

[1] EC-TYPE EXAMINATION CERTIFICATE

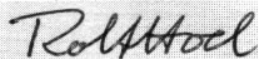
**[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

- [3] EC-Type Examination Certificate Number: Nemko 02ATEX379X**
- [4] Equipment or Protective System: Scale with Power Supply**
- [5] Applicant: Mettler-Toledo GmbH**
**[6] Address: Industry
Sonnenbergstrasse 74
CH-8603 Schwerzenbach, Switzerland**
- [5] Manufacturer: Mettler-Toledo (Changzhou) Scale & System Ltd.**
**[6] Address: 111 Changxi Road
Changzhou City, Jiangsu 213001
China**
- [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 **200235204**
confidential report no.
- [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 50020 1994**
- [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 :**



**Power Supply: II (2) G [EEx ib] IIB,
Scale unit: II 2 G EEx ib IIB T4**

Oslo, 2002-11-24



**Rolf Hoel
Certification Manager**



**Arne Hortman
Project Engineer**

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[13] Schedule**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX379X****[15] Description of Equipment or Protective System**

The certificate covers the Paint Mixing Scale type Panda7/(b)X with the Power Supply Unit PS-EX1P/230V. The power supply PS-EX1P/230V coded [EEx ib] IIB is equipped with a 10m long cable with a plug that connects to the mating socket of the scale Panda7/(b)X coded EEx ib IIB T4. The RS232 input/output of the scale make communication possible with other certified intrinsically safe input/output circuits.

The Power Supply PS-EX1P/230V is manufactured by Mettler-Toledo (Albstadt) GmbH, Unter dem Malesfelsen 34, D72458 Albstadt and is identical to the power supply PSEX1 covered by the certificate Nemko 01ATEX401X except for the IS cable.

Type Designation

Power supply (associated apparatus): **PS-EX1P/230V**

Scale unit: **Panda 7/(b)X** The letter 'b' denotes special customer specified software features.

Data

Power supply: **PS-EX1P/230V**

Um: 250V

Mains supply: 230V 50 Hz,

Fused T63mA, 250V primary (230V) in the transformer.

Fused T200mA, 250V in the output circuit.

Scale Panda 7/(b)X

Power supply from PS-EX1P/230V or equivalent as specified under Special Conditions below

External RS 232 I/O socket with the following input/output values:

Pin 2 to 5:	Maximum output voltage	$U_O = 11V$
	Maximum output current	$I_O = 26mA$
	Maximum external capacitance	$C_O = 1\mu F$
	Maximum external inductance	$L_O = 15mH$
Pin 3 to 5:	Maximum input voltage	$U_i = 11V$
	Maximum input current	$I_i = 26mA$
	Maximum internal capacitance	$C_i = \text{negligible}$
	Maximum internal inductance	$L_i = \text{negligible}$

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[16] Report No. 200235204 and the listed descriptive documents**Descriptive Documents**

Title/ Description	Number	Rev.	Date
Explosion Drawing Panda 7/X	71147862A	-	2002-04-25
Schematic Panda 7/X	71143789AR01	-	2002-04-25
Schematic Panda 7/X	71143789AR02	-	2002-09-29
PCB Board Assembly Layout, Panda 7/X	71143790AA01	-	2002-04-25
PCB Board Assembly Layout, Panda 7/X	71143790AA02	-	2002-04-25
Board Top and Bottom Layers, Panda 7/X	71143789AC01	-	2002-04-25
Board 2 nd and 3 rd Layers, Panda 7/X	71143789AC02	-	2002-04-25
LCD Module, parts list	CMT-PC867UPSY-N	1.1	2002-03-31
Truly Semiconductors LTD	CC867a.SCH	A	2002-05-16
Display Board Assembly Layout Panda 7	71145898AA	-	2002-04-25
Display Board Assembly Layout Panda 7	71145898BC	-	2002-04-25
Assembly drawing	71142734A	-	2002-05-01
AMI-Series	71125514B	B	2002-07-30
Ex Power Supply Model PS-EX1P/230V	22007865	0	2002-08-13
Panda 7/X, label set(EU)	71148756A	-	2002-11-20
Panda 7/SX, label set(EU)	71148757A	-	2002-11-20
D.C Cable EX Refinish	71143900A	-	2002-04-17
Label Set PS-EX1P/230V	22007857	0	2002-08-13
Installation Drawing/230V	71148313A	-	2002-10-08

[17] Special Conditions for Safe Use

- 1.** Ambient temperature range of the scale is 0...40°C
- 2.** The intrinsically safe circuit is connected to the metal frame of the scale and one of the following precautions must be taken into account when using the data I/O external connection:
 - a.** A potential levelling / earth connection should be connected between the IS earth of the peripheral/ zener barriers and the earth of the building where the scale is placed.
 - b.** The external connection of the peripheral equipment may be provided with certified isolating elements to separate the data I/O circuit of the scale from the circuits of peripheral.
- 3.** An alternative certified power supply may be used when it complies with the following output characteristics:

Maximum output voltage	$U_o = 14,3V$
Maximum output current	$I_o = 2,28A$
Maximum output	$P_o = 4,2W$
Maximum external capacitance	$C_o = 2,28\mu F$
Maximum external ratio L_o/R_o	$L_o = 17,45\mu H/\Omega$

[18] Essential Health and Safety Requirements
Covered by item 9

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