



| CHM9

PARALLEL ABSOLUTE SINGLE TURN ENCODERS



Features

- 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.



SPECIFICATIONS

Material	Cover: Zinc Alloy Body: Aluminum Shaft: Stainless Steel
Bearings	6001 series
Maximal Loads	Axial: 100 N Radial: 200 N
Shaft Inertia	$\leq 15 \cdot 10^{-6} \text{ kg.m}^2$
Torque	$\leq 10 \cdot 10^{-3} \text{ N.m}$
Permissible Max. Speed	9,000 min ⁻¹
Continuous Max. Speed	6,000 min ⁻¹
Shaft Seal	Viton double lips
Shocks (EN60068-2-27)	$\leq 500 \text{ m.s}^{-2}$ (during 6 ms)
Vibrations (EN60068-2-6)	$\leq 200 \text{ m.s}^{-2}$ (10 ... 1,000 Hz)
EMC	EN 61000-6-4, 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	- 40 ... + 100°C
Protection (EN 60529)	IP 65 - IP 67 option
Theoretical mechanical lifetime 10⁹ turns (F_{axial} / F_{radial})	
20 N / 30 N	360
50 N / 100 N	18
100 N / 200 N	2,2

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)

Direction

CW increasing code: DIRECTION pin to +Vcc

CCW increasing code: DIRECTION pin to 0V

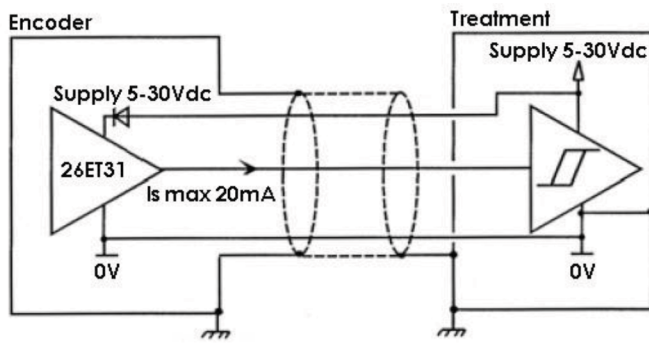
Latch (Option)

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.

Electronic

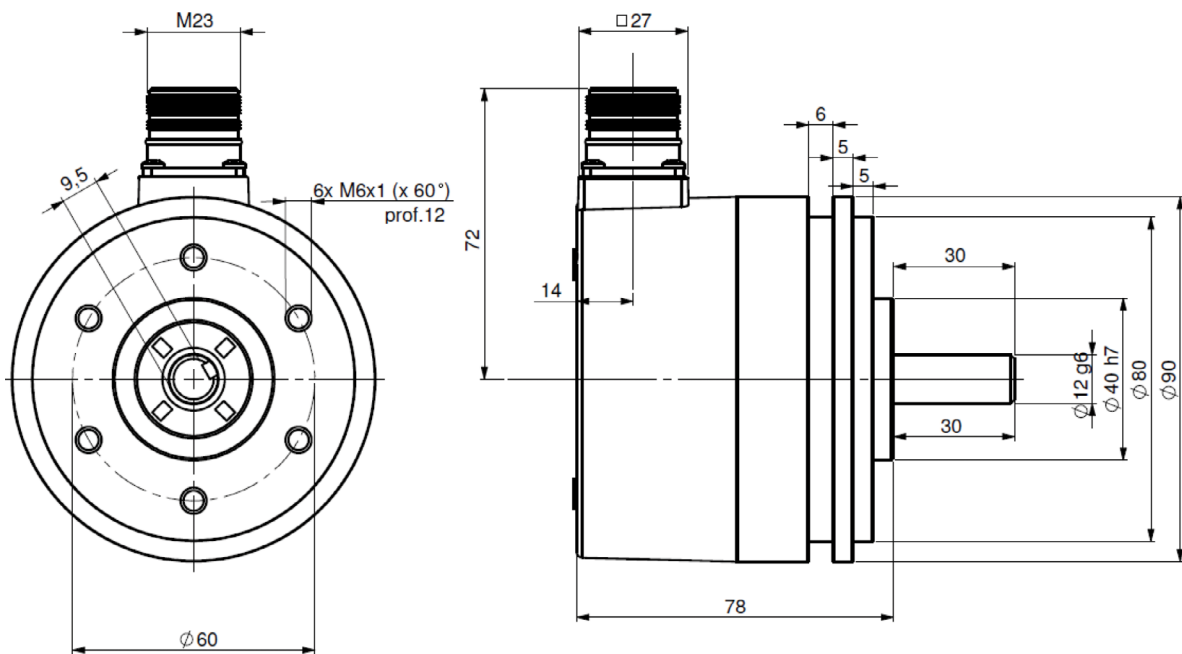


Power supply: 5 to 30Vdc
Consumption without load: 100mA max
Current output per channel: $I_s=20\text{mA}$ max
Level "0" ($I_s=20\text{mA}$) max: $V_{ol} = 0,5\text{Vdc}$
Level "1" ($I_s=20\text{mA}$) min: $V_{oh} = V_{cc}-2,5\text{Vdc}$
Protection against short circuits and inversion of polarity



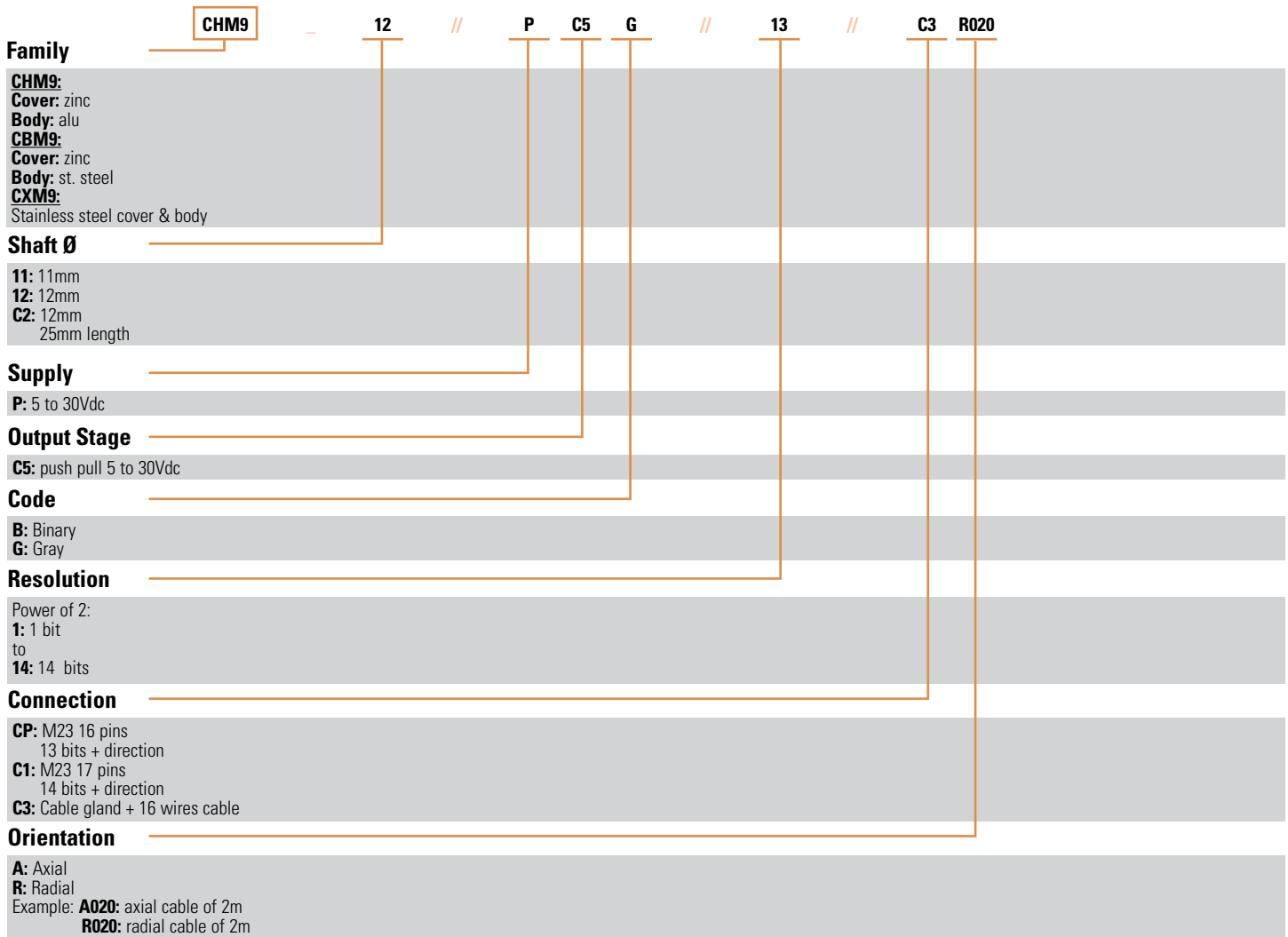
DIMENSIONS

Dimensions in mm





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



Monitoring function available in option:

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

Input / output available in option:

- LATCH entry.
- ERROR output for monitoring functions.



Made in France

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (800) 350 2727 – Option 1
sales.beisensors@sensata.com
Europe, Middle East & Africa
+33 (3) 88 20 8080
position-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +886 (2) 27602006
ext 2808