

EAMX 80 A / D SSI

EXPLOSION PROOF ATEX MULTITURN ABSOLUTE ENCODER



SPECIFICATIONS

Explosion proof encoder for applications within explosive and hazardous areas.

- Optical sensor technology (OptoASIC + gears)
- Resolution up to 27 bit (13 bit single turn (8192 ppr) + 14 bit multiturn (16384 turns))
- Power supply up to +28 VDC with SSI as electronic interface
- Cable output
- Solid shaft diameter up to 10 mm
- Mounting with synchronous or centering square flange

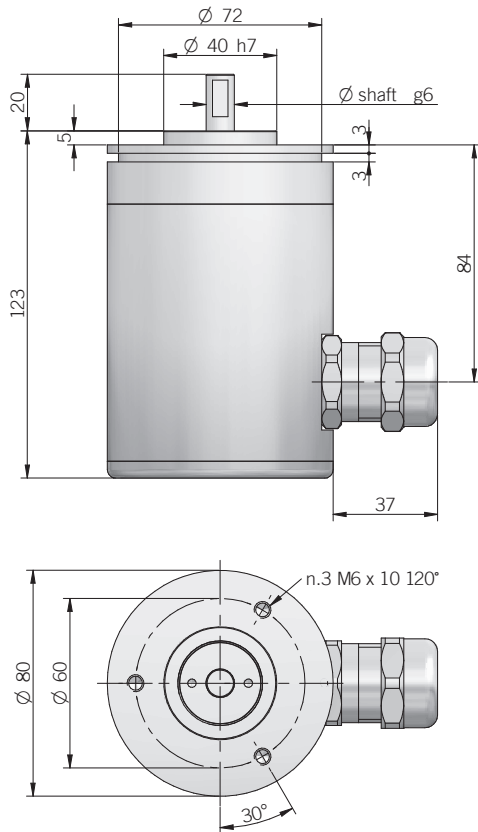
EX CLASSIFICATION

It has been assured with EC-TYPE Examination Certificate CESI 04 ATEX 082 that the EAMX 80 comply with essential health and safety requirements according to

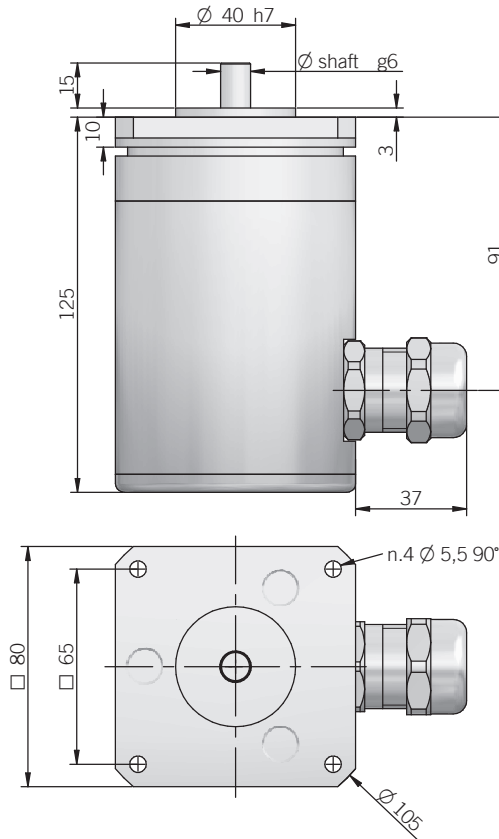
- EN 60079-0:2012+A11:2013
- EN 60079-1:2007
- EN 60079-31:2014

ORDERING CODE	EAMX	80A	256 / 256	G	8/28	S	X	X	10	S	3	PR	.XXX		
SERIES multiturn absolute explosion proof encoder	EAMX	MODEL synchronous flange ø 40 mm centering square flange ø 40 mm	80A 80D	MULTITURN RESOLUTION (powers of 2) turns from 2 to 16384	SINGLETURN RESOLUTION (powers of 2) ppr from 2 to 8192	CODE TYPE binary gray	POWER SUPPLY 8 ... 28 V DC	ELECTRONIC INTERFACE Serial Synchronous Interface - SSI	LOGIC to be reported	OPTION to be reported	SHAFT DIAMETER mm	ENCLOSURE RATING IP 65	MAX ROTATION SPEED 3000 rpm	OUTPUT TYPE radial cable (standard length 1,5 m)	VARIANT custom version

EAMX 80 A



EAMX 80 D



ELECTRICAL SPECIFICATIONS

Multiturn resolution	from 2 to 16384 turns
Singleturn resolution	from 2 to 8192 ppr
Power supply	8/28 = 7,6 ... 29,4 V DC
Current consumption without load	100 mA
Output type	RS-422
Auxiliary inputs (U/D)	active high (+Vdc) <i>connect to 0V if not used</i>
Clock frequency	100 kHz ... 1 MHz
SSI monostable time (Tm)	18 μs
SSI pause time (Tp)	> 35 μs
SSI frame	Tree format (MSB ... LSB) up to 12 bit multiturn = lenght 25 bit (12MT + 13ST) 13 to 14 bit multiturn = lenght 27 bit (14MT + 13ST)
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

MECHANICAL SPECIFICATIONS

Shaft diameter	ø 10 mm	Enclosure rating	IP 65 (IEC 60529)
Max rotation speed	3000 rpm	Max shaft load	200 N axial / radial
Shock	50 G, 11 ms (IEC 60068-2-27)	Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	1,5 x 10 ⁻⁶ kgm ²	Starting torque (at 20°C / +68°F)	< 0,03 Nm
Body material	anodized aluminum	Shaft material	1.4305 / AISI 303 stainless steel
Housing material	anodized aluminum	Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions	Operating temperature	0° ... +50°C (+32° ... +122°F)
Storage temperature	-15° ... +70°C (+5° ... +158°F)	Weight	1200 g (42,33 oz)

ATEX MARKING

II 2GD
Ex d IIC T6 Gb
Ex tb IIIC T85°C Db
IP 65

II 2GD

II: group II: different than mines
 2: category 2: high level of protection
 GD: areas containing gas (G) and dust (D)


Ex d IIC T6 Gb

Ex d: flameproof enclosure for explosive atmospheres with gases, vapours and mists
 IIC: group of gas IIC
 T6: max surface temperature +85°C of the device for atmospheres with gas
 Gb: product with a high level of protection

Ex tb IIIC T85°C Db

Ex tb: flameproof enclosure safety type
 IIIC: group of dust combustibles IIIC
 T85°C: max surface temperature +85°C of the device in the presence of dust
 Db: product with a high level of protection

CONNECTIONS

Function	Cable output
+ Vdc	red
0 Volt	grey
data +	green
data -	brown
clock +	yellow
clock -	pink
U / D	blue
	shield

ACCESSORIES

set n.3 fixing clamps for model 80 A
 P/N 94080001

