

**[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 08ATEX1144X
- [4] Equipment or Protective System:                I/P Converter
- [5] Applicant and manufacturer:                   Palmstierna International AB
- [6] Address:    Korta Gatan 9  
  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. 81727
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
  
CENELEC EN 60079-0: 2004 and CENELEC EN 60079-11:2006
- [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

Ex ia IIC T6/T5/T4

Oslo, 2008-08-28



Rolf Hoel  
Certification Manager, Ex-products

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**[13] Schedule****[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 08ATEX1144X****[15] Description of Equipment or Protective System**

The I/P Signal Converter converts electrical into pneumatic standard signals, e.g. 4 – 20mA into 0,2 – 1 bar.

**Type Designation**

E5-IS

**Technical Data**

Temperaturclass	Ambient temperature	Ii	Ui	Pi	Ci	Li
T6	"-55°C to +60°C	50mA	42,5V	531mW	Negligible	Negligible
T6	"-55°C to +55°C	60mA	38,8V	582mW	Negligible	Negligible
T5	"-55°C to +70°C	60mA	38,8V	582mW	Negligible	Negligible
T4	"-55°C to +85°C	60mA	38,8V	582mW	Negligible	Negligible
T5	"-55°C to +55°C	100mA	30V	750mW	Negligible	Negligible
T4	"-55°C to +85°C	100mA	30V	750mW	Negligible	Negligible
T5	"-55°C to +45°C	120mA	28V	840mW	Negligible	Negligible
T4	"-55°C to +80°C	120mA	28V	840mW	Negligible	Negligible
T4	"-55°C to +70°C	150mA	25,5V	956mW	Negligible	Negligible

**Ingress Protection Code**

None

**[16] Report No. 81727**

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Enterprise number:  
NO 974404532

**Descriptive Documents**

Name/Title	Drawing No.	Description	Rev.	Date	Sheets
Marking Plate ATEX	IP-C651	Product Sticker	0	08-06-03	1
Serial number Plate	IP-652	Serial number Sticker	0	07-07-04	1
Control Drawing / Barrier drawing, IP	IP-653	Barrier drawing	1	08-08-25	1
IP-AS3ISC	IP-AS3ISC	Assembly drawing IP	0	07-08-06	1
PMV IP AS1-AS2 BOARD CONNECTION	PMV IP AS1- AS2 BOARD CONNECTIO N	Junction connections	1	07-06-15	1
PMV IP MODELKODER	PMV IP Modelcodes	Modelcode for IP	1	07-05-15	1
PMV IP AS2 DESCRIPTIVE DOCUMENT	PMV IP AS2I Description	Describing document	1	07-06-15	2
PMV IP BOM AS2I	PMV IP BOM AS2I	Bill of material mainboard	1	07-06-19	2
IP AS2	PMV IP AS2I scheme	Mainboard Schematic	1	07-05-30	1
PMV IP AS2I C	PMV IP AS2I C	Mainboard component layout	1	07-06-19	1
PMV IP AS2I DIMENSION	PMV IP AS2I DIMENSION	Mainboard layer dimensions	1	07-06-19	1
PMV IP AS2 L1	PMV IP AS2I L1	Mainboard layer 1	2	07-06-19	1
PMV IP AS2I L2	PMV IP AS2I L2	Mainboard layer 2	1	07-06-19	1
IP-AS5	IP-AS5	Molding description	0	07-07-05	1
PMV IP AS1 DESCRIPTIVE DOCUMENT	PMV IP AS1I DESCRIP TIV E DOCUMENT	Describing document terminal board	1	07-06-19	2
PMV IP BOM AS1I	PMV IP AS1I BOM	Bill of material terminal board	1	07-06-19	1
IP-AS1IR1	PMV IP AS1I I Scheme	Schematic	1	07-06-18	1
PMV IP AS1I C	PMV IP AS1I C	Board component layout layer 1	1	07-06-28	1
PMV IP AS1I DIMENSION	PMV IP AS1I DIMENSION	Board Dimension	1	07-06-28	1
PMV IP AS1I L1	PMV IP AS1I L1	Board layer 1	1	07-06-19	1
PMV IP AS1I L2	PMV IP AS1I L2	Board layer 2	1	07-06-19	1
IP-COIL	628-r1-070228	Describing document coil	1	07-02-28	1

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5-C6V8	BZG05-C6V8	Datasheet zener diode	1.8	04-03-08	4
FR4-s1141	FR4-s1141	Datasheet FR4 cardmaterial		06-09-08	1
SikaForce7322L130	SikaForce7322 L130PB	Datasheet casting compound	10/20 04	05-09-26	2
I/P Converter	IP10M.080422	User manual		08-04-22	4

**Routine Test**

None

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

The I/P converter has to be installed in an enclosure that satisfies the following clauses:

- Complies with "electrostatic charge" requirements in EN 60079-0, clause 7.3
- A suitable degree of protection minimum IP20 according to 6.1 in EN 60079-11
- Shall not contain, by mass, more than 7,5% in total of magnesium. according to clause 8.1 in EN 60079-0
- According to descriptive document: IP-653.
- Shall withstand dielectric strength test with 500V AC for 1 minute according 6.3.12 in EN 60079-11

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

See item 9

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