



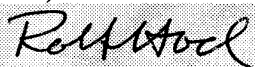
[1] EC-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC

- [3] EC-Type Examination Certificate Number: Nemko 03ATEX111
- [4] Equipment or Protective System: Digital Valve Positioner
- [5] Applicant/ Manufacturer: PMV Palmstiernas Instrument AB
- [6] Address: Korta gatan 9
 S-17154 Solna
 Sweden
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] Nemko AS, notified body number 0470 in accordance with Article 9 of 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 the 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. 200309114
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- CENELEC EN 50014: 1997 + A1: 1999 + A2: 1999
CENELEC EN 50018: 2000
- [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 EEx d IIB + H2 T6(Ta:65°C) T5(Ta:80°C)

Oslo, 2003-04-23


Rolf Hoel
Certification Department

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gautstadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

[13] Schedule**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

The PMV D3E is digital positioner designed primarily to control modulating valves. The positioner can be used with single or double action actuators with either rotary or linear movement. The D3E positioner comprises an electronic board with microprocessor, hart modem, display etc, a valve block, a positional feedback with potentiometer and a compartment for electrical connections.

The pushbuttons and display are accessible from underneath the threaded lid cover.

The whole assembly is contained in a flameproof aluminium enclosure with two threaded lids and two threaded openings for cable glands/conduits. Flame arresters are integrated in the enclosure in each air inlet and outlet.

Type Designation

D3E abcdefghijkl

The additional letters and digits in the type reference concern different accessories and functions of the instrument.

a: Air pipe connection thread type, b: Surface treatment, c: Function, de: Spindle, fgh: Cover and indicator, i: Temperature/Seals, j: Input signal/protocol, k: Feedback option, l: Accessories

Temperature Class and Range of Ambient Temperatures

Temperature class T6 $-20^{\circ}\text{C} < \text{Ta} < 65^{\circ}\text{C}$

Temperature class T5 $-20^{\circ}\text{C} < \text{Ta} < 80^{\circ}\text{C}$

Electrical Data

28V, 24mA

Ingress Protection Code

IP 66 according to IEC 60529

Type 4X according to Nema 250

[16] Report No. 200309114 and the listed Schedule Documents D3E Technical File Contents Rev. C Dated 2003-04-23.

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gaustadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

Supplement 1 to EC-TYPE EXAMINATION CERTIFICATE

[14] **EC-TYPE EXAMINATION CERTIFICATE No** **Nemko 03ATEX111**

[15] **Description of Equipment or Protective System**

The certificate is extended to include the Logix 800si-15 as an alternative model to the previously certified model D3E

The Logix 800si-15 is identical as D3E.

Type Designation

Logix 800si-15 abcdefghijkl

The additional letters and digits in the type reference concern different accessories and functions of the instrument.

a: Air pipe connection thread type, b: Surface treatment, c: Function, de: Spindle, fgh: Cover and indicator, i: Temperature/Seals, j: Input signal/protocol, k: Feedback option, l: Accessories

Report No. 26025 and the listed descriptive documents

Descriptive Documents

Number	Rev.	Date	Title/Description
D3E-App5	--	2004-07-12	Marking plate
D3-70	--	2001-06-29	Control Drawing

[17] **Special Conditions for Safe Use**

None

[18] **Essential Health and Safety Requirements**

See item 9

Oslo, 2004-07-12



Rolf Hoel
Certification Department

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gautstadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 2 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

This Certificate is extended to include an alternative design of the PCB's according to the descriptive document. In addition applicant and manufacturers name has been changed to Flowserve Sweden/Palmstierna International AB

Type Designation

D3E abcdefghijkl

The additional letters and digits in the type reference concern different accessories and functions of the instrument.

a: Air pipe connection thread type, b: Surface treatment, c: Function, de: Spindle, fgh: Cover and indicator,

i: Temperature/Seals, j: Input signal/protocol, k: Feedback option, l: Accessories

Temperature Class and Range of Ambient TemperaturesTemperature class T6 $-20^{\circ}\text{C} < \text{Ta} < 65^{\circ}\text{C}$ Temperature class T5 $-20^{\circ}\text{C} < \text{Ta} < 80^{\circ}\text{C}$ **Electrical Data**

28V, 24mA

Ingress Protection Code

IP 66 according to IEC 60529

Type 4X according to Nema 250

[16] Report No. 53988**Descriptive Documents**

Name/Title	Drawing No.	Rev.	Date	Sheets
Assembly	D3E-As1b	0	2005-08-31	1
Marking plate	D3E-App4 ^{xx}	2	2004-04-26	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2005-11-16

**Rolf Hoel****Certification Department**

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gaustadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 3 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

The Digital Valve Positioner has been tested according to CENELEC EN 50281-1-1: 1998 and may be used in the presence of combustible dust. In addition the design of the operating rod has been changed and the list descriptive documents has been updated

The marking of the equipment shall include the following:

⊕ II 2 GD T80°C EEx d IIB + H2 T6(Ta:65°C) or ⊕ II 2 GD T95°C EEx d IIB + H2 T5(Ta:80°C)

Type Designation

D3E abcdefghijkl

Ingress Protection Code

IP 66 according to IEC 60529. Type 4X according to Nema 250

[16] Report No. 80777**Descriptive Documents**

Name/Title	Drawing/Doc. No.	Rev.	Date	Sheets
Ordercode	-	12	2006-11-01	1
Tolerances	D3E-App1	2	2007-06-04	1
Material Spec.	D3E-App2	3	2006-06-01	1
Critical enclosures distances	D3E-App3	1	2002-04-23	1
Marking plate	D3E-App4	3	2007-05-16	1
Assembly	D3E-As1	3	2007-05-04	1
Cover ø120	D3E-As2	2	2004-12-29	1
Cover	D3E-As	2	2002-02-14	1
Housing	D3E-N(N/G)	4	2007-01-08	1
Cover ø120	D3E-2	1	2002-02-11	1
Cover ø90	D3E-3	2	2002-02-14	1
Glas	D3E-9	1	2002-02-14	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2007-06-04



p.p. Rolf Hoel

Certification Manager, Ex-products

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gaustadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 4 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

The Certificate is extended to include stainless steel as an alternative material of the enclosure, and minor modifications of the design.

[16] Report No. 121315**Descriptive Documents**

Name/Title	Drawing/Doc. No.	Rev.	Date	Sheets
Material Spec	D3E – App2	4	090205	1
Lock 120 Casted	D3ERF – 2G	1	081215	1
Housing	D3ERF – 1G	1	081215	1
Cover Ø120	D3ERF - 2	-	080909	1
Lock 90	D3ERF – 3G	-	081215	1
Cover Ø 90	D3ERF – 3	-	080909	1
Machined Housing	DE – 1	1	081215	1
Tolerances	D3E-App1	3	081215	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2009-02-26



p.p. Rolf Hoel
Certification Manager, Ex-products

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

SUPPLEMENT 5 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

This certificate is extended with new document list and updated standards.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

CENELEC EN 60079-0:2006
CENELEC EN 60079-1:2007

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

II 2D T85°C Ta:80°C
II 2G Ex d IIB +H₂ T6 Ta:60°C

[16] Report Number 128662. The descriptive documents listed in the document, *Critical Document list, 3E-App7_rev.0_090625_mr..xls*.

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2009-06-26



Rolf Hoel

Certification Manager, Ex-products

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

Supplement 1 to EC-TYPE EXAMINATION CERTIFICATE

[14] **EC-TYPE EXAMINATION CERTIFICATE No** **Nemko 03ATEX111**

[15] **Description of Equipment or Protective System**

The certificate is extended to include the Logix 800si-15 as an alternative model to the previously certified model D3E

The Logix 800si-15 is identical as D3E.

Type Designation

Logix 800si-15 abcdefghijkl

The additional letters and digits in the type reference concern different accessories and functions of the instrument.

a: Air pipe connection thread type, b: Surface treatment, c: Function, de: Spindle, fgh: Cover and indicator, i: Temperature/Seals, j: Input signal/protocol, k: Feedback option, l: Accessories

Report No. 26025 and the listed descriptive documents

Descriptive Documents

Number	Rev.	Date	Title/Description
D3E-App5	--	2004-07-12	Marking plate
D3-70	--	2001-06-29	Control Drawing

[17] **Special Conditions for Safe Use**

None

[18] **Essential Health and Safety Requirements**

See item 9

Oslo, 2004-07-12



Rolf Hoel
Certification Department

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gautstadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 2 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

This Certificate is extended to include an alternative design of the PCB's according to the descriptive document. In addition applicant and manufacturers name has been changed to Flowserve Sweden/Palmstierna International AB

Type Designation

D3E abcdefghijkl

The additional letters and digits in the type reference concern different accessories and functions of the instrument.

a: Air pipe connection thread type, b: Surface treatment, c: Function, de: Spindle, fgh: Cover and indicator,

i: Temperature/Seals, j: Input signal/protocol, k: Feedback option, l: Accessories

Temperature Class and Range of Ambient TemperaturesTemperature class T6 $-20^{\circ}\text{C} < \text{Ta} < 65^{\circ}\text{C}$ Temperature class T5 $-20^{\circ}\text{C} < \text{Ta} < 80^{\circ}\text{C}$ **Electrical Data**

28V, 24mA

Ingress Protection Code

IP 66 according to IEC 60529

Type 4X according to Nema 250

[16] Report No. 53988**Descriptive Documents**

Name/Title	Drawing No.	Rev.	Date	Sheets
Assembly	D3E-As1b	0	2005-08-31	1
Marking plate	D3E-App4 ^{xx}	2	2004-04-26	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2005-11-16

**Rolf Hoel****Certification Department**

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gaustadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 3 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

The Digital Valve Positioner has been tested according to CENELEC EN 50281-1-1: 1998 and may be used in the presence of combustible dust. In addition the design of the operating rod has been changed and the list descriptive documents has been updated

The marking of the equipment shall include the following:

⊕ II 2 GD T80°C EEx d IIB + H2 T6(Ta:65°C) or ⊕ II 2 GD T95°C EEx d IIB + H2 T5(Ta:80°C)

Type Designation

D3E abcdefghijkl

Ingress Protection Code

IP 66 according to IEC 60529. Type 4X according to Nema 250

[16] Report No. 80777**Descriptive Documents**

Name/Title	Drawing/Doc. No.	Rev.	Date	Sheets
Ordercode	-	12	2006-11-01	1
Tolerances	D3E-App1	2	2007-06-04	1
Material Spec.	D3E-App2	3	2006-06-01	1
Critical enclosures distances	D3E-App3	1	2002-04-23	1
Marking plate	D3E-App4	3	2007-05-16	1
Assembly	D3E-As1	3	2007-05-04	1
Cover ø120	D3E-As2	2	2004-12-29	1
Cover	D3E-As	2	2002-02-14	1
Housing	D3E-N(N/G)	4	2007-01-08	1
Cover ø120	D3E-2	1	2002-02-11	1
Cover ø90	D3E-3	2	2002-02-14	1
Glas	D3E-9	1	2002-02-14	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2007-06-04



p.p. Rolf Hoel

Certification Manager, Ex-products

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gaustadalléen 30
0373 OSLO



Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 3 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

The Digital Valve Positioner has been tested according to CENELEC EN 50281-1-1: 1998 and may be used in the presence of combustible dust. In addition the design of the operating rod has been changed and the list descriptive documents has been updated

The marking of the equipment shall include the following:

 II 2 GD T80°C EEx d IIB + H2 T6(Ta:65°C) or  II 2 GD T95°C EEx d IIB + H2 T5(Ta:80°C)

Type Designation

D3E abcdefghijkl

Ingress Protection Code

IP 66 according to IEC 60529. Type 4X according to Nema 250

[16] Report No. 80777**Descriptive Documents**

Name/Title	Drawing/Doc. No.	Rev.	Date	Sheets
Ordercode	-	12	2006-11-01	1
Tolerances	D3E-App1	2	2007-06-04	1
Material Spec.	D3E-App2	3	2006-06-01	1
Critical enclosures distances	D3E-App3	1	2002-04-23	1
Marking plate	D3E-App4	3	2007-05-16	1
Assembly	D3E-As1	3	2007-05-04	1
Cover ø120	D3E-As2	2	2004-12-29	1
Cover	D3E-As	2	2002-02-14	1
Housing	D3E-N(N/G)	4	2007-01-08	1
Cover ø120	D3E-2	1	2002-02-11	1
Cover ø90	D3E-3	2	2002-02-14	1
Glas	D3E-9	1	2002-02-14	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2007-06-04



p.p. Rolf Hoel

Certification Manager, Ex-products

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

Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAY

Office address:
Gaustadalléen 30
0373 OSLO

Telephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50

Enterprise number:
NO 974404532

SUPPLEMENT 4 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

The Certificate is extended to include stainless steel as an alternative material of the enclosure, and minor modifications of the design.

[16] Report No. 121315**Descriptive Documents**

Name/Title	Drawing/Doc. No.	Rev.	Date	Sheets
Material Spec	D3E – App2	4	090205	1
Lock 120 Casted	D3ERF – 2G	1	081215	1
Housing	D3ERF – 1G	1	081215	1
Cover Ø120	D3ERF - 2	-	080909	1
Lock 90	D3ERF – 3G	-	081215	1
Cover Ø 90	D3ERF – 3	-	080909	1
Machined Housing	DE – 1	1	081215	1
Tolerances	D3E-App1	3	081215	1

Routine Test

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2009-02-26



p.p. Rolf Hoel
Certification Manager, Ex-products

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

SUPPLEMENT 5 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX111****[15] Description of Equipment or Protective System**

This certificate is extended with new document list and updated standards.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

CENELEC EN 60079-0:2006
CENELEC EN 60079-1:2007

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

II 2D T85°C Ta:80°C
II 2G Ex d IIB +H₂ T6 Ta:60°C

[16] Report Number 128662. The descriptive documents listed in the document, *Critical Document list, 3E-App7_rev.0_090625_mr..xls*.**Routine Test**

None

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2009-06-26



Rolf Hoel

Certification Manager, Ex-products

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