



## CHO5

### PARALLEL SINGLE TURN ABSOLUTE ENCODER



#### Features

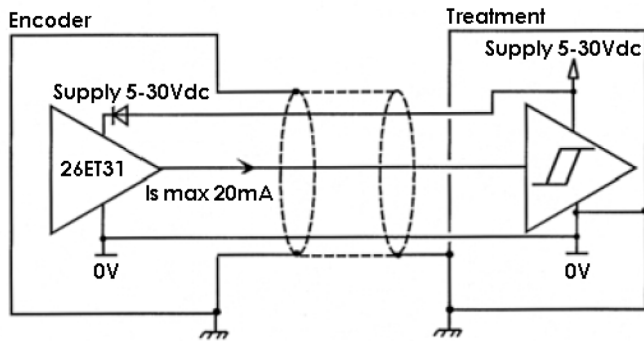
- Through hollow shaft version Ø14mm, with reduction hubs in aluminium of 6, 8, 10 and 12 mm
- Robustness and excellent resistance to shocks / vibrations
- High protection level IP65
- High resolutions possibility, up to 15 bits (Gray or binary)
- Universal electronic circuits from 5 to 30 Vdc
- High performances in temperature -20°C to 90°C (option -40°C to 100°C)
- Standard DIRECTION entry, LATCH option



#### SPECIFICATIONS

<b>Material</b>	<b>Cover:</b> Zinc Alloy <b>Body:</b> Aluminum <b>Shaft:</b> Stainless Steel
<b>Bearings</b>	6803 series
<b>Maximal Loads</b>	<b>Axial:</b> 20 N <b>Radial:</b> 50 N
<b>Shaft Inertia</b>	$\leq 2,2 \cdot 10^{-6} \text{ kg.m}^2$
<b>Torque</b>	$\leq 6 \cdot 10^{-3} \text{ N.m}$
<b>Permissible Max. Speed</b>	9,000 min <sup>-1</sup>
<b>Continuous Max. Speed</b>	6,000 min <sup>-1</sup>
<b>Shaft Seal</b>	Viton
<b>Shocks (EN60068-2-27)</b>	$\leq 500 \text{ m.s}^{-2}$ (during 6 ms)
<b>Vibrations (EN60068-2-6)</b>	$\leq 100 \text{ m.s}^{-2}$ (10 ... 2,000 Hz)
<b>EMC</b>	EN 61000-6-4, EN 61000-6-2
<b>Isolation</b>	1,000 V eff
<b>Encoder Weight (Approx.)</b>	0,270 kg
<b>Operating Temperature</b>	- 20 ... 90°C (encoder T°)
<b>Storage Temperature</b>	- 40 ... + 100°C
<b>Protection (EN 60529)</b>	IP 65
<b>Torque (Ring Pressure Screw)</b>	0,7 ... 0,9 N.m
<b>Theoretical mechanical lifetime 10<sup>9</sup> turns (<math>F_{axial} / F_{radial}</math>)</b>	
<b>10 N / 25 N</b>	230
<b>25 N / 50 N</b>	29

## 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

## 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 0Vdc

## Latch

**Active data on the outputs:** LATCH pin to 0V

**Frozen data on the outputs:** LATCH pin to +Vcc

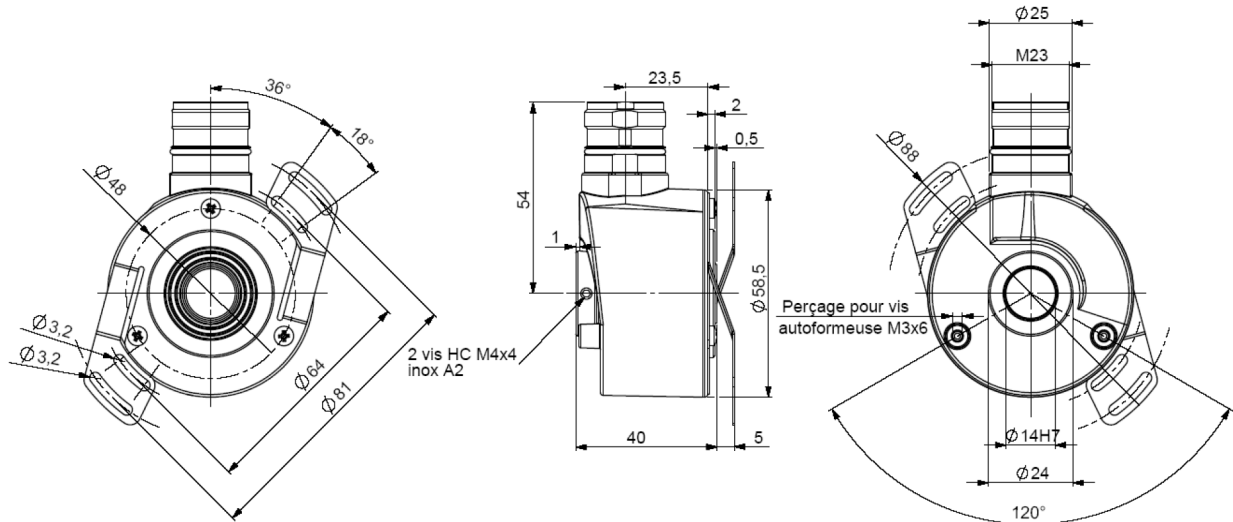
Consult us for the connection of an encoder with this option



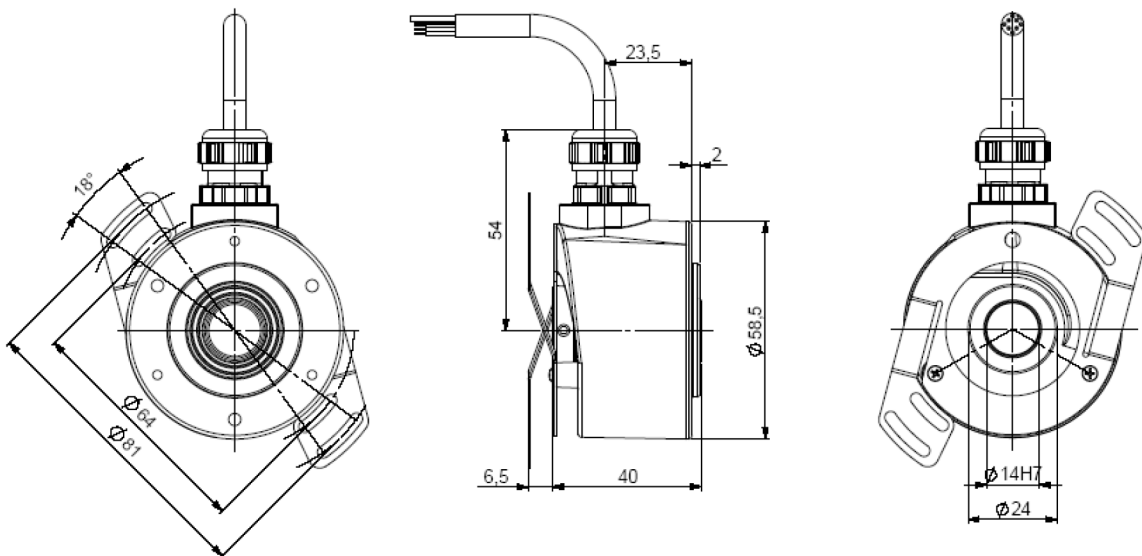
## DIMENSIONS

Dimensions in mm

### CH05\_14 connection CPR / C1R (radial M23), DAC 9445/015\* mounted on the body



### CH05\_14 connection C3R (radial cable), DAC 9445/015\* mounted on the cover



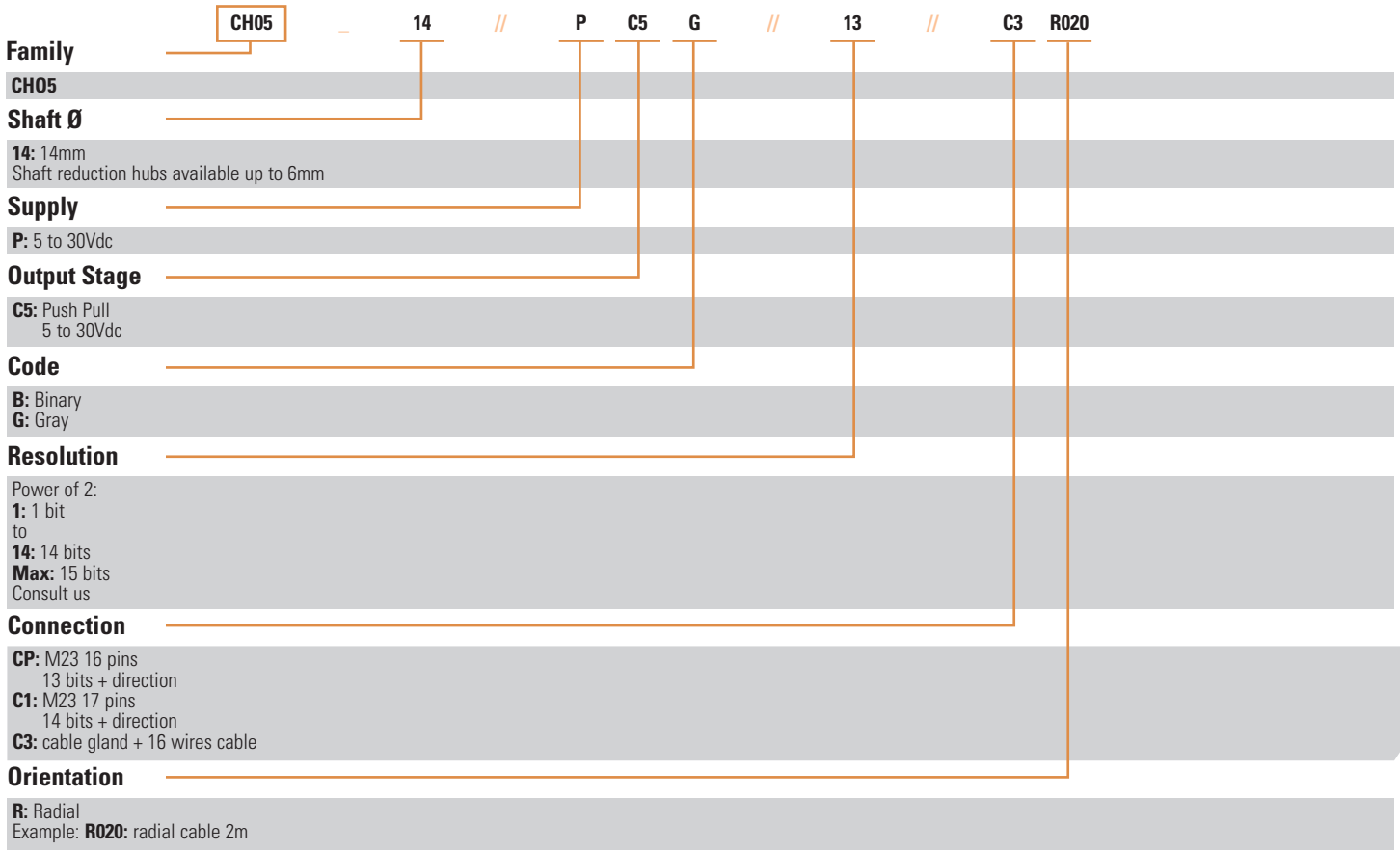
\* Accessory to be ordered separately.



# ORDERING OPTIONS

Example : CH05\_14//PC5G//13//C3R020

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.



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