

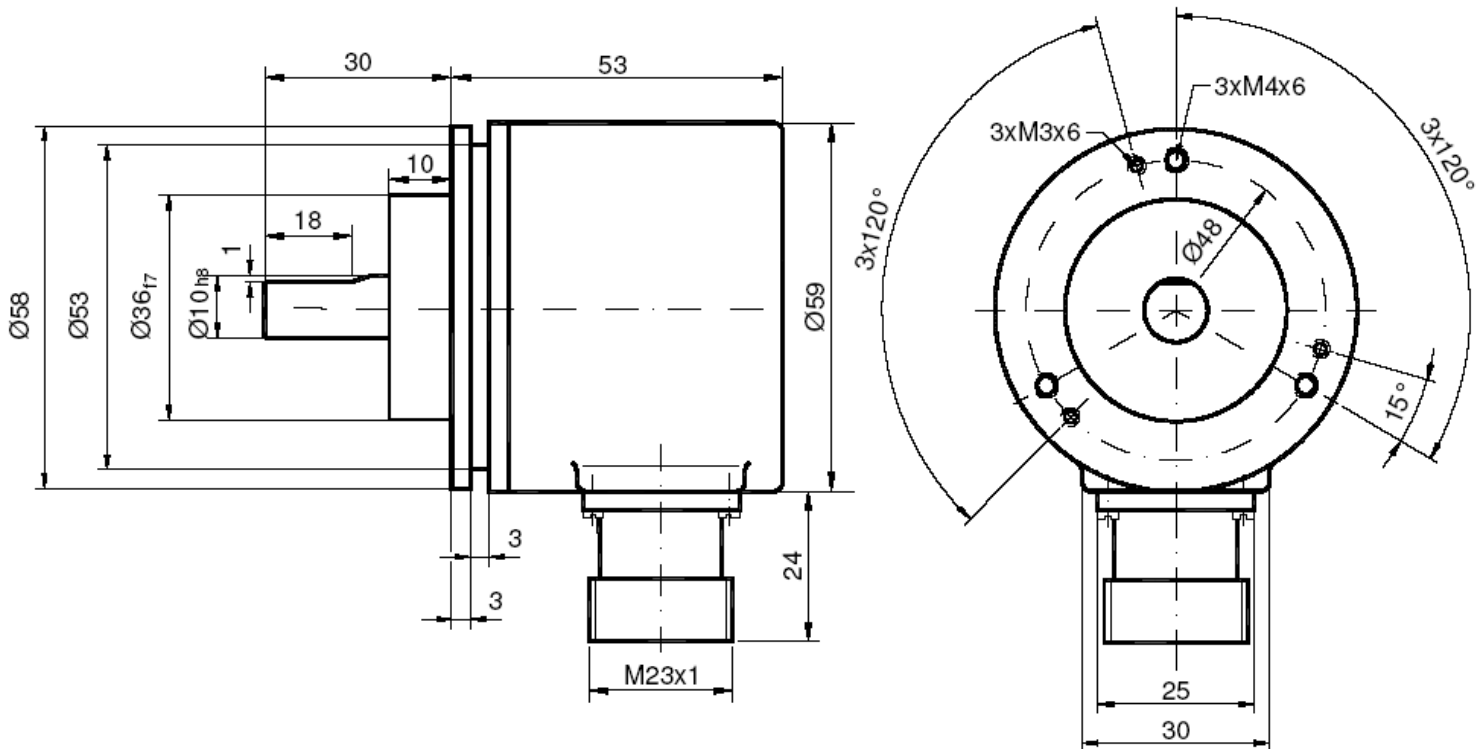
## SSI ABSOLUTE MONOTURN ENCODERS, FHM510-SSIR

FHM510-SSIR standard encoder Ø58mm à transmission série :

- compact and robust conception
- Ø 10 mm solid shaft version
- Precision bearing with sealing flange
- high performances between -40°C and 85°C
- Coded disc in non-distortable and unbreakable material
- SSI transmission, GRAY code
- Resolution : 13 bits = 8192 points / turns (max 16 bits)
- Protection against polarity inversions and tensions
- High integration CMS Technology



FHM510-SSIR (M23 12 radial pins)



### MECHANICAL CHARACTERISTICS

Material (stainless steel option)	Cover : aluminium	Vibrations (EN 60068-2-6)		≤ 10 g (10Hz... 1 000Hz)
	Body : aluminium	Weight (aluminium version)		200 g
	Shaft: stainless steel	Operating temperature		- 40 ... + 85°C
Maximal load	Axial : 40 N	Storing temperature		- 40 ... + 85°C
	Radial : 110 N	Humidity		98 % without condensation
Shaft inertia	≤ 30 g.cm <sup>2</sup>	Protection degree		Cover: IP65 Body: IP64
Torque	≤ 3 N.cm	Electrical mechanical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> /F <sub>radial</sub> )		
Maximal Speed (continuous)	12 000 tr/min			
Shocks (EN 60068-2-27)	≤ 100 g (half sinus, 6 ms)	40 N / 60 N	40 N / 80 N	40 N / 110 N
Shocks (EN 60028-2-29)	≤ 10 g (half-sinus, 16ms)	25	10	4

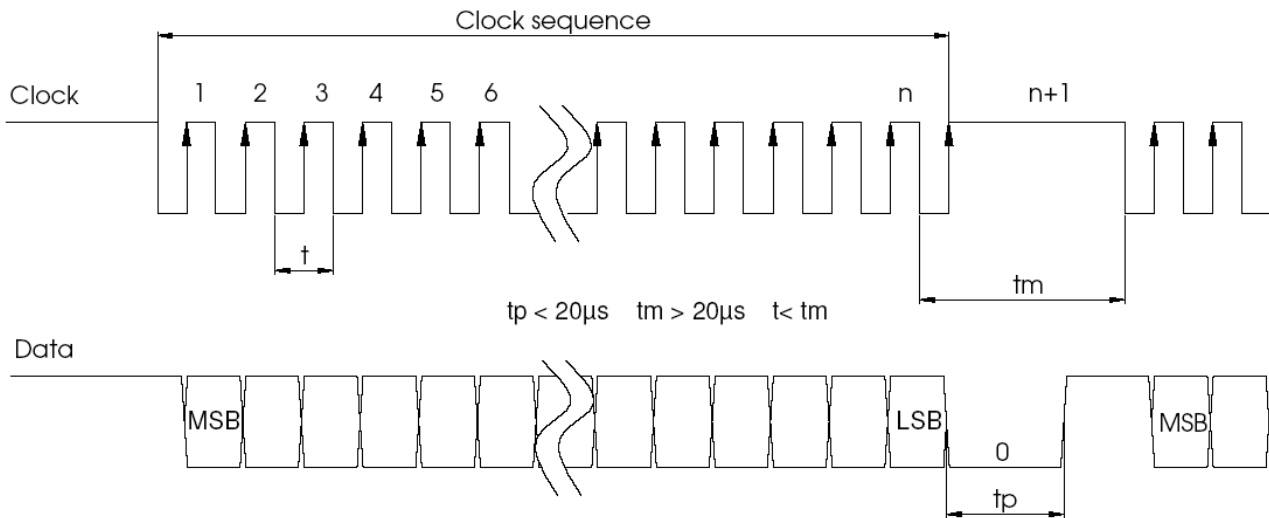
## SSI ABSOLUTE MONOTURN ENCODERS, FHM510-SSIR

### ELECTRICAL CHARACTERISTICS

Clock input signal CLK	per opto-coupleur
Output signal DATA	line - driver RS422
Clock frequency CLK	100kHz – 2MHz
Precision	+ ½ LSB
Supply	4,75 – 30Vdc

Cycle time (Reset)	< 150 µs
introduction	< 1 s
Consumption	max 1W
Electrical lifetime	> 10 <sup>5</sup> h
EMC	EN 61000-6-4 EN 61000-6-2

### SSI TRANSMISSION

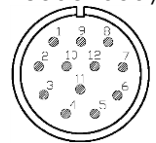


Driver	Donnée selon le standard RS422 ; transmission jusqu'à 10 Mbits/s
Transmission	Transmission up to 1 200m
Security	Transmission of signals
Câble	High security transmission by using shielded cable and twisted pairs

### SSI CONNECTION ON CONNECTOR M23 12 PINS

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

Encoder body:



### INPUTS

Sense : counts when shaft in CW sense (body side)		Reset : Value back to zero	
0 (input = NC or GND)	increasing counting	0 (input = NC ou GND)	Position
1 (input = +Ub or ≥ 4,5V)	Decreasing counting	1 (input = +Ub ou ≥ 4,5V)	Reset on decreasing front (100ms)

**REFERENCE** ( Exécution spécifique sur demande, ex: bride/électronique/connectique spécifique...)

FHM5	S1	01	G	00	13	C	10	0	PRL
absolute monoturn encoder	Reset Function	Version	Gray Code	monoturn encoder	Resolution in turn : 2 <sup>13</sup> (8 192)	Bride à vis et synchro	Shaft diameter : 10mm	without mechanical option	radial connector output

**CODE DE COMMANDE : FHM510-SSIR-001 = FHM5 S1 01 G 00 13 C 10 0 PRL**