BEI Sensors SAS
Espace Européen de l'Entreprise
9, rue de Copenhague
B.P. 70044 Schiltigheim
F 67013 Strasbourg Cedex

Tél : +33 (0)3 88 20 80 80
Fax : +33 (0)3 88 20 87 87
Mail : info@beisensors.com
Web : www.beisensors.com

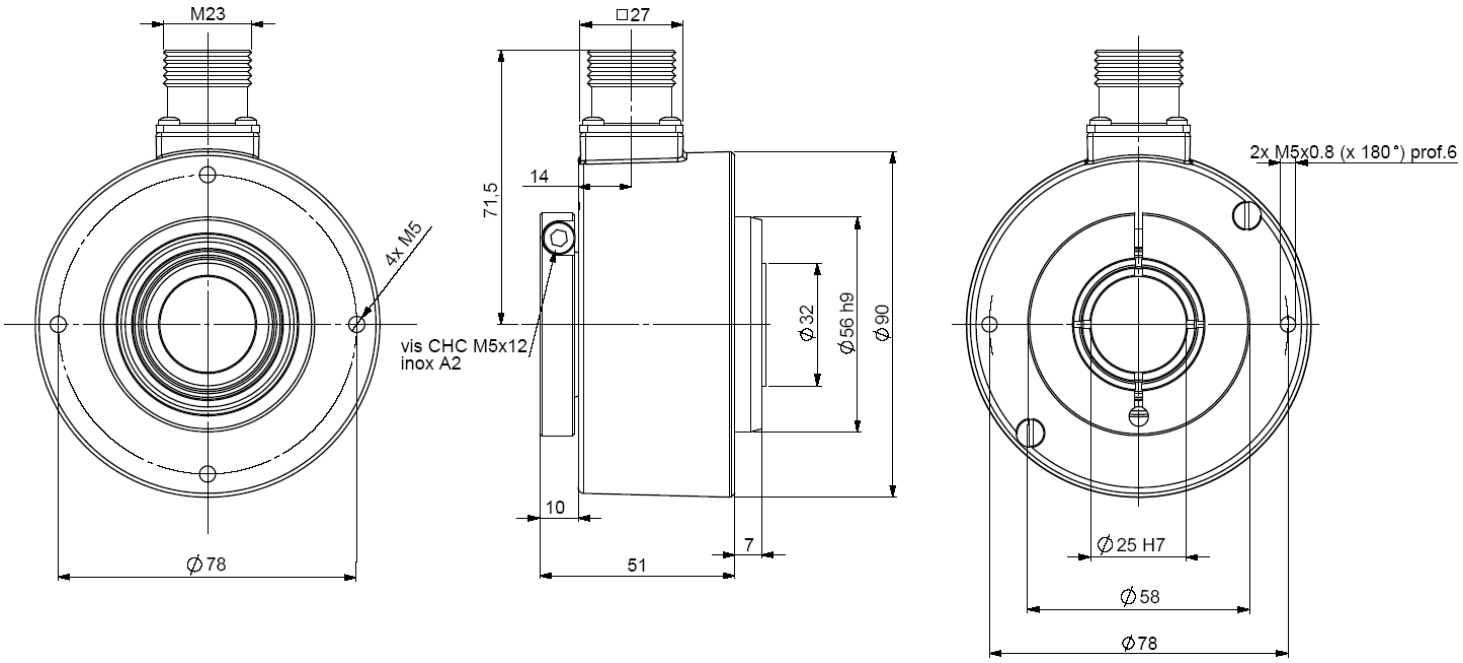
CHU9

PARALLEL ABSOLUTE SINGLE TURN ENCODERS, CHU9 RANGE

CHU9, 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 high axial/radial loads.
- Through hollow shaft 30mm, reduction hubs available from 10 to 28mm.
- High protection level IP65.
- 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.
- Double/triple mounting in combinations of incremental, absolute, analogue signals.

CHU9_25 connection CPR (radial M23), with reduction hub 9418/I25 (25mm) mounted on the shaft



MECHANICAL CHARACTERISTICS

Material Stainless steel option	Cover : zinc alloy	Vibrations (EN60068.2.6)	≤ 200m.s^{-2} (10 … 1 000Hz)
	Body : aluminium	EMC	EN 61000-6-4, EN 61000-6-2
Shaft	Stainless steel	Isolation	1000 Veff
Bearings	6807 serie	Encoder weight (approx.)	0,700kg zinc alloy cover, alu body
Maximum loads	Axial : 50 N		1,000kg zinc alloy cover, stainless steel body
	Radial : 80 N		1,200kg stainless steel cover and body
Shaft inertia	≤ 55.10^{-6} kg.m^2	Operating temperature	- 20 ... + 90 °C (encoder T°)
Torque	≤ 25.10^{-3} N.m	Storage temperature	- 40 ... + 100 °C
Permissible max. speed	6 000 min^{-1}	Protection(EN 60529)	IP 65
Continuous max. speed	3 600 min^{-1}	Torque (ring screw)	nominal: 3N.m, break: 4N.m
Shaft seal	Viton	Theoretical mechanical lifetime 10^9 turns (F_{axial} / F_{radial})	
Shocks (EN60068.2.27)	≤ 500 m.s^{-2} (during 6 ms)	25 N / 40 N : 140	50 N / 80 N : 17

BEI Sensors SAS
Espace Européen de l'Entreprise
9, rue de Copenhague
B.P. 70044 Schiltigheim
F 67013 Strasbourg Cedex

Tél : +33 (0)3 88 20 80 80
Fax : +33 (0)3 88 20 87 87
Mail : info@beisensors.com
Web : www.beisensors.com

CHU9

CE

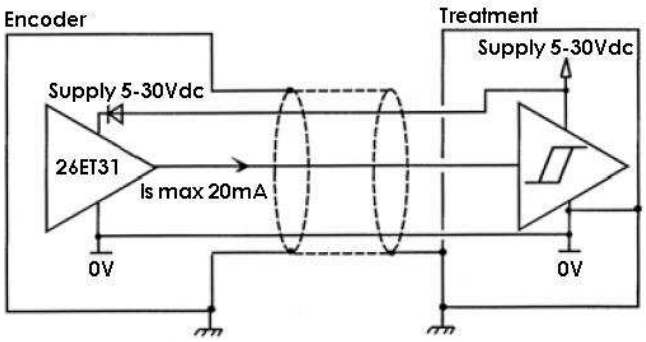
PARALLEL ABSOLUTE SINGLE TURN ENCODERS, CHU9 RANGE

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)

ELECTRONIC



Power supply : 5 to 30Vdc
Consumption without load : 100mA max
Current output per channel : Is=20mA max
Level ''0'' (Is=20mA) max : V_{ol} = 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.

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

	Shaft Ø	Supply	Output stage	Code	Resolution	Connection	Orientation
CHU9 Cover : zinc Body : alu **CBU9** Cover : zinc Body : st. steel **CXU9** Stainless steel cover & body	**30**: 30mm Reduction hubs available 10 to 28mm	**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 **C1** : M23 17 pins 14 bits + direction	**R** : radial
						C3 : cable gland + 16 wires cable	Example : **R020** : radial cable 2m
CHU9 _	**30** //	**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.

Made in FRANCE