

1.

CERTIFICATE OF CONFORMITY



2. DEMKO No.

98E. 124490

3. This certificate is issued for
type

Servo Controllers
DLC-XP or MLC-XP

4a. Manufactured by

Pulsafeeder Inc.
2883 Brighton-Henrietta Town Line Road
Rochester, NY 14623 USA

4b. and submitted by

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. DEMKO being an Approval Certification Body in accordance with Article 14 of the Council Directive of the European Communities of 18th December 1975, document 76/117/EEC, confirms that the apparatus has been found to comply with the harmonised European Standards:

EN 50014, 2. Edition December 1992

EN 50018, 2. Edition August 1994

7. The apparatus marking shall include the code:

EEx d IIB T6

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.

For and on behalf of DEMKO


Jakob Nittgaard
Department Manager

Herlev, 1998-11-25



This certificate is only allowed to be rendered in entirety and without alterations.



APPENDIX I

to Certificate of Conformity No. 98E.124490

THIS APPROVAL APPLIES TO

Servo Controllers

Rating: 115 VAC, 10 A, 50/60 Hz
230 VAC, 5 A, 50/60 Hz

Ambient temperature range: $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$

Marked: "Pulsafeeder"

1) **Type:** DLC-XP

2) **Type:** MLC-XP

Protected for use in potentially
explosive atmospheres (Flameproof)

EEx d IIB T6

Manufactured by:
Pulsafeeder Inc.
2883 Brighton Henrietta Town Line Road
Rochester, NY 14623
USA

Submitted by:
Manufacturer

The product type has been tested in accordance with the European Standard EN 50014, 2. Edition December 1992 and EN 50018, 2. Edition August 1994.

The approval applies to products, strictly identical with the submitted and approved product type. If you make any alteration of the product, including the marking, you are obliged to inform DEMKO about this by letter.

DESCRIPTION OF THE APPARATUS

These units are electromechanical servo controllers intended to adjust flow in a process media by controlling stroke length in a pump. It is intended to be programmed and controlled through the DLC-RC controller, and mounted to a suitable user supplied pump. The DLC-XP and MLC-XP are identical in construction, except the DLC-XP is for mounting to a hydraulic pump. The MLC-XP is for mounting to a mechanical pump.



APPENDIX I

to Certificate of Conformity No. 98E.124490

SPECIAL CONDITIONS FOR SAFE USE

The approval applies to equipment without cable glands. When mounting the flameproof enclosure in the hazardous area, only flameproof cable glands or stopping boxes certified to EN 50018 must be used.

The enclosure must not be opened while energised.

The maximum reference pressure measured according to EN 50018 is 5.65 bar. The enclosure has been type tested according to Clause 15.1.3 to a static pressure of 4 times the reference pressure, or 22.6 bar. Routine testing may therefore be excluded.

DRAWINGS

Number	Date	Description
NP91CRC_UE, Rev. E	12 Nov 98	Assembly (DLCXP STD HVD UL ENG)
NP250017, Rev. G (page 1,2)	19 Feb 98	Cover, Top XPN7 DLC
NP250016, Rev. H (page 1,2)	12 Nov 98	Cover, Bot XPN7 DLC (Body)
NP410007	3 Jul 96	Shaft, Drv Cplg N7XPDL
NP400011	29 Jul 96	Bearing, Bot Enclsr N7DLC
NP060014, Rev. A	29 Oct 96	Com Parts, 16:1 Geartrain N7DLC
NP500500, Rev. B	9 Oct 96	Motor Assy
NP510005-001, Rev. A	26 Nov 96	Local NEMA 7 PCB Assembly
NP510005-002, Rev. A	23 Jan 97	Local Board - NEMA 7 (schematic)
NP550021, Rev. B	13 Jan 97	Label, DLC-XP Wiring Schematic
NP550073	24 Jun 98	Label, DLC-XP
NP550074	24 Jun 98	Label, MLC-XP



APPENDIX I

to Certificate of Conformity No. 98E.124490

The validity of this Certificate will in accordance with The Council Directive 94/9/EC Article 14 and 15 expire on 30 June 2003. Which means that the equipment is not to be marketed after that day. From 1 July 2003 equipment and protective systems intended for use in potentially explosive atmospheres are to be certified to Directive 94/9/EC.

The approval entitles the licensee to provide the product with the registered approval mark $\text{\textcircled{D}}$ and the Epsilon-x mark $\text{\textcircled{\epsilon x}}$.

For and on behalf of DEMKO

Herlev, 1998-11-25

Jakob Nittegaard
Department Manager

Examiner:
Katy Schuchardt

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APPENDIX II

to Certificate of Conformity No. 98E.124490

THIS EXTENSION APPROVAL APPLIES TO

Servo Controller

Rating: 115 VAC, 10 A, 50/60 Hz
230 VAC, 5 A, 50/60 Hz

Ambient temperature range: $-20^{\circ}\text{C} \leq T_{\text{amb}} \leq +40^{\circ}\text{C}$

Marked: "Pulsafeeder"

03) Type: ECA-XP

Protected for use in potentially
explosive atmospheres (Flameproof)

EEx d IIB T6

Manufactured by:

Pulsafeeder Inc.
2883 Brighton-Henriette Town Line Road
Rochester, NY 14623 USA

Submitted by:

The Manufacturer

The product type has been tested in accordance with the European Standard EN 50014, 2. Edition December 1992 and EN 50018, 2. Edition August 1994.

The approval applies to products, strictly identical with the submitted and approved product type. If you make any alteration of the product, including the marking, you are obliged to inform DEMKO about this by letter.

DESCRIPTION OF THE APPARATUS

This unit is an electromechanical servo controller intended to adjust flow in a process media by controlling stroke length in a pump. It is intended to be programmed and controlled through the DLC-RC controller, and mounted to a suitable user supplied pump. The ECA-XP is identical in construction to the DLC-XP and MLC-XP units except for alternate circuit construction.

**APPENDIX II****to Certificate of Conformity No. 98E.124490****SPECIAL CONDITIONS FOR SAFE USE**

The approval applies to equipment without cable glands. When mounting the flameproof enclosure in the hazardous area, only flameproof cable glands or stopping boxes certified to EN 50018 must be used.

The enclosure must not be opened while energised.

The maximum reference pressure measured according to EN 50018 is 5.65 bar. The enclosure has been type tested according to Clause 15.1.3 to a static pressure of 4 times the reference pressure, or 22.6 bar. Routine testing may therefore be excluded.

EXTENSION OF THE APPROVAL

This appendix must be used in conjunction with Certificate 98E.124490, Appendix I and shall conform with the drawing(s) below.

DRAWINGS

Number	Date	Description
NP510016-002 (1 of 4)	2 DEC 99	CPU & RS-485 (REV B)
NP510016-002 (2 of 4)	2 DEC 99	Analog I/O (REV B)
NP510016-002 (3 of 4)	2 DEC 99	Connections and Power (REV B)
NP510016-002 (4 of 4)	2 DEC 99	Stroke Motor Drivers and Encoder (REV B)
NP510016-000 (1-3 of 3)	7 DEC 99	P.C.B Wiring and Construction (REV B)
NP510016-001 (1 of 1)	22 FEB 00	P.C.B Component Layout (REV B)
NP550081-001 (1 of 1)	11 FEB 00	Manufacturers Label (REV A)



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The validity of this Certificate will in accordance with The Council Directive 94/9/EC Article 14 and 15 expire on 30 June 2003. Which means that the equipment is not to be marketed after that day. From 1 July 2003 equipment and protective systems intended for use in potentially explosive atmospheres are to be certified to Directive 94/9/EC.

The approval entitles the licensee to provide the product with the registered approval mark and the Epsilon-x mark.

For and on behalf of DEMKO

Herlev, 2000-03-15

Steen Lumby
Certification Manager

This certificate is only allowed to be rendered in entirety and without alterations.

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