

# TYPE EXAMINATION CERTIFICATE



- [2] **Equipment or Protective System intended for use  
in Potentially Explosive Atmospheres  
Directive 2014/34/EU**
- [3] Type Examination Certificate Number: **DEMKO 16 ATEX 1801X Rev. 0**
- [4] Product: **SmartFlex v3 and SmartSwarm v3 Routers**
- [5] Manufacturer: **Advantech B+B SmartWorx s.r.o.**
- [6] Address: **Sokolska 71, 562 04 Usti nad Orlici, Czech Republic**
- [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. **4787540052.2.1**
- [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 IIC T4 Gc**

**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:** 2017-03-28

**Certification Body**

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark  
Tel. +45 44 85 65 65, [info.dk@ul.com](mailto:info.dk@ul.com), [www.ul.com](http://www.ul.com)



## Schedule

### TYPE EXAMINATION CERTIFICATE No.

**DEMKO 16 ATEX 1801X Rev. 0**

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[15] Description of Product:

These devices are open type remote communication devices that may be configured as cellular routers or LTE industrial routers. They can interface with other equipment over various wired or wireless networks.

The optical radiation output of the apparatus 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.

SmartFlex v3 Routers Model Number Nomenclature:

	CODE	DESCRIPTION	PWB Assembly Number (if applicable)
SR		SmartFlex LTE Router Family –2xETH, USB, 2xBI/BO, SD Card Holder, 2xSIM, 2 DI/DO	B-RB3-3 (B-RB3-WiFi-3)
I	3	V3 Platform	N/A
II	00	Wired Version of SmartFlex v3	N/A
	03	Penta Band LTE: 800/900/1800/2100/2600 MHz; FDD-Band (20,8,3,7,1); Tri Band UMTS (WCDMA): 900/1800/2100 MHz; FDD-Band (8,3,1); Dual Band GSM/GPRS/EDGE: 900/1800 MHz	B-MO3-PLS8-E-5
	05	Penta Band LTE: 700/700/850/AWS (1700/2100)/1900 MHz; FDD-Band (13,17,5,4,2)Tri Band UMTS (WCDMA): 850/AWS(1700/2100)/1900 MHz; FDD-Band (5,4,2); Quad Band GSM/GPRS/EDGE: 850/900/1800/1900 MHz	B-MO3-PLS8-X-5
III	0	No WiFi	B-RB3-3
	1	With WiFi (TI 2.4 & 5 GHz)	B-RB3-WiFi-3
IV	0	No PoE	N/A
	9	PoE PD	B-PW3-PD-2
V	0	No optional interfaces	N/A
	1	3x ETH Switch, 5 ETH connections	B-XC3-SW-1
	3	RS232 (5-pin TB), RS485/422 (4-pin TB), 2 serial ports	B-XC3-485-232-2
	5	SmartMesh IP Card	B-XC3-DUST-2
VI	1	Plastic enclosure	N/A
	2	Metal enclosure	N/A
VII	0	No Accessories	N/A
VIII	SWH	SmartWorx HUB	N/A
	FIPS	FIPS 140-2 Certified	N/A

SmartSwarm v3 Routers Model Number Nomenclature:

	CODE	DESCRIPTION	PWB Assembly Number (if applicable)
SG		SmartSwarm Family - V3 Platform Hardware, 2x ETH, 1x USB, 2x BI, 1x BO, 1x MicroSD reader, 2x SIM reader	B-RB3-3 (B-RB3-WiFi-3)
I	3	V3 Platform	N/A
II	00	Wired Version of SmartSwarm v3 Wired version of SmartSwarm-351 (i.e. No Cellular Module)	N/A
	03	Penta Band LTE: 800/900/1800/2100/2600 MHz; FDD-Band (20,8,3,7,1); Tri Band UMTS (WCDMA): 900/1800/2100 MHz; FDD-Band (8,3,1); Dual Band GSM/GPRS/EDGE: 900/1800 MHz	B-MO3-PLS8-E-5 Used the: (B-MO3-PXS8-5)PWB
	05	Penta Band LTE: 700/700/850/AWS (1700/2100)/1900 MHz; FDD-Band (13,17,5,4,2)Tri Band UMTS (WCDMA): 850/AWS(1700/2100)/1900 MHz; FDD-Band (5,4,2); Quad Band GSM/GPRS/EDGE: 850/900/1800/1900 MHz	B-MO3-PLS8-X-5 Used the: (B-MO3-PXS8-5)PWB
III	0	No WiFi	B-RB3-3
	1	With WiFi (TI 2.4 & 5 GHz)	B-RB3-WiFi-3
IV	0	No PoE	N/A
	9	PoE PD	B-PW3-PD-2
V	0	No optional interfaces	N/A
	1	3x ETH Switch	B-XC3-SW-1
	3	RS232 (5-pin TB), RS485/422 (4-pin TB), 2 serial ports	B-XC3-485-232-2
	5	SmartMesh IP Card	B-XC3-DUST-2
VI	1	Plastic enclosure	N/A
	2	Metal enclosure	N/A
VII	0	No Accessories	N/A
	5	International Power Supply (EU, US, UK, AUS)	N/A
VIII	-51	SmartSwarm 351 IoT Gateway Appliance Components, for Modbus to MQTT (includes SWH Client component)	N/A
	-41	SmartSwarm 341 IoT Gateway Application Components, for Node JS, Node RED, Gen 1 Wizzard (includes SWH client component)	N/A
	-42	SmartSwarm 342 IoT Gateway Application Components, for Node JS, Node RED, Endora Wireless nodes (includes SWH client component)	N/A

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Temperature range:

The ambient temperature range is -40 °C to +75 °C.

Electrical data

Model Number	Function	Electrical Ratings
SR 3 xx x x x x xxx (all models) and SG 3 xx x x x x xxx (all models)	Router	10 - 60 Vdc, 1.1 A(max), LPS or Class 2. or PoE, 44-57 Vdc, 1.5A maximum.

Routine tests:

N/A

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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:

- This equipment shall be mounted in an ATEX Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (as defined in EN 60529) and used in an environment of not more than Pollution Degree 2 (as defined in EN 60664-1) when applied in Zone 2 environments. The enclosure must be accessible only by the use of a tool.
- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140% of the rated voltage when applies in Zone 2 environments.

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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

**B+B SMARTWORX**

Powered by

**ADVANTECH**

The trademark

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