



| CXM5S

OPTICAL PARALLEL SINGLE-TURN ENCODERS



Features

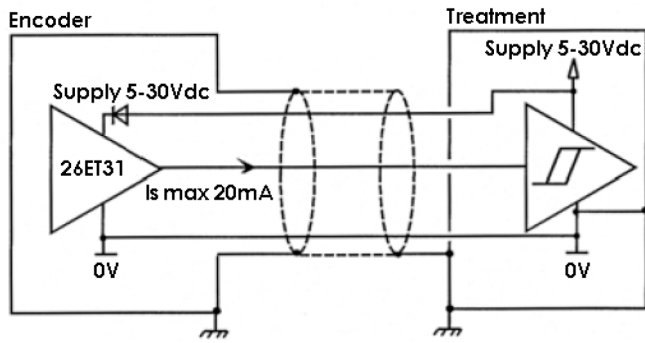
- Adapted to food and beverage – pharmaceutical - river – offshore applications,
- Stainless steel encoder (316) with hygienic design,
- Flanges and shaft adapted to the market needs,
- Robustness and excellent resistance to shocks / vibrations,
- Double ball bearings with safety lock system,
- Solid shaft version Ø 6 to 10mm,
- High protection level IP69K,
- Universal electronic circuits from 5 to 30Vdc,
- Isolated SSI interface, clock from 100 to 1MHz,
- Standard DIRECTION entry, LATCH option Digital or sine incremental outputs option,
- High performances in temperature –20°C to 90°C (option –40°C to 100°C),
- Optical technology, contactless,
- High resolutions possibility: up to 15 bits (Gray or binary),
- Adapted axial cable gland output.



SPECIFICATIONS

Material	Shaft: Stainless Steel 316 Cover: Stainless Steel 316 Body: Stainless Steel 316
Bearings	Double ball bearings
Maximal Loads	Axial: 250 N Radial: 500 N
Shaft Inertia	$\leq 1,2 \cdot 10^{-6} \text{ kg.m}^2$
Torque	$\leq 90 \cdot 10^{-3} \text{ N.m}$
Permissible Max. Speed	4,000 min ⁻¹
Continuous Max. Speed	3,000 min ⁻¹
Shocks (EN60068-2-27)	$\leq 500 \text{ m.s}^{-2}$ (during 6 ms)
Vibrations (EN60068-2-6)	$\leq 100 \text{ m.s}^{-2}$ (10... 2 000 Hz)
EMC	EN 61000-6-4, EN 61000-6-2
Isolation	1000 Veff
Encoder Weight (Approx.)	0,600 kg
Operating Temperature	- 20 ... + 90°C (encoder T°)
Storage Temperature	- 40 ... + 100°C
Protection (EN 60529)	IP 69K
Theoretical mechanical lifetime 10⁹ turns (F_{axial} / F_{radial})	
50 N / 100 N	12
250 N / 500 N	0,5

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

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

CONNECTION

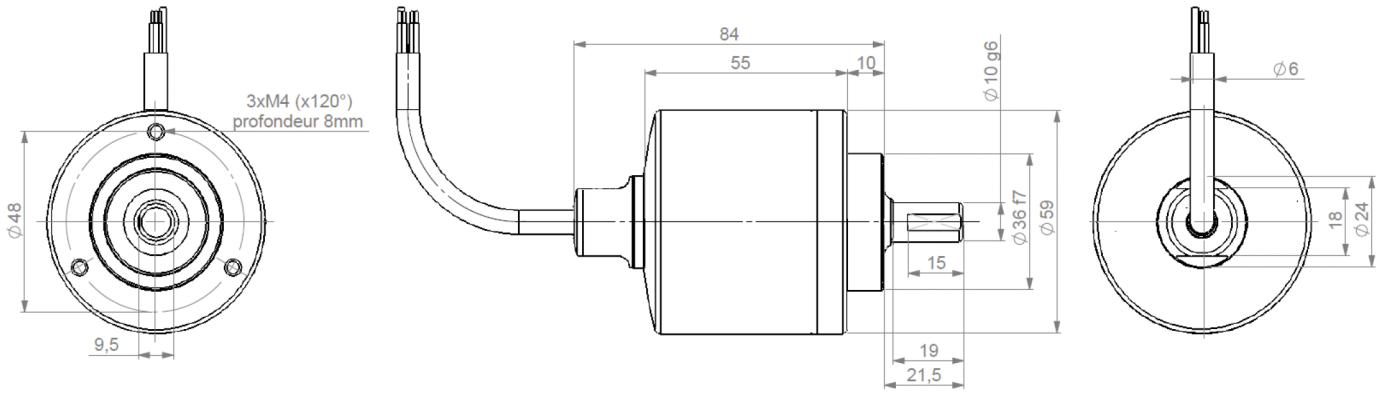
Type	0V	+Vcc	2 ⁰	2 ¹	2 ²	2 ³	2 ⁴	2 ⁵	2 ⁶
TF	WH White	BN Brown	GN Green	YE Yellow	GY Grey	OG Orange	BU Blue	RD Red	BK Black

2 ⁷	2 ⁸	2 ⁹	2 ¹⁰	2 ¹¹	2 ¹²	Direction
VT Violet	WH/BN White/Brown	WH/GN White/Green	WH/YE White/Yellow	WH/BK White/Black	WH/OG White/Orange	WH/RD White/Red



DIMENSIONS

Dimensions in mm

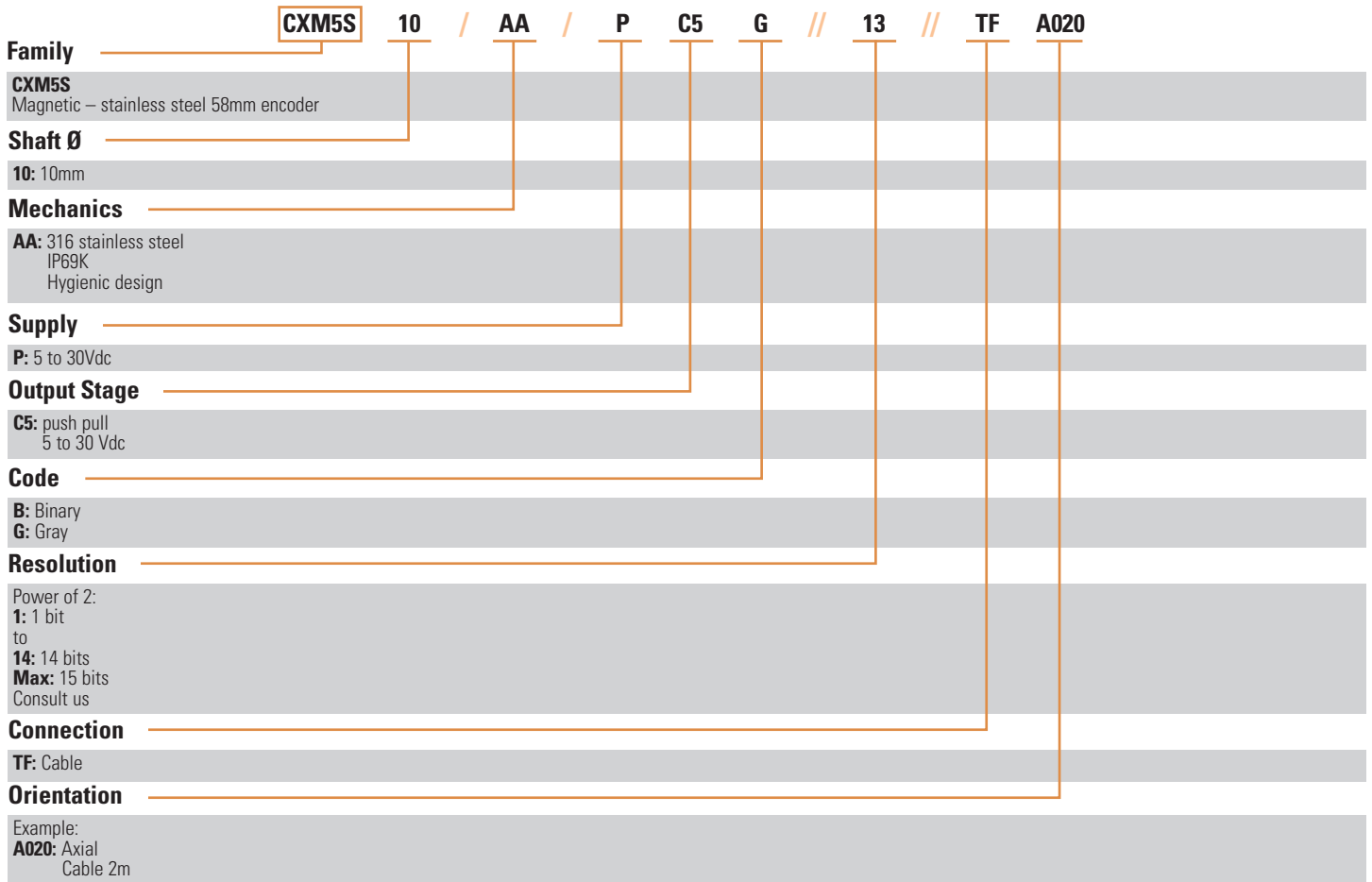




ORDERING OPTIONS

Example : CXM5S10/AA/PC5G//13//TF A020

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
- Consult us

Input / output available in option:

- LATCH entry.
- ERROR output for monitoring functions.



AGENCY APPROVALS & CERTIFICATIONS



Revised 2/23/18

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US