

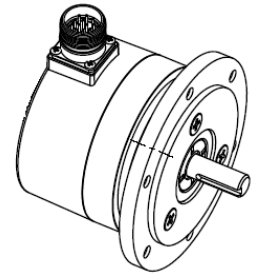
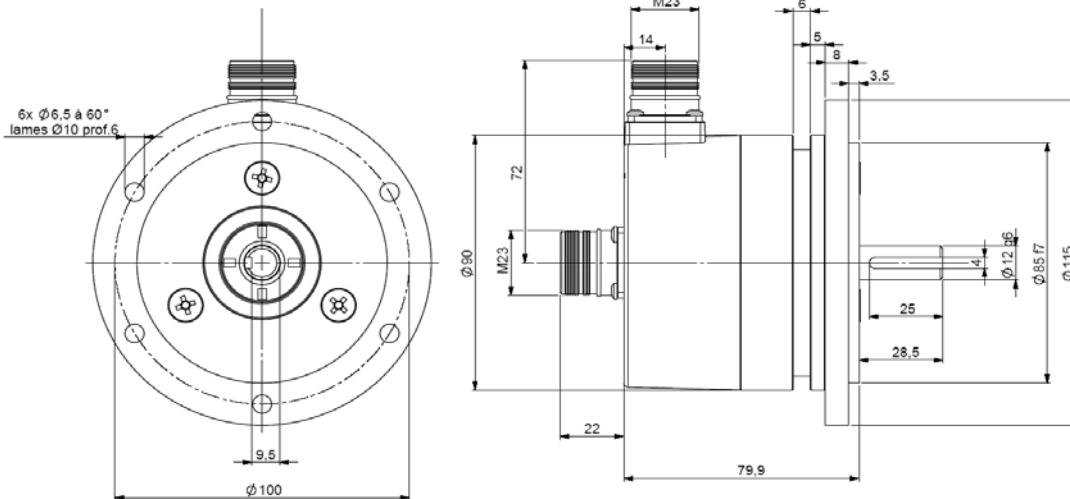
PARALLEL SINGLE TURN ABSOLUTE ENCODERS, CHM9 RANGE

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

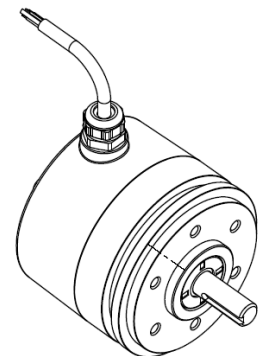
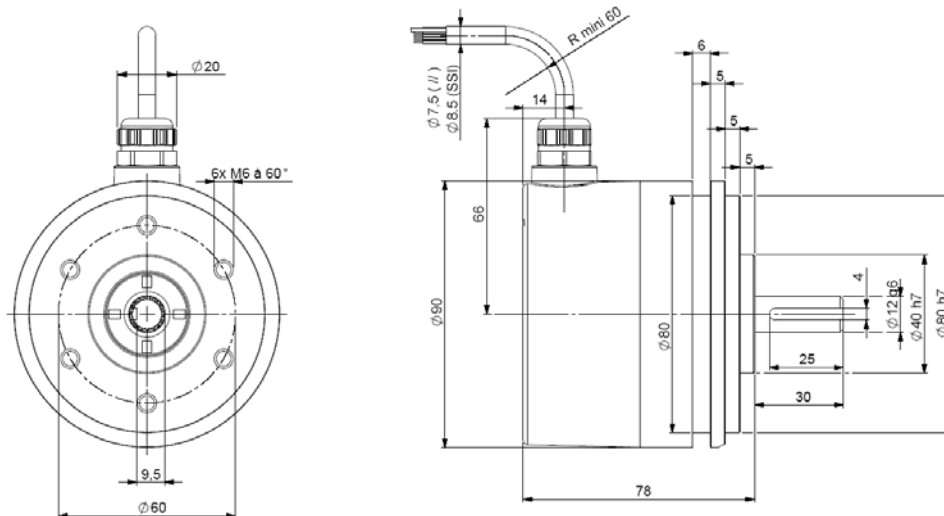
Also available in SSI serial interace and fielbus interfaces : CanOpen, DeviceNet, Profibus



CHM9_11 connection C1, CP or CZ (radial or axial M23)



CHM9_12 connection C3 (radial cable)



CHARACTERISTICS

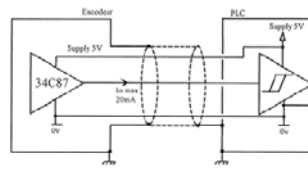
Material	Cover : zinc alloy	Vibrations (EN60068-2-6)	$\leq 200 \text{ m.s}^{-2}$ (10 ... 1 000 Hz)	
	Stainless steel option		Body : aluminium	EMC
Shaft material	Stainless steel	Isolation	1 000 Veff	
Bearings	6001 serie	Encoder weight (approx)	1,100kg zinc alloy cover, alu body	
Maximal loads	Axial : 100 N		2,400kg zinc alloy cover, stainless steel body	
	Radial : 200 N	2,600kg stainless steel cover and body		
Shaft inertia	$\leq 15.10^{-6} \text{ kg.m}^2$	Operating temperature	- 20 ... + 90 °C (encoder T°)	
Torque	$\leq 10.10^{-3} \text{ N.m}$	Storage temperature	- 30 ... + 95 °C	
Permissible max. speed	9 000 min ⁻¹	Protection(EN 60529)	IP 67 (cable), IP 66 (connector)	
Continuous max. speed	6 000 min ⁻¹	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})		
Shaft seal	Viton double lips	20 N / 30 N	50 N / 100 N	100 N / 200 N
		Shocks (EN60068-2-27)	$\leq 500 \text{ m.s}^{-2}$ (during 6ms)	360

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PARALLEL OUTPUTS CONNECTION

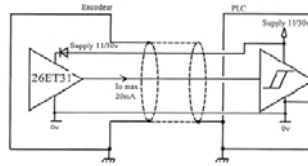
		13 bits + DIRECTION CP or C3	14 bits + DIRECTION C1	13 bits + DIRECTION + RAZ CZ
1	white WH	-	-	-
2	brown BN	+	+	+
3	green GN	D0	D0	D0
4	yellow YE	D1	D1	D1
5	grey GY	D2	D2	D2
6	pink PK	D3	D3	D3
7	blue BU	D4	D4	D4
8	red RD	D5	D5	D5
9	black BK	D6	D6	D6
10	violet VT	D7	D7	D7
11	white/brown WH/BN	D8	D8	D8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

OUTPUT STAGE / SUPPLY - PARALLEL OUTPUT



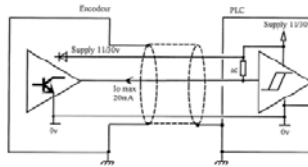
Electronic 2CD

Supply : 5Vdc ± 10%
Cons. without load : 80mA max
Current per channel : Is = 20mA max
0 max (Is=20mA) : V_{ol} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = 2,5Vdc



Electronic 5C5

Supply : 11 to 30Vdc
Cons. without load : 100mA max
Current per channel : Is = 20mA max
0 max (Is=20mA) : V_{ol} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = V_{cc}-3Vdc



Electronic 5CN

Supply : 11 to 30Vdc
Cons. without load : 100mA max
Current per channel : Is = 20mA max
0 max (Is=20mA) : V_{ol} = 1,25Vdc

RAZ to be used with non turning shaft :

For an electrical reset / with push button (option) : give an impulse to the +Vcc during 1s minimum

DIRECTION

CW code : pin DIRECTION at +Vcc
CCW code : pin DIRECTION at 0V

Protection against inversion of polarity for the electronics 5CN and 5C5

Protection against short circuits for the electronic 5C5

Example 10 bits encoder : only most significant bits (D3 to D12) would be available

ORDERING CODE (Special versions upon request, for ex. special flanges/electronics/connections...)

	Shaft Ø	Parallel output : 2CD, 5C5, 5CN, 2ED, 5E5		Code	Resolution	Connection	Connection orientation	
CHM9 Cover : zinc Body : alu	11 : 11mm	2: 5Vdc	CD: driver 5Vdc	B : binary	14 13 ... 1	CP : M23 16 pins CW 13 bits + DIRECTION	Ex connector : A : axial R : radial	
			C5: Push-Pull 11-30Vdc			C1 : M23 17 pins CW 14bits + DIRECTION		
CBM9 Cover : zinc Body : stainless steel	12 : 12mm	5: 11 - 30Vdc	CN: NPNCO 11-30Vdc	G : Gray		C3 : cable 16 fils	Ex cable : A020 : cable 2m axial R020 : cable 5m radial	
CXM9 Stainless steel cover & body			With electrical RAZ :			CZ : M23 17 pins hor. 13bits + DIRECTION + RAZ		
Ex: CHM9	12	//	5 C5	G	//	13 //	C3	R020

14 bits : only available in GRAY code and electronics 5C5 and 2CD

Made in FRANCE