

TYPE EXAMINATION CERTIFICATE



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

Type Examination Certificate Number: **DEMKO 16 ATEX 1676X Rev. 1**

Product: **Magelis Box iPC Modular, Box iPC and Display Panel, HMIPCC, HMIBM and HMIDM Series**

Manufacturer: **Schneider Electric France**

Address: **Site Horizon, 8ème rue, ZI Carros, F-06516 Carros, France**

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

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. **4788339927.1.1**

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

EN 60079-0:2012+A11:2013
EN 60079-15:2010

EN 60079-11:2012
EN 60079-31:2014

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

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.

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

The marking of the product shall include the following:

 II 3 G **Ex nA IIC T4 Gc**

 II 3 G **Ex ic nA IIC T4 Gc**

 II 3 D **Ex tc IIIC T135°C Dc**

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: 2016-03-22

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Certification Body

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Schedule

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Description of Equipment:

Magelis Box iPC Modular, Box iPC and Display Panel, HMIPCC, HMIBMO and HMIDM Series are embedded application ready platform for industrial application:

Product type:	Model Series:	Protection method	Description:
Box iPC Modular	HMIPCCx27xxD (See Nomenclature I for "x")	ic, nA	HMIPCCx27xxD are industrial touch iPC which assembled with following Box iPC, HMIBMO, HMIBMU or HMIBMP and Display, HMIDM7421.
		tc	The device shall be mounted with a suitable enclosure with a minimum ingress protection rating of at least IP54 in accordance with EN 60079-15 for category 3G Zone 2 or IP65 in accordance with EN 60079-31 for category 3D Zone 22.
	HMIPCCx27xxA (See Nomenclature I for "x")	tc	HMIPCCx27xxA are industrial touch iPC which assembled with following Box iPC, HMIBMO, HMIBMU or HMIBMP and Display, HMIDM7421 and Accessory, AC power supply, HMIYMMAC1. The device shall be mounted with a suitable enclosure with a minimum ingress protection rating of at least IP65 in accordance with EN 60079-31 for category 3D Zone 22.
	HMIPCCx2JxxD (See Nomenclature I for "x")	nA	HMIPCCx2JxxD are industrial touch iPC which assembled with following Box iPC, HMIBMO, HMIBMU or HMIBMP and Display, HMIDM7521.
		tc	The device shall be mounted with a suitable enclosure with a minimum ingress protection rating of at least IP54 in accordance with EN 60079-15 for category 3G Zone 2 or IP65 in accordance with EN 60079-31 for category 3D Zone 22.
	HMIPCCx2JxxA (See Nomenclature I for "x")	tc	HMIPCCx2JxxA are industrial touch iPC which assembled with following Box PC, HMIBMO, HMIBMU or HMIBMP and Display, HMIDM7521 and Accessory, AC power supply, HMIYMMAC1. The device shall be mounted with a suitable enclosure with a minimum ingress protection rating of at least IP65 in accordance with EN 60079-31 for category 3D Zone 22.
Box iPC	HMIBMO HMIBMU HMIBMP (See Nomenclature II for suffix)	nA	HMIBMO, HMIBMU and HMIBMP are open type Box iPCs, The device shall be installed in a suitable enclosure with a minimum ingress protection rating of at least IP54 in accordance with EN 60079-15.
Display Panel	HMIDM7421	ic, nA	HMIDM7421 is 4:3 15", resistance type touch panel which was evaluated and suitable for IP65 at front touch screens.
		tc	The device shall be mounted in a suitable enclosure with a minimum ingress protection rating at least IP54 in accordance with EN 60079-15 for category 3G Zone 2 or IP65 in accordance with EN 60079-31 for category 3D Zone 22.
	HMIDM7521	nA	HMIDM7521 is 15.6" Width, capacitance type touch panel which was evaluated and suitable for IP65 at front touch screens.
		tc	The device shall be mounted in a suitable enclosure with a minimum ingress protection rating of at least IP54 in accordance with EN 60079-15 for category 3G Zone 2 or IP65 in accordance with EN 60079-31 for category 3D Zone 22.

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Optional Accessory:

Accessory type:	Model:	Description:
AC Power Supply	HMIYMMAC1	[Only used with Industrial Touch iPC models which are "tc" protection technique.] Input: 100-240 V ac, 50-60Hz, 1.8-0.9 A or 1.6-0.9 A max. Output: 24 V dc, 5.5 A max.
Fan Module	HMIYBFKT4BM11	[Only used with industrial Touch iPC models and Box iPC models] Rated 12 V dc, 684 mA max.

Nomenclature I: (Box iPC Modular)

HMIPCC	U	2	7	E	C	D	4	Y	N	ZZZZZ
I	II		III	IV	V	VI	VII	VIII	IX	X

- I. Prefix:
HMIPCC
- II. CPU Version:
L: ATOM (Optimized) (For Box PC Type E and Type F enclosure only)
U: Celeron 2980U (Universal) (For Box PC Type A and Type B enclosure only)
P: Haswell i7-4650U (Performance) (For Box PC Type A and Type B enclosure only)
- III. Display module:
7: 4:3 15" display panel, model HMIDM7421
J: 15.6"W display panel, model HMIDM7521
- IV. Combination of Box Type and modular:
C, D, J or U: Box PC Type A enclosure, 4 slots
B, E, F, G, H, J, L or M: Box PC Type B enclosure, 2 slots
1: Box PC Type F enclosure, 0 slot
2 or 4: Box PC Type E enclosure, 1 slot
- V. Expansion slot configuration:
B, C or 7: Base unit
F or W: Expansion USB board and Fans module (For Box PC Type A enclosure only)
- VI. Power source:
D: DC power source
A: AC power source
- VII. RAM:
4: 4GB
8: 8GB
A: 16GB
- VIII. Operating system:
Y can be any character to represent operating system.
- IX. Storage type:
N: None
X: CFast
J or K: HDD
L, M or P: SSD
1, 2 or 3: M.2
- X. Combination of Interfaces, second storage type and software bundle:
Z can be any character to represent the combination.

Nomenclature II: (Box iPC)

HMIBM	P	H	I74	D	2	X	YY
I	II	III	IV	V	VI	VII	VIII

- I. Prefix:
HMIBM
- II. CPU Version:
O: ATOM (Optimized) (For Box PC Type E and Type F enclosure only)
U: Celeron 2980U (Universal) (For Box PC Type A and Type B enclosure only)
P: Haswell i7-4650U (Performance) (For Box PC Type A and Type B enclosure only)
- III. Storage type:
H: HDD
S: SSD

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C: CFast
M: M.2
0: None

- IV. CPU type:
A5D: Atom E3930
I74: Core i7-4650U
I29: Celeron 2980U
- V. Power supply:
D: DC power source
- VI. Combination of CPU and Expansion configuration:
2 or E: Base unit
4 or I : Expansion USB board and Fan module, HMIYBFT4BM11 (For Box PC Type A enclosure only)
- VII. Operating system:
X can be any character to represent operating system
- VIII. Combination of Interfaces, second storage type and software bundle:
Y can be any character to represent the combination

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 covered in this certificate based on Exception 1 to the scope of EN 60079-28:2015.

Temperature range

The relation between ambient temperature and the assigned temperature class is as follows:

Ambient temperature range
 $0^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$

Temperature class
T4

Electrical data

Model Series:	Model Name Suffix:	Protection Technical:	Electrical Rating:
Box iPC Modular:			
HMIPCCU27xx HMIPCCP27xx (See Nomenclature I for "x")	Follow with "D"	ic, nA	Input: 24 Vdc, 4.2 A max.
		tc	
HMIPCCU2Jxx HMIPCCP2Jxx (See Nomenclature I for "x")	Follow with "A" (equipped with AC power supply, model HMIYMMAC1)	tc	Input: 100-240 Vac, 50-60Hz, 1.8-0.9 A max.
HMIPCCU2Jxx HMIPCCP2Jxx (See Nomenclature I for "x")	Follow with "D"	nA	Input: 24 Vdc, 4.2 A max.
		tc	
HMIPCCU2Jxx HMIPCCP2Jxx (See Nomenclature I for "x")	Follow with "A" (equipped with AC power supply, model HMIYMMAC1)	tc	Input: 100-240 Vac, 50-60Hz, 1.8-0.9 A max.
HMIPCCU27xx (See Nomenclature I for "x")	Follow with "D"	ic, nA	Input 12 Vdc, 6 A max. or 24 Vdc, 2.62 A max.
		tc	
HMIPCCU27xx (See Nomenclature I for "x")	Follow with "A" (equipped with AC power supply, model HMIYMMAC1)	tc	Input 100-240 Vac, 50-60 Hz, 1.6-0.9 A max.
HMIPCCU2Jxx (See Nomenclature I for "x")	Follow with "D"	nA	Input 12 Vdc, 6 A max. or 24 Vdc, 2.62 A max.
		tc	
HMIPCCU2Jxx (See Nomenclature I for "x")	Follow with "A" (equipped with AC power supply, model HMIYMMAC1)	tc	Input 100-240 Vac, 50-60 Hz, 1.6-0.9 A max.

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Box iPC:			
HMIBMU	-	nA	Input: 24 Vdc, 4.2 A max.
HMIBMP	-	nA	Input 12 Vdc, 6 A max. or 24 Vdc, 2.62 A max.
HMIBMO	-	nA	Input 12 Vdc, 6 A max. or 24 Vdc, 2.62 A max.
Display Panel:			
HMIDM7421	-	ic, nA	Input 12 Vdc
		tc	
HMIDM7521	-	nA	Input 12 Vdc
		tc	

Optional Accessory:

Accessory type:	Model:	Electrical Rating:
AC Power Supply (use only in "tc" protection)	HMIYMMAC1	[Only used with industrial touch iPC models which are "tc" protection technique.] Input: 100-240 V ac, 50-60Hz, 1.8-0.9 A or 1.6-0.9 A max. Output: 24 V dc, 5.5 A max.
Fan Module	HMIYBFT4BM11	[Only used with industrial Touch iPC models and Box PC models] Rated 12 V dc, 684 mA max.

Mounting instructions

Refer to "Instructions".

Routine tests:

No Routine tests are necessary.

Descriptive Documents

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

Special Conditions of Use:

For Box iPC Modular Models HMIPCCx27xxD, HMIPCCx2JxxD and Display Panel Models HMIDM7421 and HMIDM7521:

- All front surfaces have been evaluated to the enclosure requirements for Ingress Protection to IP65 in accordance with EN 60079-15 and EN 60079-31.
- The equipment shall only be used in an area of not more than pollution degree 2 as defined in EN 60664-1.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage at the supply terminals to the equipment.
- The equipment shall be mounted in an enclosure that provides a degree of protection not less than IP54 in accordance with EN 60079-15 for category 3G Zone 2 or IP65 in accordance with EN 60079-31 for category 3D Zone 22.
- Do not expose to direct sunlight or UV light source.
- Subject equipment must be installed in a low risk of mechanical danger environment.
- The display panels shall be installed and supplied by Box iPC, HMIBM model series.(For Display Panel only)

For Box iPC Modular Models HMIPCCx27xxA and HMIPCCx2JxxA:

- All front surfaces have been evaluated to the enclosure requirements for Ingress Protection to IP65 in accordance with EN 60079-31.
- The equipment shall be mounted in an enclosure that provides a degree of protection not less than IP65 in accordance with EN 60079-31 for category 3D Zone 22.
- Do not expose to direct sunlight or UV light source.
- Subject equipment must be installed in a low risk of mechanical danger environment.

For Box iPC Models HMIBMO, HMIBMU and HMIBMP:

- The equipment shall be installed in an enclosure that provides a degree of protection not less than IP54 in accordance with EN 60079-15.
- The equipment shall only be used in an area of not more than pollution degree 2 as defined in EN 60664-1.
- Transient protection shall be provided that is set at a level not exceeding 140 % of the peak rated voltage at the supply terminals to the equipment.

Essential Health and Safety Requirements

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

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Additional information

All front surface of model HMIPCCx27xxD, HMIPCCx2JxxD, HMIPCCx27xxA and HMIPCCx2JxxA, HMIDM7421 and HMIDM7521 have in addition passed the tests for Ingress Protection to IP 65 in accordance with EN60529:1991+A1:2000+A2:2013.



The trademark

will be used as the company identifier on the marking label.