



EX80A / D FLAMEPROOF ENCODERS

Flameproof encoders

Flameproof encoders for applications within explosive and dangerous areas

- Resolutions up to 10000 imp/turn with zero
- Different electronic configurations available with a power supply up to 28 Vdc
- Max output frequency up to 300 KHz
- Output cable
- Different flanges available
- Speed rotation up to 3000 rpm
- Protection up to IP64



Ordering Codes

EX 80 A 1000 Z 5/28 P 10 X 3 P R . XXX

In case of particular Customer variant separate with a full stop

EX = Flameproof encoder by EExd IIC T6 standard

80 = body dimension

A = mod.EX80A
D = mod.EX80D
Type of Flanges

from **1** to **10000** imp./turn
Resolutions
N.B.: For impulse availability contact directly our offices

S = without zero impulse
Z = with zero impulse
Zero impulse

5 ÷ 28 = power supply
Encoder powers supply (Vdc)
N.B.: LINE DRIVER available only with 5 Vdc or 8 ÷ 24 Vdc power supply

XXX = Particular customer variants indicated by a progressive number from 001 to 999

R = radial

P = standard output cable 1.5 m
G = threaded union 1/2" Gas

3 = 3000 **R.P.M.**

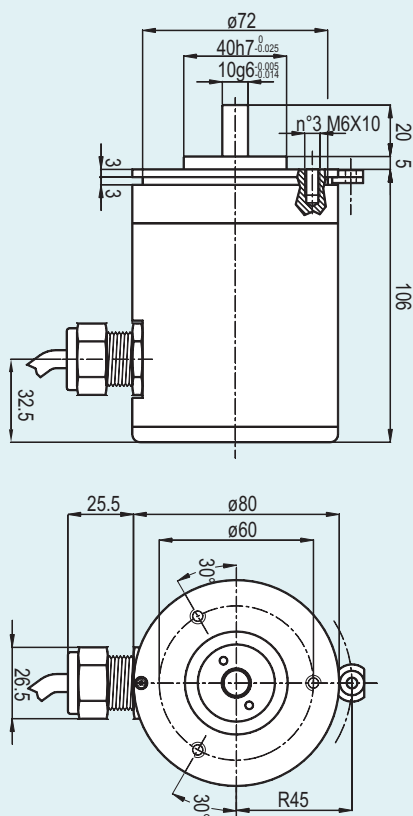
X = Standard IP64 **Protection**

10 = ø 10 mm **Shaft Diameter**

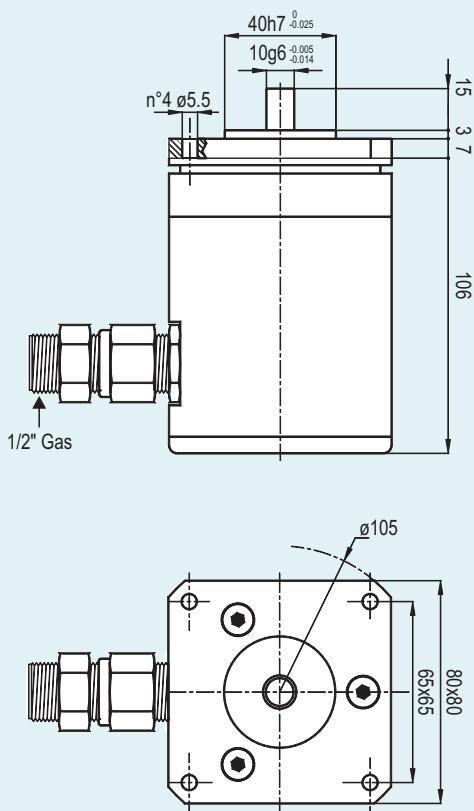
N = NPN
C = NPN OPEN COLLECTOR
P = PUSH PULL
L = LINE DRIVER
Electronic output configuration

N.B.: For the optionals on output configurations see the output incremental connections card.

EX80A



EX80D



Electronic Characteristics

| | |
|---|---|
| Resolutions | From 1 to 10000 impulses / turn |
| Power supply | 5 + 28 Vdc N.B.: LINE DRIVER only with 5 / 8 + 24 Vdc power supply |
| Current consumption without load | 80 mA |
| Max output current | 50 mA per channel 20 mA per channel with LINE DRIVER |
| Electronic output configuration | NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER |
| Max output frequency | Max 300 KHz $F = \frac{\text{RPM} \times \text{Resolution}}{60}$ |

Mechanical Characteristics

| | |
|------------------------------|---|
| Shaft Diameter (mm) | $\varnothing 10 \text{ g6 } \begin{pmatrix} -0.005 \\ -0.014 \end{pmatrix}$ |
| R.P.M. Max | 3000 continuous |
| Shock | 50 G per 11 msec (with flexible disc) 20 G per 11 msec (with glass disc) |
| Vibrations | 10G 10 + 2000 Hz |
| Max shaft load | 200 N (20 Kp) axial 200 N (20 Kp) radial |
| Bearings life | 10^9 revolutions |
| Bearings | n°2 Ball bearings |
| Shaft material | Stainless steel AISI303 |
| Body Material | Aluminium D11S - UNI 9002/5 |
| Operating temperature | 0° + 60°C |
| Storage Temperature | -25° + 70°C |
| Weight | 1200 g |

Flameproof encoders at EExd IIC T6 standard



EN 50.014 / EN 50.018
CESI certified number: EX-97.D.015

EExd IIC T6

EEx: Electrical system for explosive and dangerous areas.

d: Anti explosion box.

II: Electrical system which can operate in dangerous areas except for the mines where "grisou" gas is present.

C: Type of protection based on the special interstice designed to have the maximum security on the flameproof encoder (MESG)
C= maximum security

T6: Maximum encoder surface temperature 85°C.

