



Operating Instructions



UB03-*



THE STRONGEST LINK.

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R. STAHL HMI Systems GmbH
Adolf-Grimme-Allee 8
D 50829 Cologne

Telephone: (Sales Support) +49 221 768 06 - 1200
(Technical Support) - 5000
Fax: - 4200
E-mail: (Sales Support) sales.dehm@r-stahl.com
(Technical Support) support.dehm@r-stahl.com

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The markings in these operating instructions refer to specific features that must be noted.

In detail, these are:







	This sign alerts users to hazards that will result in death or serious injury if ignored.
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	Information highlighted by this symbol indicates measures for the prevention of damage to machinery or equipment !
	Information highlighted by this symbol symbol (with and without lettering) indicates important information of which particular note should be taken !
	Information highlighted by this symbol (with and without lettering) refers to a different chapter or section in this manual or other documentation or a web-page !

Table of contents

	Description	Page
	Disclaimer	2
	Specific markings	3
	Table of contents	4
1	Preface	8
2	Intended use	8
2.1	Version UB03-Z*-RFID-*	8
2.2	Version UB03-Z1-CON-UTP	9
2.3	Connectivities	9
2.3.1	UB03-Z*-RFID	9
3	Technical data	10
4	Type code	11
4.1	Approval	11
4.1.1	Type key code	11
4.2	Version UB03-Z*-RFID-*	12
4.2.1	Type key code	12
4.3	Version UB03-Z1-CON-UTP	12
5	Certificates	13
5.1	Approvals	13
	Europe (CE / ATEX)	13
	Global (IECEx)	13
	USA (NEC)	13
	Canada (CEC)	13
	India (BIS)	13
	China (CCC / CNEX)	13
	Korea (KCC / KCS)	13
	Australia (RCM)	13
6	Marking	14
6.1	Ex marking	14
6.1.1	ATEX / IECEx	14
6.1.1.1	UB03-Z1-*	14
6.1.1.2	UB03-Z2-*	14
6.1.2	FM USA	14
6.1.3	FM Canada	14
6.1.4	CCC	15
6.1.4.1	UB03-Z1-*	15
6.1.4.2	UB03-Z2-*	15
6.1.5	CNEX	15
6.1.5.1	UB03-Z1-*	15
6.1.5.2	UB03-Z2-*	15
6.1.6	KCC / KCS	15
6.1.6.1	UB03-Z1-*	15
6.2	Notified Body ID number	16
6.3	Temperature Range	16
6.4	Type of Protection	16


6.5	Warnings	16
6.6	Serial number	16
6.7	Manufacturing date	16
6.8	Manufacturer	16
7	Applied standards	17
7.1	ATEX / IECEx	17
7.1.1	UB03-Z1-*	17
7.1.2	UB03-Z2-*	17
7.2	EMC Directive 2014/30/EU	17
7.3	Low Voltage Directive 2014/35/EU	17
7.4	RoHS Directive 2011/65/EU	17
8	Electrical parameters	18
8.1	Connection values	18
8.2	Non intrinsically safe interfaces (Ex eb / Ex ec)	18
8.2.1	X1 power supply	18
8.2.2	X1Data cable	18
8.2.3	X2 data cable	18
9	Electrical Installation	19
9.1	UB03-*-RFID	19
9.1.1	Status LED	19
9.1.2	Connection overview terminal assignment	19
9.1.3	Connection overview	20
9.1.3.1	Connection of UB03-Z1-RFID-*-RS422-* to ET-208-*-AC / DC	20
9.1.3.2	Connection of UB03-Z1-RFID-*-RS422-* to ET-208-*-DC	20
9.1.3.3	Connection of UB03-Z*-RFID-*-USB-* to ET-/MT-xx6	21
9.1.3.4	Connection of UB03-Z*-RFID-*-RS422-* to ET-/MT-xx6	21
9.1.3.5	Connection of UB03-Z*-RFID-*-USB-* to ET-/MT-xx7	22
9.1.3.6	Connection of UB03-Z*-RFID-*-USB-* to ET-/MT-xx8	22
9.1.3.7	Connection of UB03-Z*-RFID-*-RS422-* to ET-/MT-xx8-*-AC	23
9.1.3.8	Connection of UB03-Z*-RFID-*-RS422-* to ET-/MT-xx8-*-DC	23
9.1.3.9	Connection of UB03-Z*-RFID-*-USB-* to ORCA01*	24
9.2	UB03-Z1-CON-UTP	25
9.2.1	Status LED	25
9.2.2	Connection overview terminal assignment	25
9.2.3	Connection diagram	25
9.2.3.1	Cable connection	26
9.2.3.2	Connection of supply voltage DC to UB03-Z1-CON-UTP via Operator interface	27
9.2.3.3	Connection of supply voltage DC to UB03-Z1-CON-UTP for ET-208-DC	28
9.2.3.4	Connection of supply voltage to UB03-Z1-CON-UTP for device versions AC	28
9.2.3.5	Connection of UB03-Z1-CON-UTP TX interface to Operator interface TX	29
9.2.3.6	Connection of UB03-Z1-CON-UTP to VI-UTP-2300A	29
9.2.3.7	Connection of UB03-Z1-CON-UTP to UB03-Z1-CON-UTP	30
10	Safety information	31


10.1	Commissioning	31
10.2	Use	31
10.3	Industrial Security	31
10.4	Mounting and dismounting	32
10.4.1	Mounting screws / threaded holes	32
10.4.2	UB03-Z*-RFID-*	32
10.4.3	UB03-Z1-CON-UTP	32
10.5	Installation	33
10.5.1	Details for connection compartments	33
10.5.1.1	Cable glands	33
10.5.2	Details for electrical connection of Interfaces X1, X2	34
10.5.3	Earthing	34
11	Mechanical data	35
11.1	Views	35
11.1.1	UB03-*	35
11.1.2	Card holder	35
11.1.3	UB03-*-RFID with card holder	35
11.2	Dimensions	36
11.2.1	UB03-*	36
11.2.2	Card holder	36
11.2.3	UB03-*-RFID with card holder	37
11.3	Mounting instruction card holder	37
11.3.1	Recommended mounting position	37
11.3.1.1	For UB03-*RFID	37
11.3.1.2	For SHARK operating device x98	38
11.3.1.3	For ORCA01* operating device 22"	38
12	Maintenance, overhaul and repair	39
12.1	Damaged sealing	39
13	Adjustment	39
14	Training instructions	39
15	Special conditions of use	39
16	Special tools	39
17	Cells and Batteries	39
18	Disposal / Restricted substances	40
18.1	Declaration of substances and restricted substances	40
18.1.1	Declarable substance groups	40
18.1.2	RoHS directive 2011/65/EC	40
18.1.3	IMO Resolution MEPC.269(68)	40
19	Drawings	41
19.1	Installation with UB03-Z*-RFID-* fixing frame	41
19.2	Wall mounting of UB03-Z1-CON-UTP	42
20	Declaration of EC conformity	43
20.1	UB03-Z1-RFID*	43
20.2	UB03-Z2-RFID*	44
20.3	UB03-Z1-CON-UTP	45
20.4	RCM	46
20.5	CCC	48

20.5.1	UB03-Z1-*	48
20.5.1.1	English version	48
20.5.1.2	Chinese version	52
20.5.2	UB03-Z2-*	56
20.5.2.1	English version	56
20.5.2.2	Chinese version	60
21	Installation instructions requirements China	64
21.1	UB03-Z1-*	64
21.2	UB03-Z2-*	65
22	Evaluation of transponder media	66
22.1	RFID chip cards	66
22.2	RFID tag	68
23	Conformity assessment	69
24	Release notes	70

1 Preface

These Operating Instructions contain all aspects relevant to explosion protection for the UB03-* devices. They also contain information on the connection and installation (etc.) of these devices.

 NOTICE	All data relevant to explosion protection was copied to these operating instructions from the EC type examination certificate.
	For the correct operation of all associated components please note, in addition to these operating instructions, all other operating instructions enclosed in this delivery as well as the operating instructions of the additional equipment to be connected.

 DOCUMENTATION	The certificates for the UB03-* devices are compiled in the document entitled CE_UB03, which is stored on the CD / DVD / USB stick included in the delivery.
	You can also find this document online at r-stahl.com or request a copy from R. STAHL HMI Systems GmbH.

2 Intended use

The UB03-* devices are explosion-protected equipment for installation in hazardous areas. Whilst version UB03-Z1-* can be installed in Zones 1 and 21 (EPL Gb, Db) according to the ATEX directive, version UB03-Z2-* is suitable for installation in Zones 2 and 22 (EPL Gc, Dc).

The UB03-* devices consist of an enclosure with integrated electronics. Different electronics modules are available for different functionalities (see type code).

Connection to the interfaces is located inside an integrated Ex eb / ec connection box.

The UB03-* devices can be mounted inside a front panel with a fixing frame or inside an enclosure.

2.1 Version UB03-Z*-RFID-*

The UB03-Z*-RFID-* versions are equipped with an RFID chipcard reader. These are proximity readers that can read the corresponding transponder media without direct contact and transfer the data to operating devices or any other systems.

Two versions of RFID reader are available for different types of data transfer between reader and a corresponding software.

- CRYPT - version C5 - data is transferred via an encrypted bidirectional protocol. This protocol can also be used to describe the transponder media. The connected device must be able to support the data encryption via a suitable application. The protocol description can be provided once a confidentiality agreement has been signed.
- ASCII - version C6 - when the transponder medium approaches or is removed, the reader actively sends the pre-parameterised content of the medium in the form of characters transformed byte-wise from hex code to ASCII. Applications such as PM Logon from Siemens or LogOnPlus from i.p.a.s. support this encryption protocol.

In addition, a card holder is available for the RFID reader, which is glued to the reader (or, in the case of the SHARK x98 / ORCA 22" device, to the device itself).

2.2 Version UB03-Z1-CON-UTP

The UB03-Z1-CON-UTP is an Ethernet extender that can be used to extend the LAN copper cables' limited distance of 100 m to up to 250 m (1x twisted pair).

A fixing frame for the installation of the extender is included in the delivery of the UB03-Z1-CON-UTP.

Available counterparts are the VI-UTP-2300A Ethernet extender PoE or the series UTP Vigitron extender with identical construction.

The UB03-Z1-CON-UTP devices' immunity level corresponds to "Industrial Grade", that of the Vigitron Extenders to "Commercial Grade", according to the manufacturer.

! NOTICE	Depending on the cable length it may take several minutes after the UB03-Z1-CON-UTP has been switched on for it to be located and a connection to be established.
-----------------	---

2.3 Connectivities

2.3.1 UB03-Z*-RFID

Reader version	Device series / interface				
	RAPTOR ET-208	EAGLE ET-/MT-xx6	MANTA *3 ET-/MT-xx7	SHARK *3 ET-/MT-xx8	ORCA ORCA01E* ORCA01M*
UB03-Z1-RFID-*-USB-*	-	X5 or X7 *1	X13	X6	X3 or X13 *4
UB03-Z1-RFID-*-RS422-*	X2 or X3	X2 or X22 *2	-	X7	-
		MT-xx6	MT-xx7	MT-xx8	ORCA01M*
UB03-Z2-RFID-*-USB-*	-	X5 or X7 *1	X13	X6	X3 or X13 *4
UB03-Z2-RFID-*-RS422-*	-	X2 or X22 *2	-	X7	

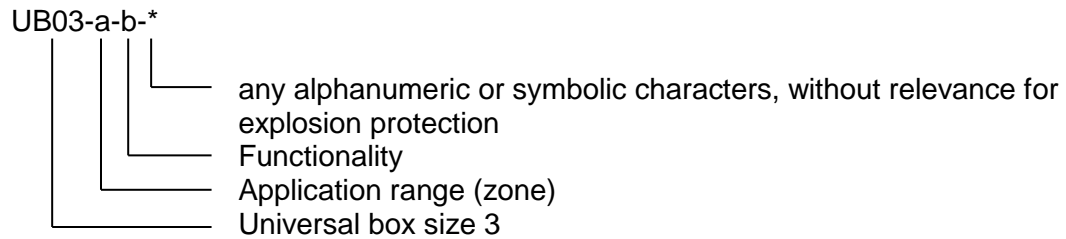
! NOTICE	<p>*1 Not possible for SERIES 300 !</p> <p>*2 Connection to X22 is only possible for devices with option "2. serial interface".</p> <p>*3 SERIES 600 devices require an additional FTDI driver that needs to be installed on the connected PC. The current FTDI driver is located at the following link: http://www.ftdichip.com/Drivers/D2XX.html</p> <p>*4 With E-Box Standard only X3, with E-Box Pro X3 or X13 UB03 ASCII version only: Additionally, a keyboard wedge needs to be installed on the connected PC to receive and transfer the reader data to an application.</p>
-----------------	--

3 Technical data

Function / Equipment	UB03-Z*-RFID*-USB*	UB03-Z*-RFID*-RS422*	UB03-Z1-CON-UTP
Power supply	in the Ex e terminal compartment		
Connections	via screw terminals, 2.5 mm ² green		
Nominal voltage	5 VDC via USB interface	5 / 12 or 24 VDC	
Voltage range	4.75 - 30 VDC		
Rated operational power	typically 1 W		typically 2 W
Nominal current	0.2 A	0.2 A	0.4 A
LED	for power, OK, error		for power, link / traffic
Interfaces	USB	RS-422	10/100Base-TX
Data cable	USB 2.0 cable (recommended) or Type A Profinet cable (AWG22)	CAT6 cable or Type A Profinet cable (AWG22)	CAT7 cable (1 pair)
Data cable lengths			
Ethernet extender	-		max. 250 m (820.21 ft)
USB with USB 2.0 cable	max. 3.0 m (9.84 ft)	-	-
USB with Profinet cable	max. 3.0 m (9.84 ft)	-	-
RS-422 with CAT6 cable	-	max. 1000 m (3,280.84 ft)	-
RS-422 with Profinet cable	-	max. 1000 m (3,280.84 ft)	-
Enclosure	Compact enclosure with fixing plate		
Enclosure material	Aluminium		
Enclosure protection type	IP66		
Ambient temperature range	-40 °C ... +70 °C / [-40 °F ... +158 °F]		
Mounting orientation	any		
Cable gland type	1x 8161 M16 1x 8290 M20 stopping plugs	1x 8161 M16 1x 8161 M20	1x 8161 M16 1x 8161 M20
Cable gland diameter range	2 – 9 mm -	2 – 9 mm 4 – 13 mm	2 – 9 mm 4 – 13 mm
Dimensions [mm] / [inch]			
Front (w x h)	125 x 185 / [4.92 x 7.28]		
Mounting cut-out (w x h) (+0.5 / -0.3) / [+0.0197 / -0.0118]	110 x 170 / [4.33 x 6.69]		
Depth of cut-out	54.2 / [2.13]		
Wall thickness	1 – 5 / [0.0394 – 0.197]		
Weight [kg] / [lbs]	1.0 / [2.2]		
Supported transponder media			-
	Transponder media	Reader technology	-
	MIFARE Classic, 1k / 4k	MIFARE Classic	
	DESFire, 4k	MIFARE DESFire	
	DESFire EV1, 2k / 4k / 8k	MIFARE DESFire EV1	
	LEGIC MIM 22 / MIM 256 / MIM 1024	LEGIC prime	
	LEGIC ATC512-MP110 (ISO 14443A) LEGIC ATC2048-MP110 (ISO 14443A) LEGIC ATC4096-MP310 (ISO 14443A) LEGIC ATC4096-MP311 (ISO 14443A) LEGIC AFS4096-JP10 / JP11 (ISO 14443A) LEGIC ATC128-MV210 (ISO 15693) LEGIC ATC256-MV210 (ISO 15693) LEGIC ATC1024-MV110 (ISO 15693)	LEGIC advant	
	ISO 14443A transponder (UID / CSN) ISO 15693 transponder (UID / CSN) Sony FeliCa subset INSIDE Secure (UID / CSN) Transparent, NFC Forum Type 2 Tag Transparent, NFC Forum Type 3 Tag	Common	
Panel mount type	PRIMO-A-1200-A		-

4 Type code


4.1 Approval



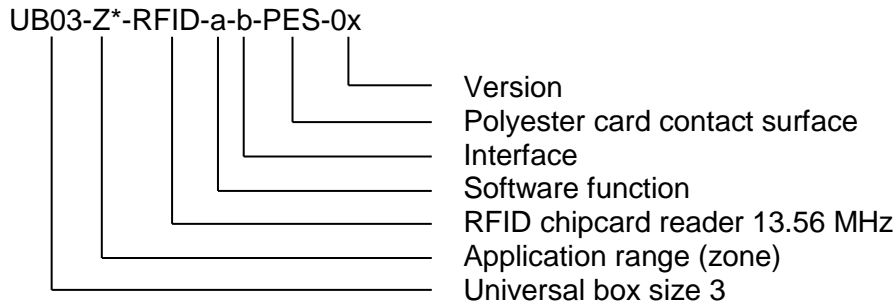
4.1.1 Type key code

Number of type code	possible value	Description
a	Z1	Devices for Zone 1, Zone 21, EPL Gb, Db
	Z2	Devices for Zone 2, Zone 22, EPL Gc, Dc
b	RFID-C3-USB	RFID card reader 13.56 MHz, USB interface, MIFARE / DESFire / EV1, CRYPT
	RFID-C4-USB	RFID card reader 13.56 MHz, USB interface, MIFARE / DESFire / EV1, ASCII
	RFID-C5-USB	RFID card reader 13.56 MHz, USB interface, LEGIC, MIFARE / DESFire / EV1, CRYPT
	RFID-C6-USB	RFID card reader 13.56 MHz, USB interface, LEGIC, MIFARE / DESFire / EV1, ASCII
	RFID-C7-USB	RFID card reader 13.56 MHz, USB interface, NFC
	RFID-C3-RS422	RFID card reader 13.56 MHz, RS-422 interface, MIFARE / DESFire / EV1, CRYPT
	RFID-C4-RS422	RFID card reader 13.56 MHz, RS-422 interface, MIFARE / DESFire / EV1, ASCII
	RFID-C5-RS422	RFID card reader 13.56 MHz, RS-422 interface, LEGIC, MIFARE / DESFire / EV1, CRYPT
	RFID-C6-RS422	RFID card reader 13.56 MHz, RS-422 interface, LEGIC, MIFARE / DESFire / EV1, ASCII
	RFID-C7-RS422	RFID card reader 13.56 MHz, RS-422 interface, NFC
	CON-UTP	Transducer from UTP to Ethernet 10/100Base-TX
	CON-USB	Transducer from USB to Ethernet 10/100Base-TX
	AMP-Audio	Audio amplifier
	DSP-10	Power supply
III-LED	LED lighting	
		Future planning

4.2 Version UB03-Z*-RFID-*

 NOTICE	At the time of publication of this document, only the versions listed in the following type key code have been realised.
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4.2.1 Type key code



Version

Classification product key	Description
	Version with
UB03- Z1 -RFID-a-b-PES-0x	Approval for Zone 1, Zone 21, EPL Gb, Db
UB03- Z2 -RFID-a-b-PES-0x	Approval for Zone 2, Zone 22, EPL Gc, Dc
UB03-Z*-RFID- C05 -b-PES-0x	Transponder media LEGIC, MIFARE / DESFire / EV1, CRYPT transmission protocol
UB03-Z*-RFID- C06 -b-PES-0x	Transponder media LEGIC, MIFARE / DESFire / EV1, ASCII (protocol-less)
UB03-Z*-RFID-a- USB -PES-0x	USB interface
UB03-Z*-RFID-a- RS422 -PES-0x	RS-422 data Interface
UB03-Z*-RFID-a-b-PES- 01	Standard
UB03-Z*-RFID-a-b-PES- 02	PM Logon
UB03-Z*-RFID-a-b-PES- 03	LogOnPlus


4.3 Version UB03-Z1-CON-UTP

 NOTICE	At the time of publication of this document only the version listed here has been realised.
---	---

Version

UB03-Z1-CON-UTP	Ethernet extender for Zone 1, Zone 21, EPL Gb, Db
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5 Certificates

	Certificates: r-stahl.com
	The device has IECEx approval. See IECEx homepage: https://www.iecex-certs.com/#/home .

5.1 Approvals

The UB03-* devices are certified for installation in the following areas:

Synonym	Scope	Version	Valid until	Certificate number	Comment
CE	Europe	UB03-Z*-RFID	unlimited		According to directive 2014/30/EU 2014/34/EU 2014/35/EU 2014/53/EU 2011/65/EU
CE	Europe	UB03-Z*-CON-UTP	unlimited		According to directive 2014/30/EU 2014/34/EU 2011/65/EU
ATEX	Europe	UB03-Z1-*	unlimited	BVS 18 ATEX E 001	Issue 00
		UB03-Z2-*	unlimited	BVS 18 ATEX E 002	Issue 00
IECEX	Global	UB03-Z*-*	unlimited	IECEX BVS 18.0001	Issue 00
NEC	USA	UB03-Z*-*	unlimited	FM21US0031X	
CEC	Canada	UB03-Z*-*	unlimited	FM21CA0022X	
BIS	India	UB03-Z*-*	02.05.2026	CRS 2022-1525 R-41223980	
CCC	China	UB03-Z1-*	07.05.2026	2021312314000072	
		UB03-Z2-*	07.05.2026	2021312314000071	
CNEX		UB03-Z1-*	16.06.2026	CNEx21.1936X	
		UB03-Z2-*	16.06.2026	CNEx21.1937X	
KCC	Korea	UB03-Z1-*	unlimited	KCC-R-R-RSE-UB03	
KCS			unlimited	21-KA4BO-0785 21-KA4BO-0786	
RCM	Australia	UB03-Z*-*	unlimited		According to declaration of conformity

	The importer have to use exception documents which are applied in Korea rule for Korea.
	A corresponding example document, the so-called "Customer confirmation letter", is included in the CE_UB03 certificate compilation of the devices.



6 Marking

6.1 Ex marking



6.1.1 ATEX / IECEx

ATEX and IECEx marking according to IEC 60079-0 and ATEX directive 2014/34/EC.

6.1.1.1 UB03-Z1-*

Version	2014/34/EU prefix	Ex marking
Gas	 II 2 G	Ex eb q IIC T4 Gb
Dust	 II 2 D	Ex tb IIIC T115°C Db

6.1.1.2 UB03-Z2-*

Version	2014/34/EU prefix	Ex marking
Gas	 II 3 G	Ex ec nC IIC T4 Gc
Dust	 II 3 D	Ex tc IIIC T115°C Dc

6.1.2 FM USA

Version	Ex marking
Gas	Class I, Zone 1 AEx eb q IIC T4 Gb
	Class I, Zone 2 AEx ec nC IIC T4 Gc
	Class I, Div. 2 Groups A, B, C, D, E, F, G nonincendive
Dust	Zone 21, AEx tb IIIC T115°C Db
	Zone 22, AEx tc IIIC T115°C Dc
	Class II, III Div. 1 Groups E, F, G, DIP
	Class II, III Div. 2 Groups A, B, C, D, E, F, G, nonincendive

6.1.3 FM Canada

Version	Ex marking
Gas	Ex eb q IIC T4 Gb
	Ex ec nC IIC T4 Gc
	Class I, Div. 2 Groups A, B, C, D, E, F, G nonincendive
Dust	Ex tb IIIC T115°C Db
	Ex tc IIIC T115°C Dc
	Class II, III Div. 1 Groups E, F, G, DIP
	Class II, III Div. 2 Groups A, B, C, D, E, F, G, nonincendive

6.1.4 CCC**6.1.4.1 UB03-Z1-***

Version	Ex marking
Gas	Ex eb q IIC T4 Gb
Dust	Ex tb IIIC T115°C Db

6.1.4.2 UB03-Z2-*

Version	Ex marking
Gas	Ex ec nC IIC T4 Gc
Dust	Ex tc IIIC T115°C Dc

6.1.5 CNEX**6.1.5.1 UB03-Z1-***

Version	Ex marking
Gas	Ex e q IIC T4 Gb
Dust	Ex tD A21 IP66 T115°C

6.1.5.2 UB03-Z2-*

Version	Ex marking
Gas	Ex nA nC IIC T4 Ge
Dust	Ex tD A22 IP66 T115°C

6.1.6 KCC / KCS**6.1.6.1 UB03-Z1-***

Ausführung	Ex marking
Gas	Ex eb q IIC T4 Gb
Dust	Ex tb IIIC T115°C Db

6.2 Notified Body ID number

Notified Body ID number: 0158

6.3 Temperature Range

Temperature range: -40 °C ... +70 °C / [-40 °F ... +158 °F]

6.4 Type of Protection

Type of protection: IP66

6.5 Warnings



Warning !

In ambient temperatures exceeding +45 °C the surface of the device may heat up.
Caution when touching !

- Do not open ! This container has been permanently sealed and cannot be repaired.
- Isolate all Ex eb / Ex ec circuits and wait one minute before opening the connection compartment !

6.6 Serial number

The serial number is printed on a label.

6.7 Manufacturing date

The manufacturing date is printed on a label.

6.8 Manufacturer

Manufacturer's name:

R. STAHL HMI Systems GmbH
Adolf-Grimme-Allee 8
D 50829 Cologne

7 Applied standards

7.1 ATEX / IECEx

7.1.1 UB03-Z1-*

Standard	Classification
EN 60079-0 : 2012 + A11 : 2013	General requirements
EN 60079-5 : 2015	Protection by powder filling "q"
EN 60079-7 : 2015	Protection by increased safety "e"
EN 60079-31 : 2014	Protected by enclosures "t" (dust ignition protection)
The product corresponds to requirements from:	
EN IEC 60079-0 : 2018	General requirements
EN IEC 60079-7 : 2015 + A1 : 2018	Protection by increased safety "e"

7.1.2 UB03-Z2-*

Standard	Classification
EN 60079-0 : 2012 + A11 : 2013	General requirements
EN 60079-7 : 2015	Protection by increased safety "e"
EN 60079-15 : 2010	Protection by type of protection "n"
EN 60079-31 : 2014	Protected by enclosures "t" (dust ignition protection)
The product corresponds to requirements from:	
EN IEC 60079-0 : 2018	General requirements
EN IEC 60079-7 : 2015 + A1 : 2018	Protection by increased safety "e"
EN 60079-15 : 2020	Protection by type of protection "n"

7.2 EMC Directive 2014/30/EU

Standard	Classification
EN 61000-6-2 : 2005	Immunity
EN 61000-6-4 : 20011	Interference emission

7.3 Low Voltage Directive 2014/35/EU

! NOTICE	Does not apply to UB03-Z1-CON-UTP !
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Standard	Classification
EN 62368-1 : 2014 + AC : 2015 + A11 : 2017	Safety requirements for electrical equipment for measurement, control and laboratory use (General requirements)

7.4 RoHS Directive 2011/65/EU

Standard	Classification
EN IEC 63000 : 2018	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

8 Electrical parameters

8.1 Connection values

Variant	Input voltage range	max. power consumption
USB / RS-422	4.75 – 30 VDC	1 A
CON-UTP	4.75 – 30 VDC	1 A

8.2 Non intrinsically safe interfaces (Ex eb / Ex ec)

8.2.1 X1 power supply

pins 1 and 4

Nominal voltage		=	5 ... 30	VDC
Nominal current		=	max. 1	A
Nominal power		=	30	W
Max. input voltage	U_m	=	250	VAC

8.2.2 X1Data cable

pins 2 and 3

Nominal voltage	=	5 VDC
Max. input voltage U_m	=	250 VAC

Version UB03-*-RFID-*-RS422-* only:

Max. input voltage	=	30 VAC / VDC
Max. input current	=	1 A

Versions UB03-*-AMP-Audio-* and UB03-*-DSP-10-* only

Max. output voltage	=	30 VAC / VDC
---------------------	---	--------------



8.2.3 X2 data cable

Nominal voltage	=	5 VAC / VDC
Max. input voltage U_m	=	250 VAC

9 Electrical Installation

9.1 UB03-*-RFID

9.1.1 Status LED

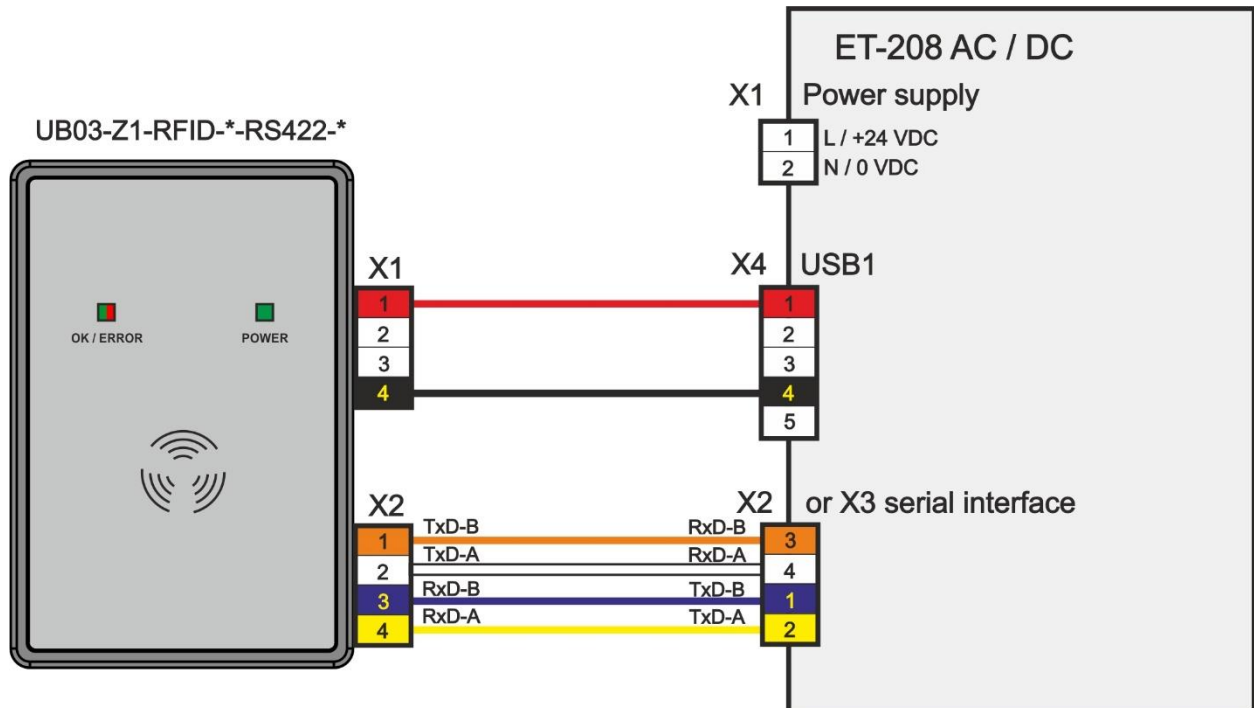
LED colour	Designation	Meaning
 Green	Power	LED on if supply voltage applied
 Green / red	OK / Error	LED briefly lit green if reading process correct LED flashing red if reading process faulty

9.1.2 Connection overview terminal assignment

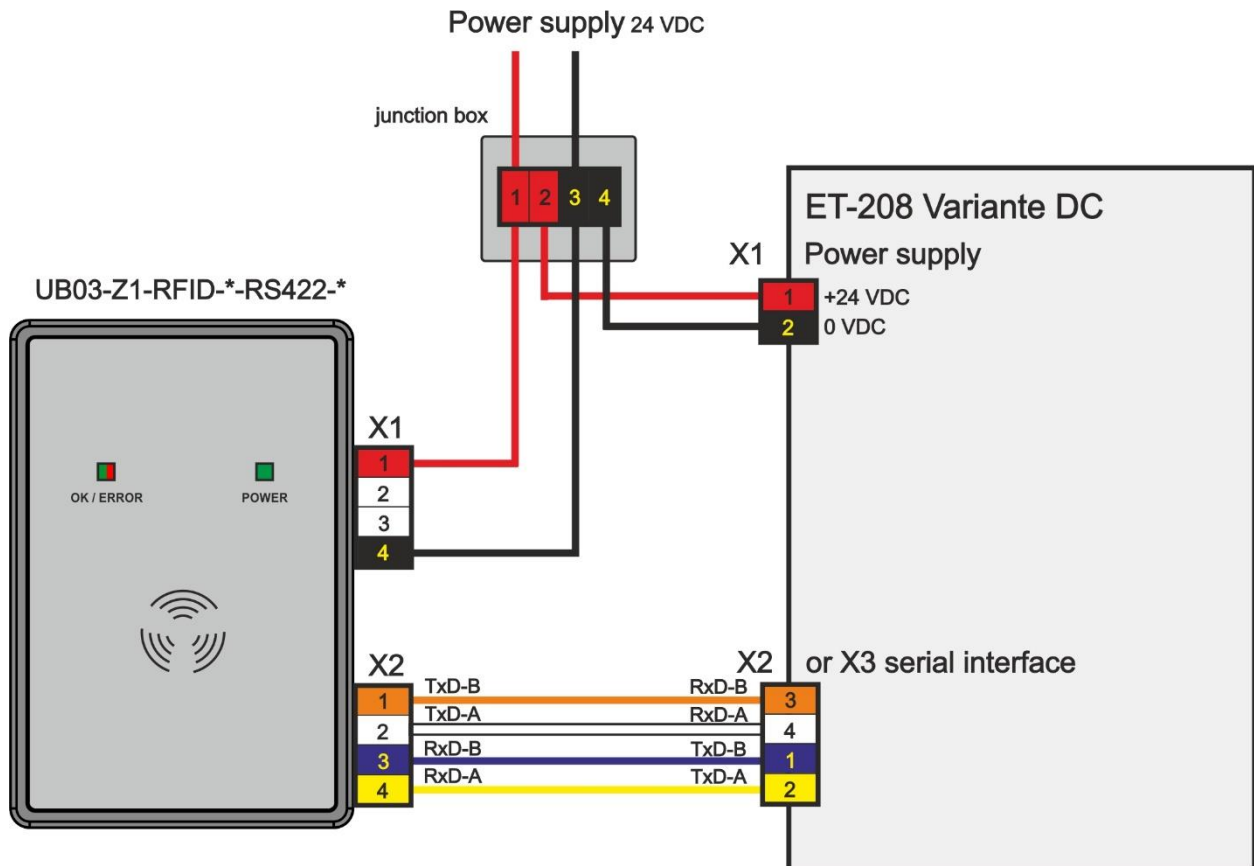
USB version					
Terminal	Pin	Signal	Typical colour coding		Connection / function
			USB 2.0 cable	Profinet cable	
X1	1	VBUS	Red	Orange	+5 VDC power supply
	2	USB D-	White	White	Data cable -
	3	USB D+	Green	Blue	Data cable +
	4	GND	Black	Yellow	0 VDC power supply
X2	Not in use / do not allocate !				
RS-422 version					
Terminal	Pin	Signal	Typical colour coding		Connection / function
X1 Power	1	5 V – 30 V	Red		Power supply +5 / +12 or +24 VDC
	2	Relay			Not in use / do not allocate !
	3	Relay			
	4	GND	Black		0 VDC power supply
			CAT6 cable	Profinet cable	
X2 Data	1	TxD-B	White / Orange	Orange	Data out A
	2	TxD-A	Orange	White	Data out B
	3	RxD-B	White / Green	Blue	Data in A
	4	RxD-A	Green	Yellow	Data in B

9.1.3 Connection overview

9.1.3.1 Connection of UB03-Z1-RFID-*-RS422-* to ET-208-*-AC / DC

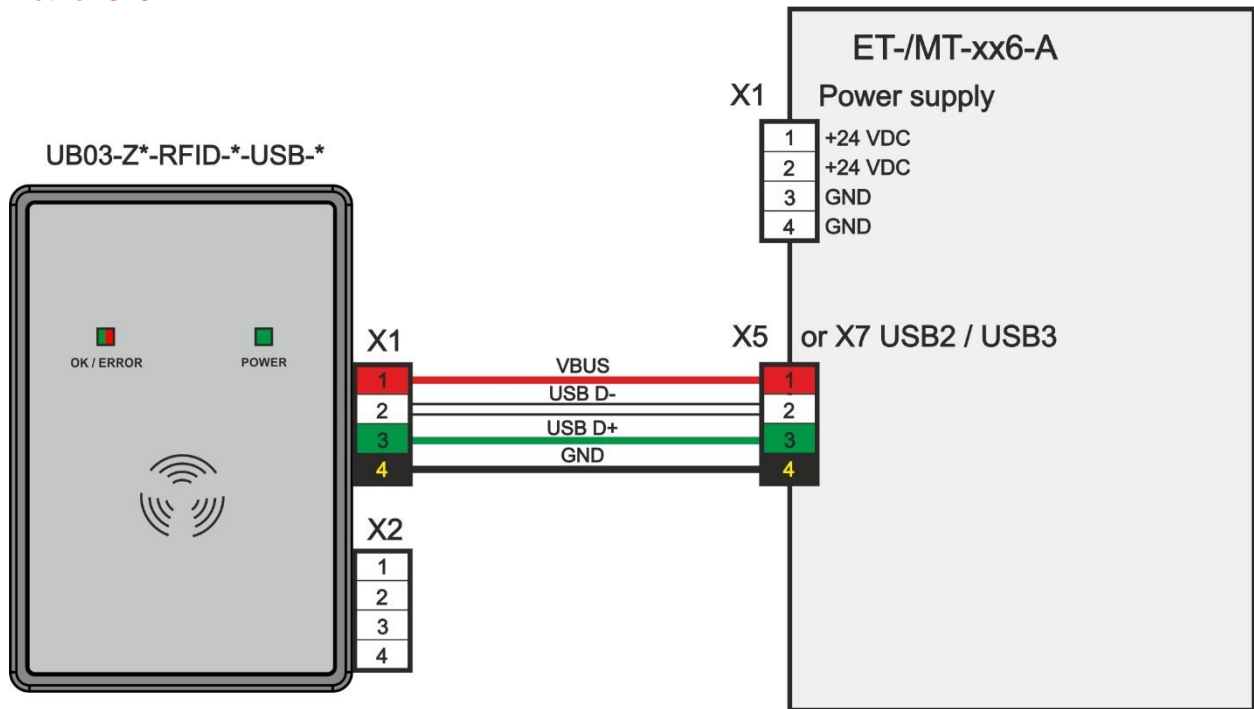


9.1.3.2 Connection of UB03-Z1-RFID-*-RS422-* to ET-208-*-DC



9.1.3.3 Connection of UB03-Z*-RFID*-USB-* to ET-/MT-xx6

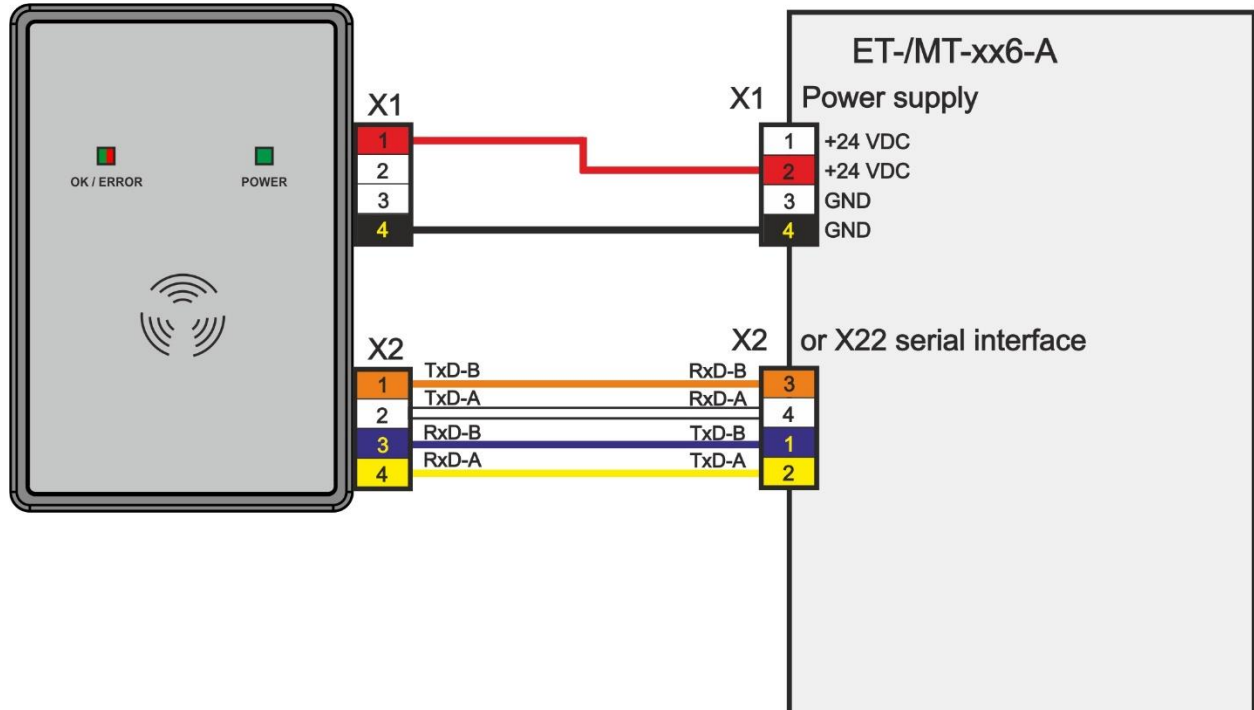
Not for 3x6!



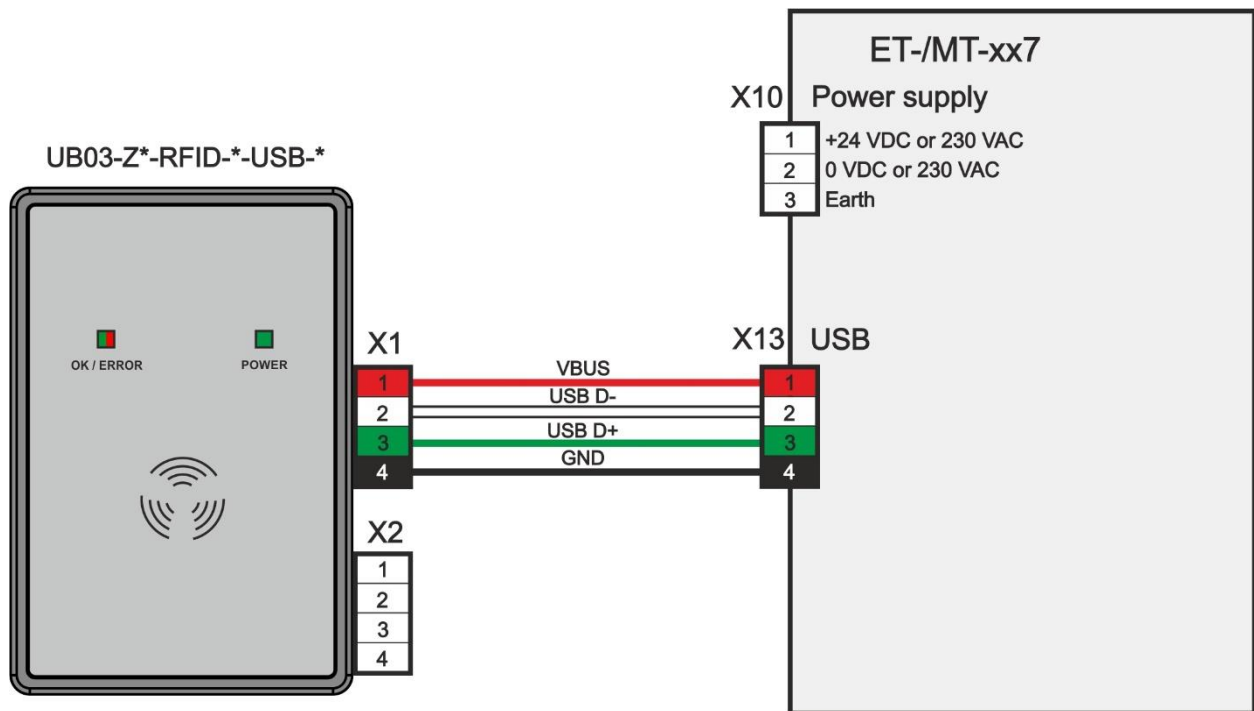
NOTICE The D- and D+ USB wires must be twisted !

9.1.3.4 Connection of UB03-Z*-RFID*-RS422-* to ET-/MT-xx6

UB03-Z*-RFID*-RS422-*

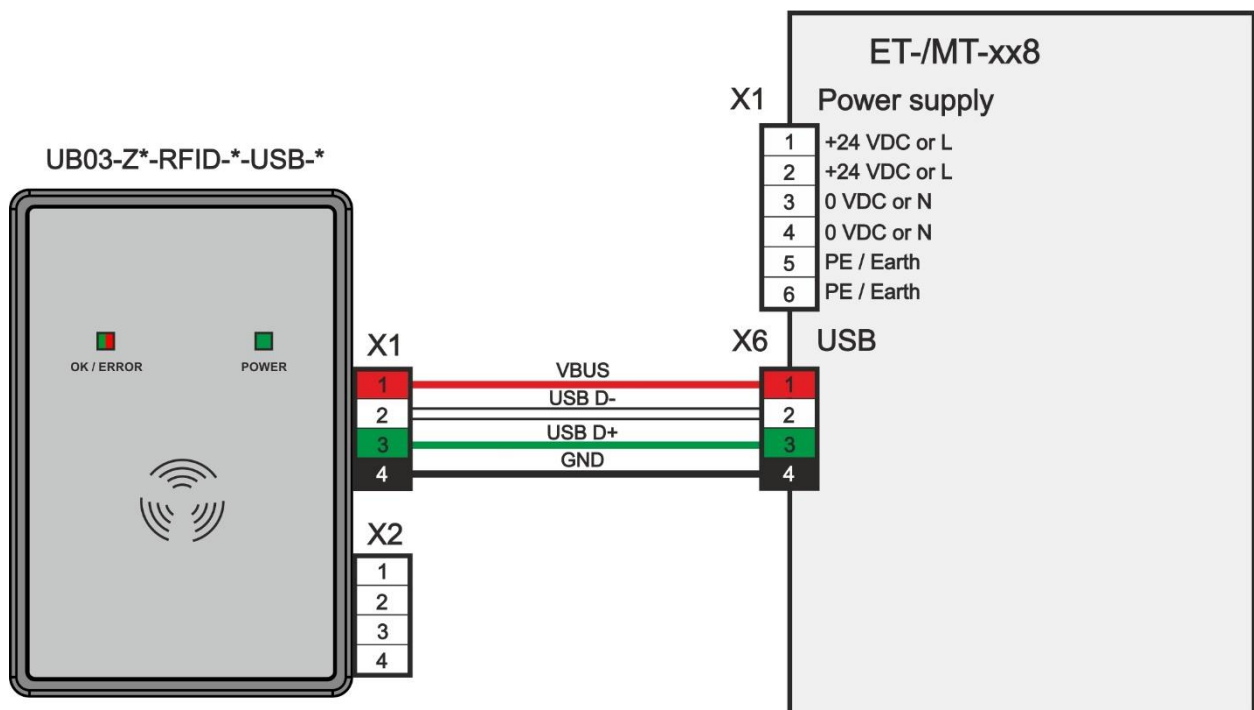


9.1.3.5 Connection of UB03-Z*-RFID*-USB-* to ET-/MT-xx7



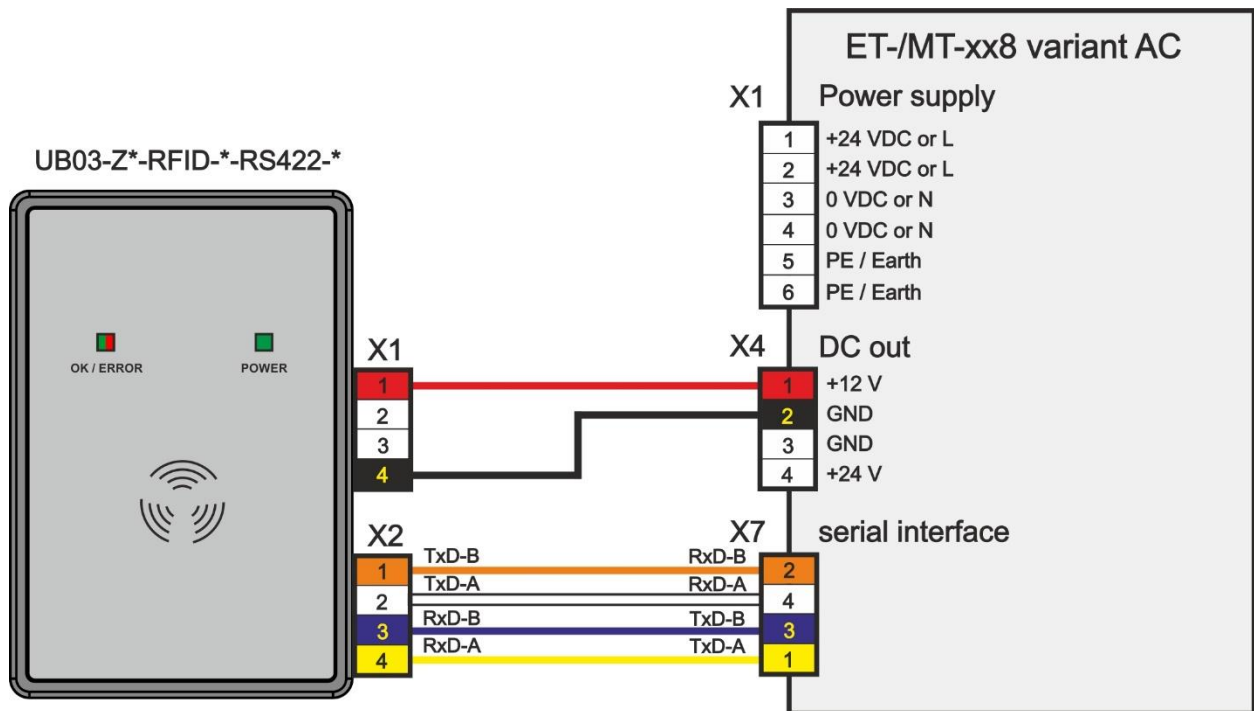
NOTICE The D- and D+ USB wires must be twisted !

9.1.3.6 Connection of UB03-Z*-RFID*-USB-* to ET-/MT-xx8

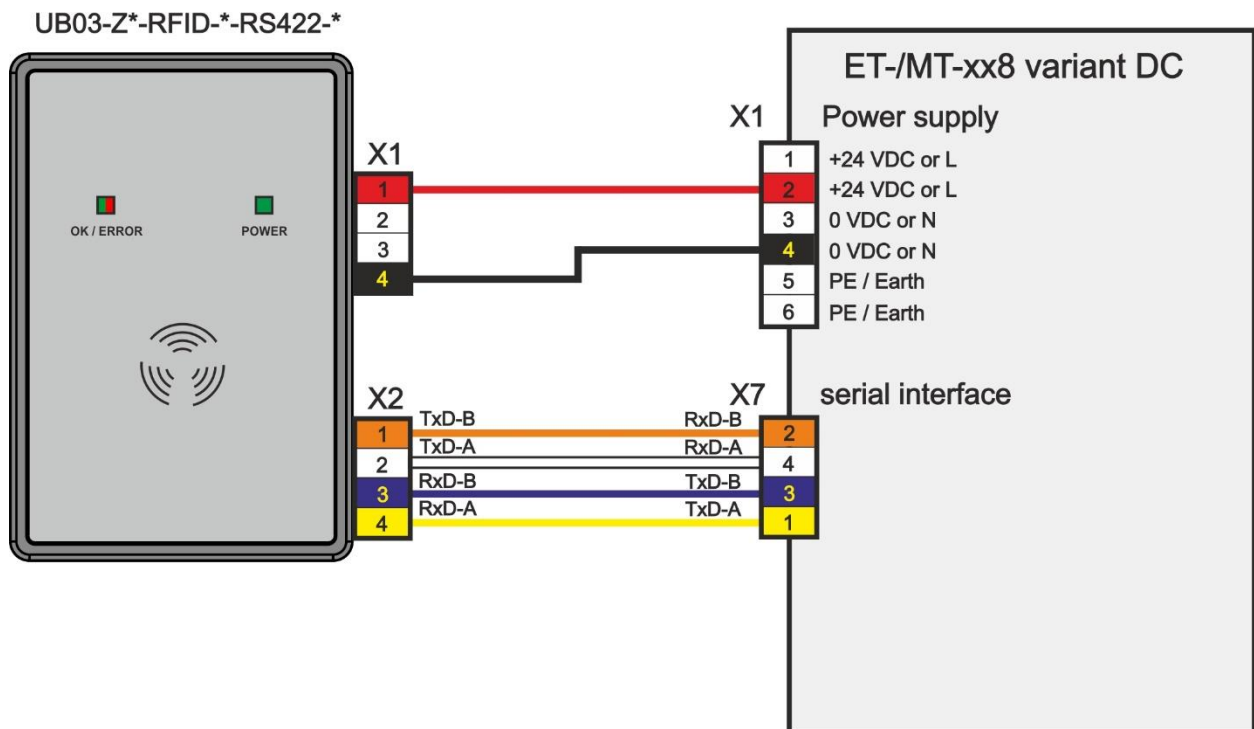


NOTICE The D- and D+ USB wires must be twisted !

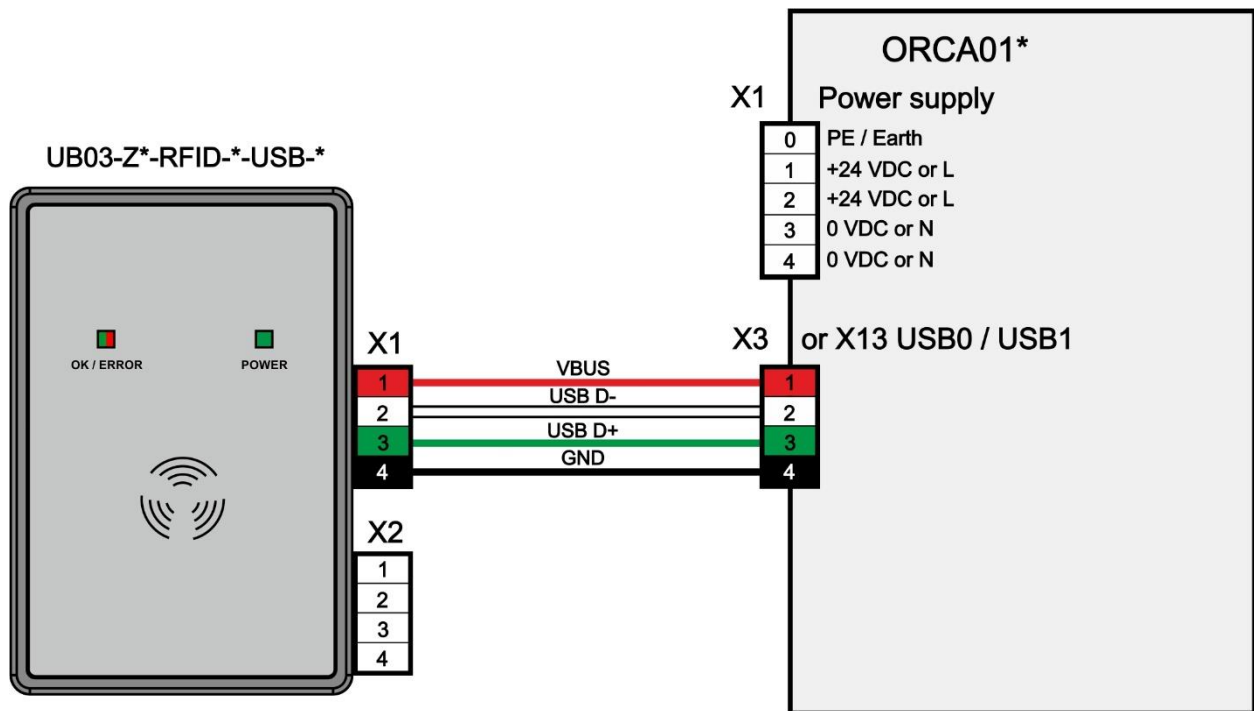
9.1.3.7 Connection of UB03-Z*-RFID*-RS422-* to ET-/MT-xx8*-AC



9.1.3.8 Connection of UB03-Z*-RFID*-RS422-* to ET-/MT-xx8*-DC








9.1.3.9 Connection of UB03-Z*-RFID*-USB-* to ORCA01*



NOTICE The D- and D+ USB wires must be twisted !

9.2 UB03-Z1-CON-UTP

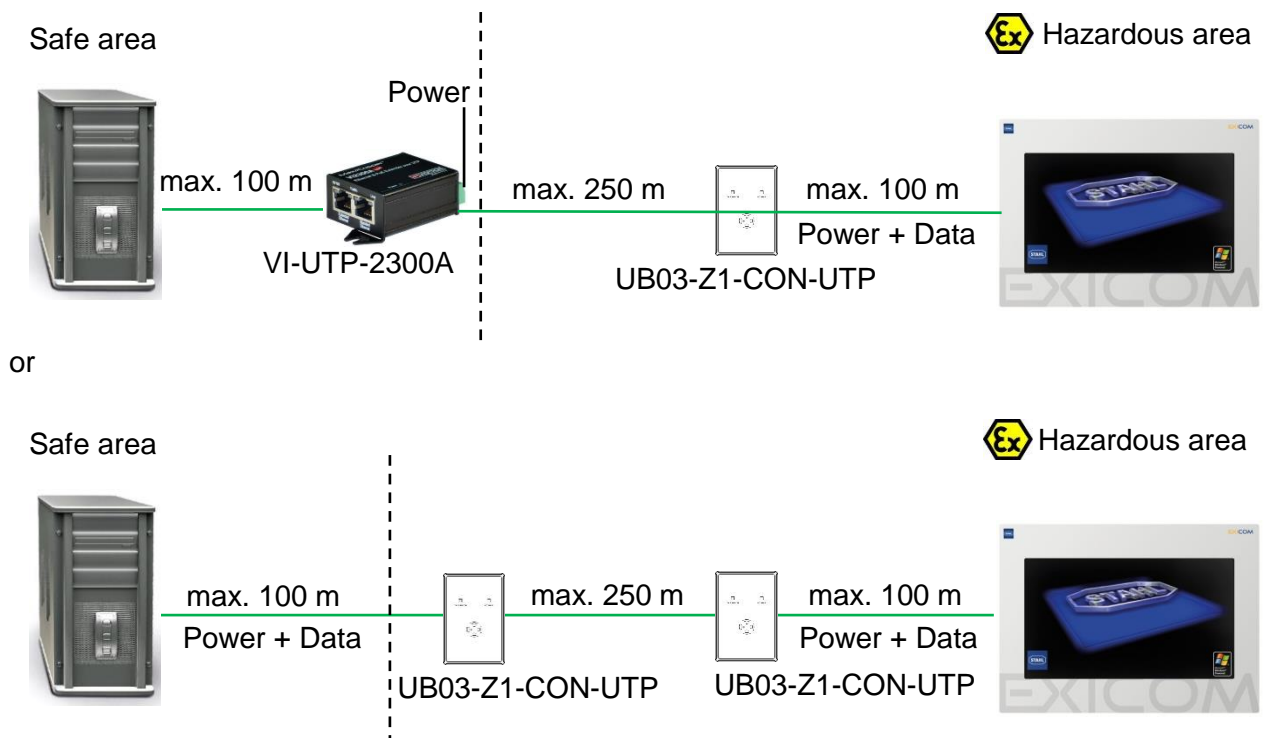
9.2.1 Status LED

LED colour	Designation	Meaning
 Green	Power	LED on if supply voltage applied
 Green	Link / Traffic	Link 10 MB, on
 Green	Link / Traffic	Traffic 10 MB, flashing
 Orange	Link / Traffic	Link 100 MB, on
 Orange	Link / Traffic	Traffic 100 MB, flashing

9.2.2 Connection overview terminal assignment

Power supply / extender cable						
Terminal	Pin	Signal	Typical colour coding		with Hybrid cable	Connection / function
X1	1	Power	Red		Wire 1	Power supply +5 / +12 / +24 VDC
	2	Ext-	White / Orange		-	Data cable - (1 pair, twisted)
	3	Ext+	Orange		-	Data cable + (1 pair, twisted)
	4	Power	Black		Wire 2	0 VDC power supply
Ethernet						
Terminal	Pin	Signal	Typical colour coding			Connection / function
			CAT6 cable	Profinet cable	with Hybrid cable	
X2 Data	1	TxD-B	White / Orange	Orange	White	Data out A
	2	TxD-A	Orange	White	Blue	Data out B
	3	RxD-B	White / Green	Blue	Yellow	Data in A
	4	RxD-A	Green	Yellow	Orange	Data in B

9.2.3 Connection diagram

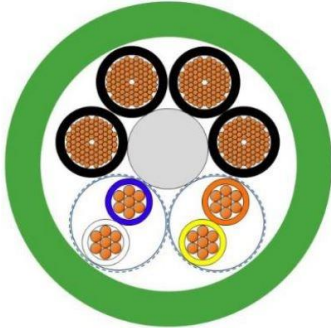


9.2.3.1 Cable connection

As the Ethernet extender UB03-Z1-CON-UTP only has two cable glands, a hybrid cable is used to supply the extender and data transmission between the extender and the HMI device / PC. The hybrid cable is used for the simultaneous transmission of data and power and therefore contains both data and power cores.

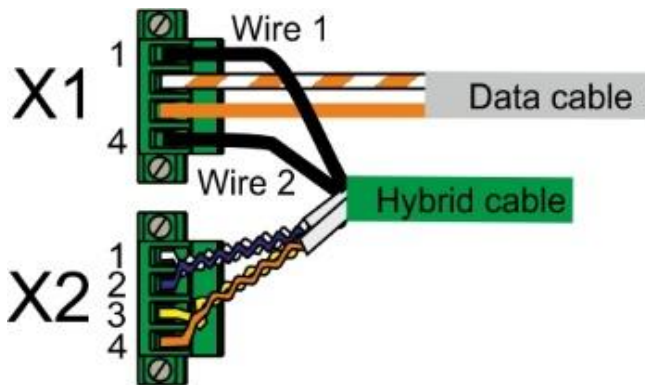
R. STAHL HMI uses the ETHERLINE® Cat. 5 FRNC HYBRID cable from Lapp Kabel.

Technical data:

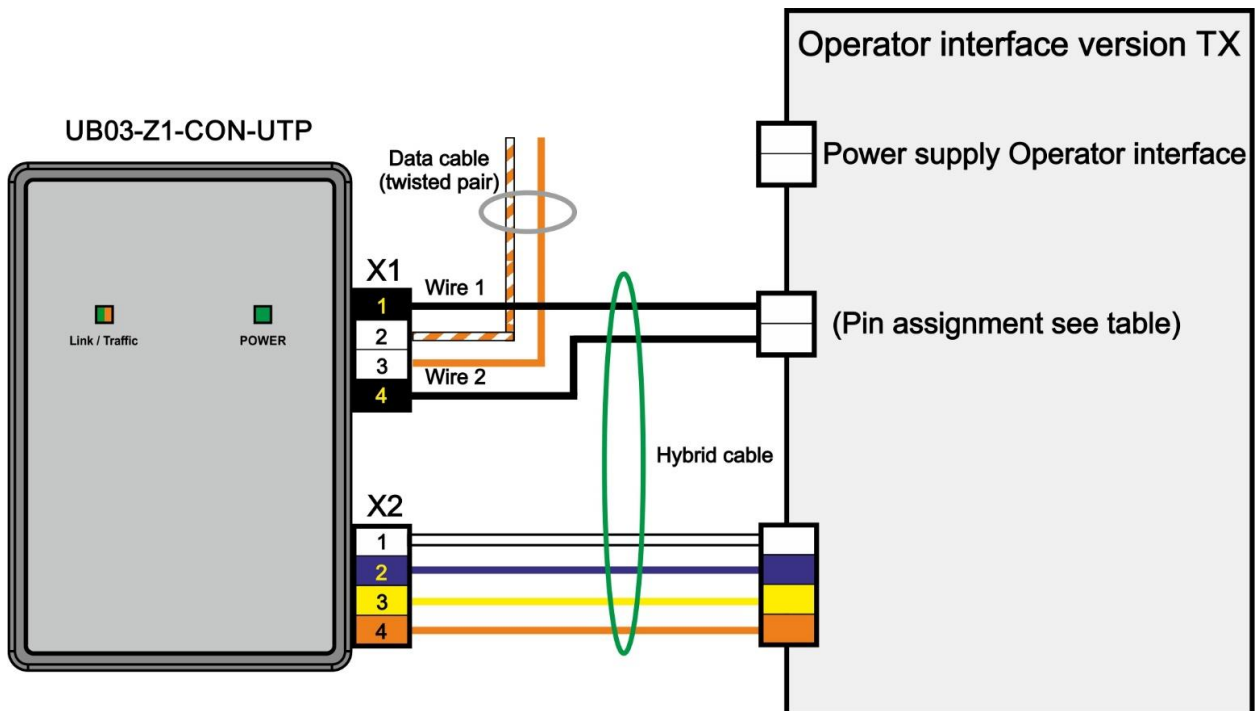
Function / Equipment	Description
Structure	
Cable type	ETHERLINE® Cat. 5 FRNC HYBRID
Data cores	CAT 5e
Outer diameter	10.3 mm (±0.3 mm)
Conductor	
Data cores	2x2x 22/7 AWG, stranded
Power cores	4x1.5 mm ²
Core labelling	
Data cores	1. pair: white / blue, 2. pair: yellow / orange
Power cores	Black with numbers
Stranding	Data cores twisted to pairs Data pairs and power cores twisted together with central filler
Screen	plastic laminated aluminium foil, on top braid of tinned copper wires
Conductor resistance	
Power cores	max. 14 Ω / km

Terminal assignment at UB03-Z1-CON-UTP:

Power supply				
Terminal	Pin	Signal	Hybrid cable power cores	Connection / function
X1	1	Power	Wire 1	Supply + VDC
	4	Power	Wire 2	Supply 0 VDC
Ethernet				
			Hybrid cable data cores	
X2 Data	1	TxD-B	White	Data out A
	2	TxD-A	Blue	Data out B
	3	RxD-B	Yellow	Data in A
	4	RxD-A	Orange	Data in B

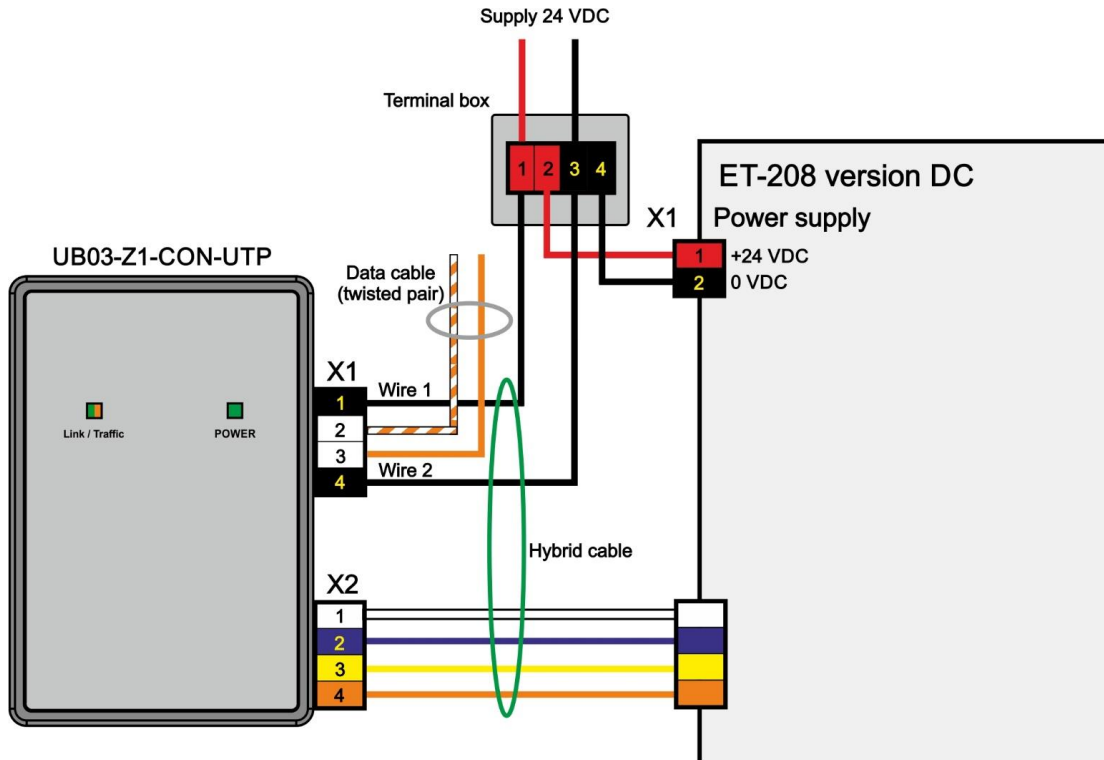


9.2.3.2 Connection of supply voltage DC to UB03-Z1-CON-UTP via Operator interface

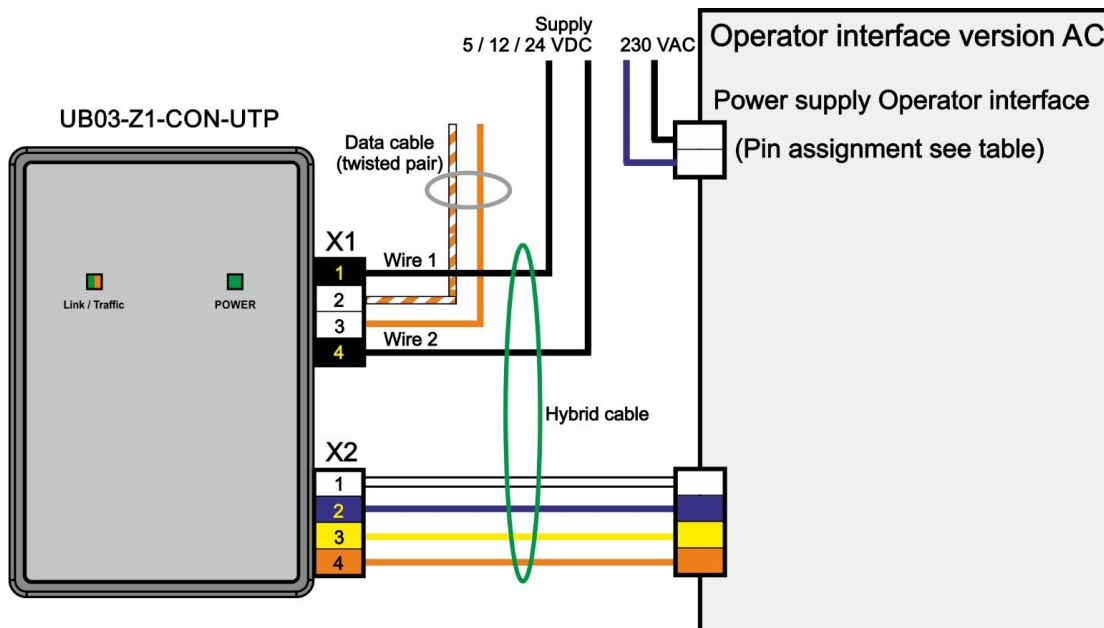


Pin assignment at Operator interface					
ET-/MT-xx6 / ORCA01*		ET-/MT-xx7		ET-/MT-xx8	
Terminal X1		Terminal X14		Terminal X4	
Pin	Designation	Pin	Designation	Pin	Designation
2	+24 VDC	1	+12 VDC	1	+12 VDC
4	- GND / 0V	2	GND	2	GND

9.2.3.3 Connection of supply voltage DC to UB03-Z1-CON-UTP for ET-208-DC



9.2.3.4 Connection of supply voltage to UB03-Z1-CON-UTP for device versions AC



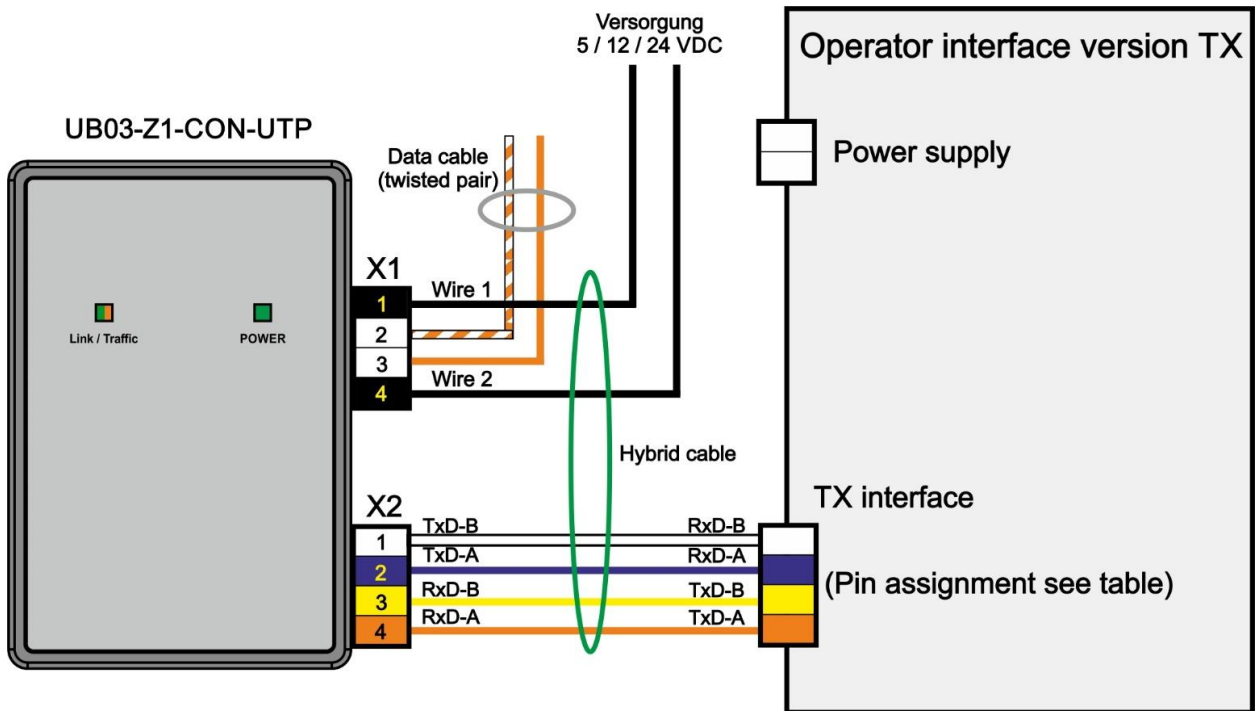
Pin assignment at Operator interface					
ORCA01* *1 / ET-/MT-xx8		ET-/MT-xx7		ET-208	
Terminal X1		Terminal X10 *2		Terminal X1	
Pin	Designation	Pin	Designation	Pin	Designation
1	L	1	L / +24V	1	L
3	N	2	N / 0V	2	N

NOTICE

*1 ORCA AC supply only with E-Box PRO

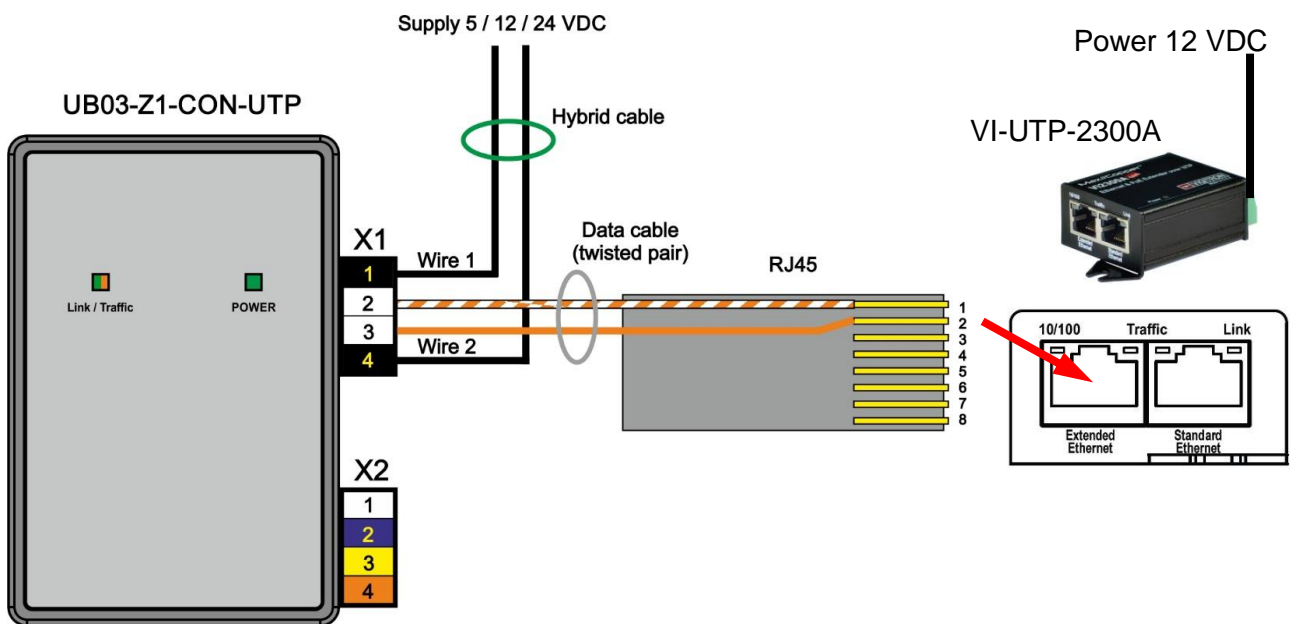
*2 On the MANTA Operator interface, the "AC 100-240V" marking is additionally marked for the AC connection !

9.2.3.5 Connection of UB03-Z1-CON-UTP TX interface to Operator interface TX

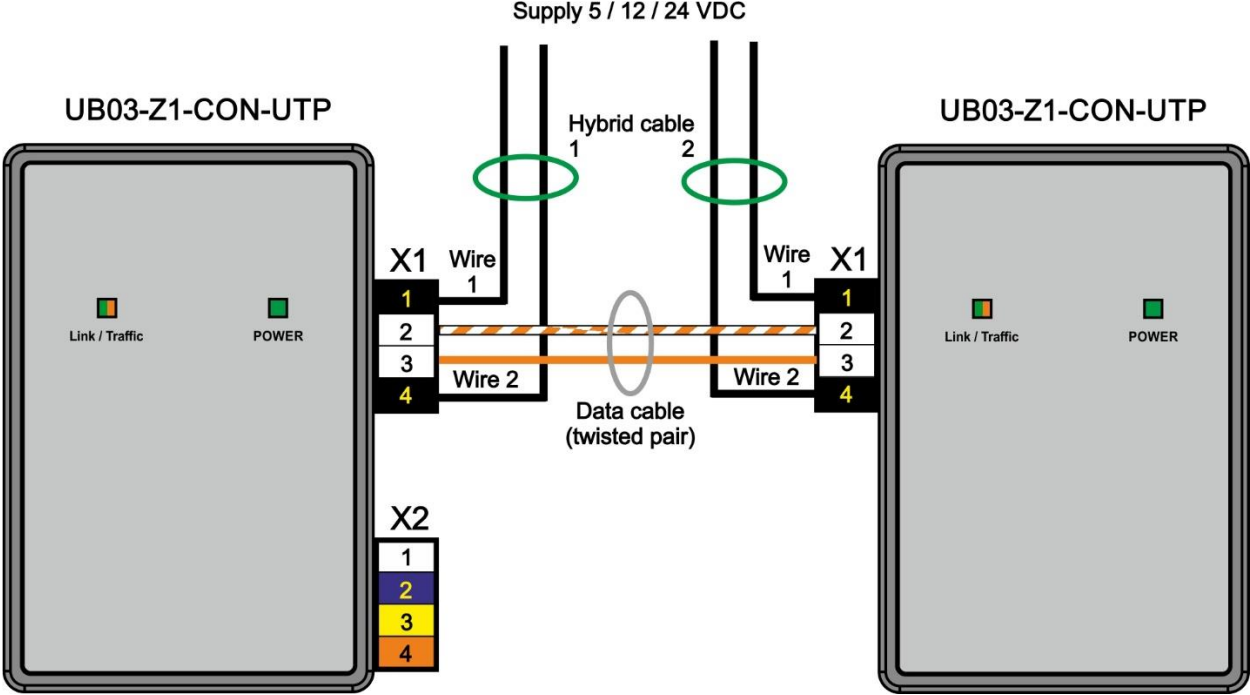


Pin assignment at Operator interface							
ET-208		ET-/MT-xx6		ET-/MT-xx7		ET-/MT-xx8 / ORCA01*	
Terminal X5		Terminal X11		Terminal X16		Terminal X2	
Pin	Designation	Pin	Designation	Pin	Designation	Pin	Designation
1	RxD (-)	4	RxD (-)	4	TRD1-	4	RX-
2	RxD (+)	3	RxD (+)	3	TRD1+	3	RX+
3	TxD (-)	2	TxD (-)	2	TRD0-	2	TX-
4	TxD (+)	1	TxD (+)	1	TRD0+	1	TX+

9.2.3.6 Connection of UB03-Z1-CON-UTP to VI-UTP-2300A



9.2.3.7 Connection of UB03-Z1-CON-UTP to UB03-Z1-CON-UTP



10 Safety information

10.1 Commissioning

No special conditions.

10.2 Use

See intended use.

10.3 Industrial Security

Our products with Industrial Security functions support the secure operation of plants, systems and equipment. Protection against cyber threats requires an all-encompassing Industrial Security concept. The key to a successful concept is integrated implementation, continuous maintenance and state-of-the-art technology. This is the responsibility of the plant operator.

The following are key issues for an effective Industrial Security concept:

- Prevention of unauthorised access to plants, systems, equipment and networks
- Systems, equipment and components should only be connected to the company intranet or the internet if and when required
- Employ protective measures such as firewalls and network segmentation
- Only use the latest software product versions
- Carry out software updates as soon as new versions are available
- Use standard user accounts for regular operation
- Use secure passwords
- Appropriate safeguarding of administrator accounts
- Application of security guidelines
- Other measures to be taken as required

R. STAHL uses Windows 10 for its products. The company does not develop any cryptographic functions. Neither does the company create any system configuration / system hardening software, provide security guidelines for these, nor does it refer to any such guidelines.

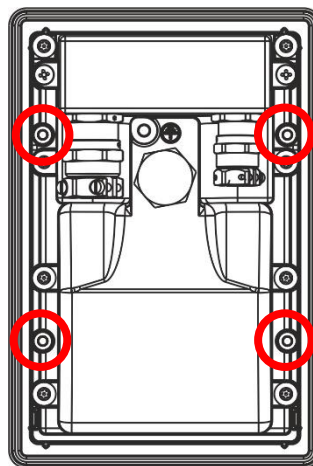
Moreover, R. STAHL is constantly working on enhancing its products, thereby contributing to system security and to minimizing the risk of cyber threats.

10.4 Mounting and dismounting

- The device may be installed and operated in any position.
- The device must be mounted securely. For this, use the threads and holes integrated into the enclosure.
- Mounting, connection, commissioning, repair and maintenance may only be carried out by qualified staff specially trained for this purpose.

10.4.1 Mounting screws / threaded holes

The corresponding threaded holes or mounting screws (supplied with the UB03-Z1-CON-UTP) are located at the following position:



! ATTENTION

All other screws of the devices must **NOT** be removed !

10.4.2 UB03-Z*-RFID-*

- The UB03-Z*-RFID-* devices can be mounted inside an enclosure with a suitable cut-out with the aid of a UB03 fixing frame. This mounting kit is approved for installation in Ex e, Ex p or Ex tb enclosures.
- The fixing frame is used to fix the device inside the cover cut-out of the enclosure. It is mounted from the back.
- The "30570305 Rev00 UB03 Wallmount Assembly Overview" illustration shows how the UB03-Z*-RFID-* is mounted. All screws of the fixing frame must be tightened with a torque of 1.5 Nm to 2.5 Nm.

10.4.3 UB03-Z1-CON-UTP

- The UB03-Z1-CON-UTP devices can be mounted on a wall by means of a wall fixing frame. This fixing frame is part of the delivery of the devices.
- The UB03-Z1-CON-UTP devices can be mounted in the fixing frame from both sides.
- The section "Wall mounting of UB03-Z1-CON-UTP" shows how the UB03-Z1-CON-UTP devices are mounted. All screws of the fixing frame must be tightened with a torque of 1.5 Nm to 2.5 Nm.

10.5 Installation

10.5.1 Details for connection compartments

The cover of the connection box is fitted with cable entries and blind plugs.

As an option, plugs and sockets may be equipped. The devices must be certified individually for the respective type of protection and also have IP66.

- The details of used associated equipment must be observed (for example permitted cable diameter for used cable glands, tighten rules, cable clamping).
- Country-specific regulations must be observed, in particular any ambient parameters that may be different (e.g. ambient temperature range).
- Unused openings must be closed by a suitable blind plug.
- Cable glands with conical threads must be installed with at least three thread turns.
- Cable glands with parallel threads must correspond to tolerance class 6H or above, and also have a seal.
- The mounting torque of the connection compartment cover screws is 1.5 Nm ... 2.5 Nm.

NOTICE

The unused wires of the connected cables must be isolated according to existing regulation. This may be by means of double isolation and mechanical fixing by shrink sleeving or vulcanisation. The shrink sleeving or the vulcanisation must be suitable for at least 500 V and fit in with the temperature parameters of the device. The shrink sleeving / vulcanisation must not be light blue. This must also be kept in mind when shortening the data cables.

10.5.1.1 Cable glands

- The tightening torques for the cable glands may vary depending on the cables and wires used. The users have to determine and apply the required torques themselves.
- In the case of ex-factory systems, all components are installed correctly and in accordance with applicable standards. Since storage or temperature etc. can have an impact on the cables and cable glands, the pre-installed screw connections must be checked and possibly tightened before commissioning.
- If they are too loose or too tight, the type of protection, sealing or strain relief might be negatively impacted.
- Cable glands with cap nut and without strain relief clamp should only be used for permanently installed cables and electrical lines. Installation of the required strain relief is the responsibility of the system set-up engineer.

10.5.2 Details for electrical connection of Interfaces X1, X2

Stripping length: 7 mm
Mounting torque: 0.5 ... 0.6 Nm

Connectable conductor cross section:

- rigid [mm²] or (AWG): 0.2 ... 2.5 or (24 ... 12)
- flexible [mm²] or (AWG): 0.2 ... 2.5 or (24 ... 12)

Multi-conductor connection (two conductor with the same cross section and conductor type):

- rigid [mm²] or (AWG): 0.2 ... 1.5 or (24 ... 16)
- flexible [mm²] or (AWG): 0.2...1.0 or (24... *1)

* Note: No direct equivalent AWG size listed in IEC 60079-7.

- The connectors are designed to be readily connected or disconnected without load.
- Disconnect the device from the mains prior to assembly, maintenance or repair.
- The connector fixing screws must be tightened.
- The maximum voltage of 250 V and a short current of 1500 A must not exceed at the place of installation.
- The stipulated tightening torques of the connection terminals must be observed and applied. Again, they must be checked and possibly adjusted before commissioning.

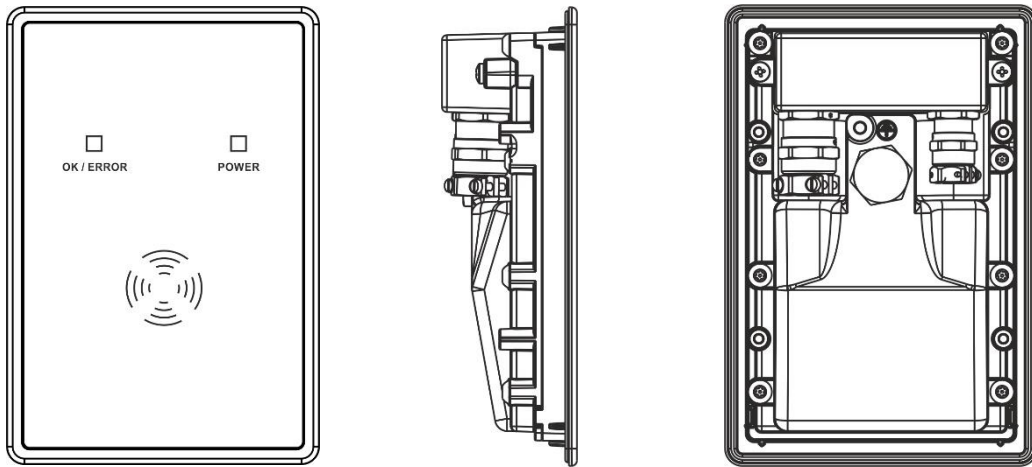
10.5.3 Earthing


The Earthing of the devices must be effected with a core cross section of at least 4 mm² or in line with applicable standards. An external earth connection facility is provided.

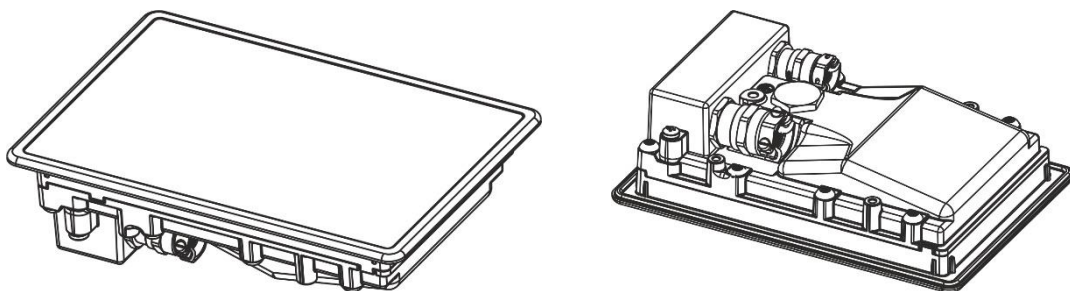
11 Mechanical data

11.1 Views

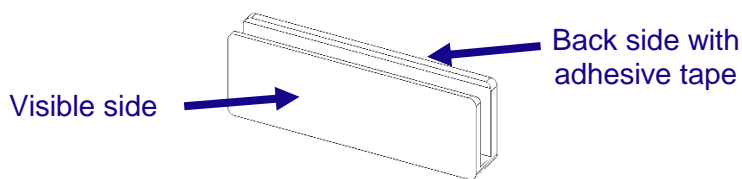
11.1.1 UB03-*



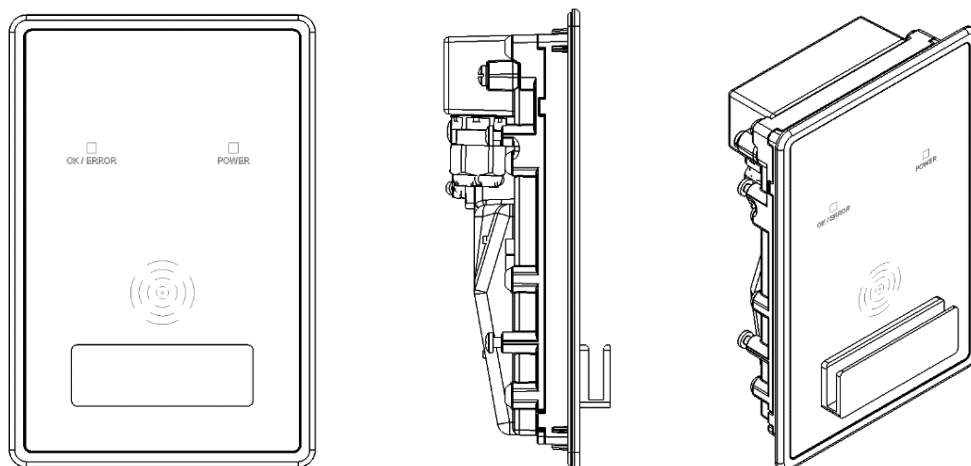
 NOTICE	<p>The left LED of the UB03-Z1-CON-UTP device is marked with "Link / Traffic".</p>
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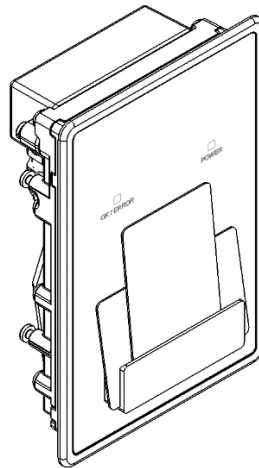
11.1.2 Card holder



11.1.3 UB03-*-RFID with card holder



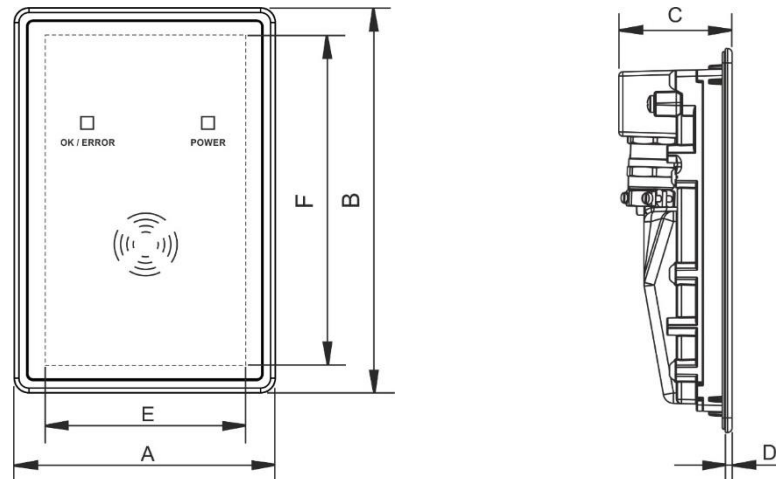
Card position vertical or horizontal:



11.2 Dimensions

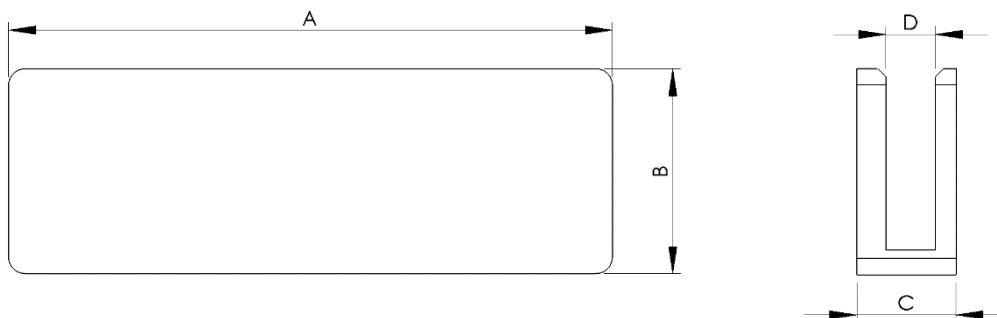
All dimensions in mm.

11.2.1 UB03-*



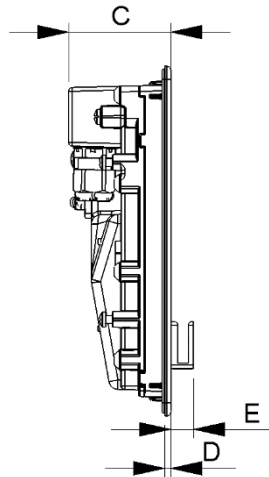
Front plate		Depth of device	Front plate thickness	Cut-out	
Width	Height			Width	Height
A	B	C	D	E	F
125	185	54.2	3.2	110 (+0.5 / -0.3)	170 (+0.5 / -0.3)

11.2.2 Card holder



A	B	C	D
74	25	12	6

11.2.3 UB03-*-RFID with card holder



C	D	E
54.2	3.2	12

11.3 Mounting instruction card holder

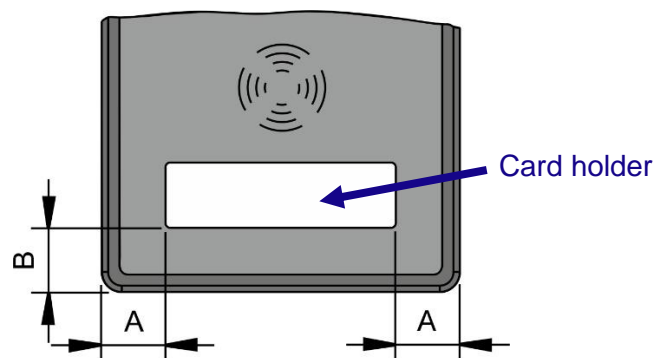


Do not remove the protective film from the visible surface during assembly !
No scratches allowed on the visible surface !

- Clean mounting surface
- Remove the protective paper from the adhesive tape (on the back side of the card holder)
- Glue the card holder at the recommended mounting position
- Wait 24 hours before use (adhesive strength increases)
- Observe the conditions of the conformity assessment (see [Conformity assessment](#)) !

11.3.1 Recommended mounting position

11.3.1.1 For UB03-*-RFID

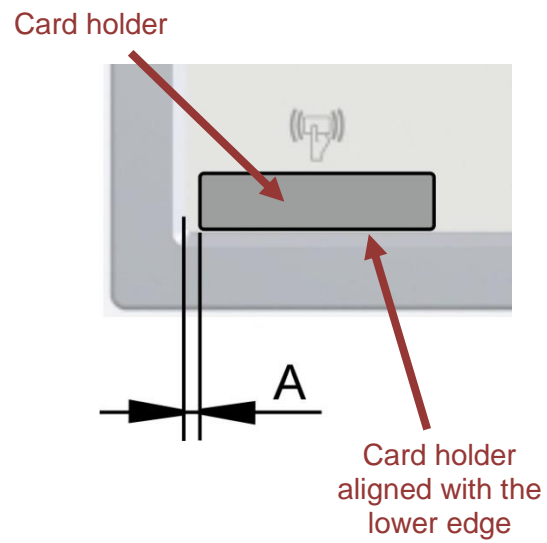


A	B
25.5	25

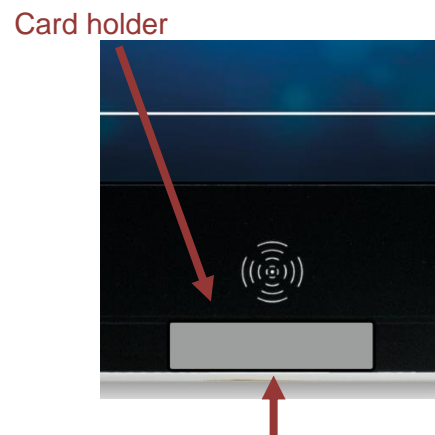
11.3.1.2 For SHARK operating device x98



A = 7 mm from the edge



11.3.1.3 For ORCA01* operating device 22"




- Card holder aligned with bottom edge
- centered below the card reader symbol


12 Maintenance, overhaul and repair

The devices are maintenance-free across their entire lifespan. The following must be checked during maintenance work:

- a. Damage to the seals
- b. Display damage
- c. All screws are tightened fast
- d. All cables and lines are properly connected and undamaged

 CAUTION	In case of damage or modification to the delivery state, immediately decommission the pushbutton and contact the manufacturer.
	If the device leaks filler in the shape of small glass beads it must be decommissioned immediately.

12.1 Damaged sealing

 NOTICE	If a defective seal is found on a device that has been returned to the manufacturer, an agreement is made with the customer as to whether it should be repaired (replaced).
	If this exchange is not necessary, the option "No hazloc approved panel mount" is marked on the device by the manufacturer.
	The device is only approved for installation inside an Ex e, Ex p or Ex tb enclosure if no "No hazloc approved panel mount" option is indicated on the device.

13 Adjustment

not applicable

14 Training instructions

not applicable

15 Special conditions of use

The cover of the connection box is fitted with cable entries and blind plugs.

As an option, plugs and sockets may be equipped. The devices must be certified individually for the respective type of protection and also have IP66.

The UB03-Z*-RFID-* devices can be mounted inside an enclosure with a suitable cut-out with the aid of a UB03 fixing frame. This mounting kit is approved for installation in Ex e, Ex p or Ex tb enclosures.

16 Special tools

not applicable

17 Cells and Batteries

not applicable

18 Disposal / Restricted substances

Disposal of old electric and electronic devices, packaging and used parts is subject to regulations valid in whichever country the device has been installed.

For countries under the jurisdiction of the EU the corresponding WEEE directive applies.

The devices are classified according to the table below:

Directive	WEEE II directive 2012/19/EU
Valid	from 2018-08-15
Category	SG5 Small devices < 50 cm

R. STAHL HMI Systems GmbH meets the requirements of directive 2012/19/EU (WEEE) and is registered under the number DE 15180083.

We shall take back our devices according to our General Terms and Conditions.

18.1 Declaration of substances and restricted substances

The present declaration is based on the procedure described in the international standard and directives as listed in the table below:

- IEC 62474 : 2018 (DIN EN IEC 62474 : 2019-09)
- (EG) Nr. 1907/2006 (REACH)
- Directive 2011/65/EU (RoHS)
- Resolution MEPC.269(68) "International Maritime Organization" (IMO); particularly "2015 Guidelines for the Development of the Inventory of the Hazardous Materials" (IHM)

18.1.1 Declarable substance groups

Component	Name	Mass (g)	Declarable Substance Groups and Substances (IEC 62474 database)	CAS No.	Mass %	Exemption (acc. to directive)
-	-	-	No SVHC material existing	-	-	-

18.1.2 RoHS directive 2011/65/EC

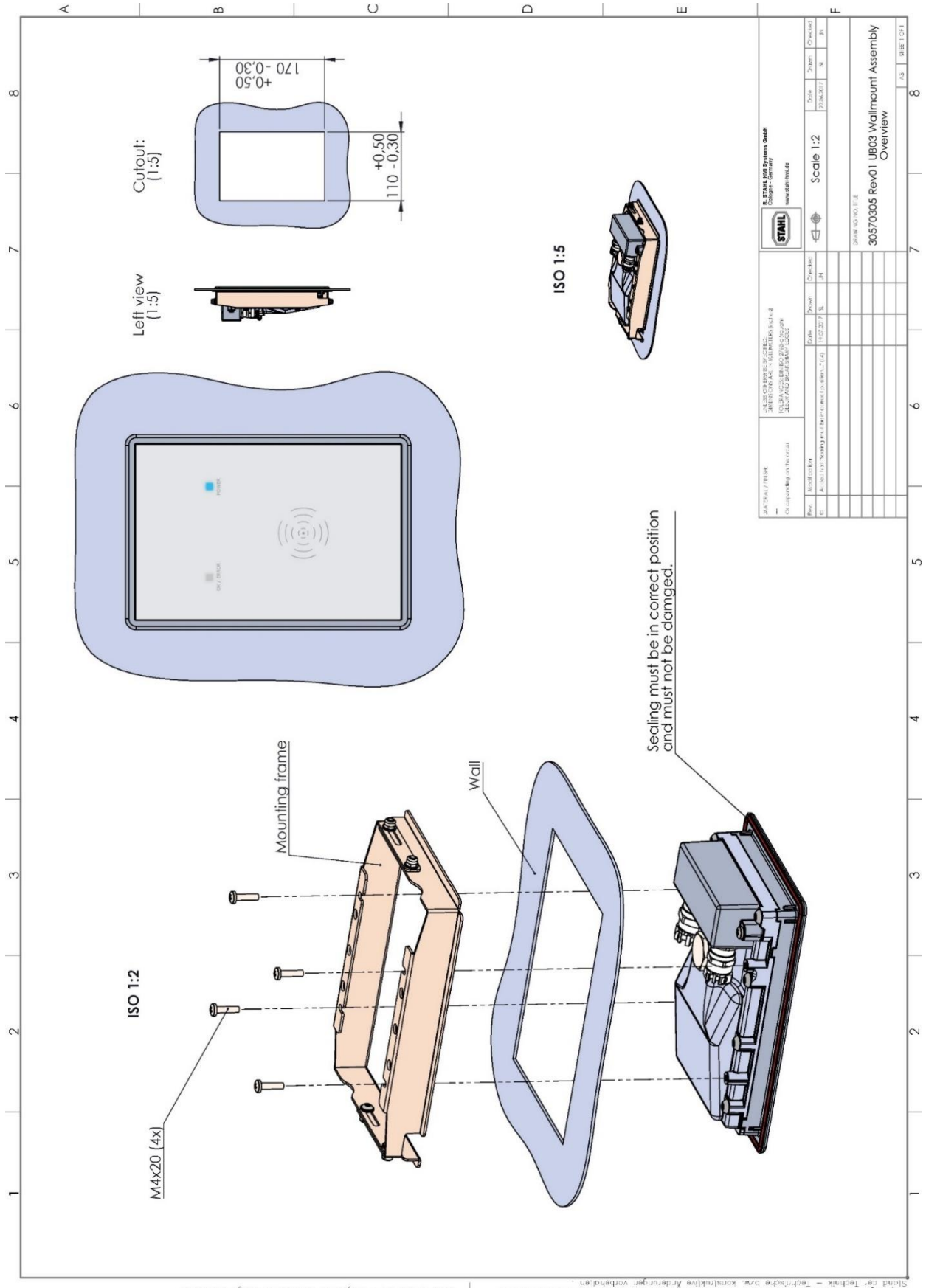
The devices meet the requirements of RoHS Directive 2011/65/EU.

18.1.3 IMO Resolution MEPC.269(68)

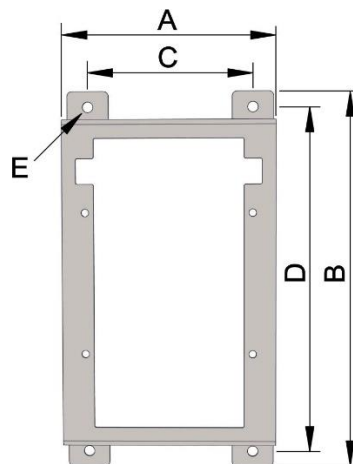
The devices meet the requirements of the MEPC.269(68) Resolution of the "International Maritime Organization" (IMO), in particular the "2015 Guidelines for the Development of the Inventory of the Hazardous Materials" (IHM).

19 Drawings

19.1 Installation with UB03-Z*-RFID-* fixing frame

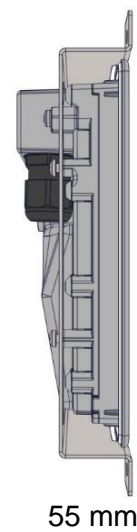
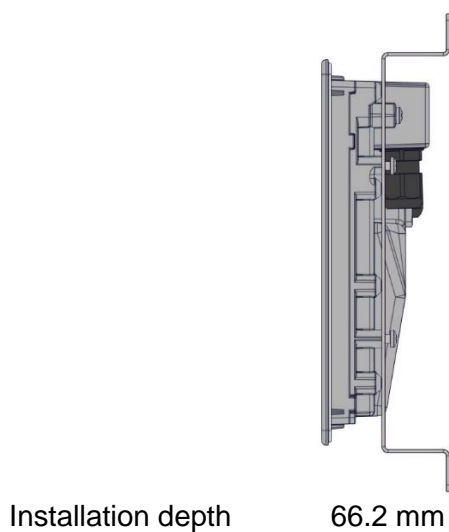
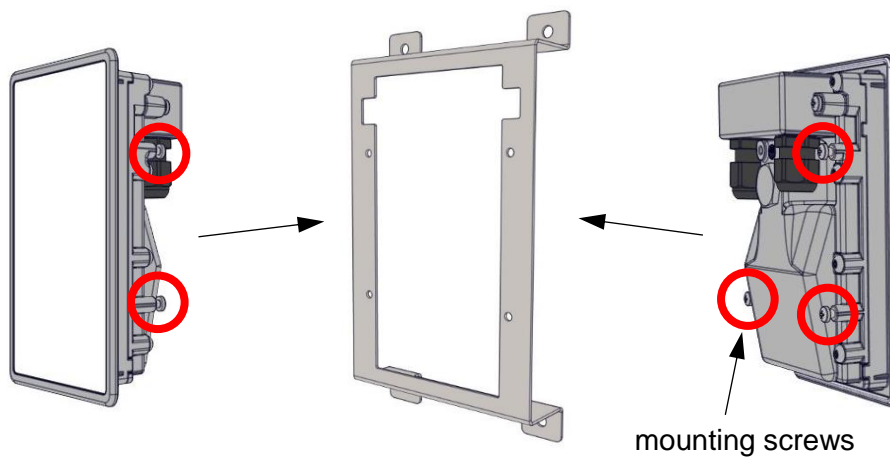


19.2 Wall mounting of UB03-Z1-CON-UTP



Dimensions	A	B	C	D	E
	125 mm	230 mm	100 mm	211 mm	4x Ø 6 mm

NOTICE The UB03-Z1-CON-UTP device can be mounted inside the fixing frame from both sides.



20 Declaration of EC conformity

20.1 UB03-Z1-RFID*

EU-Konformitätserklärung
EU Declaration of Conformity
Déclaration de Conformité UE



R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany

erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: Universal Box RFID

that the product:

que le produit:

Typ(en), *type(s)*, *type(s)*: UB03-Z1-RFID-*

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.

is in conformity with the requirements of the following directives and standards.

est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / Directive(s) / Directive(s)		Norm(en) / Standard(s) / Norme(s)	
2014/34/EU	ATEX-Richtlinie	EN 60079-0:2012 + A11:2013	Das Produkt entspricht Anforderungen aus: <i>Product corresponds to requirements from:</i> <i>Produit correspond aux exigences:</i> EN IEC 60079-0:2018 EN IEC 60079-7:2015 + A1:2018
2014/34/EU	ATEX Directive	EN 60079-5:2015	
2014/34/EU	Directive ATEX	EN 60079-7:2015	
		EN 60079-31:2014	

Kennzeichnung, *marking, marquage:*

II 2G Ex eb q IIC T4 Gb
 II 2D Ex tb IIIC T115°C Db

0158

EU-Baumusterprüfbescheinigung:

EU Type Examination Certificate:

Attestation d'examen UE de type:

BVS 18 ATEX E 001

(DEKRA EXAM GmbH

Dinnendahlstraße 9, 44809 Bochum, Germany, NB0158)

2014/30/EU	EMV-Richtlinie	EN 61000-6-2:2005
2014/30/EU	EMC Directive	EN 61000-6-4:2011
2014/30/EU	Directive CEM	
2014/53/EU	Funkanlagen-Richtlinie	ETSI EN 300 330 V2.1.1
2014/53/EU	Radio Equipment Directive	ETSI EN 301 489-1 V2.2.0
2014/53/EU	Directive Équipement Radioélectrique	ETSI EN 301 489-3 V2.1.1
Produktnormen nach Niederspannungsrichtlinie: <i>Product standards according to Low Voltage Directive:</i> <i>Normes des produit pour la Directive Basse Tension:</i>		EN 62368-1: 2014/AC: 2015/A11: 2017
Produktnormen nach RoHS-Richtlinie (2011/65/EU): <i>Product standards according to RoHS Directive:</i> <i>Normes des produit pour la Directive RoHS:</i>		EN IEC 63000:2018

Für spezifische Merkmale und Bedingungen siehe Betriebsanleitung.

For specific characteristics and conditions see operating instructions.

Pour les caractéristiques et conditions spécifiques, voir le mode d'emploi.

Köln, 2020-12-16

i.V.

i.V.

Ort und Datum

J. Düren
 Technical Director

A. Jung
 Ex Representative

Place and date

Lieu et date

20.2 UB03-Z2-RFID*

EU-Konformitätserklärung
EU Declaration of Conformity
Déclaration de Conformité UE



R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany
 erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: Universal Box RFID
that the product:
que le produit:

Typ(en), *type(s)*, *type(s)*: UB03-Z2-RFID-*

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / Directive(s) / Directive(s)	Norm(en) / Standard(s) / Norme(s)
2014/34/EU ATEX-Richtlinie 2014/34/EU ATEX Directive 2014/34/UE Directive ATEX	EN 60079-0:2012 + A11:2013 EN 60079-7:2015 EN 60079-15:2010 EN 60079-31:2014 Das Produkt entspricht Anforderungen aus: <i>Product corresponds to requirements from:</i> <i>Produit correspond aux exigences:</i> EN IEC 60079-0:2018 EN IEC 60079-7:2015 + A1:2018 DIN EN 60079-15:2020

Kennzeichnung, *marking, marquage*: II 3G Ex ec nC IIC T4 Gc
 II 3D Ex tc IIIC T115°C Dc

EU-Baumusterprüfbescheinigung: **BVS 18 ATEX E 002**
EU Type Examination Certificate: (DEKRA EXAM GmbH
Attestation d'examen UE de type: Dinnendahlstraße 9, 44809 Bochum, Germany, NB0158)

2014/30/EU EMV-Richtlinie 2014/30/EU EMC Directive 2014/30/UE Directive CEM	EN 61000-6-2:2005 EN 61000-6-4:2011
2014/53/EU Funkanlagen-Richtlinie 2014/53/EU Radio Equipment Directive 2014/53/UE Directive Équipement Radioélectrique	ETSI EN 300 330 V2.1.1 ETSI EN 301 489-1 V2.2.0 ETSI EN 301 489-3 V2.1.1
Produktnormen nach Niederspannungsrichtlinie: <i>Product standards according to Low Voltage Directive:</i> <i>Normes des produit pour la Directive Basse Tension:</i>	EN 62368-1: 2014/AC: 2015/A11: 2017
Produktnormen nach RoHS-Richtlinie (2011/65/EU): <i>Product standards according to RoHS Directive:</i> <i>Normes des produit pour la Directive RoHS:</i>	EN IEC 63000:2018

Für spezifische Merkmale und Bedingungen siehe Betriebsanleitung.
For specific characteristics and conditions see operating instructions.
Pour les caractéristiques et conditions spécifiques, voir le mode d'emploi.

Köln, 2020-12-16

i.V.

i.V.

Ort und Datum
Place and date
Lieu et date

J. Düren
 Technical Director

A. Jung
 Ex Representative

20.3 UB03-Z1-CON-UTP

EU-Konformitätserklärung
EU Declaration of Conformity
Déclaration de Conformité UE



R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany
 erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: Universal Box
that the product:
que le produit:

Typ(en), *type(s)*, *type(s)*: UB03-Z1-CON-UTP*

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / Directive(s) / Directive(s)		Norm(en) / Standard(s) / Norme(s)	
2014/34/EU 2014/34/EU 2014/34/UE	ATEX-Richtlinie ATEX Directive Directive ATEX	EN 60079-0:2012 + A11:2013 EN 60079-5:2015 EN 60079-7:2015 EN 60079-31:2014	Das Produkt entspricht Anforderungen aus: <i>Product corresponds to requirements from:</i> <i>Produit correspond aux exigences:</i> EN IEC 60079-0:2018 EN IEC 60079-7:2015 + A1:2018

Kennzeichnung, *marking, marquage*: II 2G Ex eb q IIC T4 Gb II 2D Ex tb IIIC T115°C Db **CE 0158**

EU-Baumusterprüfbescheinigung: **BVS 18 ATEX E 001**
EU Type Examination Certificate: (DEKRA EXAM GmbH)
Attestation d'examen UE de type: Dinnendahlstraße 9, 44809 Bochum, Germany, NB0158)

2014/30/EU 2014/30/EU 2014/30/UE	EMV-Richtlinie EMC Directive Directive CEM	EN 61000-6-2:2005 EN 61000-6-4:2011	
Produktnormen nach RoHS-Richtlinie (2011/65/EU): <i>Product standards according to RoHS Directive:</i> <i>Normes des produit pour la Directive RoHS:</i>		EN IEC 63000:2018	

Für spezifische Merkmale und Bedingungen siehe Betriebsanleitung.
For specific characteristics and conditions see operating instructions.
Pour les caractéristiques et conditions spécifiques, voir le mode d'emploi.

Köln, 2020-12-15

i.V.

i.V.

Ort und Datum
Place and date
Lieu et date

J. Düren
 Technical Director

A. Jung
 Ex Representative

20.4 RCM

Supplier's declaration of conformity



As required by the following Notices:

- > *Radiocommunications (Compliance Labelling - Devices) Notice 2014* made under section 182 of the *Radiocommunications Act 1992*;
- > *Radiocommunications Labelling (Electromagnetic Compatibility) Notice 2017* made under section 182 of the *Radiocommunications Act 1992*
- > *Radiocommunications (Compliance Labelling - Electromagnetic Radiation) Notice 2014* made under section 182 of the *Radiocommunications Act 1992* and
- > *Telecommunications (Labelling Notice for Customer Equipment and Customer Cabling) Instrument 2015* made under section 407 of the *Telecommunications Act 1997*.

Instructions for completion

- > *Do not return this form to the ACMA.* This completed form must be retained by the supplier as part of the documentation required for the compliance records and must be made available for inspection by the ACMA when requested.

Supplier's details (manufacturer, importer or authorised agent)

Company Name (OR INDIVIDUAL)

R. STAHL Australia Pty Ltd
TRADING AS R. STAHL HMI Systems GmbH

ACN/ARBN

ABN 81150955838

OR

New Zealand IRDN

--

Street Address (AUSTRALIAN or NEW ZEALAND)

848 Old Princes Highway
Sutherland, NSW
POSTCODE 2232
Phone: +61 2 4254 4777

Product details and date of manufacture

Product description – brand name, type, current model, lot, batch or serial number (if available), software/firmware version (if applicable)

Universal Box RFID
UB03-Z1-RFID-*, UB03-Z2-RFID-*

Compliance – applicable standards and other supporting documents

Evidence of compliance with applicable standards may be demonstrated by test reports, endorsed/accredited test reports, certification/competent body statements.

Having had regard to these documents, I am satisfied the above mentioned product complies with the requirements of the relevant ACMA Standards made under the *Radiocommunications Act 1992* and the *Telecommunications Act 1997*.

List the details of the documents the above statement was made, including the standard title, number and, if applicable, number of the test report/endorsed test report or certification/competent body statement

EN 61000-6-4:2011-09; EN 55032 (based on an ETSI EN 301 489-1 test report, referred to ACMA statement from 07.09.2018, Ref: CSC2018-27820, CRM:001214006281)

Declaration

I hereby declare that:

1. I am authorised to make this declaration on behalf of the Company mentioned above,
2. the contents of this form are true and correct, and
3. the product mentioned above complies with the applicable above mentioned standards and all products supplied under this declaration will be identical to the product identified above.

Note: Under section 137.1 of the *Criminal Code Act 1995*, it is an offence to knowingly provide false or misleading information to a Commonwealth entity.
Penalty: 12 months imprisonment

 SIGNATURE OF SUPPLIER OR AGENT	Managing Director POSITION IN ORGANISATION
John Zagame PRINT NAME	2018-10-15 DATE

The *Privacy Act 1988* (Cth) (the Privacy Act) imposes obligations on the ACMA in relation to the collection, security, quality, access, use and disclosure of personal information. These obligations are detailed in the Australian Privacy Principles.

The ACMA may only collect personal information if it is reasonably necessary for, or directly related to, one or more of the ACMA's functions or activities.

The purpose of collecting the personal information in this form is to ensure the supplier is identified in the 'Declaration of conformity'. If this Declaration of Conformity is not completed and the requested information is not provided, a compliance label cannot be applied.

Further information on the Privacy Act and the ACMA's Privacy Policy is available at www.acma.gov.au/privacypolicy. The Privacy Policy contains details about how you may access personal information about you that is held by the ACMA, and seek the correction of such information. It also explains how you may complain about a breach of the Privacy Act and how we will deal with such a complaint.

Should you have any questions in this regard, please contact the ACMA's privacy contact officer on telephone on 1800 226 667 or by email at privacy@acma.gov.au.

20.5 CCC

20.5.1 UB03-Z1-*

20.5.1.1 English version

	
CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION	
No.: 2021312314000072	
Applicant	R. STAHL HMI Systems GmbH
Address	Adolf-Grimme-Allee 8, 50829 Koln, Germany
Manufacturer	R. STAHL HMI Systems GmbH
Address	Adolf-Grimme-Allee 8, 50829 Koln, Germany
Production Factory	R. STAHL HMI Systems GmbH
Production Address	Adolf-Grimme-Allee 8, 50829 Koln, Germany
Product	Universal Box
Model/Type	UB03-Z1-*
Ex marking	Ex eb q IIC T4 Gb, Ex tb IIIC T115°C Db
Reference Standards	GB/T 3836.1-2021, GB/T 3836.3-2021, GB/T 3836.7-2017, GB/T 3836.31-2021
Certification mode	Type Test + Initial Factory Inspection + Post-Certification Surveillance
The product(s) is verified and certified according to CNCA-C23-01: 2019 <i>China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product</i> and CNEX-C2301-2019 <i>Guideline of China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product</i> .	
See Annex for the detailed product information (3 pages)	
Initial issue date: 2021-05-08	
Issued date: 2023-04-29	Valid to: 2026-05-07
The validity of this certificate is maintained through the regular supervision of the issuing authority during the validity period.	
Where any discrepancy arises between the English translation and the original Chinese version, the Chinese version shall prevail.	
Director: 	
	
Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.	
	
http://www.ccc-cnex.com ccc.china-ex.com	Add: No. 20, North Zhongjing Road, Nanyang, Henan, P. R. China P.C.: 473008 Tel: 0377-63239734
	Email: ccc@cn-ex.com

CN 0001905



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION
(Annex)

No.: 2021312314000072

Page 1 of 3

Product information:

1. This certificate covers the following models:

- UB03-Z1-*

Subject and type:

Type	UB03	a	b	*
		1	2	3
1	Z1=Zone 1, Zone 21 , EPL Gb, Db version			
2	RFID-C3-USB = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-USB = RFID 13.56 MHz MIFARE / DESFire / EV1 , ASCII RFID-C5-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-USB = RFID 13.56 MHz NFC RFID-C3-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, ASCII RFID-C5-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-RS422 = RFID 13.56 MHz NFC CON-USB= Converter USB- 10/100BaseTX CON-UTP =Converter UTP- 10/100BaseTX AMP-Audio = Audio amplifier DSP-10 =Power supply III-LED = Illumination LED			
3	Any alphanumeric or symbolic characters, without relevance for explosion protection.			

Parameters:

Electrical data:

Issued date: 2023-04-29

Director:



Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.



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Tel: 0377-63239734

Email: ccc@cn-ex.com



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION
(Annex)

No.: 2021312314000072

Page 2 of 3

Terminal block X1. pin1	
Non-intrinsically safe supply circuit (Power)	
Nominal voltage	5~30V DC
Nominal current	≤ 1 A
Nominal power	≤ 30 W
Max. input voltage U_m	250V AC
Terminal block X1. pin 2 and 3	
Non-intrinsically safe interfaces data	
Nominal voltage	5V AC/DC
Max. input voltage U_m	250V AC
Terminal block X1. pin 2 and 3 (for "UB03-*--RFID-*--RS422*" only)	
Non-intrinsically safe interfaces data	
Max. voltage	30V AC/DC
Max. current	≤ 1 A
Terminal block X1. pin 2 and 3 (for "UB03-*--AMP-Audio*" and "UB03-*--DSP-10*" only)	
Non-intrinsically safe interfaces data	
Max. output voltage	30V AC/DC
Terminal block X2	
Non-intrinsically safe interfaces data	
Nominal voltage	5V AC/DC
Max. input voltage U_m	250V AC

Issued date: 2023-04-29

Director:



Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.



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Tel: 0377-63239734

P.C.: 473008
Email: ccc@cn-ex.com



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION
(Annex)

No.: 2021312314000072

Page 3 of 3

Ambient temperature: -40°C ~ +70°C

Ingress protection: IP66

Ex marking: Ex eb q IIC T4 Gb, Ex tb IIIC T115°C Db

- Producers should organize production in accordance with the technical documents approved by the certification body.

2. Specific conditions of safety use:

- See instruction.

3. Certificate related report(s):

- Type test report: CQST2103C005, CQST2103C005/01

- Factory inspection report: CN2023Q030119

4. Certificate change information:

- 1st change on April 29, 2023: Updated the standards for certification.

Issued date: 2023-04-29

Director:



Nanyang Explosion Protected Electrical
Apparatus Research Institute Co.,Ltd.



<http://www.ccc-cnex.com>
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Add: No. 20, North Zhongjing Road, Nanyang, Henan, P. R. China
Tel: 0377-63239734

P.C.: 473008
Email: ccc@cn-ex.com

20.5.1.2 Chinese version



中国国家强制性产品认证证书

编 号: 2021312314000072

委 托 人	R. STAHL HMI Systems GmbH
地 址	Adolf-Grimme-Allee 8, 50829 Köln, Germany
生 产 者	R. STAHL HMI Systems GmbH
地 址	Adolf-Grimme-Allee 8, 50829 Köln, Germany
生 产 企 业	R. STAHL HMI Systems GmbH
生 产 地 址	Adolf-Grimme-Allee 8, 50829 Köln, Germany
产 品 名 称	通用盒
型 号 规 格	UB03-Z1-*
防 爆 标 志	Ex eb q IIC T4 Gb, Ex tb IIIC T115°C Db
依 据 标 准	GB/T 3836.1-2021, GB/T 3836.3-2021, GB/T 3836.7-2017, GB/T 3836.31-2021

认 证 模 式 型式试验+初始工厂检查+获证后监督

上述产品符合 CNCA-C23-01: 2019《强制性产品认证实施规则 防爆电气》
和 CNEX-C2301-2019《强制性产品认证实施细则 防爆电气》的要求。

产品相关信息见附页 (共 3 页)。

首次发证日期: 2021 年 05 月 08 日

颁发日期: 2023 年 04 月 29 日 有效期至: 2026 年 05 月 07 日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。



南阳防爆电气研究所有限公司



主任: 



中国认可
产品
PRODUCT
CNAS C208-P

网址: www.ccc-cnex.com
ccc.china-ex.com
地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734
邮政编码: 473008
邮箱: ccc@cn-ex.com

CN 0025800



中国国家强制性产品认证证书 (附页)

编 号：2021312314000072

第 1 页 共 3 页

产品相关信息:

1、本证书覆盖产品如下:

- UB03-Z1-*

型号及命名:

型号	UB03	a	b	*
		1	2	3
1	Z1=1 区, 21 区, 设备保护级别为 Gb, Db			
2	RFID-C3-USB = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-USB = RFID 13.56 MHz MIFARE / DESFire / EV1, ASCII RFID-C5-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-USB = RFID 13.56 MHz NFC RFID-C3-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, ASCII RFID-C5-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-RS422 = RFID 13.56 MHz NFC CON-USB= 转换器 USB- 10/100BaseTX CON-UTP = 转换器 UTP- 10/100BaseTX AMP-Audio = 音频放大器 DSP-10 =电源 III-LED = LED 照明			
3	任何字母数字或符号字符, 与防爆无关。			

颁发日期: 2023 年 04 月 29 日

主任:



南阳防爆电气研究所有限公司



网址: www.ccc-cnex.com
ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com



中国国家强制性产品认证证书 (附页)

编 号：2021312314000072

第 2 页 共 3 页

参数：

电气数据：

接线端子 X1, 插脚 1	
非本质安全供电电路 (电源)	
额定电压	5~30V DC
额定电流	≤ 1 A
额定功率	≤ 30 W
最大输入电压 U_m	250V AC
接线端子 X1. 插脚 2 和 3	
非本质安全接口数据	
额定电压	5V AC/DC
最大输入电压 U_m	250V AC
接线端子 X1. 插脚 2 和 3 (仅适用于"UB03-*-RFID*-RS422**")	
非本质安全接口数据	
最大电压	30V AC/DC
最大电流	≤ 1 A
接线端子 X1. 插脚 2 和 3 (仅适用于"UB03-*-AMP Audio**"和"UB03-*-DSP-10**")	
非本质安全接口数据	
最大输出电压	30V AC/DC
接线端子 X2	
非本质安全接口数据	
额定电压	5V AC/DC

颁发日期：2023 年 04 月 29 日

主任： 



南阳防爆电气研究所有限公司



网址：www.ccc-cnex.com
ccc.china-ex.com

地址：中国河南省南阳市仲景北路20号
电话：0377-63239734

邮政编码：473008
邮箱：ccc@cn-ex.com



中国国家强制性产品认证证书 (附页)

编 号: 2021312314000072

第 3 页 共 3 页

最大输入电压 U_m	250V AC
--------------	---------

环境温度: $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$

外壳防护等级: IP66

防爆标志: Ex eb q IIC T4 Gb, Ex tb IIIIC T115 $^{\circ}\text{C}$ Db

- 生产者应按照认证机构批准的技术文件组织生产。

2、安全使用条件:

- 见产品使用说明书。

3、证书关联报告:

- 产品型式试验报告: CQST2103C005, CQST2103C005/01

- 工厂检查报告: CN2023Q030119

4、证书变更信息:

- 2023 年 04 月 29 日第 1 次变更: 产品认证依据标准变更。

颁发日期: 2023 年 04 月 29 日

主任:



南阳防爆电气研究所有限公司



网址: www.ccc-cnex.com
ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com

20.5.2 UB03-Z2-*

20.5.2.1 English version



CN 0001903



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION
(Annex)

No.: 2021312314000071

Page 1 of 3

Product information:

1. This certificate covers the following models:

- UB03-Z2-*

Subject and type:

Type	UB03	a	b	*
		1	2	3
1	Z2=Zone 2, Zone 22 , EPL Gc, Dc version			
2	RFID-C3-USB = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-USB = RFID 13.56 MHz MIFARE / DESFire / EV1 , ASCII RFID-C5-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-USB = RFID 13.56 MHz NFC RFID-C3-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, ASCII RFID-C5-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-RS422 = RFID 13.56 MHz NFC CON-USB= Converter USB- 10/100BaseTX CON-UTP =Converter UTP- 10/100BaseTX AMP-Audio = Audio amplifier DSP-10 =Power supply III-LED = Illumination LED			
3	Any alphanumeric or symbolic characters, without relevance for explosion protection.			

Parameters:

Electrical data:

Issued date: 2023-04-29

Director:



Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.



http://www.ccc-cnex.com
ccc.china-ex.com

Add: No. 20, North Zhongjing Road, Nanyang, Henan, P. R. China
Tel: 0377-63239734

P.C.: 473008
Email: ccc@cn-ex.com



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION
(Annex)

No.: 2021312314000071

Page 2 of 3

Terminal block X1. pin1	
Non-intrinsically safe supply circuit (Power)	
Nominal voltage	5~30V DC
Nominal current	≤ 1 A
Nominal power	≤ 30 W
Max. input voltage U_m	250V AC
Terminal block X1. pin 2 and 3	
Non-intrinsically safe interfaces data	
Nominal voltage	5V AC/DC
Max. input voltage U_m	250V AC
Terminal block X1. pin 2 and 3 (for "UB03-* -RFID-* -RS422*" only)	
Non-intrinsically safe interfaces data	
Max. voltage	30V AC/DC
Max. current	≤ 1 A
Terminal block X1. pin 2 and 3 (for "UB03-* -AMP-Audio*" and "UB03-* -DSP-10*" only)	
Non-intrinsically safe interfaces data	
Max. output voltage	30V AC/DC
Terminal block X2	
Non-intrinsically safe interfaces data	

Issued date: 2023-04-29

Director:



Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.



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ccc.china-ex.com

Add: No. 20, North Zhongjing Road, Nanyang, Henan, P. R. China P.C.: 473008
Tel: 0377-63239734 Email: ccc@cn-ex.com



CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION
(Annex)

No.: 2021312314000071

Page 3 of 3

Nominal voltage	5V AC/DC
Max. input voltage U_m	250V AC

Ingress protection: IP66

Ambient temperature: -40°C~+70°C

Ex marking: Ex ec nC IIC T4 Gc, Ex tc IIIC T115°C Dc

- Producers should organize production in accordance with the technical documents approved by the certification body.

2. Specific conditions of safety use:

- See instruction.

3. Certificate related report(s):

- Type test report: CQST2103C006, CQST2103C006/01

- Factory inspection report: CN2023Q030119

4. Certificate change information:

- 1st change on April 29, 2023: Updated the standards for certification.

Issued date: 2023-04-29

Director:



Nanyang Explosion Protected Electrical Apparatus Research Institute Co.,Ltd.




<http://www.ccc-cnex.com>
ccc.china-ex.com

Add: No. 20, North Zhongjing Road, Nanyang, Henan, P. R. China
Tel: 0377-63239734

P.C.: 473008
Email: ccc@cn-ex.com

20.5.2.2 Chinese version



中国国家强制性产品认证证书

编 号：2021312314000071

委 托 人	R. STAHL HMI Systems GmbH
地 址	Adolf-Grimme-Allee 8, 50829 Koln, Germany
生 产 者	R. STAHL HMI Systems GmbH
地 址	Adolf-Grimme-Allee 8, 50829 Koln, Germany
生 产 企 业	R. STAHL HMI Systems GmbH
生 产 地 址	Adolf-Grimme-Allee 8, 50829 Koln, Germany
产 品 名 称	通用盒
型 号 规 格	UB03-Z2-*
防 爆 标 志	Ex ec nC IIC T4 Gc, Ex tc IIIC T115°C Dc
依 据 标 准	GB/T 3836.1-2021, GB/T 3836.3-2021, GB/T 3836.8-2021, GB/T 3836.31-2021

认 证 模 式 型式试验+初始工厂检查+获证后监督

上述产品符合 CNCA-C23-01: 2019《强制性产品认证实施规则 防爆电气》
和 CNEX-C2301-2019《强制性产品认证实施细则 防爆电气》的要求。

产品相关信息见附页（共 3 页）。


首次发证日期：2021 年 05 月 08 日

颁发日期：2023 年 04 月 29 日 有效期至：2026 年 05 月 07 日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。



南阳防爆电气研究所有限公司



主任： 



中国认可
产品
PRODUCT
CNAS C208-P

网址：www.ccc-cnex.com
ccc.china-ex.com
地址：中国河南省南阳市仲景北路20号
电话：0377-63239734
邮政编码：473008
邮箱：ccc@cn-ex.com

CN 0025799



中国国家强制性产品认证证书 (附页)

编 号: 2021312314000071

第 1 页 共 3 页

产品相关信息:

1、本证书覆盖产品如下:

- UB03-Z2-*

型号命名:

型号	UB03	a	b	*
		1	2	3
1	Z2=2 区, 22 区, 设备保护级别为 Gc, Dc			
2	RFID-C3-USB = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-USB = RFID 13.56 MHz MIFARE / DESFire / EV1, ASCII RFID-C5-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-USB = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-USB = RFID 13.56 MHz NFC RFID-C3-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, CRYPT RFID-C4-RS422 = RFID 13.56 MHz MIFARE / DESFire / EV1, ASCII RFID-C5-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, CRYPT RFID-C6-RS422 = RFID 13.56 MHz LEGIC / MIFARE / DESFire / EV1, ASCII RFID-C7-RS422 = RFID 13.56 MHz NFC CON-USB= 转换器 USB- 10/100BaseTX CON-UTP = 转换器 UTP- 10/100BaseTX AMP-Audio = 音频放大器 DSP-10 =电源 III-LED = 照明 LED			
3	任何字母数字或符号字符, 与防爆无关。			

参数:

颁发日期: 2023 年 04 月 29 日

主任:



南阳防爆电气研究所有限公司



网址: www.ccc-cnex.com
ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com



中国国家强制性产品认证证书 (附页)

编 号: 2021312314000071

第 2 页 共 3 页

电气数据:

接线端子 X1, 插脚 1	
非本质安全供电电路 (电源)	
额定电压	5~30V DC
额定电流	≤ 1 A
额定功率	≤ 30 W
最大输入电压 U_m	250V AC
接线端子 X1. 插脚 2 和 3	
非本质安全接口数据	
额定电压	5V AC/DC
最大输入电压 U_m	250V AC
接线端子 X1. 插脚 2 和 3 (仅适用于"UB03-*-RFID-*-RS422**")	
非本质安全接口数据	
最大电压	30V AC/DC
最大电流	≤ 1 A
接线端子 X1. 插脚 2 和 3 (仅适用于"UB03-*-AMP Audio**"和"UB03-*-DSP-10**")	
非本质安全接口数据	
最大输出电压	30V AC/DC

接线端子 X2	
非本质安全接口数据	
额定电压	5V AC/DC
最大输入电压 U_m	250V AC

颁发日期: 2023 年 04 月 29 日

主任:



南阳防爆电气研究所有限公司



网址: www.ccc-cnex.com
ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com



中国国家强制性产品认证证书 (附页)

编号: 2021312314000071

第 3 页 共 3 页

外壳防护等级: IP66

环境温度: -40℃~+70℃

防爆标志: Ex ec nC IIC T4 Gc, Ex tc III C T115℃ Dc

- 生产者应按照认证机构批准的技术文件组织生产。

2、安全使用条件:

- 见产品使用说明书。

3、证书关联报告:

- 产品型式试验报告: CQST2103C006, CQST2103C006/01

- 工厂检查报告: CN2023Q030119

4、证书变更信息:

- 2023 年 04 月 29 日第 1 次变更: 产品认证依据标准变更。

颁发日期: 2023 年 04 月 29 日

主任: 穆大玉



南阳防爆电气研究所有限公司



网址: www.ccc-cnex.com
ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com

21 Installation instructions requirements China

21.1 UB03-Z1-*

安装使用要求

Installation Instructions Requirements



认证编号

CN2021C2314-000199-1

Certification No.

本产品经认证符合 CNCA-C23-01: 2019 《强制性产品认证实施规则 防爆电气》的要求。

The product(s) is verified and certified according to CNCA-C23-01: 2019 China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product.

#	产品名称 Product 型号 Type	防爆标志 Ex Marking
1	通用盒 UB03-Z1-*	Ex eb q IIC T4 Gb, Ex tb IIIC T115°C Db

系列标准 Series standards	GB/T3836.1-2021, GB/T3836.3-2021, GB/T3836.7-2017, GB/T3836.31-2021
安全使用条件 Specific conditions of safety use:	- 无 - None

R. STAHL HMI Systems GmbH

产品上的符合性标志:

Compliance marks on product:



中国强制性认证
China Compulsory Certification
CCC: 2021312314000072

德国制造 Made in Germany

Doc No.:

Approved:

Date : 2023.03.20

21.2 UB03-Z2-*

安装使用要求

Installation Instructions Requirements



认证编号

CN2021C2314-000200-1

Certification No.

本产品经认证符合 CNCA-C23-01: 2019 《强制性产品认证实施规则 防爆电气》的要求。

The product(s) is verified and certified according to CNCA-C23-01: 2019 China Compulsory Certification Implementation Rule on Explosion Protected Electrical Product.

#	产品名称 Product 型号 Type	防爆标志 Ex Marking
1	通用盒 UB03-Z2-*	Ex ec nC IIC T4 Gc, Ex tc IIIC T115°C Dc

系列标准 Series standards	GB/T3836.1-2021, GB/T3836.3-2021, GB/T3836.8-2021, GB/T3836.31-2021
安全使用条件 Specific conditions of safety use:	- 无 - None

R. STAHL HMI Systems GmbH

产品上的符合性标志:

Compliance marks on product:



中国强制性认证
China Compulsory Certification
CCC: 2021312314000071

德国制造 Made in Germany

Doc No.:

Approved:

Date : 2023.03.20

22 Evaluation of transponder media

22.1 RFID chip cards

BVS Elektrostatikprüfung / Electrostatic Test				DEKRA EXAM GmbH Fachstelle für Sicherheit elektrischer Betriebsmittel - BVS- Carl-Beyling-Haus Dinnendahlstraße 9 44809 Bochum
Prüfschein / Test Report BVS PS 23691 vom / date 12.04.2010				
Antragsnummer/ job identification number: 20100206	SD Nummer: 180208766 30	Sachverständiger/ expert: Ha		
Prüfgegenstand / test specimen	: Chip Karten			
Antragsteller / applicant	: R. Stahl HMI Systems GmbH			
Hersteller / manufacturer	: dto.			
Typenbezeichnung / type designation	: Wiegand, RFID.MIFARE 13,8 MHz			
Schutzart / type of protection	: Kat. 1G, 2G, 1D, 2D			
Prüfauftrag vom / date of order	: 08.03.10			
BVS-PMNr. / reg.-number	: 086/10			
Zeichnungsnummer / drawing number	: -			
<u>Datum der Prüfung / Date of test:</u>		25.03.10		
<u>Prüfer / Testing engineer:</u>		Dr.-Ing. Wittler		
<u>Prüfung / Test:</u>		Elektrostatikprüfung an Prüfplatten nach IEC 60079-0: 2007		
<u>Durchführung der Prüfung / Test conditions:</u>				
Umgebungsbedingungen: Raumtemperatur 23°C, Relative Luftfeuchte 28 ... 29% Vor Beginn der Prüfung wurde der Prüfling mit Isopropanol gereinigt, mit destilliertem Wasser gespült und anschließend für 24 Stunden in dem oben angegebenen Klima gelagert. Anschließend wurde der Prüfling manuell mit Leder-, Polyamid- und Baumwolltuch (je 20 Schläge) sowie mit Hochspannung (40 kV) aufgeladen. Danach wurde versucht einzelne Entladungen zu einer geerdeten 15 mm Kugelelektrode einzuleiten.				
<u>Ergebnisse / Results:</u>		siehe Seite 2		



DEKRA EXAM GmbH
 Fachstelle für
 Sicherheit elektrischer
 Betriebsmittel - BVS

Carl-Beyling-Haus
 Dinnendahlstraße 9
 44809 Bochum

Seite 2 von 2 zum Prüfschein BVS PS 23691 vom 12.04.2010

Prüfmuster	Maximale Ladungsstärke nach manueller Aufladung (relevant für Kat. 2G)	Maximale Ladungsstärke nach Aufladung mit Hochspannung (relevant für Kat. 1G, 1D und 2D)
RFID.MIFARE 13,8 MHz	18 nC*	50 nC**
Wiegand	17 nC*	85 nC***

- * Büschelentladungen > 10 nC (≤30 nC) sind elektrostatisch bedenklich für Gruppe IIC, unbedenklich für Gruppe IIB und Gruppe IIA
- ** Büschelentladungen > 30 nC (≤60 nC) sind elektrostatisch bedenklich für Gruppe IIB und Gruppe IIC, unbedenklich für Gruppe IIA
- *** Büschelentladungen > 60 nC sind elektrostatisch bedenklich für Gruppe IIA; Büschelentladungen < 200 nC sind elektrostatisch unbedenklich für Kategorie Kat. 1D und 2D

Prüfmittel / Test apparatus: Ladungsmessgerät

DEKRA EXAM GmbH
 Fachstelle für Sicherheit elektrischer Betriebsmittel
 Bergbau-Versuchsstrecke

12.04.2010 Dr. Wittler
 (Datum, Prüfer Dr.-Ing. Wittler)

M. H. H. H.
 (Datum, für die Richtigkeit)

Dieser Prüfschein darf nur vollständig und unverändert weiter gegeben werden.

22.2 RFID tag

Konformitätsbewertung Conformity Assessment



R. STAHL HMI Systems GmbH • Im Gewerbegebiet Pesch 14 • 50767 Köln • Germany

erklärt, dass das Produkt
declares that the product

RFID-Tag Typ: Mifare-eXis-1K-S50-ISO14443*

gefährlos in den Bereich einer explosionsgefährdeten Atmosphäre der Kategorie 2 G/D und 3 G/D eingebracht werden kann unter Beachtung der folgenden Bedingungen gemäß Namur NE127:

- Umgebungsfeldstärken von ≤ 1 A/m oder ≤ 3 V/m;
- Umgebungstemperatur an der Außenseite des Transponders ≤ 40 °C für die Betrachtung nach Temperaturklasse T6;
- Frequenzbereich > 10 MHz.

Eine Gefährdung durch statische Aufladung wird unter Berücksichtigung der Forderungen aus EN/IEC 60079-0 ausgeschlossen.

can be utilised without risk in areas with a potentially explosive atmosphere of category 2 G/D and 3 G/D under the following conditions according to Namur NE127:

- *Ambient field strengths of ≤ 1 A/m or ≤ 3 V/m;*
- *Ambient temperature on the transponder exterior ≤ 40 °C for consideration in compliance with temperature class T6;*
- *Frequency range > 10 MHz.*

The potential for electrostatic charging has been taken into consideration according to the requirements of EN/IEC 60079-0.

Köln, 12 April 2013

*Ort und Datum
Place and date
Lieu et date*

A handwritten signature in black ink, appearing to read "W. Bertges", written over a horizontal line.

W. Bertges
Quality Manager

Datei: RFID-exis_Konfbew_20130412.docx

23 Conformity assessment

Konformitätsbewertung Conformity Assessment



R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany

erklärt, dass das Produkt
declares that the product

Card-Holder-01

gefahrlos in den Bereich einer explosionsgefährdeten Atmosphäre des EPL Gb/Gc IIC und Db/Dc eingebracht werden kann, unter Beachtung der folgenden Bedingungen:

- Der Card-Holder-01 ist nur für fest installierte Anlagen zu verwenden.
- Für die Benutzung des Card-Holder-01 in EPL Db/Dc sind hochenergetische Lademechanismen an der Oberfläche (z.B. pneumatischer Partikeltransport) bei der Verwendung auszuschließen. Der Card-Holder-01 darf nicht in Umgebungen verwendet werden, in denen mit Gleitbüschelentladung zu rechnen ist.
- Der Card Holder 01 darf nur mit einem feuchten Tuch gereinigt werden.

Eine Gefährdung durch statische Aufladung wird unter Berücksichtigung der Forderungen aus EN/IEC 60079-0, der Konstruktion nach Montageanleitung 10570163 und der aufgelisteten Bedingungen ausgeschlossen.

can be utilised without risk in areas with a potentially explosive atmosphere of EPL Gb/Gc IIC und Db/Dc under the following conditions:

- *The Card-Holder-01 may only be used for fixed installations.*
- *If you want to use the Card-Holder-01 in EPL Db/Dc, you have to ensure that no high-energy loading mechanisms at the operating surface of the unit (e.g. pneumatic particle transport) occur during operation. The Card-Holder-01 may not be used in environments where propagating brush discharges may occur.*
- *The Card-Holder-01 may be cleaned with a damp cloth only.*

The potential for electrostatic charging has been taken into consideration according to the requirements of EN/IEC 60079-0, the design according to mounting instruction 10570163 and the listed conditions.

Köln, 2019-01-21

Ort und Datum
Place and date
Lieu et date

i.V.


A. Jung
Ex Representative

Datei: 20190370000 Konformitätsbewertung Card-Holder-01.docx

24 Release notes

This chapter lists the changes made in the most recent versions of these Operating Instructions.

Version 01.01.05

- Deletion of previous release notes
- Correction of phone and fax no.
- Addition of version C5 / C6 as text in "Version UB03-Z*-RFID-*".
- Addition of "ORCA" in text to "card holder" in "Version UB03-Z*-RFID-*"
- Addition of "ORCA" into table "Connectivities"
- Addition of "E-Box" in "Notice" to "Connectivities"
- Changing / addition of "type code" with "version"
- Addition of "Valid until" in table column for "Approvals"
- Addition of values for "Valid until - in table column for Approvals"
- Addition of "notice for Korea to Customer confirmation letter"
- Shifting sub-chapter within "Marking"
- Reconstruction chapter "Marking"
- Addition of section "Certificates"
- Addition of KCC / KCS certification
- Addition of NEC / CEC certification
- Addition of BIS certification
- Addition of RCM in section "Approvals"
- Addition of Ex marking for NEC / CEC
- Addition of Ex marking for KCC / KCS
- Changing text (with and without lettering) to notice "Documentation" in "Specific markings"
- Addition of connection diagram "ORCA"
- Addition of "ORCA pin assignments" in tables for UB03-*-CON-UTP
- Addition of "mounting position card holder" for ORCA
- Improvement / modification of various drawings of the connection diagrams
- Formal changes

Version 01.01.06

- Extension of validity BIS approval until 05/2026
- Correction of CE / ATEX listing in section "Approvals"
- Addition of CE for UB03-*-CON-UTP in section "Approvals"
- Addition of column "Comment" in table in section "Approvals"
- Renew CCC certification, slitting CCC and CNEx marking
- Renew CCC declarations of conformity
- Addition of section "Installation instructions requirements China"
- Changing of illustration for cable connection in section "Connection diagram" for UB03-Z1-CON-UTP
- Addition of section "Cable connection" in section "Connection diagram" for UB03-Z1-CON-UTP
- Changing of all drawings "Connection..." in section "UB03-Z1-CON-UTP", now with hybrid cable
- Removal of link to "Further national certificates" in section "Certificates"
- Changing text (with and without lettering) to notes in "Specific markings"
- Formal changes

R. STAHL HMI Systems GmbH
Adolf-Grimme-Allee 8
D 50829 Köln

T:	(Sales Support)	+49 221 768 06 - 1200
	(Technical Support)	+49 221 768 06 - 5000
F:		+49 221 768 06 - 4200
E:	(Sales Support)	sales.dehm@r-stahl.com
	(Technical Support)	support.dehm@r-stahl.com

r-stahl.com



THE STRONGEST LINK.