



ISB+

Intrinsic safety box

ISB+ is an electronic attachment which ensures a galvanic insulation between hazardous and safe areas for RS232 and RS485 ports. RS232 and RS485 ports are available on both sides and it is possible to convert a signal from RS232 to RS485 and vice versa.

APPLICATION

A CORUS, SEVC-D or ANGus can be read or programmed with a notebook in local mode. However the notebook cannot be directly connected with the RS232 port of Corus or SEVC-D or ANGus, when these devices are installed in hazardous area. An ISB+ must be used to provide the necessary isolation in compatibility with ATEX rules. A standard modem, RTU or laptop can also be connected through the ISB+ to the CORUS, SEVC-D or ANGus for remote reading.

An external power supply (9-24 VDC) is used to power the ISB+. The enclosure of

the ISB+ can be mounted on a DIN Rail to facilitate integration into a cabinet.

ISB+ must be positioned, in a safe area, between both attachments as shown in the diagram overleaf. In addition to galvanic insulation, the ISB+ ensures the power supply of the communication port for the CORUS, SEVC-D or ANGus.

The ISB+ can also provide an external power supply for one CORUS.

When using the RS485 port on the hazardous area side, a multi-drop connection of several CORUS' and/or ANGus' is possible (up to 4 devices). The maximal cable length between the

KEY BENEFITS

- » Intrinsic safe interface for RS232 and RS485 ports
- » ATEX approved as associated apparatus
- » Din Rail mounting
- » Power supply output for one CORUS

ISB+ and the attachments depends on the characteristics of the cables and the number of devices, but it should be limited to 200m.

DESCRIPTION

Ports:

- » RS232 and RS485 for hazardous areas (these ports cannot be used at the same time)
- » RS232 and RS485 for safe areas (these ports cannot be used at the same time)
- » RS485 port 2-wire automatic turn-around
- » Baud-rate 300-9600
- » Power supply for ports RS232 and RS485 in hazardous areas
- » Multi-drop connections in hazardous areas possible for RS485 port

Power input:

- » 9-24V DC 8W min.

Power output:

- » External power for one CORUS only

LEDs:

- » One LED indicating input power presence
- » One LED for Tx
- » One LED for Rx

Technical Specifications

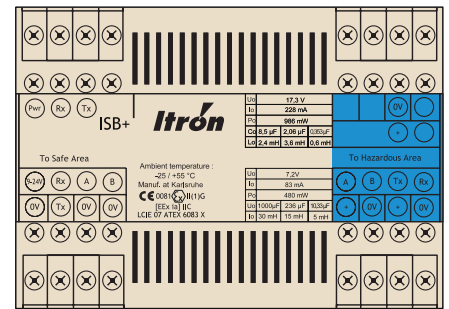
ATEX Approval	Approval N° LCIE 07 ATEX 6083X II(1)G [Ex ia] IIC CE marking
Environment	Operating temperature: - 25°C to + 55°C IP rate: IP20
Power Supply	9-24V DC 8W
Power Output	Only for powering one CORUS
Com Ports	RS232 and RS485 ports on both sides (hazardous and safe area) Baud-rate : 300 – 9600 bauds Power supply for RS232 or RS485 port in hazardous area RS485 port: 2 wires auto turn-around Multi-drop possible for RS485 in hazardous area
Dimensions	140 x 90 x 60 mm (L x l x h)
Maximal Cable Connections	RS232: 50m (hazardous and safe area) RS485: - Safe area: up to 1km - Hazardous area: (depending on cables) <200m

Power supply output for hazardous area

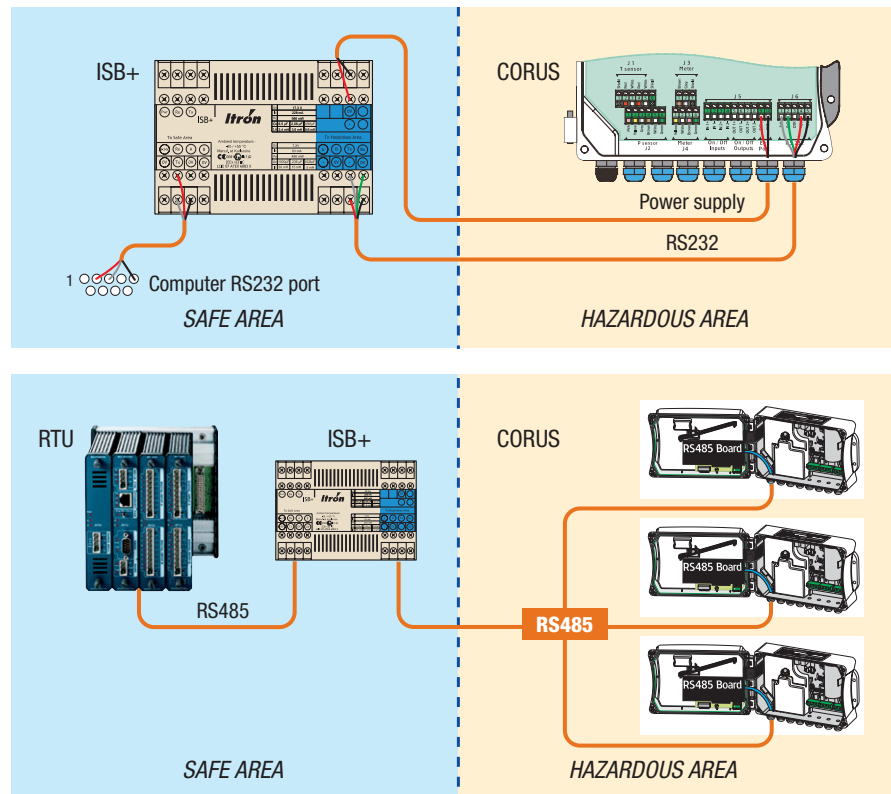
	IIA	IIB	IIC
Uo		17.3V	
Io		228mA	
Po		986mW	
Co	8.5µF	2.06µF	0.353µF
Lo	3.6mH	2.4mH	0.6mH

RS232 or RS485 connection to hazardous area

	IIA	IIB	IIC
Uo		7.2V	
Io		83mA	
Po		480mW	
Co	1000µF	236µF	10.33µF
Lo	30mH	15mH	5mH



TYPICAL CONFIGURATIONS



Accessories

Power supply module

» Cables:

- ISB+ /PC (DB9)
- ISB+ /CORUS
- ISB+ /ANGus
- ISB+ /SEVC-D



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