

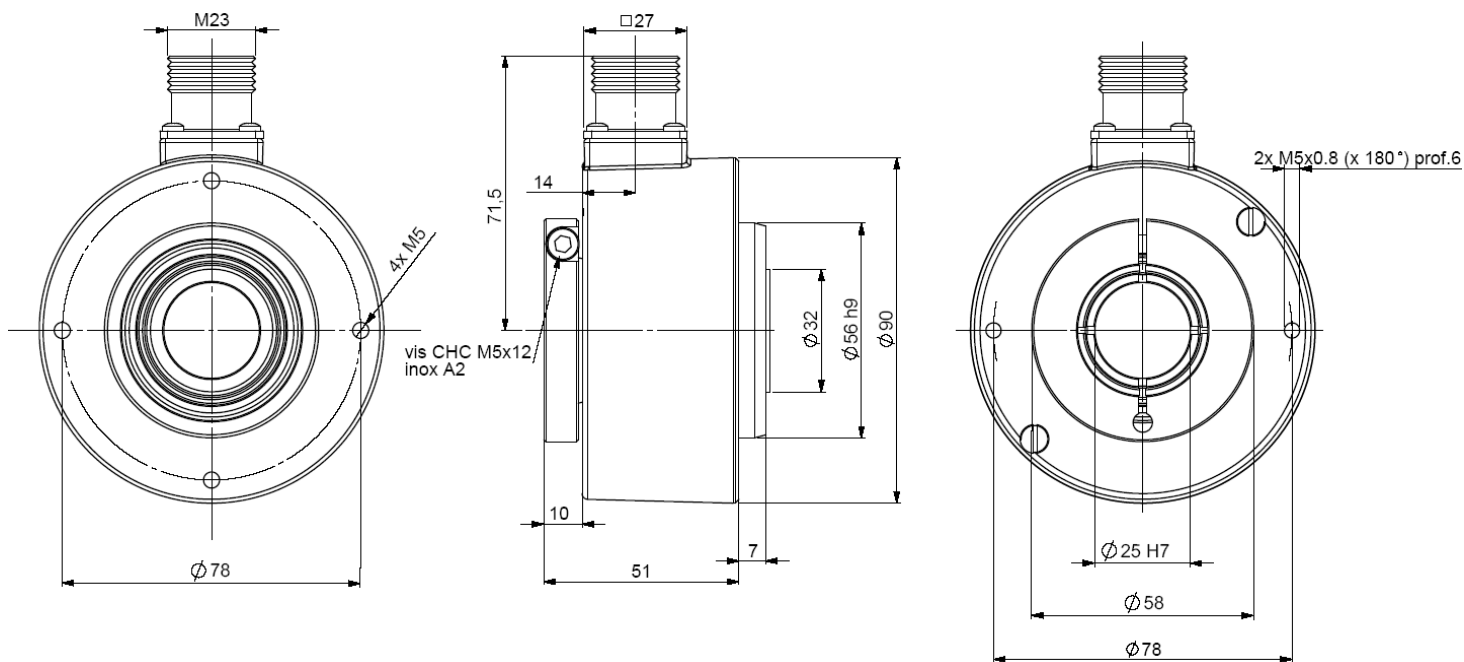
## SSI ABSOLUTE SINGLE TURN ENCODERS, CHU9 RANGE

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

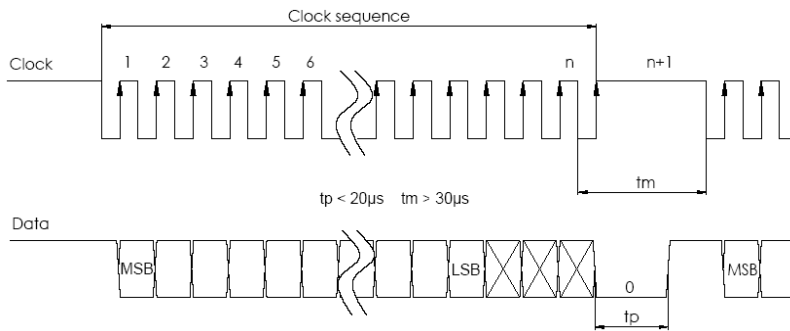
Material	Cover : zinc alloy	Vibrations (EN60068.2.6)	≤ 200m.s <sup>-2</sup> (10 ... 1 000Hz)
Stainless steel option	Body : aluminium	EMC	EN 61000-6-4, EN 61000-6-2
Shaft	Stainless steel	Isolation	1000 Veff
Bearings	6807 serie	Encoder weight (approx.)	0,700kg zinc alloy cover, alu body
Maximum loads	Axial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

## SSI ABSOLUTE SINGLE TURN ENCODERS, CHU9 RANGE

### 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



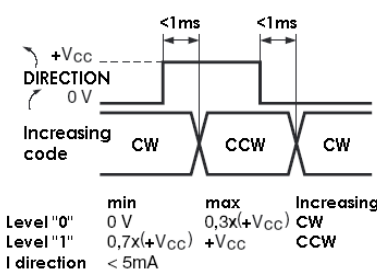
Transmission	Transmission up to 400m at 100kHz in function of the cable characteristics
Cable	High security of transmission by using shielded cable and twisted pairs

\* Consult us for length > 100m

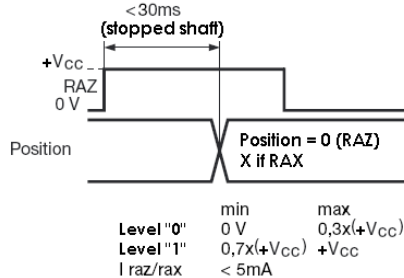
### CONNECTION

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



#### RAZ / RAX input



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
<b>CHU9</b> 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
<b>CBU9</b> Cover : zinc Body : st. steel	Reduction hubs available 10 to 28mm		CP : SSI even parity			S8 : M23 12 pins CCW for SSI	
<b>CXU9</b> Stainless steel cover & body			CI : SSI odd parity			S5: cable	Ex: R020 Radial 2 meters
<b>CHU9</b>	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.

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