

# Remote I/O

## IS1+ Remote I/O CPU module

For Zone 1

9442/32-10-00 Art. No. 279953



- Supports PROFIBUS DP, PROFINET, Modbus TCP+RTU and EtherNet/IP™; incl. HART transmission and redundancy
- RS485-IS (max. 1.5 Mbps) and Ethernet 100BASE-TX (max. 100 Mbps) interfaces
- Extensive diagnostics based on NE 107
- Supports FDT/DTM, OPC UA and web servers for integration in asset management systems
- Extended ambient temperature range from -40 to +75 °C

MY R. STAHL 9442B



The 9442/32 CPU module functions as a gateway between the IS1+ Remote I/O system and the automation system. All supported communication protocols are in the CPU module and can be configured by the user. In addition to the process values, other information such as diagnostics, parameterisation and configuration is transmitted via the CPU module. The 9496 socket and the 9494 BusRail are used for communicating with the I/O modules. Integration in control systems and plant asset management tools is based on standards such as GSD, EDS, web servers and FDT/DTM.

## Technical Data

### Explosion Protection

Application range (zones)	1 2
Ex interface zone	1 2
IECEX gas certificate	IECEX PTB 22.0001 X
IECEX gas explosion protection	Ex ib [ia Ga] [ib Gb] IIC T4 Gb
ATEX gas certificate	PTB 21 ATEX 2004 X
ATEX gas explosion protection	Ex II 2 (1) (2) G Ex ib [ia Ga] [ib Gb] IIC T4 Gb
Certificates	ATEX (PTB), IECEX (PTB), India (PESO)
Ship approval	BVIS, EU RO MR (DNV), KR, LR
Declaration of Conformity	ATEX (EUK)
Installation	Zone 1

### Electrical Data

Protocol setting	Via rotary switch S1
Redundancy	Full redundancy Line redundancy Supply redundancy
RS485 interface connection	Sub-D plug, 9-pole
RS485 interface	As per PROFIBUS specification RS 485-IS
RS-485 interface protocol	Profibus DP V1 HART Profibus DP V0 Modbus RTU
Address range RS485	1 – 99

# Remote I/O

## IS1+ Remote I/O CPU module

For Zone 1

9442/32-10-00 Art. No. 279953



### Electrical Data

Copper RS485 transmission length/rate	1200 m at 9.6 to 93.75 kbps 1000 m at 187.5 kbps 400 m at 500 kbps 200 m at 1.5 Mbps 100 m at 12 Mbps
Transfer length/rate FO RS485	Approx. 2000 m at 1.5 Mbit/s
Ethernet interface connection	2 x RJ45 (EIA/TIA 568B) socket
USB version	USB 2.0 IS
Interface RJ45	Unmanaged switch function 100BASE-TX-IS
RJ45 protocols	MODBUS TCP EtherNet/IP™ PROFINET
Transfer rate RJ45	Max. 10/100 Mbps Auto-negotiation
Transfer length copper RJ45	100 m
Transfer length FO RJ45	2000 m multi mode 30 km single mode
USB interface	Type A socket
USB address setting	Identical to RS485 address
USB transfer rate	Max. 480 Mbps
Max. USB current	250 mA
USB protocols	Service bus

### Auxiliary Power

Power supply	via base 9496 and PM 9445/32
Max. current consumption	300 mA
Max. power dissipation	5 W

### Galvanic Isolation

Auxiliary power/CPU	≥ 1500 V AC
CPU/CPU (redundancy)	≥ 1500 V AC

### Device Specific Data

Software	IS1 device DTM IS Wizard Web server
LED module requires maintenance	"M/S" LED, blue
LED operating conditions	"PWR" LED, green
Retrievable parameters	Hardware revision Manufacturer Serial number Software revision Type
LED data traffic automatic system	"AS EXCH" LED, green
LED configuration	"CFG ERR" LED, red
LED data traffic RS485	"RXTX X1 RS-485" LED, green
LED port connection RJ45 port 1	"LINK X2 LAN P1" LED, yellow
LED data traffic RJ45 port 1	"RXTX X2 LAN P1" LED, green
LED port connection RJ45 port 2	"LINK X2 LAN P2" LED, yellow
LED data traffic RJ45 port 2	"RXTX X2 LAN P2" LED, green

# Remote I/O

## IS1+ Remote I/O CPU module

For Zone 1

9442/32-10-00 Art. No. 279953



### Device Specific Data

LED USB data traffic "RXTX X3 USB" LED, green

### Diagnostics

LED group error "ERR" LED, red

### Ambient Conditions

Ambient temperature  
-40 °C ... 65 °C (without mounting plate)  
-40 °C ... 70 °C (With 3 mm sheet steel mounting plate)  
-40 °C ... 75 °C (With 6 mm aluminium mounting plate)

Storage temperature -40 °C ... 80 °C

Max. operating altitude < 2000 m

Max. relative humidity 95% (without condensation)

### Mechanical Data

Degree of protection (IP) (IEC 60529) IP30

Module enclosure  
Polyamide 6GF  
Seawater-resistant aluminium

Fire resistance (UL 94) V2

Pollutant class Corresponds to G3

Width 32 mm

Depth 123 mm

Length 152 mm

Length, inches 5.98 in

Weight 1 kg

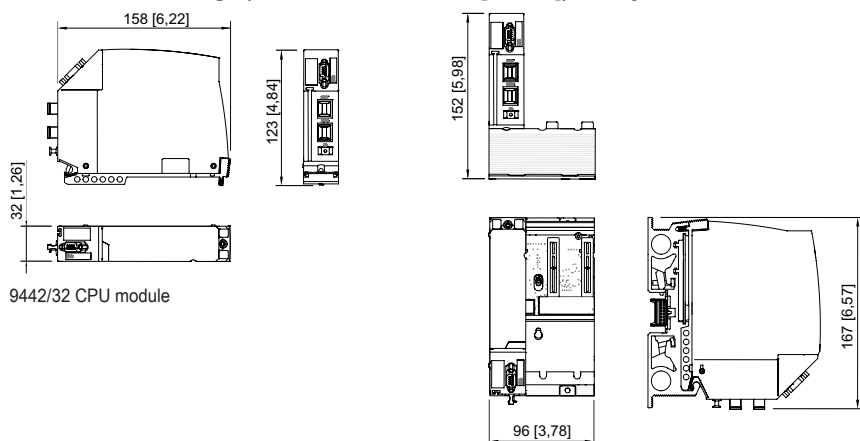
Weight 2.2 lb

### Mounting / Installation

Mounting orientation  
Horizontal  
Vertical

Module fuse Torx T20 screws

### Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



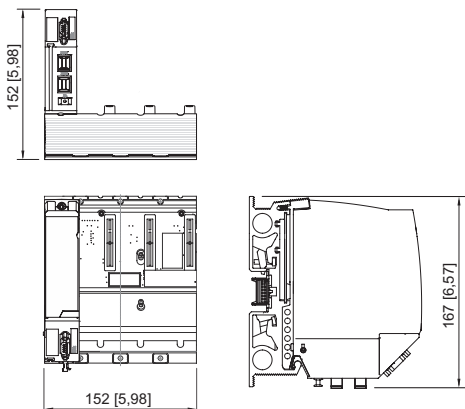
9442/32 CPU module and 9496/32-03-00 socket

# Remote I/O

## IS1+ Remote I/O CPU module

For Zone 1


9442/32-10-00 Art. No. 279953





9442/32 CPU module and 9496/32-04-00 socket

## Accessories


### Ethernet media converter

		Art. No.
	<p>Multi-mode media converter for installation in Zone 1                      For Ethernet (PROFINET, EtherNet/IP, Modbus TCP) via fibre optic cables in Zone 1 (Class 1 IEC 60825-1 laser)                      Conversion from 100BASE-FX to 100BASE-TX-IS "Ex ia"                      100BASE-FX: 1 port multi-mode, LC, 100 MBps, up to 3 km                      100BASE-TX-IS: 1 port, RJ45, 100 MBps, up to 100 m</p>	294420
	<p>Single-mode media converter for installation in Zone 1                      For Ethernet (PROFINET, EtherNet/IP, Modbus TCP) via fibre optic cables in Zone 1 (Class 1 IEC 60825-1 laser)                      Conversion from 100BASE-FX to 100BASE-TX-IS "Ex ia"                      100BASE-FX: 1 port single-mode, LC, 100 MBps, up to 30 km                      100BASE-TX-IS: 1 port, RJ45, 100 MBps, up to 100 m</p>	294451

### Series 9496/32 – socket for CPU & power modules

		Art. No.
	<p>Zone 1                      3 slots for mounting                      1 x CPU and 2 x power module or 2 x CPU and 1 x power module                      Dimensions approx. L = 167 mm, W = 96 mm, H = 50.6 mm</p>	290095
	<p>Zone 1                      4 slots for mounting                      2 x CPU and 2 x power module                      Dimensions approx. L = 167 mm, W = 152 mm, H = 50.6 mm</p>	290162

### Fieldbus isolating repeater Series 9185/11

		Art. No.
	<p>Equipment for installation in safe areas or Zone 2/Div. 2                      For fieldbuses with RS485-IS interface – Zone 1/Class I, II, III Division 1 and Class I, II, III                      Zone 1                      Suitable for PROFIBUS DP, Modbus, R. STAHL ServiceBus                      RS 232, RS 422, RS 485 interface with the automation system                      Transmission rate automatically set with PROFIBUS DP                      Adjustable transmission rate (1.2 kbps to 1.5 Mbps)                      24 V AC/DC auxiliary power                      For further information, see the Series 9185/11 data sheet</p>	227598

# Remote I/O

## IS1+ Remote I/O CPU module

For Zone 1

9442/32-10-00 Art. No. 279953



### Sub-D plug, RS-485 IS, angled

Art. No.



9-pin for connecting fieldbus or ServiceBus to CPU & power module Series 9440/22, 9185 fieldbus isolating repeater and 9786/12-11 media converter.  
The end-of-line resistor is installed and switchable.  
For RS 485 IS (according to Profibus standard).  
Ambient temperature: -40 °C to +70 °C

162693

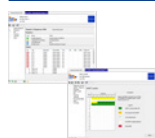


9-pin for connecting 9185 fieldbus isolating repeater and 9786/12-11 media converter.  
The end-of-line resistor is installed. For RS-485 IS (according to Profibus standard).  
Ambient temperature: -25 °C to +70 °C

201805

### IS1 DTM devices Series 9499/DTM

Art. No.



- Parameterisation and configuration of the IS1+ system
- Communication with HART-capable field devices
- Supports all common FDT frame applications (e.g. FieldCare, PactWare™)
- Condition monitoring
- Scan function for automatic topology generation
- Download from r-stahl.com

9499/DTM-IS1-02 Com/Device/HART 30

Free-of-charge software licence for up to 30 HART devices

251237

9499/DTM-IS1-04 Com/Device/HART 300

Software licence for up to 300 HART devices

251239

9499/DTM-IS1-06 Com/Device/HART unlted.

Software licence for an unlimited number of HART devices

251240

### IS1 PCS7 APL field device library

Art. No.



Simple integration of IS1+ systems in SIEMENS PCS7 (V9 SP2 to V9.1 SP2):

- PROFIBUS DP with CPM 9440 from GSD 3.12; CPU 9442 from GSD 5.14
- PROFINET with CPU 9441 from GSDML-V2.3-Stahl-RIO-20140206; CPU 9442 from GSDML-V2.34-Stahl-RIO9442-20200427

Further information and ordering only available from Siemens: [www.siemens.com/mvdi](http://www.siemens.com/mvdi)

### AOI tool

Art. No.



Simple integration of IS1+ systems in Rockwell ControlLogix and CompactLogix via EtherNet/IP and AOI (add-on instructions).

Note: The 9499/DTM-IS1 DTM is also required.

This can be downloaded from r-stahl.com

### RS485 media converter

Art. No.



Media converter for installation in Zone 1.

For fieldbuses (PROFIBUS DP, Modbus RTU) using optical intrinsically safe "Ex op is" fibre optic in Zone 1.

Compatible with Series 9786 devices.

Point-to-point, linear structure or optical ring.

With diagnostics function including error signalling.

Simple parameterisation using a rotary switch.

Data rates from 9.6 kbps to 1.5 Mbps possible.

For further information, see the data sheet for the Series 9786 media converter.

308562


## Remote I/O

### IS1+ Remote I/O CPU module

For Zone 1


9442/32-10-00 Art. No. 279953



	<p>Media converter for installation in Zone 2. For fieldbuses (PROFIBUS DP, Modbus RTU) using optical intrinsically safe "Ex op is" fibre optic in Zone 1. Compatible with Series 9786 devices. Point-to-point, linear structure or optical ring. With diagnostics function including error signalling. Simple parameterisation using a rotary switch. Data rates from 9.6 kbps to 1.5 Mbps possible. For further information, see the data sheet for the Series 9786 media converter.</p>	308563
--	--	--------

#### USB RS485 converter

#### Art. No.

	<p>USB/RS485-IS converter for installation in Zone 2 Interference-resistant, bidirectional conversion of a USB interface to an intrinsically safe RS485 interface, with power supply via the USB port</p> <p>For further information, see the Series 9787 data sheet – MY R. STAHL 9787A</p>	295356
	<p>USB-IS/RS485-IS converter for installation in Zone 1 Interference-resistant, bidirectional conversion of an intrinsically safe USB interface to an intrinsically safe RS485 interface, with power supply via the USB port</p> <p>For further information, see the Series 9787 data sheet – MY R. STAHL 9787A</p>	285849

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.