

SSI ABSOLUTE MULTI-TURN ENCODER, MHM510-SSIR RANGE

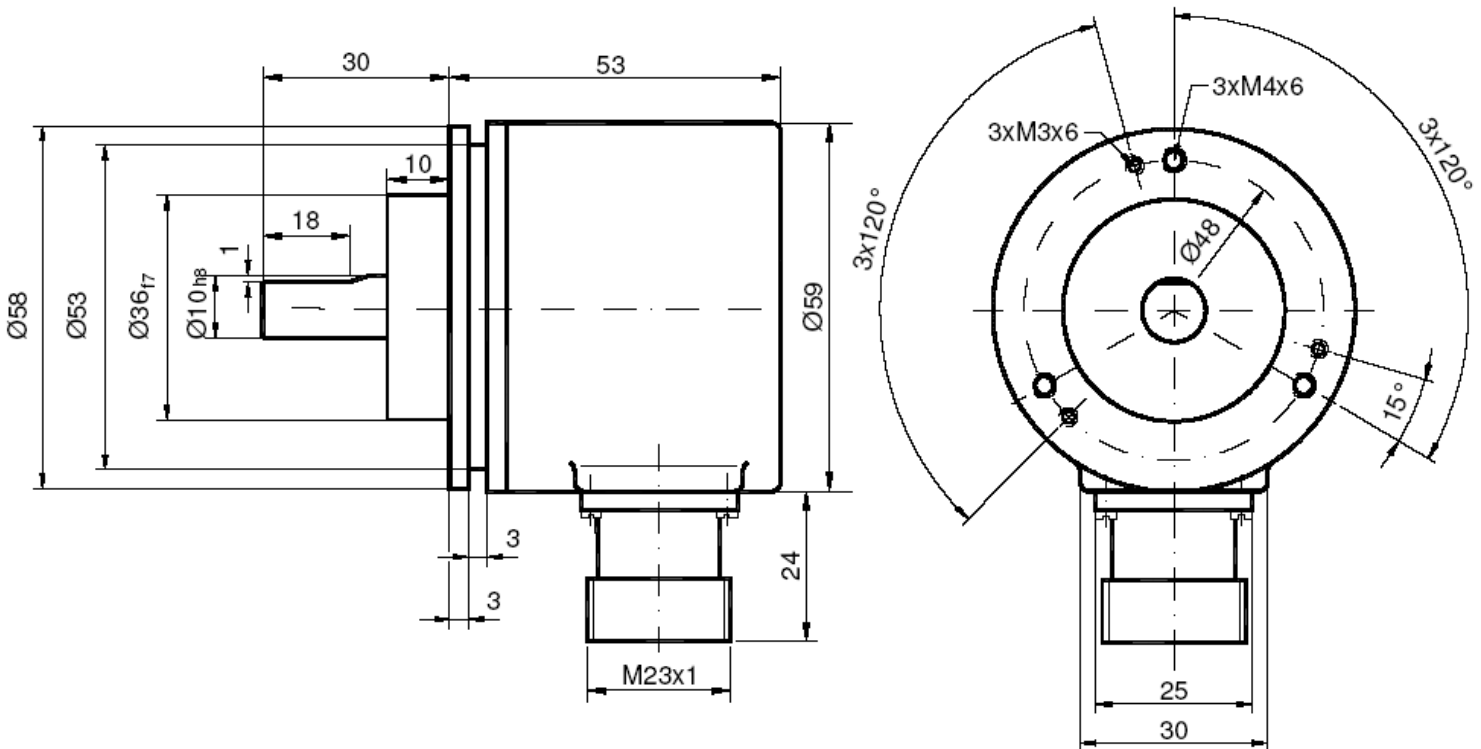


MHM510-SSIR, standard encoder Ø58mm with SSI interface:

- Robust and compact conception
- Solid shaft version Ø 10 mm
- 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
- SSI transmission, GRAY code
- 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



MHM510-SSIR (radial 12 pinouts M23 connector)



MECHANICAL DATA

Material	Cover : aluminum	Vibrations (EN 60068-2-6)		≤ 10 g (10Hz... 1 000Hz)
	Body : aluminum	Weight		300 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: cover IP64: shaft
Torque	≤ 3 N.cm	Lifetime in 10 ⁸ revolutions with F _a / F _r (axial/radial)		
RPM (continuous operation))	6 000 rpm	40 N / 60 N	40 N / 80 N	40 N / 110 N
Shock (EN 60068-2-27))	≤ 100 g (halfsinus, 6 ms)	25	10	4
Shock (EN 60028-2-29)	≤ 10 g (half-sinus, 16ms)			

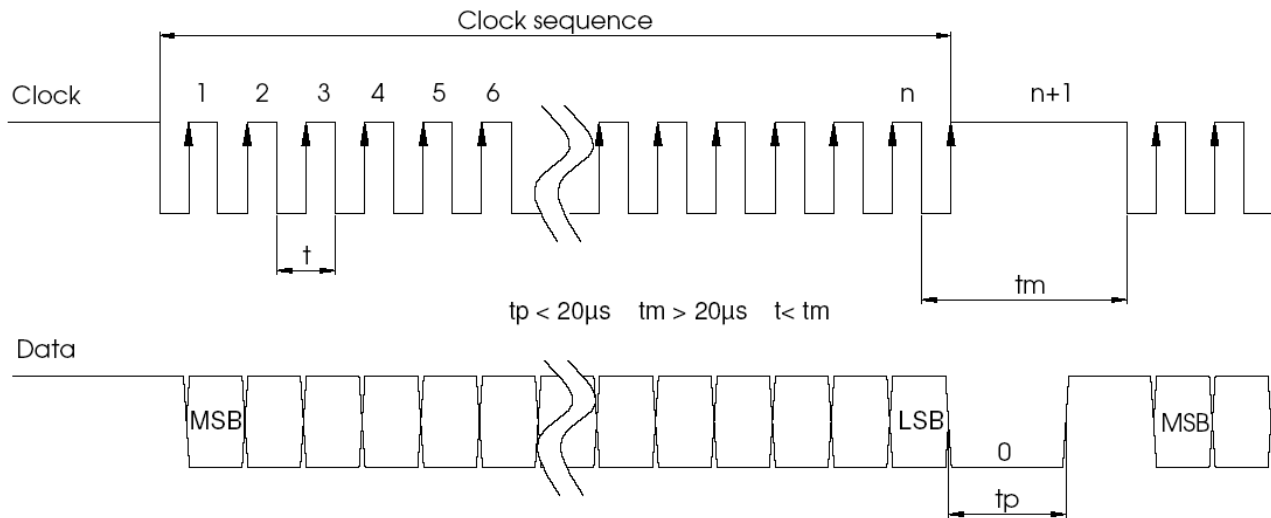
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ELECTRICAL DATA

Clock input	via opto-coupleur
Data output	line - driver according RS422
Clock frequency	100kHz – 2MHz
Accuracy	+ ½ LSB
Supply voltage	4,75 – 30Vdc

Cycle time (Reset)	< 150 µs
Turn on time	< 1 s
Power consumption	max 1W
Electrical life-time	> 10 ⁵ h
EMC	EN 61000-6-4 EN 61000-6-2

SSI TRANSMISSION

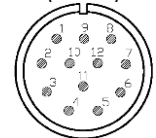


Driver	Driver meets EIA standard RS422 ; transmission rates up to 10 Mbits/s
Transfer	Transfert distance up to 1200m
Transmission	Balanced transmission provides high noise immunity
Pair lines	Shielded and twisted pair lines are essential to attain extremely high noise immunity

ELECTRICAL CONNECTION ON M23 CONNECTOR, 12 PINOUTS

Type	CLK -	CLK +	DATA +	DATA -	DIRECTION	Reset	+ Ub 4,75-30Vdc	GND
S1	1	2	3	4	8	9	11	12

Pinning encoder (male)



INPUTS

Encoder counting direction for clockwise rotation (looking onto the shaft)	RESET of the position (Preset value = 0)
0 (input = NC or GND)	Up counting
1 (input = +Ub or ≥ 4,5V)	Down counting
0 (input = NC or GND)	Position
1 (input = +Ub or ≥ 4,5V)	Reset on down level (100ms)

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

MHM5	S1	01	G	12	13	C	10	0	PRL
Absolute multi turn encoder	RESET Fonction	Version	Code : Gray	Number of turns 2 ¹² (4 096)	Resolution (pos./turn) 2 ¹³ (8 192)	Clamp Flange	Shaft diameter : 10mm	Without mechanical option	Radial M23 connector

Ordering code : **MHM510-SSIR-001** = MHM5 S1 01 G 12 13 C 10 0 PRL (old reference : NEG001542)