BEI SENSORS

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

CHM5

CE

CANopen ABSOLUTE SINGLE TURN ENCODERS, CHM5 RANGE

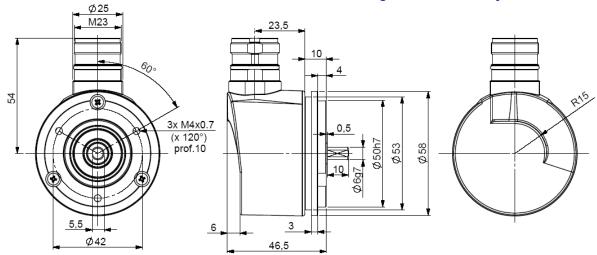CHM5, the new generation of CANopen absolute single turn encoders :

- Solid shaft version Ø 6 to 10mm,
- 58mm encoder, extra-flat,
- Robustness and excellent resistance to shocks / vibrations,
- High protection level IP65 (IP67 option)
- High performances in temperature –20°C to 85° (-30°C option)
- Universal power supply from 5 to 30 Vdc,
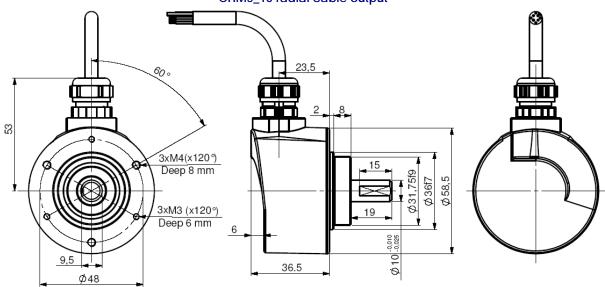- High resolutions up to 8192 points pre turn (2^{13}).

CANopen
DS 301 V4.02
DS 406 V3.1

CHM5_06 radial M23 connection, 9500/003* flange mounted on body

CHM5_10 radial cable output

* Accessory to be ordered separately

Material	Cover : zinc alloy	Shocks (EN60068-2-27)	≤ 500 m.s^{-2} (during 6 ms)
	Body : aluminium	Vibrations (EN60068-2-6)	≤ 100 m.s^{-2} (10… 2 000 Hz)
	Shaft : stainless steel	EMC	EN 61000-6-4, EN 61000-6-2
Bearings	6 000 serie	Isolation	500V (1min)
Maximal loads	Axial : 50 N	Weight (approx.)	0,300 kg
	Radial : 100 N	Operating temperature	- 20 ... + 85 °C (Encoder T°)
Shaft inertia	≤ 1.10^{-6} kg.m^2	Storage temperature	- 40 ... + 85 °C
Torque	≤ 4.10^{-3} N.m	Protection(EN 60529)	IP 65
Permissible max. speed	12 000 min^{-1}	Theoretical mechanical lifetime 10^9 turns (F_{axial} / F_{radial})	
Continuous max. speed	9 000 min^{-1}	25 N / 50 N : 99	50 N / 100 N : 12

BEISENSORS

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

CHM5

CE

CANopen ABSOLUTE SINGLE TURN ENCODERS, CHM5 RANGE

CANopen

ELECTRICAL CHARACTERISTICS

Power supply	5 – 30Vdc
Introduction	< 1 s
Consumption (without load)	< 50mA (at 24Vdc)
Accuracy	± ½ LSB (13 bits)

Programmable parameters

Resolution: defines the resolution per revolution (0 to 8 192),
Transmission speed : programmable from 10kBaud (1000m) to 1 Mbaud (40 m) ; value per default: 20 Kbaud,
Address: define the software address of the encoder on the bus (1 to 127, value by default: id = 1),
Direction : define the direction of count of the encoder,
RAX : defines the value of its preset position (non turning shaft),
CAM: Low and High Limits.

Communication modes

3 modes are available to interrogate the encoder :
POLLING mode: (Response to a RTR message): The position value is only given upon request (SDO mode),
CYCLIC mode: the encoder transmits its position in an asynchronous manner. The frequency of the transmission is defined by the programmable cyclical timer register from 0 to 65 535 ms,
SYNCHRO mode: the encoder transmits its position on a synchronous demand by the master.

STANDARD M23 CANOPEN CONNECTION

1	2	3	4	5	6	7	8, 9, 11	10	12
Reserved	CAN LOW	CAN GND	Reserved	Reserved	Reserved	CAN HIGH	Reserved	0V	+ 5/30Vdc

Pinout 3 (CAN GND) and 10 (0V) are connected together (intern the encoder).

Nota : Refer to the bus standards for the maximal derivation length.

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

	Shaft Ø	Power supply	Output stage	Code	Resolution	Connection	Connection orientation
CHM5	**10** : 10mm **06** : 6mm	**P** : 5 to 30Vdc	**BB** : CANopen	**B**: Binary	**13** : 8192 points per revolution (2^{13})	**BC**: M23 12 pinouts clockwise	**R** : radial
CHM5 _	10 //	P	BB	B //	13 //	BC	R

Made in France

CONTACT US

Regional head offices:

United States of America
Sensata Technologies
Attleboro, MA
Phone: 508-236-3800
E-mail: support@sensata.com

Netherlands
Sensata Technologies Holland B.V.
Hengelo
Phone: +31 74 357 8000
E-mail: support@sensata.com

China
Sensata Technologies China Co., Ltd.
Shanghai
Phone: +8621 2306 1500
E-mail: support@sensata.com