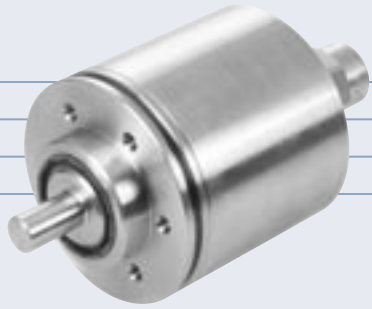
IX 700

INCREMENTAL FLAMEPROOF ENCODER

EEx dI / IIC T6 (Tamb 60°C)
IP 66/67 – M/S
Heavy Duty Construction
5000 Pulses/Rev., 300 kHz max.
4,75 – 30 Volts, RS 422 Compatible



APPROVALS / CERTIFICATIONS

Certification Number	DEMKO 02 ATEX 133213X
	EX I/II G D
EN 50014	1197 E incl. A1+A2
EN 50018	2000E
EEx d IIC T6	(Tamb +60°C)
EEx d IIC T4	(Tamb +100°C)
	EEx d I

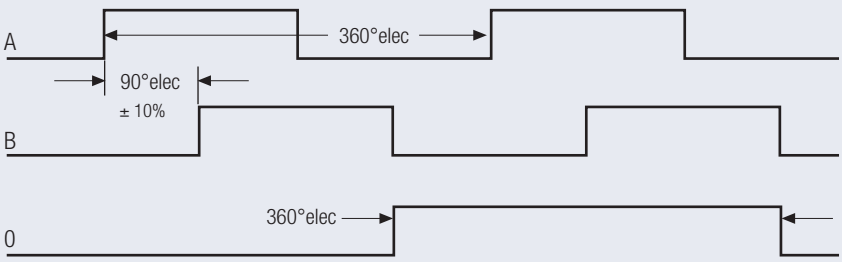
ELECTRICAL SPECIFICATIONS

Supply Voltage	4.75 - 30 V DC
Current Consumption	40 mA (max)
Output Circuit	Push-Pull, RS 422A
Impulse Frequency	300 kHz (max)
Logic Level (high)	Vcc - 0.7 Volt
Logic Level (low)	0.25 Volt (max)
Short Circuit Protection:	100 %
Cable	Mechanically and Chemically Resistant Flame Retardant – Screened

MECHANICAL SPECIFICATIONS

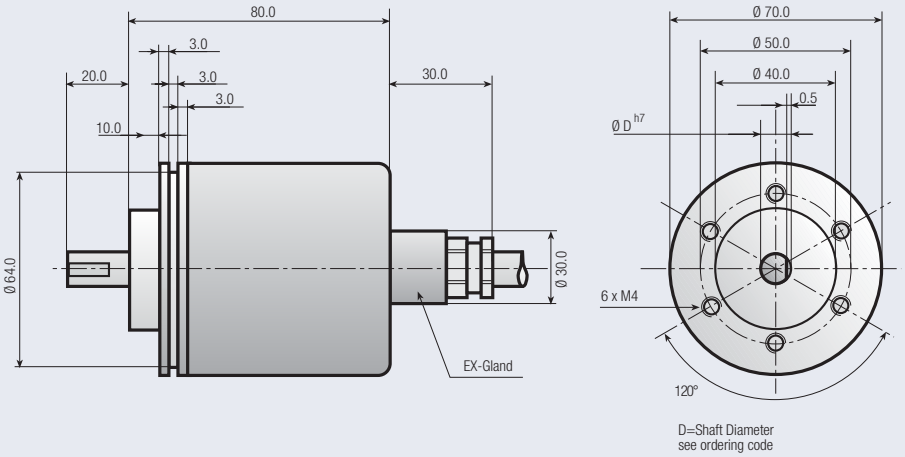
Cover	316 Stainless Steel
Body	316 Stainless Steel
Shaft	316 Stainless Steel
Speed	6000 RPM (max)
Torque	> 0.4 Nm
Loading	Axial 60 N, Radial 50 N
Protection	IP 66/67 – M/S
Temperature	-20˚...+70˚C (-4˚...+158˚F)
Weight	(2.866 lb) 1300 g

OUTPUT SIGNALS



A Leads B in the CW Direction (facing shaft)
Complimentary channel also available

Drawing available as:
dxf, iges, step, sld file



D=Shaft Diameter
see ordering code

ORDERING CODE

IX	700	-							-					
a	b		c	d	e	f	g	h		Pulses Per Revolution				

a	**Group Function** IX=Incremental Explosion Proof	
b	**Basic Series Number** 700	
c	**Shaft Size D** 10=10 mm 12=12 mm	
d	**Mechanical Options** 0=None	
e	**Connector Type** 0=2 mtr. (6 ft.) Cable	
f	**Connector Location** A=Axial	
g	**Output Signals** 3=A+B+0 6=A+B+0+Compliments	
h	**Output Circuit Type** 3=Push Pull 4.75 to 30 VDC	

Note: Special functions and designs will be designated by a 4 digit code at the end of the part number. Consult factory for further details

CONNECTIONS

Function	Cable Number Code
0 Volt	#1
+ Volt	#2
A	#3
B	#4
0	#5
$\bar{A}$	#6
$\bar{B}$	#7
$\bar{0}$	#8

1. CERTIFICATE OF CONFORMITY

2. Certificate No. 01 E. 130787X

3. This certificate is issued for Shaft Encoder

Type X700

4a. Manufactured by W+S Mellpumme GmbH, Humboldtstraße 11, D-78549 Spaichingen, Germany.

4b. and submitted by Same as manufacturer

5. This electrical apparatus and any acceptable variation thereto is specified in the Appendix to this certificate and the documents therein referred to.

6. UL International Demko A/S being an Approved Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18th December 1975, documents 76/117/EEC, confirms that the apparatus has been found to comply with the harmonized European Standards:

EN 50014:1992 E
EN 50018:1994 E

7. The apparatus marking shall include one of the codes:

- EEx d I
- EEx d IIC T4 (Tamb. 60°C)
- EEx d IIC T4 (Tamb. 100°C)

8. The supplier of the electrical apparatus referred to in this certificate has the responsibility to ensure that the apparatus conforms to the specification laid down in the Appendix to this certificate and has satisfied routine verifications and tests specified therein.

9. The apparatus may be marked with the Distinctive Community Mark specified in Annex II to the Council Directive of 16 January 1984, document 84/47/EEC. A facsimile of this mark is printed at the top of this certificate. The marking of the equipment shall be visible, legible and durable.

On behalf of UL International Demko A/S — Herlev, 17. September 2001

Jørn Lumby
Certification Manager

UL International Demko A/S

This certificate is only allowed to be circulated in its entirety and without any alteration.

A Subsidiary of Underwriters Laboratories Inc.

[1] PRODUCTION QUALITY ASSURANCE NOTIFICATION

[2] Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3] Notification Number: 02 ATEX Q133016

[4] Equipment or Protective System or Components as listed: Manufacture of Shaft Encoders with the following protection principles: Flameproof Enclosure "d"

[5] Applicant: W + S Mellpumme GmbH. Humboldtstraße 11 78549 Spaichingen Germany

[6] Manufacturer: Same as applicant

[7] UL International Demko A/S notified body number 0539 for Annex VI in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies to the applicant that the actual manufacturer has a production quality system which complies to Annex VI of the Directive.

[8] This notification is based on audit report No. Q133016-01 dated 2002-11-27.
This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex VI. The Manufacturer is obliged to inform UL International Demko A/S of any changes in their ISO 9001:2000 registration or other aspects upon which this notification has been given.

Results of periodical re-assessment of the quality system are a part of this notification.

[9] This notification is valid until: 2003-11-27
and can be withdrawn if the Manufacturer does not satisfy the production quality assurance re-assessment.

[10] According to Article 10[1] of the Directive 94/9 EC the CE marking shall be followed by the identification number 0539 identifying the notified body involved in the production control stage.

On behalf of UL International Demko A/S — Herlev, 2002-12-10

Jørn Lumby
QRA Department Manager

UL International Demko A/S

Notification 02 ATEX Q133016

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A Subsidiary of Underwriters Laboratories Inc.

P1

[1] EC-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3] EC-Type Examination Certificate Number: DEMKO 02 ATEX 135210X

[4] Equipment or Protective System: X700 Shaft Encoder

[5] Manufacturer: W + S Mellpumme GmbH

[6] Address: Humboldtstraße 11, 78549 Spaichingen, Germany

[7] This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. 135213

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 50014: 1997 E incl. A1+A2 EN 50018: 2000 E incl.

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2 G D EEx d IIC T6 (Tamb +60°C) T4 (Tamb + 100°C)
EEx d I

On behalf of UL International Demko A/S — Herlev, 2003-03-16

Kaiwa Christiansen
Certification Manager

UL International Demko A/S

Certificate 02 ATEX 135213

This certificate may only be reproduced in its entirety and without any change, schedule included

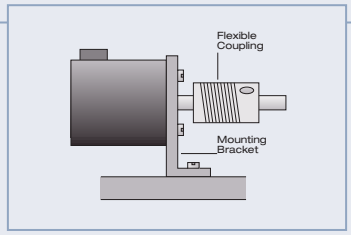
A Subsidiary of Underwriters Laboratories Inc.

MECHANICAL INSTALLATION

RECOMMENDED MECHANICAL INSTALLATION

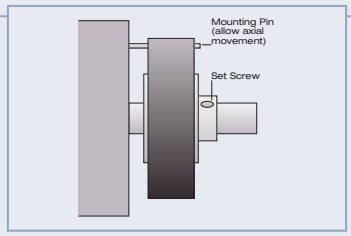
1. Shaft Encoders

a. mount encoder to mounting bracket.
b. install coupling to shaft encoder.
c. align encoder and coupling to drive shaft.
d. mount bracket to machine assembly.
e. check alignment is correct.
f. tighten all screws.



2. Hollow Shaft Encoders

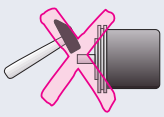
a. mount pin to machine assembly.
b. install encoder to shaft of the machine.
c. use mounting pin to stop encoder from rotating.
d. check if mounting pin allows axial movement of the optical encoder.
e. check alignment is correct.
f. tighten all set screws.

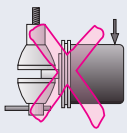


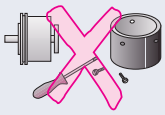
CAUTION

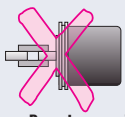
All encoders produced by the GES*group* are designed to be reliable, rugged and easy to install. Should you require clarification on any of these instructions, please contact the nearest GES*group* company (See back cover page).

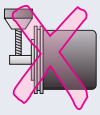
Caution! Any of these actions my cause damage to the product.

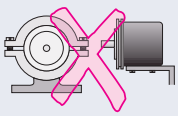

Do not shock the encoder


Do not subject the encoder to axial or radial stress


Do not dismantle the encoder


Do not use a rigid coupling


Do not tool the encoder or its shaft


Do not use makeshift techniques to mount the encoder