

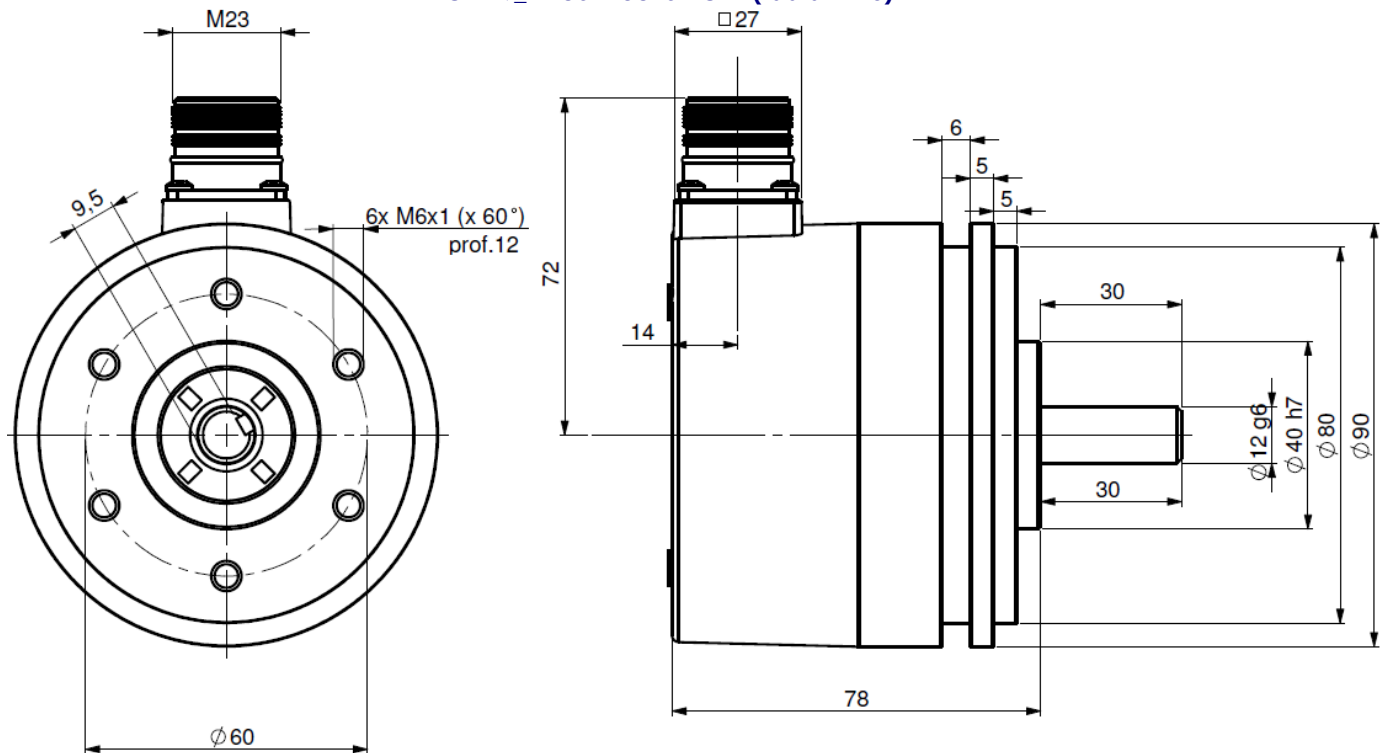
PARALLEL ABSOLUTE SINGLE TURN ENCODERS, CHM9 RANGE

CHM9, 90mm parallel absolute single turn encoders :

- Especially designed for heavy-duty (steel, paper, wood – mills, cranes ...)
Compact and robust conception. Excellent resistance to shocks/vibrations and to extreme axial/radial loads.
- Solid shaft 11mm and 12mm.
- High protection level IP65 – IP67 option.
- High performances in temperature –20°C to 90°C.
- Universal power supply from 5 to 30 Vdc – parallel output.
- High resolutions possibility, up to 14 bits (Gray or binary).
- Standard DIRECTION input.



CHM9_12 connection CPR (radial M23)



MECHANICAL CHARACTERISTICS

Material Stainless steel option	Cover : zinc alloy
	Body : aluminium
Shaft material	Stainless steel
Bearings	6001 serie
Maximum loads	Axial : 100 N
	Radial : 200 N
Shaft inertia	$\leq 15 \cdot 10^{-6}$ kg.m ²
Torque	$\leq 10 \cdot 10^{-3}$ N.m
Permissible max. speed	9 000 min ⁻¹
Continuous max. speed	6 000 min ⁻¹
Shaft seal	Viton double lips
Shocks (EN60068-2-27)	≤ 500 m.s ⁻² (during 6ms)

Vibrations (EN60068-2-6)	≤ 200 m.s ⁻² (10 ... 1 000 Hz)	
EMC	EN 61000-6-4, EN 61000-6-2	
Isolation	1000 Veff	
Encoder weight (approx)	1,100kg zinc alloy cover, alu body	
	2,400kg zinc alloy cover, stainless steel body	
	2,600kg stainless steel cover and body	
Operating temperature	- 20 ... + 90 °C (encoder T°)	
Storage temperature	- 40 ... + 100 °C	
Protection(EN 60529)	IP 65 – IP67 option	
Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})		
20 N / 30 N	50 N / 100 N	100 N / 200 N
360	18	2,2

PARALLEL ABSOLUTE SINGLE TURN ENCODERS, CHM9 RANGE

CONNECTION

	color	13 bits + DIRECTION CP or C3	14 bits + DIRECTION C1
1	white WH	0V	0V
2	brown BN	+Vcc	+Vcc
3	green GN	D0	D0
4	yellow YE	D1	D1
5	grey GY	D2	D2
6	pink PK	D3	D3
7	blue BU	D4	D4
8	red RD	D5	D5
9	black BK	D6	D6
10	violet VT	D7	D7
11	white/brown WH/BN	D8	D8
12	white/green WH/GN	D9	D9
13	white/yellow WH/YE	D10	D10
14	white/grey WH/GY	D11	D11
15	white/pink WH/PK	D12	D12
16	white/blue WH/BU	DIRECTION	D13
17	White/red WH/RD	/	DIRECTION

Example, 10 bits encoder : only MSB will be supplied (D3 to D12).

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

	Shaft Ø	Supply	Output stage	Code	Resolution	Connection	Orientation
CHM9 Cover : zinc Body : alu	11 : 11mm 12 : 12mm C2 : 12mm 25mm length	P : 5 to 30Vdc	C5 : push pull 5 to 30Vdc	B : Binary G : Gray	Power of 2: 1: 1 bit to 14: 14 bits	CP : M23 16 pins 13 bits + direction	A : axial
C1 : M23 17 pins 14 bits + direction						R : radial	
C3 : cable gland + 16 wires cable						Example : A020 : axial cable 2m R020 : radial cable 2m	
CHM9	- 12 //	P	C5	G //	13 //	C3	R020

Monitoring function available as option :

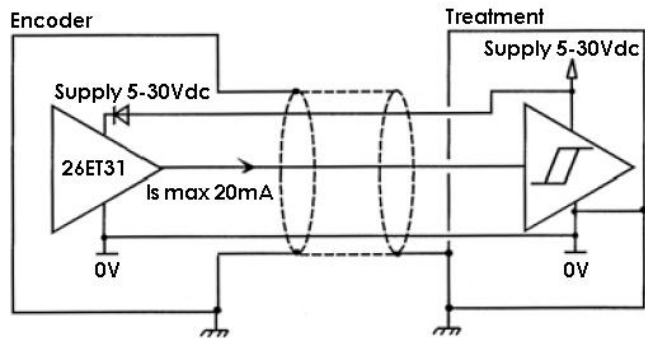
- of the code coherence.
- of the LED internal regulated current loop.
- of temperature range with 2 limits.

Consult us

Input / output available as option:

- LATCH entry.
- ERROR output for monitoring functions.

ELECTRONIC



Power supply : 5 to 30Vdc
Consumption without load : 100mA max
Current output per channel : Is=20mA max
Level '0' (Is=20mA) max : V_{oi} = 0,5Vdc
Level '1' (Is=20mA) min : V_{oh} = Vcc-2,5Vdc

Protection against short circuits and inversion of polarity

DIRECTION

CW increasing code: DIRECTION pin to +Vcc
CCW increasing code : DIRECTION pin to 0V

LATCH (option)

Active data on the outputs : LATCH pin to 0V
Frozen data on the outputs: LATCH pin to +Vcc

Consult us for the connection of an encoder with this option.