

### MAIN FEATURES

Flameproof encoders for applications within explosive and hazardous areas.

- Up to 8192 (13 bit) as single turn
- Up to 16384 (14 bit) as multi turn
- Several output types available. Up to 28 V dc input voltage
- Output cable
- Several flanges available
- Up to 3000 rpm speed rotation
- IP 65 as protection grade



EN 60079-0:2006 / EN 60079-1:2007  
EN 61241-0:2006 / EN 61241-1:2004  
ATEX certificate number: CESI 04 ATEX 082

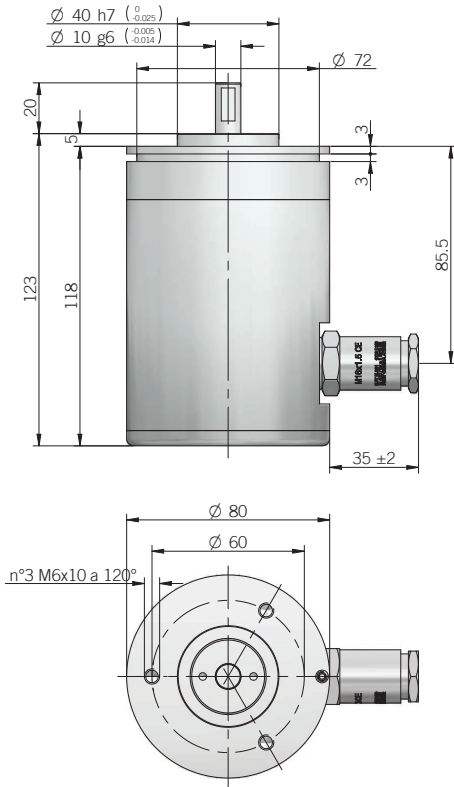
OTHER PRODUCTS

### ORDERING CODE

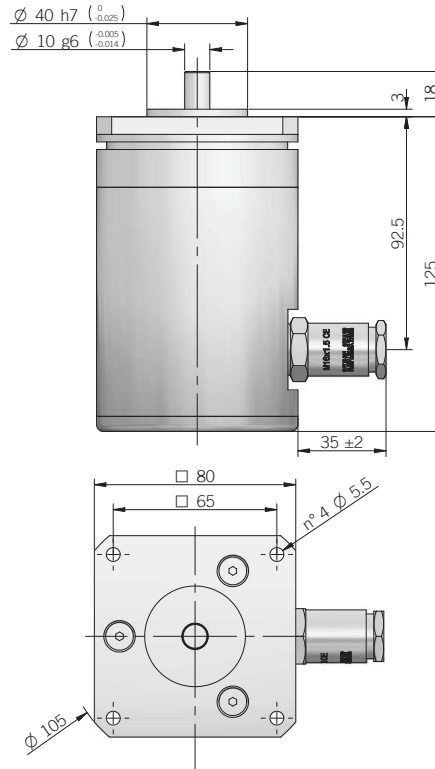
<b>EAMX 80</b>	<b>A</b>	<b>4096 / 4096 G</b>	<b>5</b>	<b>S</b>	<b>X</b>	<b>X</b>	<b>10</b>	<b>X</b>	<b>3</b>	<b>PR</b>	<b>. XXX</b>	
<b>SERIES</b> multiturn absolute flameproof encoder <b>EAMX</b>	<b>SIZE</b> mm <b>80</b>	<b>TYPE</b> <b>A</b> <b>D</b> stainless steel A model <b>AX</b> stainless steel D model <b>DX</b>	<b>TURNS</b> <b>2 / 4 / 8 / 16 / 32 / 64 / 128 / 256 / 512 / 1024</b> <b>/ 2048 / 4096 / 8192 / 16384</b> <i>please directly contact our offices for more than 25 bit coding availability</i>	<b>RESOLUTION</b> <b>2 / 4 / 8 / 16 / 32 / 64 / 128 / 256 / 512 /</b> <b>1024 / 2048 / 4096 / 8192</b>	<b>CODE TYPE</b> Binary <b>B</b> Gray (standard) <b>G</b>	<b>POWER SUPPLY</b> 5 V DC <b>5</b> 8 ... 28 V DC <b>8/28</b>	<b>VARIANT</b> <b>XXX</b> custom version	<b>OUTPUT TYPE</b> <b>PR</b> cable output radial (standard length 1.5 m)	<b>MAX ROTATION SPEED</b> <b>3</b> 3000 rpm	<b>ENCLOSURE RATING</b> <b>X</b> IP 65	<b>SHAFT DIAMETER</b> <b>6</b> mm <b>8</b> mm <b>10</b> mm	<b>OPTIONS</b> <b>X</b> to be reported if not used
					<b>LOGIC</b> <b>X</b> to be reported if not used	<b>ELECTRONIC INTERFACE</b> <b>S</b> SSI (Serial Synchronous Interface) <i>please directly contact our offices for customized output code and / or exceeding 25 bits</i>						

EAMX 80 A / D / AX / DX

## EAMX 80 A / AX



## EAMX 80 D / DX



### Mechanical specifications

Shaft diameter	6 / 8 / 10 mm
Enclosure rating	IP 65 (IEC 60529)
Max rotation speed	3000 rpm
Max shaft load	200 N (20 Kgf) axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibrations	10 G, 10÷2000 Hz (IEC 60068-2-6)
Bearings	n° 2 ball bearings
Bearings life	10 <sup>9</sup> revolutions
Body material	aluminium UNI 9002/5 *
Shaft material	stainless steel UNI X10CrNiS1809
Housing material	aluminium UNI 9002/5 *
Operating temperature	0° ... +50 °C
Storage temperature	-15° ... +70 °C
Weight	1200 g

\*: on request also available in AISI 304 UNI X5CrNi1810 or AISI 316 UNI X5CrNiMo17-12-2

### Electrical specifications

Turns	2 / 4 / 8 / 16 / 32 / 64 / 128 / 256 / 512 / 1024 / 2048 / 4096 / 8192 / 16384
Singleturn resolution	2 / 4 / 8 / 16 / 32 / 64 / 128 / 256 / 512 / 1024 / 2048 / 4096 / 8192
Power supply	5 V DC ± 10% 8 ... 28 V DC ± 5%
Current consumption without load	100 mA
Electronic interface	RS422 SSI
Monostable time	10 ... 25 us
Auxiliary input (U/D)	active high (+Vdc) connect to 0V if not used
SSI frequency	100 kHz ÷ 1MHz
SSI monostable time	10 ÷ 25 μs
Accuracy	± 1/2 LSB
Counting direction	decreasing clockwise (shaft view)
Start-up time	< 150 ms
Electromagnetic compatibility	IEC 61000-6-2 / IEC 61000-6-4

### Output connections for SSI

Function	Wire cable
+ V dc	red
0 Volt	gray
dato +	green
dato -	brown
clk +	yellow
clk -	pink
U / D	blue
⊥	shield

**Ex II 2GD Ex d IIC T6 Ex tD A21 IP65 T85°C**

**Ex II 2GD**

II: group II: other than mines  
2: category 2: zone 1 (GAS), zone 21 (DUST)  
GD: gas, vapours, mist, cloud of dust

**Ex d IIC T6**

Ex d: flameproof enclosure safety type  
IIC: gas subdivision IIC  
T6: max surface temperature 85°C

**Ex tD A21 IP65 T85°C**

Ex tD: flameproof enclosure safety type  
A: IP grade testing method  
21: zone 21  
IP65: protection grade IP65  
T85°C: max surface temperature 85°C