ENCODER, MHM5 RANGE

- MHM5, standard encoder Ø58mm with Ethercat interface:
- Robust and compact conception.
- Solid shaft version Ø 10 mm (06 mm available upon request).
- Precision ball bearings with sealing flange.
- High temperatures performances -40°C ... +85°C.
- Code disc made of unbreakable and durable plastic.
- Mechanical memorisation of the number of turns by gears.
- Resolution: 13 bits = 8192 steps/turn (max 16 bits).
- Number of turns: 12 bits = 4096 turns (max 14 bits).
- Polarity inversion and short circuit protection.
- Highly integrated circuit in SMD-technology.



EtherCAT

MHM510 Ethercat dimensions



MECHANICAL DATA

Material	Cover : steel	Vibrations (EN 60068-2-6)	≤ 10 g (10Hz... 1 000Hz)		
	Body : aluminum	Weight	400 g		
	Shaft: stainless steel	Operating temperature	- 40 ... + 85°C		
Max. shaft loading	Axial : 40 N	Storage temperature	- 40 ... + 85°C		
	Radial : 110 N	Humidity	98 % without condensation		
Shaft Inertia	≤ 30 g.cm ²	Protection class (EN 60529)	IP65		
Torque	≤ 3 N.cm	Lifetime in 10 ⁹ revolutions with F _a / F _r (axial/radial)			
RPM (continuous operation))	12 000 rpm	20 N / 40 N	40 N / 60 N	40 N / 110 N	
Shock (EN 60068-2-27)	≤ 100 g (half-sine, 6ms)	43	15	5	
Shock (EN 60028-2-29)	≤ 10 g (half-sine, 16ms)				

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SENSOR

Technology	Optical
Resolution Singleturn	13 bit
Resolution multiturn	12 bit
Multiturn technology	Mechanical gearing
Accuracy (INL)	± 0.0220° (14-16bit), ± 0.0439 (≤13bit)
Code	Binary

INTERFACE

Interface	Ethercat – Ethernet output driver
Profile	CoE (CANopen over EtherCAT, DS-301+DS406)
Diagnostics	Optoasic, Memory, LED
Programming functions	Resolution, preset, counting direction
Transmission rate	10 / 100 Mbits
Interface cycle time	≥62.5ms

ELECTRICAL DATA

Supply voltage	10-30Vdc (on power supplies comply with EN50178)
Current consumption	≤ 230mA @ 10Vdc, ≤100mA @ 24Vdc
Power consumption	≤ 2.5 W
Start-up time	< 250 ms
Reverse polarity protection	Yes
Short circuit protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise immunity	DIN EN 61000-6-2
MTTF	65 years @ 40°C
Electrical lifetime	> 10 ⁵ h

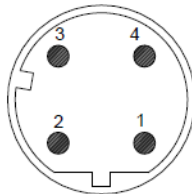
CONNECTION

Ethernet

4 pinouts, female, D coded

Pinout	Signal
1	Tx+
2	Rx+
3	Tx-
4	Rx-

Encoder view

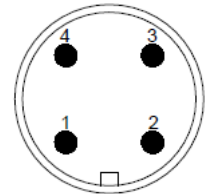


Power supply

4 pinouts male, A coded

Pinout	Signal
1	VS (10-30Vdc)
2	N.C.
3	GND (0V)
4	N.C.

Encoder view



ORDERING REFERENCE Contact the factory for special versions, ex: electronics, special flanges, connections...)

MHM5	EC00	B	12	13	C	10	0	PRM
Absolute multiturn encoder	Ethercat	Code : Binary	Number of turns 2 ¹² (4 096)	Resolution (pos./turn) 2 ¹³ (8 192)	Clamp Flange	Shaft diameter : 10mm	Without mechanical option	M12 connection