

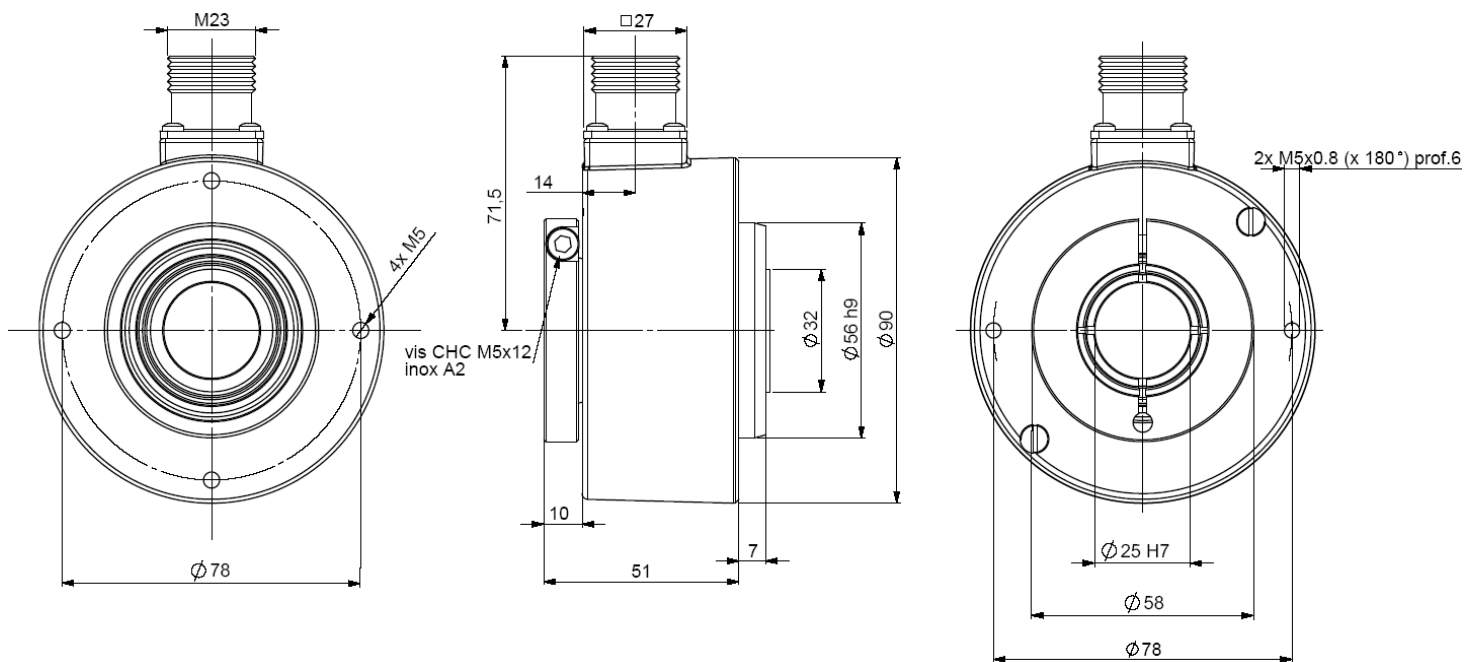
SSI ABSOLUTE SINGLE TURN ENCODERS, CHU9 RANGE

CHU9, 90mm SSI 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 – SSI output.
- High resolutions possibility, up to 16 bits (Gray or binary).
- Standard DIRECTION and RESET input.
- Double/triple mounting in combinations of incremental, absolute, analogue signals.
- Digital or sine incremental outputs option.



CHU9_25 connection S6R (radial M23), with reduction hub 9418/I25 (25mm) mounted on the shaft



MECHANICAL CHARACTERISTICS

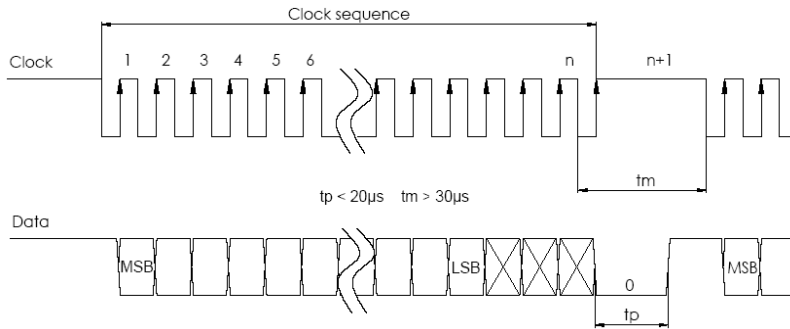
Material	Cover : zinc alloy	Vibrations (EN60068.2.6)	≤ 200m.s ⁻² (10 ... 1 000Hz)
Stainless steel option	Body : aluminium	EMC	EN 61000-6-4, EN 61000-6-2
Shaft	Stainless steel	Isolation	1000 Veff
Bearings	6807 serie	Encoder weight (approx.)	0,700kg zinc alloy cover, alu body
Maximum loads	Axial : 50 N		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

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ELECTRICAL CHARACTERISTIC

Input signal clock CLK	per optocoupler	Clock frequency CLK	• 100kHz to 1MHz for 13 bits encoder
Output signal DATA	line - driver RS422		• 100kHz - $F_{max} = 10^6 / (\text{resolution in bits} - 10)$ for encoder > 13bits, ex : $F_{max} = 166\text{kHz}$ for 16 bits encoder
Power supply	5 - 30Vdc	Interrogation frame	n=13 bits for 13 bits resolution
Introduction	< 200ms		n=21bits for >13bits resolution
Consumption without load	Max. 100mA		

SSI TRANSMISSION



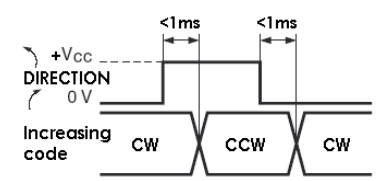
Transmission	Transmission up to 400m at 100kHz in function of the cable characteristics
Cable	High security of transmission by using shielded cable and twisted pairs

* Consult us for length > 100m

CONNECTION

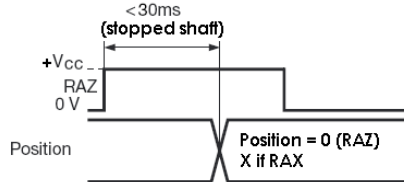
Type	+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S5	BN/GN Brown/Green	WH/GN White/Green	GN Green	GY Grey	BU Blue	PK Pink	BN Brown	WH White
S8	8	1	3	2	6	10	11	5

DIRECTION input



	min	max	Increasing
Level "0"	0 V	$0,3x(+V_{CC})$	CW
Level "1"	$0,7x(+V_{CC})$	$+V_{CC}$	CCW
I direction	$< 5\text{mA}$		

RAZ / RAX input



	min	max
Level "0"	0 V	$0,3x(+V_{CC})$
Level "1"	$0,7x(+V_{CC})$	$+V_{CC}$
I raz/rax	$< 5\text{mA}$	

Nota : Do not connect other pinouts, connect DIRECTION and RAZ to a potential (RAZ at 0V if not used).

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

	Ø shaft	Supply	Output stage	Code	Resolution	Connection	Connection orientation
CHU9 Cover : zinc Body : alu	30: 30mm	P : 5 to 30Vdc	CS : SSI without parity	B : binary G : Gray	Power of 2 13: 13 bits standard option: 14: 14 bits to 16: 16 bits	S6 : M23 12 pins CW for SSI	R : radial
CBU9 Cover : zinc Body : st. steel	Reduction hubs available 10 to 28mm		CP : SSI even parity			S8 : M23 12 pins CCW for SSI	
CXU9 Stainless steel cover & body			CI : SSI odd parity			S5: cable	Ex: R020 Radial 2 meters
CHU9	30 //	P	CS	G //	13 //	S6	R

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:

- RAX input (reset to a value X, manufacture setting).
- ERROR output for monitoring functions.
- Sine & Cosine outputs without index, 2048ppr.
- A & B incremental outputs without index, 2048ppr.

Made in FRANCE