


BCS3608^{ex}-NI 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 2/22 or Division 2</p>
	<p>Option 3 Connection via HMI limiting cable (USB) to a HMI certified for use in Zone 2/22</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.

Product training – BCS3608^{ex} NI series overview of possible connections

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

Non-Ex

Accessories



Leather holster
17-A1Z0-0024

Special tool
for lock nut
G7-A0Z0-0031

Programming
via Zebra 123Scan Utility
(USB supported only)




Programming cable
optional

USB, 1.9 m
B7-AZZ0-0046 (NI)

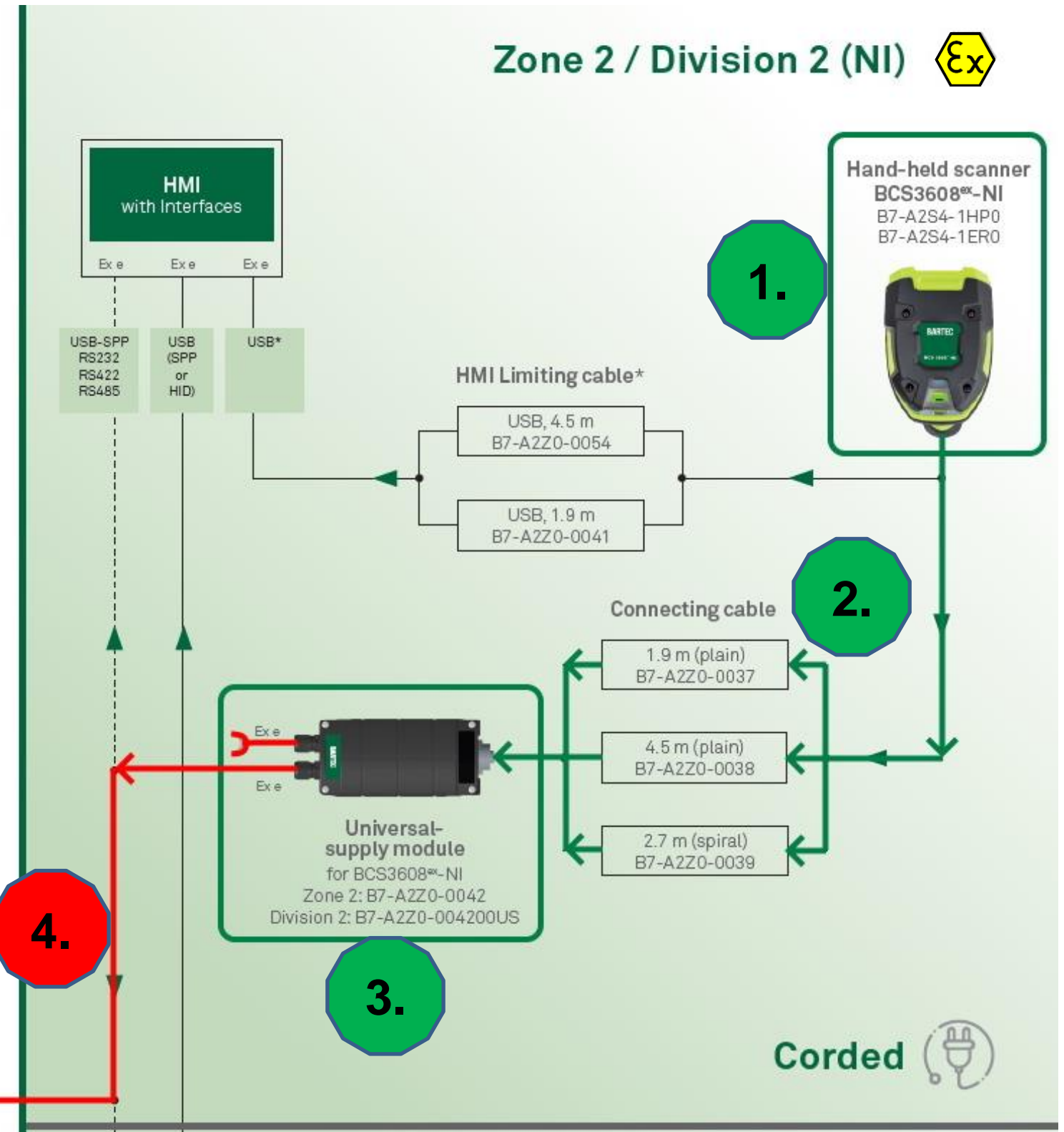
Customer solution
available interfaces

USB-SPP (virtual COM)
RS232
RS422
RS485









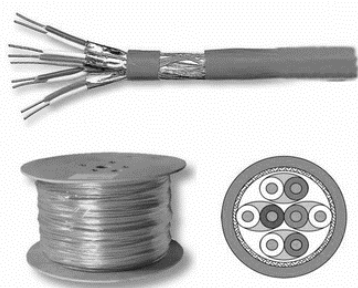

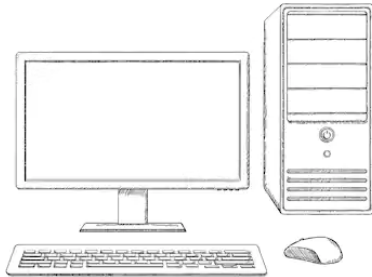
PC

Zebra 123Scan Utility
www.zebra.com



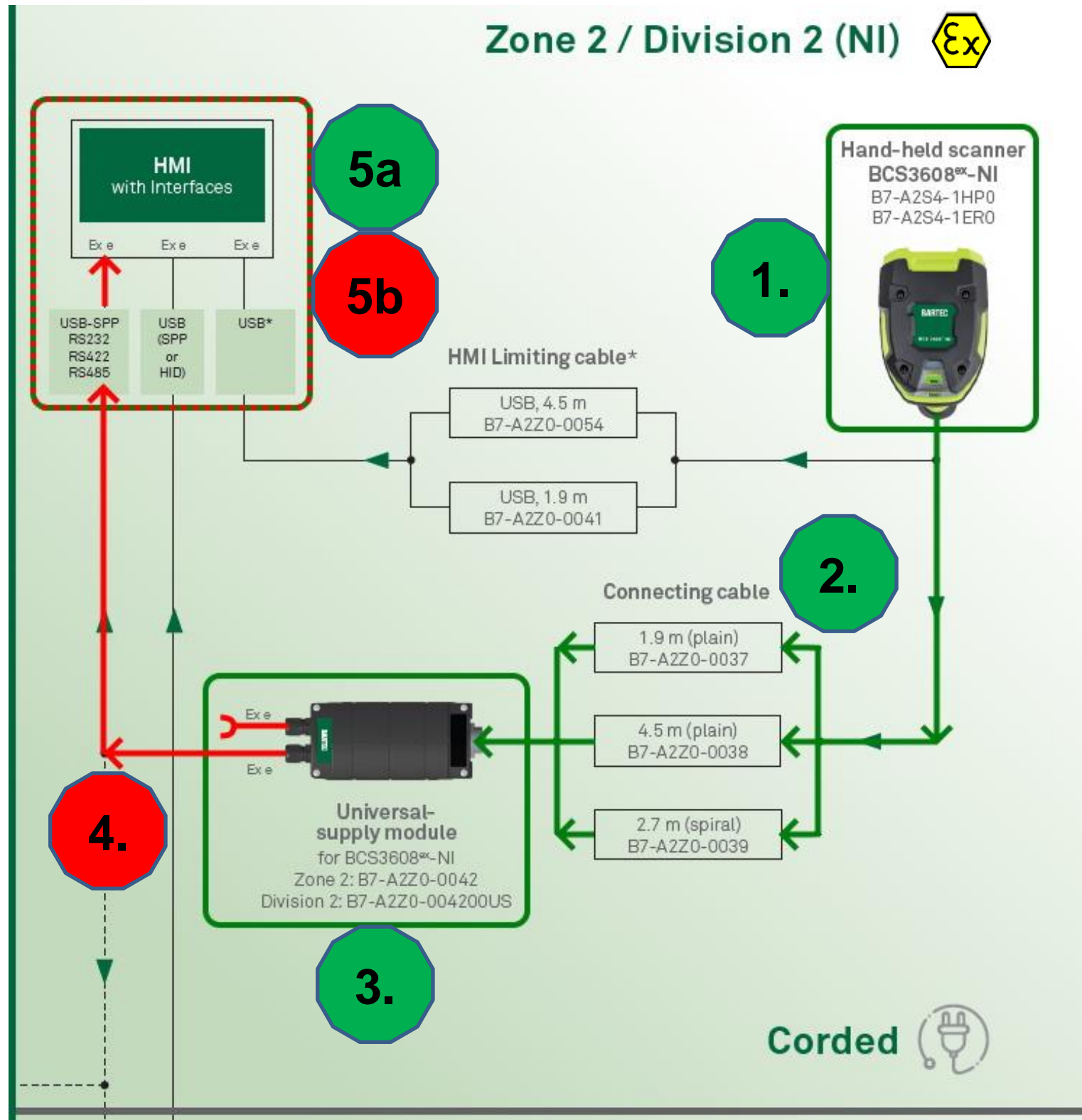
Green = Components from BARTEC for use in hazardous location Zone 2/22 or Division 2
Red = Customer-specific components (not supplied by BARTEC)

Required parts

No.	Picture	Part	Interfaces and their Ex-protection type
1.	 	BCS3608^{ex}-NI corded <ul style="list-style-type: none"> ATEX/IECEX Zone 2/22 NEC/ETL Division 2 P/N: B7-A2S4-1xxx	Ex i (ic) interface for: <ul style="list-style-type: none"> connection cable to USM HMI limiting cable
2.	  <p>(Sample picture P/N: B7-A2Z0-0037)</p>	Connection cable <ul style="list-style-type: none"> 1.9 m (plain) P/N: B7-A2Z0-0037 4.5 m (plain) P/N: B7-A2Z0-0038 2.7 m (spiral) P/N: B7-A2Z0-0039 	Connection between BCS3608 ^{ex} -NI and Universal Supply Module (USM).
3.	 	Universal supply module <ul style="list-style-type: none"> ATEX/IECEX Zone 2/22 P/N: B7-A2Z0-0042	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)
		Universal supply module <ul style="list-style-type: none"> ATEX/IECEX Zone 2/22 NEC/ETL Division 2 P/N: B7-A2Z0-004200US	Only difference is power supply supports only: <ul style="list-style-type: none"> DC 24 V ± 10% / 0.4 A
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.







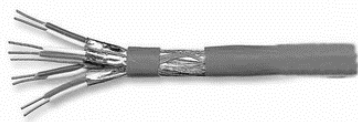

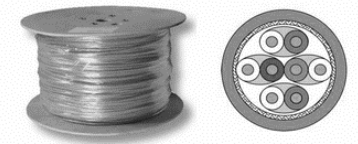
Option 2:





BCS3608^{ex}-NI via Universal Supply Module (USM) connected to a HMI certified for Zone 2/22 or Division 2



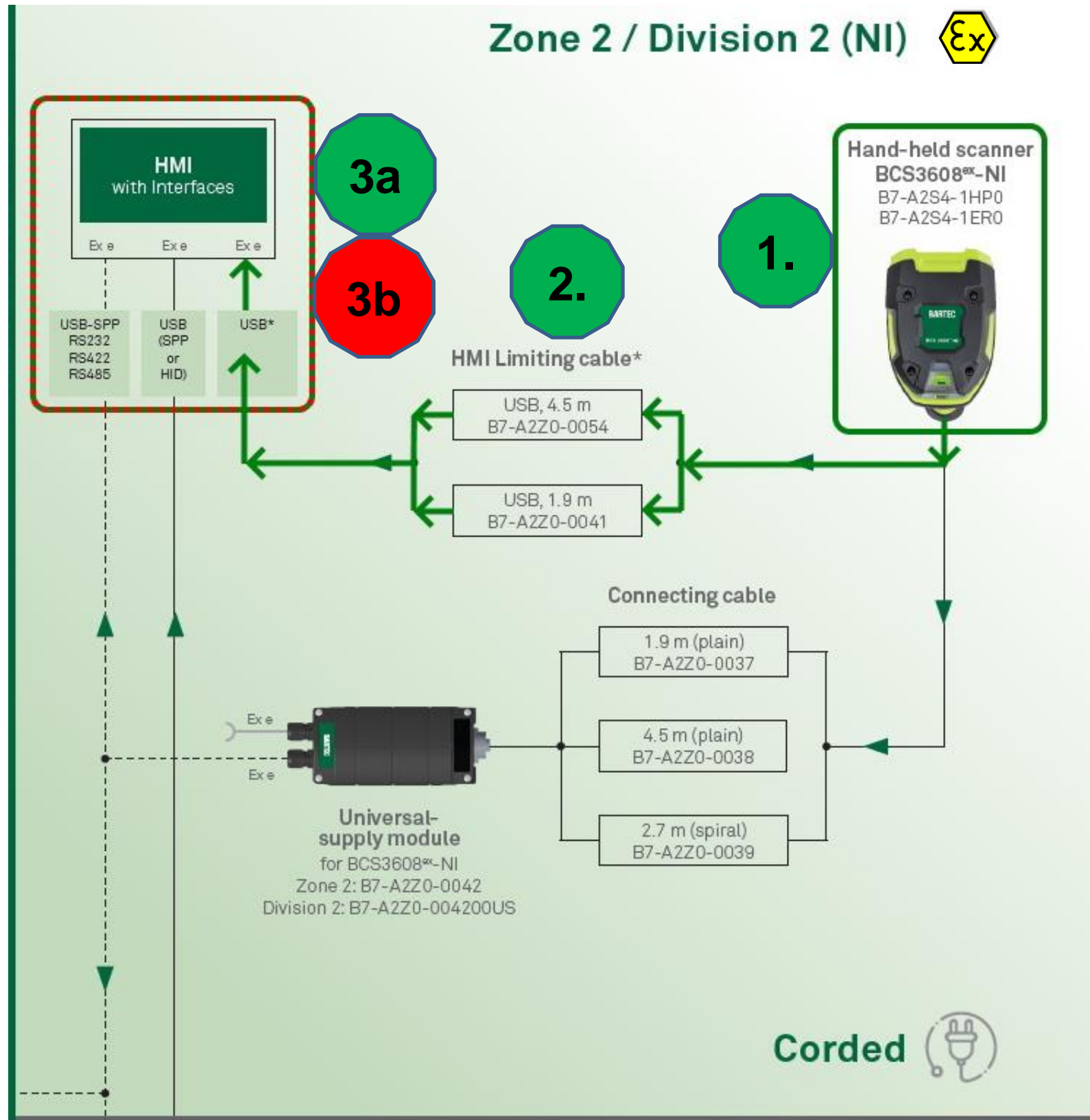
Green = Components from BARTEC for use in hazardous location Zone 2/22
 Red = Customer-specific components (not supplied by BARTEC)

Required parts

No.	Picture	Part	Interfaces and their Ex-protection type
1.	 	BCS3608^{ex}-NI corded <ul style="list-style-type: none"> • ATEX/IECEX Zone 2/22 • NEC/ETL Division 2 P/N: B7-A2S4-1xxx	Ex i (ic) interface for: <ul style="list-style-type: none"> • connection cable to USM • HMI limiting cable
2.	  <p>(Sample picture P/N: B7-A2Z0-0037)</p>	Connection cable <ul style="list-style-type: none"> • 1.9 m (plain) P/N: B7-A2Z0-0037 • 4.5 m (plain) P/N: B7-A2Z0-0038 • 2.7 m (spiral) P/N: B7-A2Z0-0039 	Connection between BCS3608 ^{ex} -NI and Universal Supply Module (USM).
3.	 	Universal supply module <ul style="list-style-type: none"> • ATEX/IECEX Zone 2/22 P/N: B7-A2Z0-0042	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 HMI) <ul style="list-style-type: none"> • RS232 (TxD from Scanner/USM to PC/host only) • RS422 • RS485 • USB-SPP (Serial Port Profile)
		Universal supply module <ul style="list-style-type: none"> • ATEX/IECEX Zone 2/22 • NEC/ETL Division 2 P/N: B7-A2Z0-004200US	Only difference is power supply supports only: <ul style="list-style-type: none"> • DC 24 V ± 10% / 0.4 A
4.	 	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.
		 <p>(sample picture)</p>	Power Cable Customer specific and not supplied by BARTEC.


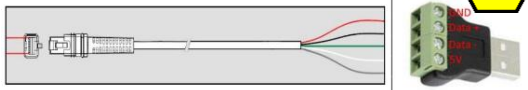


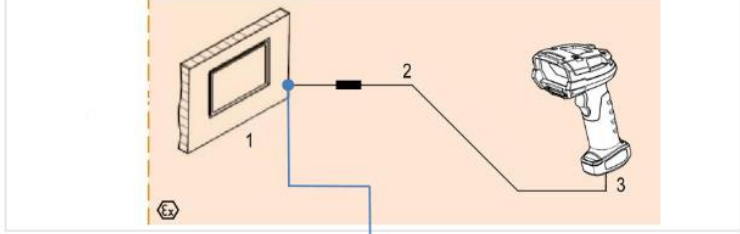
<p>5a</p>	 	<p>HMI Polaris II Series</p> <ul style="list-style-type: none"> • ATEX Zone 2/22 <p>P/N: on request by ESS-AUT business unit</p> <p>Compatible Polaris series:</p> <ul style="list-style-type: none"> • Polaris Professional with RS422 or USB • Polaris II Professional with RS422 or USB • Polaris Remote Digital with USB • Polaris Zero Client RS422 or USB 	<p>Data line: (Ex e to HMI)</p> <p>It is important that on the Polaris device is a free interface in RS422 or 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 2/22 • Division 2 	<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"> <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
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Option 3: BCS3608^{ex}-NI via HMI limiting cable (USB) connected to a HMI certified for Zone 2/22



Green = Components from BARTEC for use in hazardous location Zone 2/22
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Required parts

No.	Picture	Part	Interfaces and their Ex-protection type																								
1.		<p>BCS3608^{ex}-NI corded</p> <ul style="list-style-type: none"> ATEX/IECEX Zone 2/22 NEC/ETL Division 2 P/N: B7-A2S4-1xxx	<p>Ex i (ic) interface for:</p> <ul style="list-style-type: none"> connection cable to USM HMI limiting cable 																								
2.		<p>HMI limiting cable (USB)</p> The cable ends are open wires for connection to a terminal. <ul style="list-style-type: none"> 1.9 m (plain) P/N: B7-A2Z0-0041 4.5 m (plain) P/N: B7-A2Z0-0054 	<p>Connection between BCS3608^{ex}-NI and HMI in hazardous location Zone 2/22. Important: Ex relevant parameter of HMI must be compliant/compatible with BCS3608^{ex}-NI! Note: RS232 HMI limiting cable on request available. Separate power source required that provides 5V_{DC}/500mA for powering of the scanner.</p>																								
3a		<p>HMI Polaris II</p> <ul style="list-style-type: none"> ATEX Zone 2/21/22 P/N: on request by ESS-AUT business unit	<p>Data line: (Ex e to HMI) USB-HID (Human Interface Device mode is supported – Incoming data can be processed as keyboard entry) USB interface provides the functional necessary values of 5V_{DC}/500mA</p>																								
3b		<p>HMI – Ex version of 3rd party manufacturer</p> <ul style="list-style-type: none"> ATEX Zone 2/22 	<p>It is possible but customer need to check that Ex-relevant values are compatible with HMI manufacturer.</p> <p>Data line: (Ex e to HMI)</p> <ul style="list-style-type: none"> USB (HID or SPP depends on USB port functionality of HMI) Functionally values: Interface must provide 5V_{DC}/500mA Cable for power supply and data line in Ex e: Must be mechanically protected for installation. Plug connection (USB or RS232): Must be mechanically protected against accidental loosening/pulling. Connection: The connection must be made in an Ex-tested terminal compartment. <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  </div> <div style="text-align: center;"> <table border="1"> <thead> <tr> <th colspan="4">Ex-relevant input parameters</th> </tr> <tr> <th colspan="2">for BCS3608^{ex}-NI with scanner: SE4750-HP Type B7-A2S4-1HP0/****</th> <th colspan="2">for BCS3608^{ex}-NI with Scanner: SE4850-ER Type B7-A2S4-1ER0/****</th> </tr> </thead> <tbody> <tr> <td>V_{max}</td> <td>5 V ± 0.2 V</td> <td>V_{max}</td> <td>5 V ± 0.2 V</td> </tr> <tr> <td>I_{max}</td> <td>1 A</td> <td>I_{max}</td> <td>1 A</td> </tr> </tbody> </table> </div> <div style="text-align: center;"> <table border="1"> <thead> <tr> <th colspan="2">Ex-relevant input parameter of BARTEC Universal Supply Module</th> </tr> <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> </div> </div>	Ex-relevant input parameters				for BCS3608 ^{ex} -NI with scanner: SE4750-HP Type B7-A2S4-1HP0/****		for BCS3608 ^{ex} -NI with Scanner: SE4850-ER Type B7-A2S4-1ER0/****		V _{max}	5 V ± 0.2 V	V _{max}	5 V ± 0.2 V	I _{max}	1 A	I _{max}	1 A	Ex-relevant input parameter of BARTEC Universal Supply Module		Input	Ex-Model	Power supply	Ex e	Data interface	Ex e
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