



ATEX OPTOTACHO, NAMX RANGE

ATEX certified Explosion-proof encoders according to Directive 94/9/CE

Explosion-proof rotary encoders for hazardous environments gas & dust
Robust design for heavy-duty applications
Application fields: explosive atmospheres except for firedamp mines

EC type examination certificate

Download from our website www.bei-ideacod.com

LCIE 03 ATEX 6235/02

CE0081

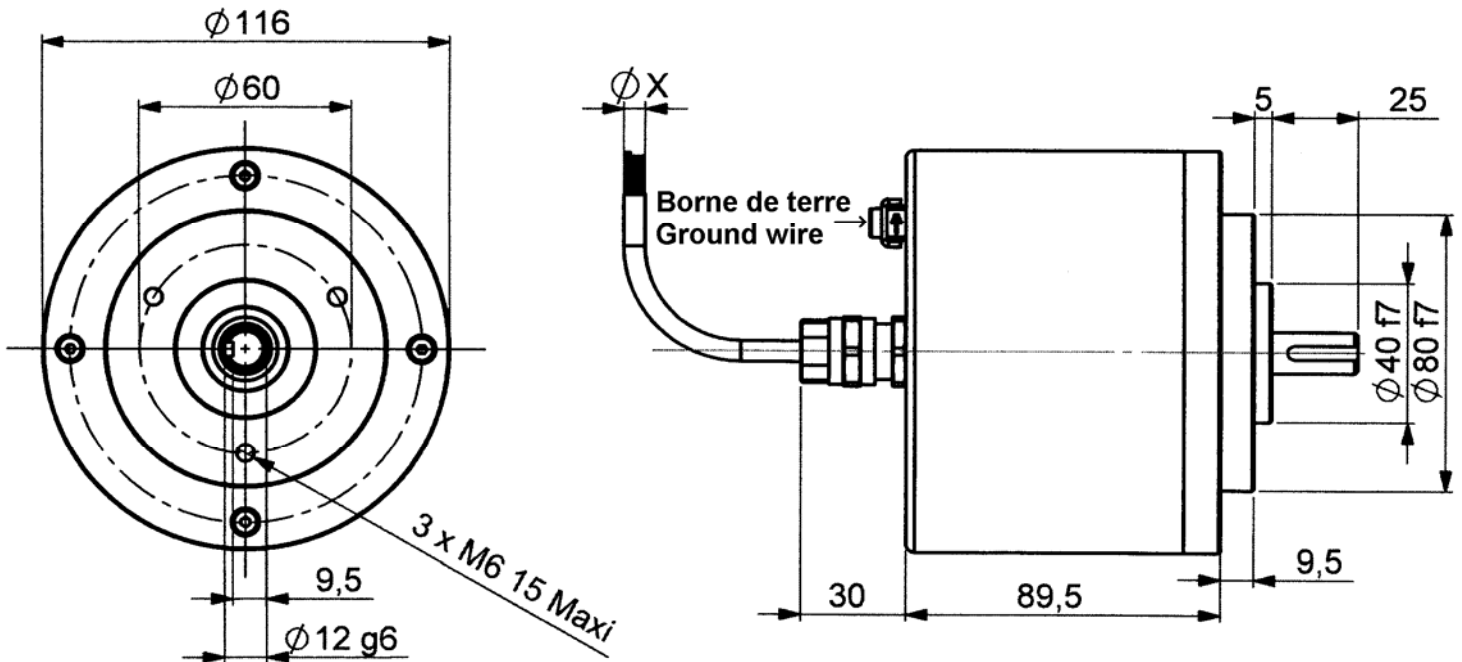
II 2 G/D

Ex d IIC T6, T5 or T4

Ex tD A21 IP6X T80°C T95°C T100°C



NAMX_12 connection TAA (axial cable)



Material	Cover : aluminium	Shock (EN60068-2-27)	$\leq 500 \text{ m.s}^{-2}$ (during 6ms)
Stainless steel option	Body: aluminium	Vibration (EN60068-2-6)	$\leq 200 \text{ m.s}^{-2}$ (10 ... 1 000 Hz)
Shaft	Stainless steel	CEM	EN 50081-1, EN 61000-6-2
Bearings	6001 serie	Isolation	1 000 V eff
Maximal load	Axial : 50 N	Weight	3,5kg aluminium body and cover
	Radial : 100 N		7,2kg stainless steel body and cover
Shaft inertia	$\leq 16 \cdot 10^{-6} \text{ kg.m}^2$	Operating temperature	Cf here-under table (encoder T°)
Torque	$\leq 15 \cdot 10^{-3} \text{ N.m}$	Storage temperature	- 30... + 80 °C
Permissible max.speed	9 000 min ⁻¹	Protection(EN 60529)	IP 65
Continuous max. speed	6 000 min ⁻¹	Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
Shaft seal	Viton	20 N / 30 N : 360	50 N / 100 N : 18
			100 N / 200 N : 2,2

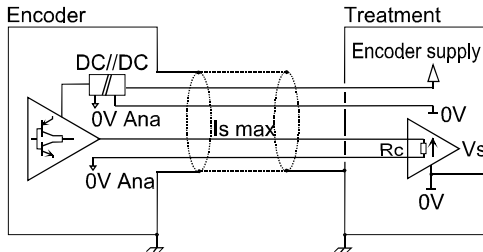
T _{amb}	Temperature class for gas atmosphere	Temperature class for dust atmosphere
-20°C ≤ Ta ≤ +40°C	T6	T80°C
-20°C ≤ Ta ≤ +55°C	T5	T95°C
-20°C ≤ Ta ≤ +60°C	T4	T100°C

ATEX OPTOTACHO, NAMX RANGE

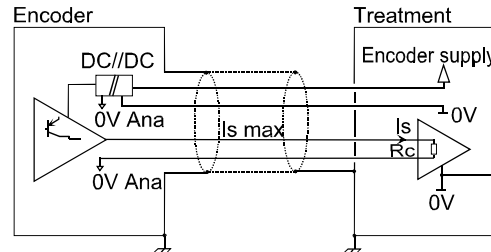
ANALOG OUTPUT CIRCUIT / SUPPLY

2Vm : power supply 5 Vdc – driver 0...10 Vdc
 3Vm : power supply 15-30 Vdc – driver 0...10 Vdc
 2Vp : power supply 5 Vdc – driver -10 Vdc ... +10 Vdc
 3Vp : power supply 15-30 Vdc – driver -10 Vdc ... +10 Vdc

2V1 : power supply 5 Vdc – driver 0...20 mA
 2V2 : power supply 5 Vdc – driver 4...20 mA
 2V3 : power supply 5 Vdc – driver -20 mA ... +20 mA
 3V1 : power supply 15-30 Vdc – driver 0...20 mA
 3V2 : power supply 15-30 Vdc – driver 4...20 mA
 3V3 : power supply 15-30 Vdc – driver -20 mA ... +20 mA



Rc min	1 kOhms
Rc advised	1,5 kOhms
Rc max	/



Rc min	25 Ohms
Rc advised	150 Ohms
Rc max	500 Ohms

Nota : Current loop output also available

Both versions, voltage and current output are protected against inversion of polarity and excess voltage up to 33Vdc

The products are equipped with a total galvanic isolation (1kV) between the analog output circuits and the rest of the electronic
 Consumption without load : 250mA

STANDARD CONNECTION

	-	+	A	B	0	A/	B/	0/	0V ana	Out ana	Ground
TA PUR cable 10wires	BK black	RD red	NC	NC	NC	NC	NC	NC	GY grey	WH white	General shield

ORDERING REFERENCE

	Shaft Ø	Available electronic		Speed	Connection	Orientation
NAMX Alu cover and body	12 : 12mm	3V1, 3V2, 3V3, 3Vm, 3Vp 2V1, 2V2, 2V3, 2Vm, 2Vp		example : D10 : 10 rpm C20 : 200 rpm M30 : 3000 rpm	TA : PUR cable, 10 wires 10 fils	example: A030 : 3m axial cable
		Supply	Output stage			
NEMX stainless steel body and cover		2: 5Vdc	V1 : 0...20 mA V2 : 4...20 mA V3 : -20mA ...+20mA Vm : 0...10Vdc Vp : -10V...+10Vdc			
		3: 15 to 30Vdc				
Ex: NEMX _	12 //	3	V2	M30 //	TA	A030

ASSEMBLY CAUTION

NEVER OPEN THE ENCODER

NEVER CONNECT/DISCONNECT UNDER POWER SUPPLY/IN PRESENCE OF DUSTS ATMOSPHERE

The customer obliges to take up and to use our products, according to our specifications and to the manners of the profession. Our company would not be responsible for any defect resulting from a defective or erroneous assembly. From a use superior to the standard, or in abnormal conditions. The breakdowns resultant of shocks, bad electric supply, put in low capacity or overcapacity of the product, the environment of bad conditions (humidity, projection, dust, etc) cannot be imputed to us. The converter doesn't require any maintenance. Any encoder presenting a dysfunction will have to be the object of immediate return for control in our facilities. The encoder mustn't be open in any case (cable gland and/or cover)

An earth situated on the cover must be linked with the ground of the installation

Made in FRANCE


**ATEX OPTOTACHO, NAMX RANGE**

1) Déclaration de conformité CE

2) Nous, société BE-IDEACOD, certifions que ce matériel : capteurs antidéflagrants, type

GAMX, CAMX, NAMX, GEMX, CEMX, NEMX

3) Avec les inscriptions suivantes :

CE 0081  II 2 G/D, Ex d II C T6, T5 or T4
Ex tD A21 IP6X T80°C T95°C T100°C

A été conçu et fabriqué conformément à la directive applicable suivante :

ATEX directive 94/9/CE

Directive CEM 89/336/CEE

4) La certification a été obtenu grâce à l'application des normes suivantes :

EN 60079-0 (2006), EN 60079-1 (2004), EN 61241-0 (2004) et EN 61241-1 (2004)

5) Une attestation d'examen CE de type a été obtenu :

LCIE 03 ATEX 6235/02

et une notification :

LCIE 03 ATEX Q8060

6) L'application des normes suivantes a participé à l'obtention de la certification :

EN 60-529, NFC 23-520, NFC 23-539, EN 50081-1, EN 55022 classe B, EN 55014, EN 61000-6-2, CEI 61000-4-2, CEI 61000-4-3, CEI61000-4-4, CEI 61000-4-5, CEI 61000-4-6, CEI 61000-4-8, CEI 61000-4-11

7) L'organisme notifié responsable du suivi de la directive **ATEX** est le

LCIE,B.P.8, F92260 Fontenay-aux-Roses

Numéro d'identification : 0081

8) La société chargée de la certification **CEM** est nommée ci-après :

GRME, Cellule CEM, B.P.8, 68840 Pulversheim

9) Nous certifions que nos produits désignés ci-dessus sont conformes à la directive et aux normes spécifiées


Date :

1) Declaration of conformity EC

2) Us, BE-IDEACOD, let us certify that this material : sensor explosion-proof standard

GAMX, CAMX, NAMX, GEMX, CEMX, NEMX

3) With the following inscriptions :

CE 0081  II 2 G/D, EEx d II C T6, T5 or T4
Ex tD A21 IP6X T80°C T95°C T100°C

Conceived and manufactured has the directive applicable following :

ATEX directive 94/9/CE

Directive CEM 89/336/CEE

4) Certification to summer obtained thanks to the application of the standards :

EN 60079-0 (2006), EN 60079-1 (2004), EN 61241-0 (2004) and EN 61241-1 (2004)

5) EC type examination certificate was obtained :

LCIE 03 ATEX 6235/02

and a notification :

LCIE 03 ATEX Q8060

6) The application of the following standards took part in obtaining certification :

EN 60-529, NFC 23-520, NFC 23-539, EN 50081-1, EN 55022 classe B, EN 55014, EN 61000-6-2, CEI 61000-4-2, CEI 61000-4-3, CEI61000-4-4, CEI 61000-4-5, CEI 61000-4-6, CEI 61000-4-8, CEI 61000-4-11

7) The notified organization responsible for the follow-up of the directive **ATEX** is the

LCIE,B.P.8, F92260 Fontenay-aux-Roses

Numéro d'identification : 0081

8) The company in charge of certification **CEM** is named :

GRME, Cellule CEM, B.P.8, 68840 Pulversheim

9) We certify that our indicated products so above are in conformity with the directive and the specified standards

Dominique MALLET
Directeur Général