


BCS3608^{ex}-IS corded – connection options

Picture	Option
	<p>Option 1 Connection via Universal Supply Module to a PC/Host* in safe area.</p>
	<p>Option 2 Connection via Universal Supply Module to a HMI certified for use in Zone 1/21</p>
	<p>Option 3 Connection via Supply Module Ex i to a HMI certified for use in Zone 1/21</p>

About PC/Host*:

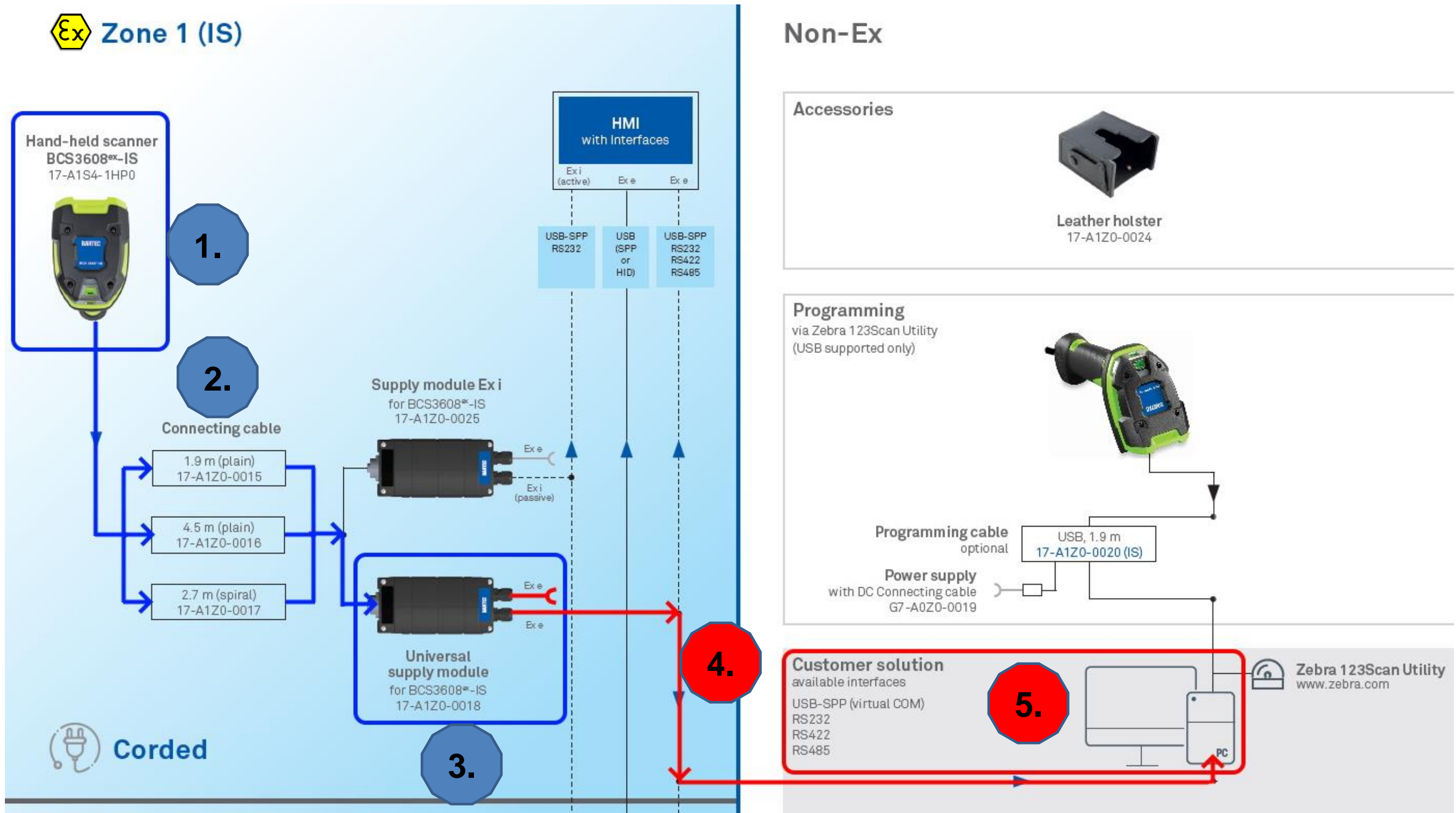
The designation PC/Host covers a wide range of possible devices to which the BCS3608^{ex}-NI can be connected.

- PC with operating system e.g. Windows
- remote station
- PLC
- Scale system
- Any other system with a compatible interface and the ability to process serial data.









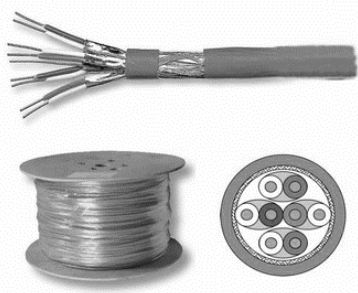

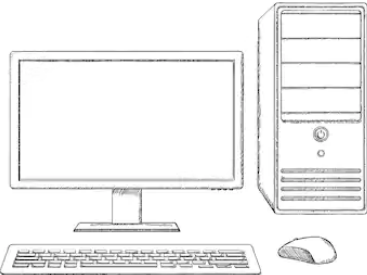
Important is that the system need to have a compatible interface that scanner can be connected.

Option 1: BCS3608^{ex}-IS via Universal Supply Module (USM) connected to a PC/Host in Non-Ex area



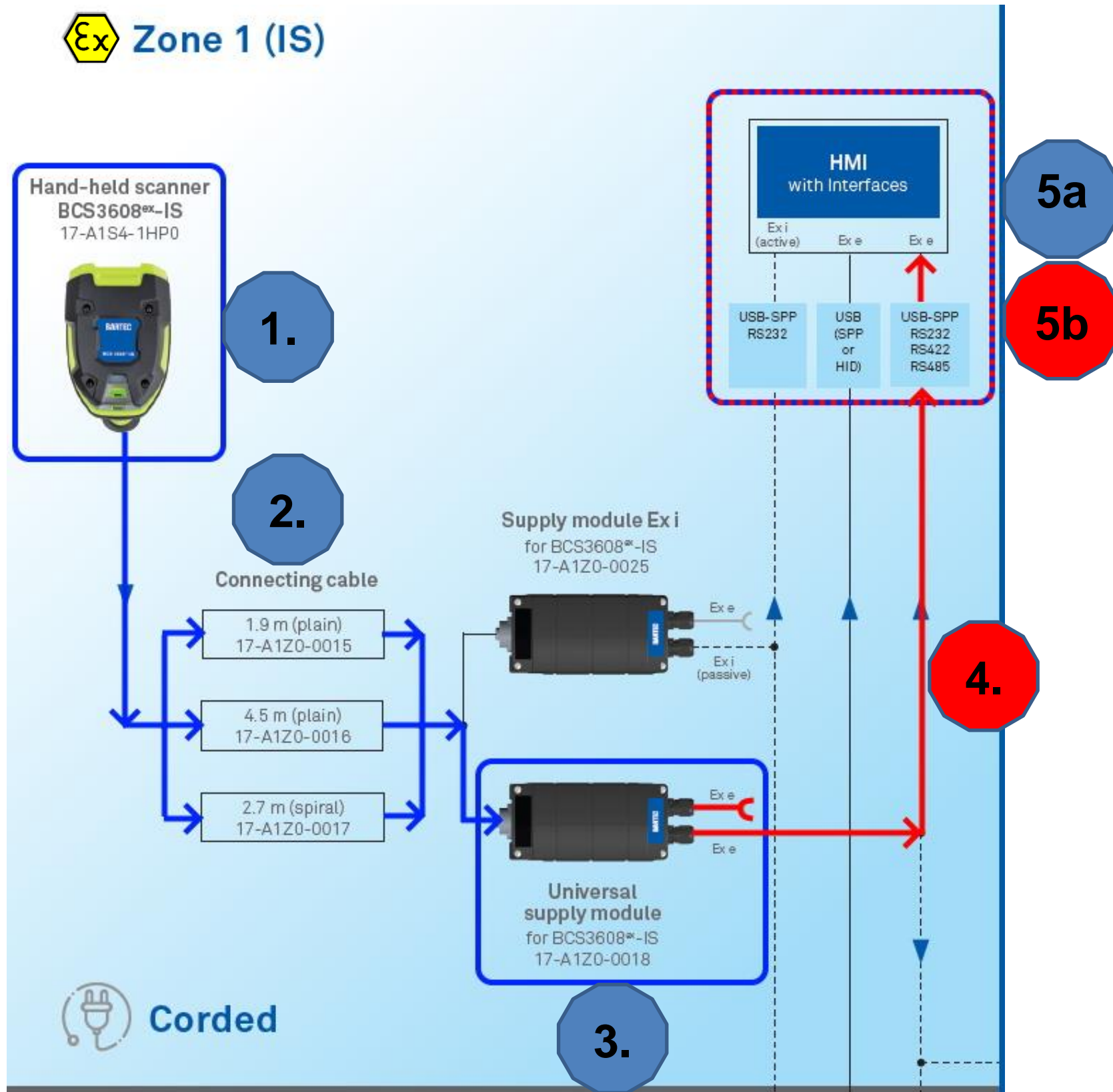
Blue = Components from BARTEC for use in hazardous location Zone 1/21
 Red = Customer-specific components (not supplied by BARTEC)

Required parts

No.	Picture	Part	Interfaces and their Ex-protection type
1.	 	BCS3608^{ex}-IS corded <ul style="list-style-type: none"> ATEX/IECEX Zone 1/21 P/N: 17-A1S4-1xxx 	Ex i (ia) interface for: <ul style="list-style-type: none"> connection cable to USM
2.	  <p>(Sample picture P/N: 17-A1Z0-0015)</p>	Connection cable <ul style="list-style-type: none"> 1.9 m (plain) P/N: 17-A1Z0-0015 4.5 m (plain) P/N: 17-A1Z0-0016 2.7 m (spiral) P/N: 17-A1Z0-0017 	Connection between BCS3608 ^{ex} -IS and Universal Supply Module (USM).
3.	 	Universal supply module (USM) <ul style="list-style-type: none"> ATEX/IECEX Zone 1/21 P/N: 17-A1Z0-0018 	Power supply: (Ex e) <ul style="list-style-type: none"> AC 100 V - 240 V ± 10% / 50-60 Hz DC 24 V ± 10% / 0.4 A Data line: (Ex e to PC/Host) <ul style="list-style-type: none"> RS232 (TxD from Scanner/USM to PC/host only) RS422 RS485 USB-SPP (Serial Port Profile)
4.	  <p>(sample picture)</p>	Connection cable Customer specific and not supplied by BARTEC. We recommend shielded cables e.g. CAT5 or higher.	Data line: (Ex e to PC/Host) <ul style="list-style-type: none"> RS232 (TxD from Scanner/USM to PC/host only) RS422 RS485 USB-SPP (Serial Port Profile) Cable laying is carried out by the customer in accordance with the Ex-protection requirements of Ex e.
		Power Cable Customer specific and not supplied by BARTEC.	Power supply: (Ex e) <ul style="list-style-type: none"> AC 100 V - 240 V ± 10% / 50-60 Hz DC 24 V ± 10% / 0.4 A
5.		PC/Host Customer specific PC/Host with interface for connection to Universal Supply Module (USM).	PC/Host Customer specific and installed in safe area.









Option 2: BCS3608^{ex}-IS via Universal Supply Module (USM) connected to a HMI certified for Zone 1/21





Ex Zone 1 (IS)



Blue = Components from BARTEC for use in hazardous location Zone 1/21
 Red = Customer-specific components (not supplied by BARTEC)

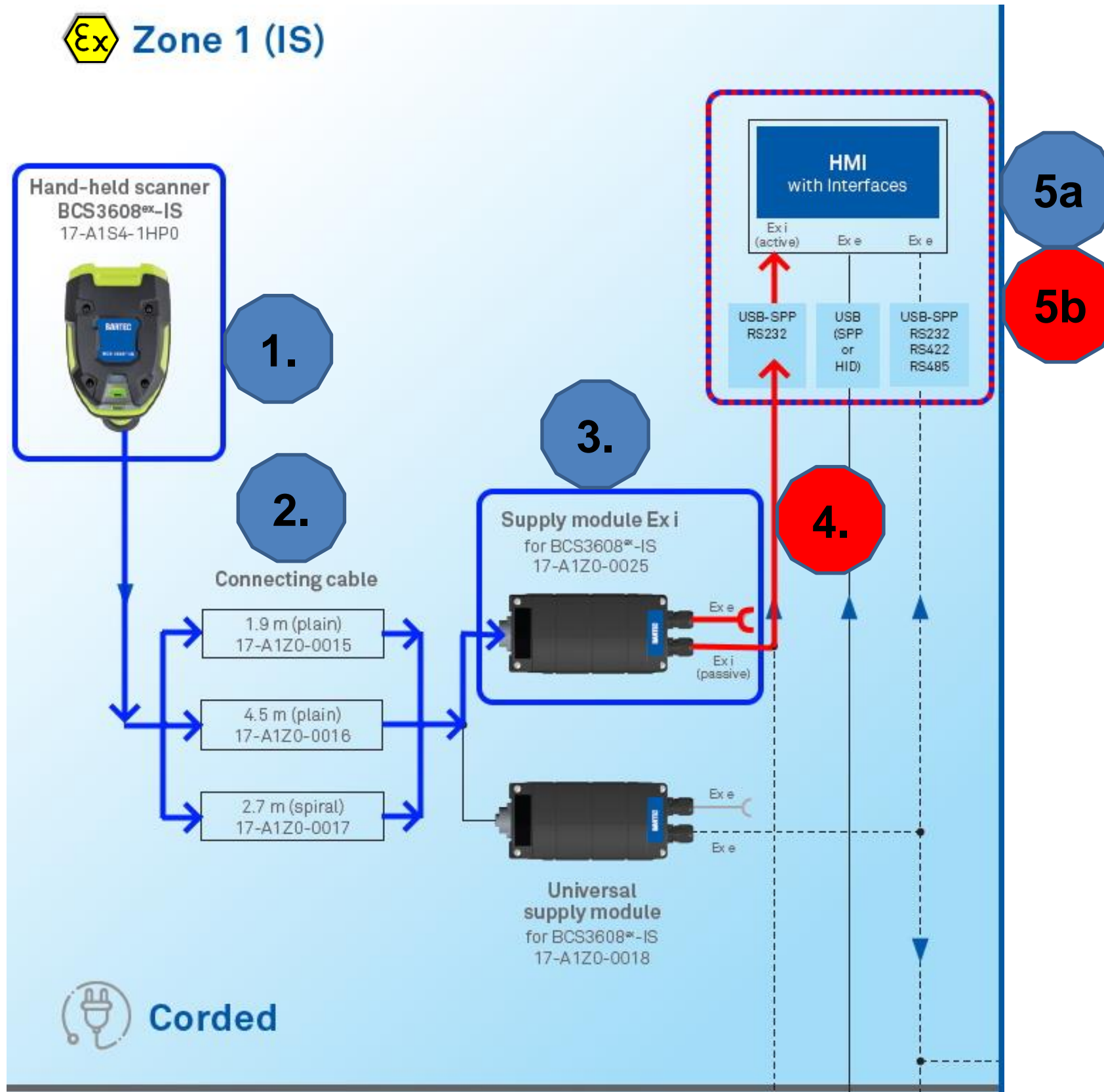
Required parts

No.	Picture	Part	Interfaces and their Ex-protection type
1.	 	BCS3608^{ex}-IS corded <ul style="list-style-type: none"> ATEX/IECEX Zone 1/21 P/N: 17-A1S4-1xxx 	Ex i (ia) interface for: <ul style="list-style-type: none"> connection cable to USM
2.	  <p>(Sample picture P/N: 17-A1Z0-0015)</p>	Connection cable <ul style="list-style-type: none"> 1.9 m (plain) P/N: 17-A1Z0-0015 4.5 m (plain) P/N: 17-A1Z0-0016 2.7 m (spiral) P/N: 17-A1Z0-0017 	Connection between BCS3608 ^{ex} -IS and Universal Supply Module (USM).
3.	 	Universal supply module <ul style="list-style-type: none"> ATEX/IECEX Zone 1/21 P/N: 17-A1Z0-0018 	Power supply: (Ex e) <ul style="list-style-type: none"> AC 100 V - 240 V ± 10% / 50-60 Hz DC 24 V ± 10% / 0.4 A Data line: (Ex e to PC/Host) <ul style="list-style-type: none"> RS232 (TxD from Scanner/USM to PC/host only) RS422 RS485 USB-SPP (Serial Port Profile)
4.	  <p>(sample picture)</p>	Connection cable Customer specific and not supplied by BARTEC. We recommend shielded cables e.g. CAT5 or higher.	Data line: (Ex e to HMI) <ul style="list-style-type: none"> RS232 (TxD from Scanner/USM to PC/host only) RS422 RS485 USB-SPP (Serial Port Profile) Cable laying is carried out by the customer in accordance with the Ex-protection requirements of Ex e.
		Power Cable Customer specific and not supplied by BARTEC.	Power supply: (Ex e) <ul style="list-style-type: none"> AC 100 V - 240 V ± 10% / 50-60 Hz DC 24 V ± 10% / 0.4 A

<p>5a</p>	 	<p>HMI Polaris Series</p> <ul style="list-style-type: none"> • ATEX Zone 1/21 • P/N: on request by ESS-AUT business unit <p>Compatible Polaris series:</p> <ul style="list-style-type: none"> • Polaris Professional with “Ex e RS422” or “Ex e USB” • Polaris II Professional with “Ex e RS422” or “Ex e USB” • Polaris Smart HMI with “Ex e USB” • Polaris Remote Digital with “Ex e USB” • Polaris Zero Client with “Ex e RS 422” or “Ex e USB” 	<p>Data line: (Ex e to HMI)</p> <p>It is important that on the Polaris device is a free interface in “Ex e RS422” or “Ex e USB” available. Then the “Universal Supply Module” interface can be connected to the Polaris device. The “Universal Supply Module” powers the scanner.</p>						
<p>5b</p>	 	<p>HMI – Ex version of 3rd party manufacturer</p> <ul style="list-style-type: none"> • ATEX Zone 1/21 	<p>It is possible but customer need to check that Ex-relevant values are compatible with HMI manufacturer.</p> <p>A compatible interface in “Ex e” version must be available</p> <p>Data line: (Ex e to HMI)</p> <ul style="list-style-type: none"> • RS232 (TxD from Scanner/USM to PC/host only) • RS422 • RS485 • USB-SPP (Serial Port Profile) <p>Ex-relevant input parameter of BARTEC Universal Supply Module</p> <table border="1" data-bbox="1478 1150 1893 1234"> <thead> <tr> <th>Input</th> <th>Ex-Model</th> </tr> </thead> <tbody> <tr> <td>Power supply</td> <td>Ex e</td> </tr> <tr> <td>Data interface</td> <td>Ex e</td> </tr> </tbody> </table>	Input	Ex-Model	Power supply	Ex e	Data interface	Ex e
Input	Ex-Model								
Power supply	Ex e								
Data interface	Ex e								








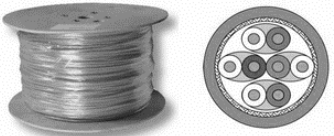

Option 3: BCS3608^{EX}-IS connection via Supply Module Ex i to a HMI certified for use in Zone 1/2/1

Ex Zone 1 (IS)



Blue = Components from BARTEC for use in hazardous location Zone 1/2/1
 Red = Customer-specific components (not supplied by BARTEC)

Required parts

No.	Picture	Part	Interfaces and their Ex-protection type
1.	 	BCS3608^{ex}-IS corded <ul style="list-style-type: none"> ATEX/IECEX Zone 1/21 P/N: 17-A1S4-1xxx 	Ex i (ia) interface for: <ul style="list-style-type: none"> connection cable to USM
2.	 <p>(Sample picture P/N: 17-A1Z0-0015)</p> 	Connection cable <ul style="list-style-type: none"> 1.9 m (plain) P/N: 17-A1Z0-0015 4.5 m (plain) P/N: 17-A1Z0-0016 2.7 m (spiral) P/N: 17-A1Z0-0017 	Connection between BCS3608 ^{ex} -IS and Supply Module Ex i corded.
3.	 	Supply module Exi corded <ul style="list-style-type: none"> ATEX/IECEX Zone 1/21 P/N: 17-A1Z0-0025 	Power supply: (Ex e) <ul style="list-style-type: none"> AC 100 V - 240 V ± 10% / 50-60 Hz DC 24 V ± 10% / 0.4 A Data line: (Ex i/passive to PC/Host) <ul style="list-style-type: none"> RS232 (TxD from Scanner/USM to PC/host only) USB-SPP (Serial Port Profile)
4.	  <p>(sample picture)</p> 	Connection cable Customer specific and not supplied by BARTEC. We recommend shielded cables e.g. CAT5 or higher.	Data line: (Ex i to HMI) <ul style="list-style-type: none"> RS232 (TxD from Scanner/USM to PC/host only) USB-SPP (Serial Port Profile) Cable laying is carried out by the customer in accordance with the Ex-protection requirements of Ex i.
		Power Cable Customer specific and not supplied by BARTEC.	Power supply: (Ex e) <ul style="list-style-type: none"> AC 100 V - 240 V ± 10% / 50-60 Hz DC 24 V ± 10% / 0.4 A

5a



HMI Polaris Series

- ATEX Zone 1/21
- P/N: on request by ESS-AUT business unit

Compatible Polaris series: “Ex i scanner interface” required!

- Polaris Professional with “Ex i scanner interface”
- Polaris II Professional with “Ex i scanner interface”
- Polaris Comfort with “Ex i scanner interface”
- Polaris Basic with “Ex i scanner interface”
- Polaris Remote Analog (without touchscreen) with “Ex i scanner interface”
- Polaris Remote Digital with “Ex i scanner interface”
- Polaris Zero Client “Ex i scanner interface”

Data line: (Ex i to HMI)

It is important that on the Polaris device is a free scanner interface in Ex i available. Then the “Supply Module Ex i” interface can be connected to the Polaris device. The “Supply Module Ex i” powers the scanner. The HMI Ex i interface for the data lines is the active part.

5b



HMI – Ex version of 3rd party manufacturer

- ATEX Zone 1/21

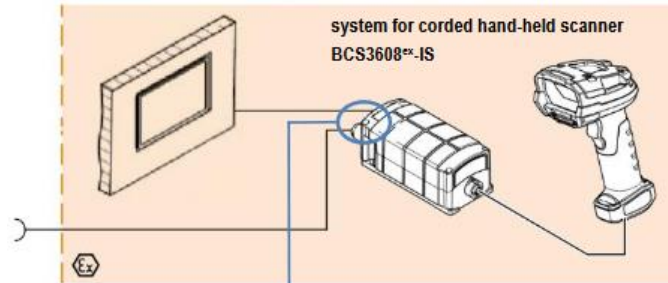
It is possible but customer need to check that Ex-relevant values are compatible with HMI manufacturer.

A compatible interface in “Ex i” version must be available

Data line: (Ex i to HMI)

- RS232 (TxD from Scanner/USM Ex i to PC/host only)
- USB-SPP (Serial Port Profile)

The HMI interface must be active, because the supply module Ex i interface is passive.



Ex-relevant input parameters for supply module Ex i	
Input	Ex version
Power supply	Ex e
Data cable	Ex i (passive) USB-SPP (Serial Port Profile) RS232 (only TxD)
Type: 17-A1Z0-0025/**** + 17-A1Z0-0028/****	
U_i	6 V _{DC}
I_i	500 mA
P_i	2 W
C_i	5,7 μF
L_i	0 μH

Ex i observation: (so it is judged whether the values are compatible to each other)		
Active Interface	Values must relate to each other as follows	Passive Interface
U_o	≤	U_i
I_o	≤	I_i
P_o	≤	P_i
C_o	≥	C_i
L_o	≥	L_i