INCREMENTAL ENCODER

0B80EXS

EXPLOSION-PROOF ENCODER,CERTIFIED BY ISSeP, ATEX Ex d II C T6/T5, ACCORDING TO CENELEC RULES. B10 FLANGE (Ø 115).FITTED TO BE USED ON WORKING ENVIRONMENTS WITH EXPLOSIVE ATMOSPHERE (EXCEPT FOR GRISU').

ATEX (DIRECTIVE 94/9/EC)

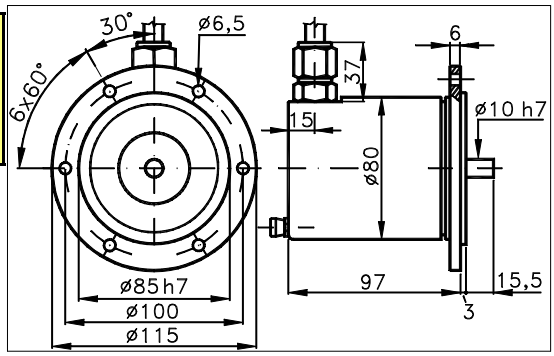
CE Ex **II 2 G D**

Sized draw standard version: CV1 R Measures without tolerance according to UNI ISO 2768-mk

CE Ex **II 2 G Ex d IIC T6 Gb**
D Ex tb IIIC T85°C Db IP6X

CE Ex **II 2 G Ex d IIC T5 Gb**
D Ex tb IIIC T100°C Db IP6X

GAS "G" and DUST "D"



Ex Encoder built with certification ATEX explosion-proof rules, according to armonized standards EN60079-0/EN60079-1/EN60079-31. Certified by ISSeP ISSeP07ATEX018X and notified by CESI CESI02ATEX138Q. Special conditions for safe use: symbol X.
The apparatus is fitted with a cable suitable with temperature of 100°C minimum permanently connected to it; an appropriate connection of the free end of the cable shall be foreseen. The quality of the assembly screws shall be 8.8 at least.

Ex : Manufacturedin accordance with one or more Cenelec security Standards.
d/tb : It means explosion-proof case.
Gb/Db: Protection level.
IIIC : Conductive dust.
II : Built for use in all sites except for mines with grisu'.

C : Maximum security (MESG) experimental gap type.
IP6X: Degree of protection (IP code).
T5 : Maximum temperature of the case surface: 100°C.
T6 : Maximum temperature of the case surface: 85°C (standard).

TECHNICAL FEATURES AND POSSIBLE CONFIGURATIONS

- **Base**.....: ANODIZED ALUMINIUM (*)
- **Cover**.....: ANODIZED ALUMINIUM (*)
- **Weight**.....: 1300 g
- **Shaft**.....: Ø 10 STAINLESS STEEL (*)
- **Max.rad/axial load.**: 10 kg
- **IP output side.(°).**: see 'CONNECTIONS' of page 2
- **IP shaft side..(°).**: std. 65 | sealed 66 | low torq. -
- **opt. type (page 2):** standard | Z
- **Contin. max RPM(**):** 6000 | 3000 | -
- **Starting torque gcm:** 18 | 50 | -

(°) IP according to CEI EN 60529,EN 60529,IEC 529
(*) custom options

- **Ball bearings life...**: 1,5 x 10^9 revolutions
- **Impact resistance....**: 50 G x 11ms
- **Vibration resistance.**: 12 G (10 ÷ 2000 Hz)
- **Power supply.....**: 5÷30V (see page 2)
- **Ambient temperature..**: (T5)-20÷60°C, (T6)-20÷40°C
- **Storage temperature..**: -30 ÷ 85 °C
- **N° of pulses/rev.....**: 1 ÷ 10000
- **Max frequency.....**: 100 kHz (300 option)
- **Max consumption mA...**: std 120 line driver 180 (*)
- **Light source.....**: LED with >= 100000 h life

(**) intermittent max RPM + 30% of continuous max RPM

ELECTRONICS

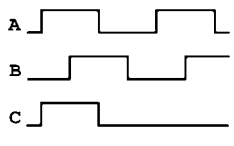
CODE	DESCRIPTION	mA
	STANDARD NPN	10
K	NPN OPEN COLL	10
Q	NPN	70
R	NPN OPEN COLL	70
P	PNP	70
U	PNP OPEN COLL	70
B	PUSH-PULL PRO	70
H	PUSH-PULL	70

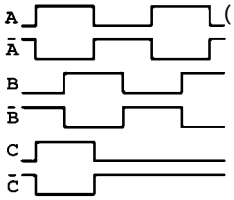
CODE	DESCRIPTION	mA
N	DRIVER 26LS31	30
T	TTL 7404	10
C	DRIVER 88C30	20
L	2x PUSH-P.PRO	70
M	2x PUSH-PULL	70

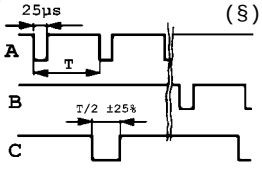
CODE	DESCRIPTION	mA
D	DISCRIMINAT.	70

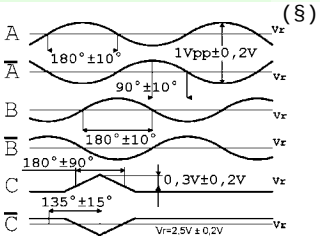
CODE	DESCRIPTION	mA
Y	SINUSOID.1Vpp	10

(§)









Tolerance between phases ± 25°, symmetry ± 15°

(§) Clock-wise output rotation (see shatf).

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POSSIBLE OPTIONS

CODE	DESCRIPTION	CODE	DESCRIPTION
Y	Unbreak. disk (only T6)		
Z	Sealed ball bearing		
S	160 KHz frequency		
W	300 KHz frequency		
C	Low consumption		
K	Invert. phase A,B,Zero.		
J	Zero logic combination		
G	Tropicalization		
N	Stainless steel cover		
X	Custom options		

POSSIBLE CONNECTIONS

CABLE (5)	OUTPUT
CV1	AX RAD

CONNECTOR	OUTPUT

CABLE END CONNECTOR (4)	OUTPUT
VM TM VL TL VD VH VH5 VI VE VK TK VN VH6 VM5 VM9 VS VD5	AX RAD

TERMINAL BOX	OUTPUT

ORDERING CODE

MAX °C CLASS (CASE)

- (5) T5/T100°C
- (6) T6/T85°C

( ) STANDARD NPN

- (K) NPN OPEN COLL
- (Q) NPN
- (R) NPN OPEN COLL
- (P) PNP
- (U) PNP OPEN COLL
- (B) PUSH-PULL PRO
- (H) PUSH-PULL
- (N) DRIVER 26LS31
- (T) TTL 7404
- (C) DRIVER 88C30
- (L) 2x PUSH-P.PRO
- (M) 2x PUSH-PULL
- (D) DISCRIMINAT.
- (Y) SINUSOID.1Vpp
- (X) SU SPECIFICA

CABLE (5) IP66

- (CV1) 1 m long

TERMINAL BOX

CONNECTOR

CABLE END CONNECT. (4) IP65 encoder output

- (VM) 7c normal
- (TM) 7c sealed
- (VL) 10c normal
- (TL) 10c sealed
- (VD) 9c
- (VH) 12c anticlock.
- (VH5) 12c clock-wise
- (VI) 12c crimped
- (VE) 5c
- (VK) 17c normal
- (TK) 17c sealed
- (VN) 12c
- (VH6) 12c clock-wise
- (VM5) 26c
- (VM9) 16c
- (VS) 12c
- (VD5) 9c screened

OPTIONS	MODEL		PULSES/REVOL.(1)	POWER SUPPLY (Vcc)	VERSION (2)	ELECTRONIC (2)	CONNECTION (3)	OUTPUT
	0B80EXS	/	500	5	BZ	N	CV1	R

OPTIONS

- ( ) ( )
- (Y) ( )
- (Z) ( )
- (S) ( )
- (W) ( )
- (C) ( )
- (K) ( )
- (J) ( )
- (G) ( )
- (N) ( )
- ( ) ( )
- (X)

PULSES/REVOL.(1)

- 1 ÷ 10000

POWER SUPPLY (Vcc)

- (5) 5 V ±5%
- (824) 8÷24 V
- (1828) 18÷28 V
- (815) 8÷15 V
- (12) 12 V ±5%
- (24) 24 V ±5%
- (1230) 12÷30/12 V
- (8245) 8÷24/5 V
- (1030) 10÷30 V
- (18285) 18÷28/5 V
- (1530) 15÷30/15 V
- ( )

VERSION (2)

- (M) Monodirectional
- (B) Bidirectional
- (BZ) Bidirectional + zero
- (MZ) Monodirectional + zero

OUTPUT

- AX ( )
- RAD (R)

Product manufactured according to UNI EN ISO 9001:2008, supplied with CHECKING and CONFORMITY declaration with CE mark and with TWO (2) YEARS WARRANTY starting from delivery date.

NOTE: FOR 88C30 MAX 15Vdc

(1) For further information see PULSES/REVOL. data sheet
(2) For further information see ELECTRONIC data sheet
(3) For further information see CONNECTION data sheet
(4) Only outside the area with explosive atmosphere
(5) The junction has to be made with Ex junction box or outside potentially explosive environments.

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