

> PRIVA BLUE ID S-LINE SC44

Communication module RS485

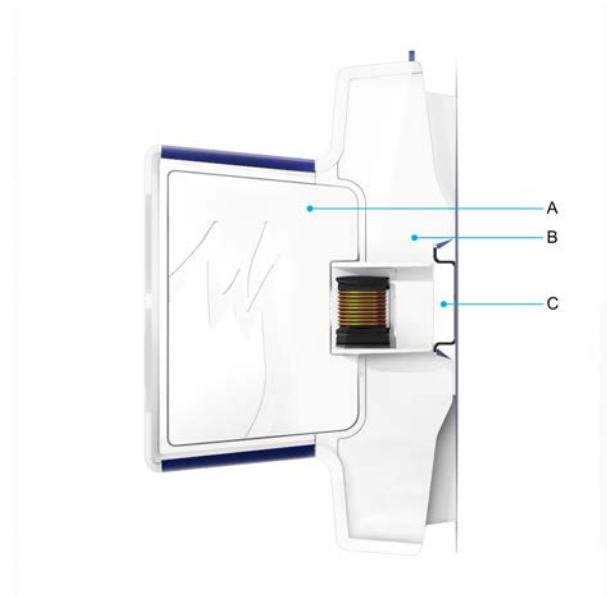


An Priva Blue ID S-Line SC44 Communication module RS485 provides the system with two RS485 ports for serial communication and is used to connect field bus devices.

Characteristics

- two RS485 ports for serial communication
- ports electrically isolated from system neutral
- ports electrically isolated from each other
- both ports have an A, B and 0 connection
- 24 V system power supply monitoring
- clear labelling of ports
- LED for communication status per port
- LED for status of module
- Priva Blue ID Lifeline
- text card for identification of ports

Modular design



All communication modules (A) have the same base (B). You simply click the base with module onto the DIN rail (C).

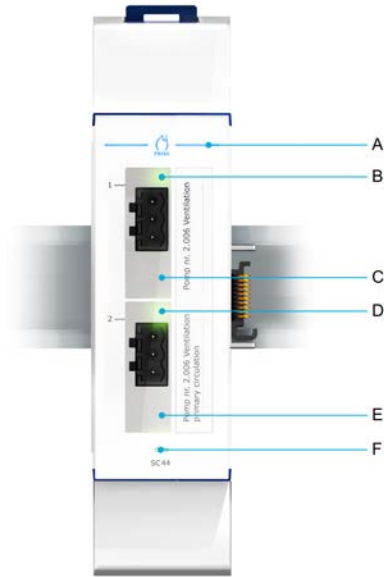
Hot swappable

A module can easily be removed from and placed back in the base without tools. This can be done live (hot swappable).

Electrical isolation

The module's ports are electrically isolated from the system neutral. In addition the RS485 ports are electrically isolated from each other.

Clear indication

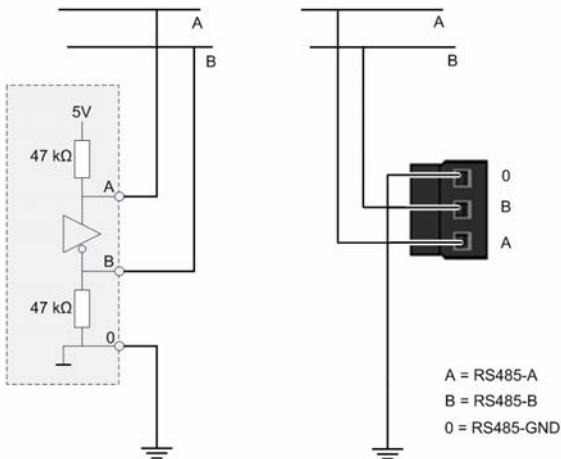


Legend

A	Priva Blue ID Lifeline
B	LED for status of port RS485-1
C	port RS485-1
D	LED for status of port RS485-2
E	port RS485-2
F	LED for status of module

Connection examples

Making a two-wire connection



Priva Blue ID Lifeline

The modules are equipped with blue LEDs. Together, these LEDs form the Priva Blue ID Lifeline. If the blue line is continuously on, the modules and bases are in the correct place according to the configuration in TC Engineer.

LEDs for status of ports

Per port, an LED clearly indicates the port's status. The LED is continuously green when the module is working. In other situations, the LED flashes or is off. In the event of a communication error, the LED is red as long as the error is present.

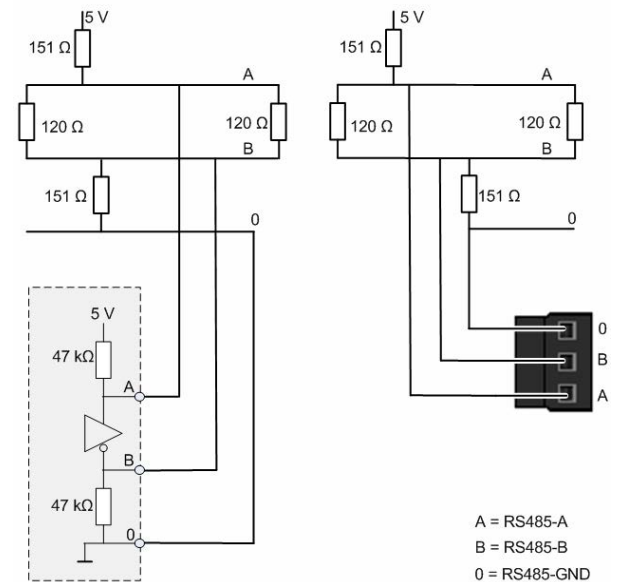
LED for status of module

The LED shows the status of the module. The LED is on continuously when the module is working correctly. If not, the LED flashes or the LED is off.

LED details

Details about statuses and indications of modules, input and/or outputs and the related LED colours and flashing patterns, are described in the *LEDs and Priva Blue ID Lifeline* appendix of the *Installing and commissioning* manual.

Termination and connecting base circuit



SC44 module specifications

General	
Module article description	Priva Blue ID S-Line SC44 Communication module RS485
Module article number	5040001 (V03:01 and higher)
Base article description	Priva Blue ID S-Line SC Communication base
Base article number	5040101 (V01:00 and higher)
Number of RS485 ports	2
Dimensions (XYZ) ¹	161.5 x 40 x 100.2 mm (6.36 x 1.57 x 3.94 inches)
Weight	module: 110 grams base: 120 grams
Maximum power consumption	2.0 W
Typical power dissipation ²	1.7 W
MTBF ³	module: 4,380,000 hours base: 8,760,000 hours
Construction	removable module on a base
Mounting of base	clicks onto DIN rail
Material	mixture of polycarbonate and ABS

¹ Excluding 1.1 mm room between the modules

² Dissipation under the following conditions:

- I/O load of 50%
- Energy saving mode on (LEDs off)

³ The MTBF is calculated according to the *Telcordia SR-332 standard Issue 2* under the following conditions:

- ambient temperature: 35 ... 50 °C
- supply voltage: 24 VDC
- time in operation per day: 24 hours
- reliability level: 60 %







Communication	
Standard used	TIA/EIA-485
Bus load	1/2 Unit Load
Bias resistance	47 kΩ
Baud rates	1k2, 2k4, 4k8, 9k6, 19k2, 38k4, 57k6, 76k8 and 115k2 bps
Other parameters	number of data bits: 7, parity: even, odd number of data bits: 8, parity: none, even, odd number of stop bits: 1 or 2
Internal termination and bias circuit	no if required, equip the network with an external termination and bias circuit
Functional isolation of voltage between the ports mutually, and in relation to system neutral	240 V
Accuracy of internal temperature measurement	± 2 °C
Protection of ports	protected against incorrect connection of ± 30 VDC and 30 VAC
Cable type required	twisted pair
Cross section	0.2 – 2.5 mm ² (without ferrule connector) 0.25 – 2.5 mm ² (with ferrule connector)
Maximum cable length	500 m
Connector type (supplied 2 x)	three-pin pluggable screw connector with A, B and 0 connection
Indication	<ul style="list-style-type: none"> • Priva Blue ID Lifeline • red-green LEDs for status of ports • green LED for status of module

General specifications of controllers, modules and bases

Housing	
IP code	IP30 (IEC 60529)
Flammability class	V-0 (UL 94)
Recycle code	7
Colour	release surfaces of module and DIN rail release: blue (RAL5013) other parts: white (RAL9003)
Device type	open device, for use in a pollution degree 2 environment

Installation and connection	
Installation	<p>in control panel:</p> <ul style="list-style-type: none"> • accessible to authorized personnel only • can be clicked onto the DIN rail that is positioned horizontally or vertically on the mounting plate <p>Note: The controller, SC module and SN module may only be mounted horizontally.</p> <p>in panel door integration in control panel:</p> <ul style="list-style-type: none"> • accessible to authorized personnel only • can be clicked onto the DIN rail that is positioned horizontally on the mounting plate
DIN-rail type	35 x 7.5 mm (height x depth), in accordance with IEC 60715
Maximum width of I/O modules, bus extension modules and controller	20 mm

Environment	
Permitted temperature inside control cabinet during normal operation with horizontally mounted modules only (without airflow)	0 ... 50 °C
Permitted temperature inside control cabinet during normal operation with vertically mounted modules only (without airflow)	0 ... 35 °C
Permitted temperature during transport and storage	-20 ... 70 °C
Permitted relative ambient humidity	10 % ... 95 % (non-condensing)
Shock and vibration resistance	IEC 61131-2
Installation category	II

Legislation and standards		
Canada / USA		<ul style="list-style-type: none"> • UL 508:2005 (industrial control equipment) • UL 916:2007 (energy management equipment) • UL 61010-1:2004 (measurement and control equipment) • CSA C22.2 No 14-10: 2011 (industrial control equipment) • CSA C22.2 No 205-12: 2012 (signal equipment) • CSA C22.2 No 61010-1-04 (measurement and control equipment)
	EMC	<ul style="list-style-type: none"> • complies with 47 CFR Part 15 Subpart B, Class B (FCC Rules) Operation is subject to the following two conditions: <ol style="list-style-type: none"> 1. This system may not cause harmful interference. 2. This system must accept any interference received, including interference that may cause undesired operation. • ISM-system, complies with Canadian ICES-001
Europe		<ul style="list-style-type: none"> • Low voltage directive 2006/95/CE: <ul style="list-style-type: none"> • EN 61010-1:2010 (measurement and control equipment) • EMC directive 2004/108/EC: <ul style="list-style-type: none"> • EN 61326-1:2006 (measurement and control equipment) • EN 61000-6-2:2005 (generic immunity standard) • EN 61000-6-3:2007 (generic emission standard) • RoHS directive 2011/65/EU
		complies with the WEEE directive 2002/96/EC
International		<ul style="list-style-type: none"> • The Priva Blue ID S-Line S10 Controller is BTL registered at BACnet International. • The Priva Blue ID S-Line S10 Controller is BACnet certified in accordance with ISO 16484-5/6. • Priva is a member of the BACnet Interest Group Europe.

Priva (head office)
Zijlweg 3
2678 LC De Lier
The Netherlands

Your Priva partner:

See www.priva.com for contact information of a Priva office or partner for your region.

