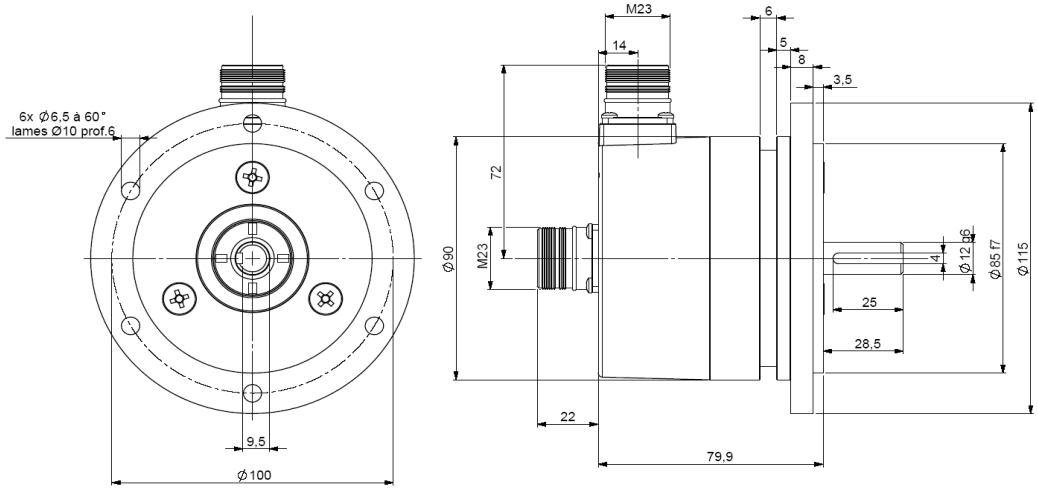
PARALLEL SINGLE TURN ABSOLUTE ENCODERS, CHM9 RANGE

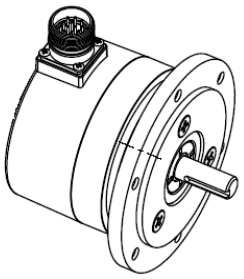
CHM9

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

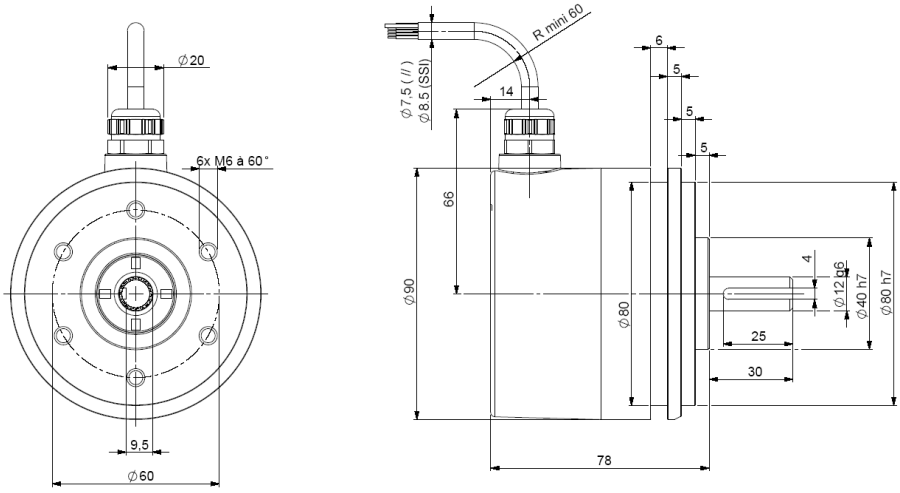
Also available in SSI serial interface and fielbus interfaces: CanOpen, DeviceNet, Profibus

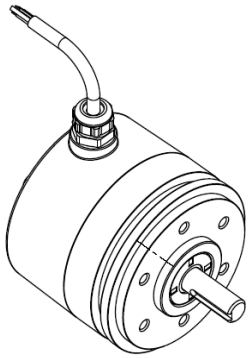
CHM9_11 connection C1, CP or CZ (radial or axial M23)





CHM9_12 connection C3 (radial cable)





CHARACTERISTICS

Material 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	≤ 15.10^{-6} kg.m²
Torque	≤ 10.10^{-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 50081-1, EN 61000-6-2
Isolation	1 000 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	- 30 ... + 95°C
Protection(EN 60529)	IP 67 (cable), IP 66 (connector)

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

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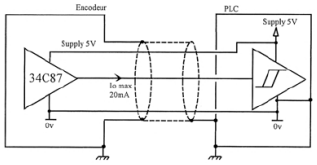
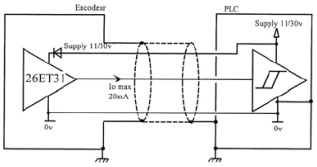
PARALLEL OUTPUTS CONNECTION

		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

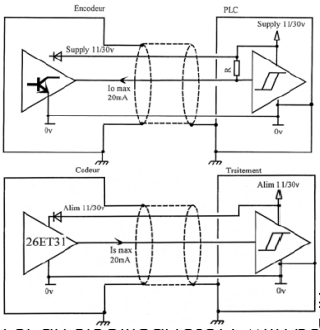
OUTPUT STAGE / SUPPLY - PARALLEL OUTPUT



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} = Vcc-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

g shaft:
sh 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 **CBM9** Cover : zinc Body : stainless steel **CXM9** Stainless steel cover & body	**11** : 11mm **12** : 12mm	**2**: 5Vdc **5**: 11 – 30Vdc	**CD**: driver 5Vdc **C5**: Push-Pull 11-30Vdc **CN**: NPNCO 11-30Vdc With electrical RAZ : **ED**: driver 5Vdc **E5**: push-pull 11-30Vdc	**B** : binary **G** : Gray	**14** **13** … **1**	**CP** : M23 16 pins CW 13 bits + DIRECTION **C1** : M23 17 pins CW 14bits + DIRECTION **C3** : cable 16 fils **CZ** : M23 17 pins hor. 13bits + DIRECTION + RAZ	Ex connector : **A** : axial **R** : radial Ex cable : **A020** : cable 2m axial **R020** : cable 5m radial
Ex: CHM9 _	**12 //**	**5 C5**		**G //**	**13 //**	**C3**	**R020**

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