

TYPE EXAMINATION CERTIFICATE



[1]

[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

[3]

Type Examination Certificate Number: **DEMKO 12 ATEX 1107369X Rev. 6**

[4]

Product: **VisuNet Industrial Flat Panel Computer & Monitor (HMI Solutions)**

[5]

Manufacturer: **Pepperl + Fuchs GmbH**

[6]

Address: **Lilienthalstrasse 200, 68307 Mannheim, Germany**

[7]

This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. **4788266980 5.1**

[9]

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

EN 60079-0:2012+A11:2013

EN 60079-15:2010

except in respect of those requirements listed at item 18 of the Schedule.

[10]

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11]

This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

[12]

The marking of the product shall include the following:

 **II 3 G Ex nA nC IIC T4 Gc**
(Models with screen type nomenclature R, T, U or K)

 **II 3 G Ex nA IIC T4 Gc**
(Models with screen type nomenclature A or F)

Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2012-06-11

Re-issued: 2018-12-19

Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule

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[15]

Description of Product:

This certificate covers Models DM8215, DM3215, DM8219, DM3219, DM8221, DM3221, DM8222, DM3222, KM8215, KM3215, KM8219, KM3219, KM8221, KM3221, KM8222, KM3222, RM8215, RM3215, RM8219, RM3219, RM8221, RM3221, RM8222, RM3222, PC8215, PC3215, PC8219, PC3219, PC8221, PC3221, PC8222 AND PC3222. These devices are computers and monitors, with 15", 19", 21.5" and 22" displays, that are intended for installation into a panel or suitable enclosure. The only accessible portion of the computer to the end-user is the Display, which can be a touch screen. Models PC8215 and PC8219 utilize a display monitor and a processor with a solid state hard drive. Models RM8215 and RM8219 utilize a display monitor and an ATOM 1.6GHz processor with no hard disk drive. Models KM8215 and KM8219 utilize a display monitor and a KVM (keyboard-video-monitor) module with no processor or hard disk drive.

Models with screen type nomenclature R, T, U or K suffixes: Ex nA nC IIC, (non-sparking and sealed device protection method)

Models with screen type nomenclature A or F suffix: Ex nA IIC (non-sparking protection method only).

Nomenclature:

KM8215	-	A	GP	P5	DC	CL5	N	K0	L0	S0	N
I		II	III	IV	V	VI	VII	VIII	IX	X	XI

Part	Description	Designation	Designation Description
I	Series Designation: Monitor Type, Display Size:	DM8215/DM3215	Direct Monitor 15.0"
		DM8219/DM3219	Direct Monitor 19.0"
		DM8221/DM3221	Direct Monitor 21.5"
		DM8222/DM3222	Direct Monitor 22.0"
		KM8215/KM3215	KVM Monitor 15.0"
		KM8219/KM3219	KVM Monitor 19.0"
		KM8221/KM3221	KVM Monitor 21.5"
		KM8222/KM3222	KVM Monitor 22.0"
		RM8215/RM3215	Remote Monitor 15.0"
		RM8219/RM3219	Remote Monitor 19.0"
		RM8221/RM3221	Remote Monitor 21.5"
		RM8222/RM3222	Remote Monitor 22.0"
		PC8215/PC3215	Panel Mount PC 15.0"
		PC8219/PC3219	Panel Mount PC 19.0"
		PC8221/PC3221	Panel Mount PC 21.5"
PC8222/PC3222	Panel Mount PC 22.0"		
II	Screen Type	A	Antiglare glass front, non-touch
		R	Touchscreen, Resistive 5-wire, hardened glass.
		T	Touchscreen, Resistive 5-wire
		U	HighBright Display with Touch Screen, resistive, 5-wire.
		F	HighBright Display with antiglare front, non-Touch Screen.
		K	HighBright Display with Touch Screen, resistive, 5-wire, hardened glass.
III	Protection	V3	LED panel –Zone 2 certification
IV	Board Specification	PDx	i7 Dual Core processor, 4 x USB, 2 x Network
		PEx	i7 Dual Core processor, 4 x USB, 2 x Network
		PFx	ATOM dual core processor, 4 x USB, 2 x Network
		PGx	ATOM dual core processor, 4 x USB, 2 x Network
		PHx	ATOM Dual Core processor E3826
		Plx	ATOM Dual Core processor E3826
		PJx	i7-7600, 4 x USB, 2 X Network
		PKx	i7-7600, 4 x USB, 2 X Network
		V2	Video VGA
		T2	Thin Client, ATOM 1.6 GHz, RM shell (XP based)
		T3	Thin Client, ATOM dual core processor
		T4	Thin Client, ATOM 1.6 GHz, W7 Embedded
		T5x	Thin Client, ATOM Dual Core processor, E3826
		T6x	Thin Client, ATOM Dual Core processor, E3826
		TC	Thin Client, ATOM 1.6GHz processor
		K3	KVM for VGA Video included, 2x PS/2, 1x RS232, analogue CATx cable transmission - ROSE
		K4	KVM for DVI-D Video included, 2 x USB interface, 1 x RS232, CATx cable transmission - ROSE
		K5	KVM for DVI-D Video included, 2 x USB interface, 1 x RS232, Fiber Optic transmission (multi-mode), 2x LC- ROSE
		V	Power Supply
VI	Housing Type	CL5	Panel Mount, Stainless steel (1.4404/316L)
		CP5	Panel Mount, black painted steel
		CP6	19" Rackmount, black painted
VII	Keyboard Housing	N	No Keyboard, No Mouse

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Schedule
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VIII	Keyboard/Mouse Version	K0	No Keyboard, No Mouse
IX	Keyboard Layout	L0	No Keyboard, No Mouse
X	Special Accessories	S0	No special accessories
XI	Options	N	No Option
		X or XX	1 or 2-digit alphanumeric code not relevant for certification

* x can be any letter or number to represent a software revision, storage and RAM size as specified within this report.

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate

Temperature range

The ambient temperature range is -20°C to +55°C

Electrical data

Model Series	Voltage Rating	Current Rating
DM / RM / KM / PC 8215 / 3215	20-30 Vdc	2.5 A max
DM / RM / KM / PC 8219 / 3219		4.0 A max
DM / RM / KM / PC 8221 / 3221		4.4 A max
DM / RM / KM / PC 8222 / 3222		4.4 A max

Routine tests:

Routine tests are not necessary.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

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Special Conditions of Use:

- The device shall be mounted in an ATEX certified enclosure with a minimum ingress protection rating of at least IP54 and used in an area of not more than pollution degree 2 as defined in EN 60664-1.
- The enclosure must utilize a tool removable cover or door.
- Provision shall be made to provide transient protection device to be set at a level not exceeding 119 V at the power supply terminals of the apparatus.
- The standard 5-wire resistive touch-screen ("T" option) has not been evaluated for potential damage from UV exposure. Therefore, installation is restricted against direct exposure to sunlight is required. Examples of acceptable installations include indoor applications away from direct sunlight; outdoor applications with shading to prevent direct sunlight; etc... Regular inspections are necessary to check for deterioration of the touch-screen. Return the VISUNET apparatus to factory for repair or replace the VISUNET apparatus if damage is detected.

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The subject devices have in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.