

SYNCHROTEQ COMMUNICATION MODULE



DESCRIPTION

The VIZIMAX SynchroTeq Communication Module allows a master device to communicate with or operate SynchroTeq units using IEC 61850, Modbus, IEC 60870-5-10X or DNP3 protocols on an Ethernet LAN.

A master device can be (for example) a DNP3 master station, IEC 61850 client, a substation computer or a substation controller. The SynchroTeq Communication Module is compatible with the following controlled switching platforms of HV circuit breaker:

- | | |
|-------------------|---|
| STU 015000 | SynchroTeq rackmount base unit with communication module compatibility. For more information, please refer to <i>SynchroTeq Manual</i> . |
| STU 025000 | SynchroTeq SA base unit with communication module compatibility. For more information, please refer to documents MASY-0154-A, SynchroTeq SA Reference Manual and MASY-0151-A, SynchroTeq Reference Manual. |
| STP 030000 | SynchroTeq Plus base unit – Available in rackmount or standalone versions. For more information, please refer to document SynchroTeq Plus - User Guide. |
| STM 0x0000 | SynchroTeq MV units. SynchroTeq Communication Module is available with all SynchroTeq MV units. For more information, please refer to SynchroTeq MV manual. |

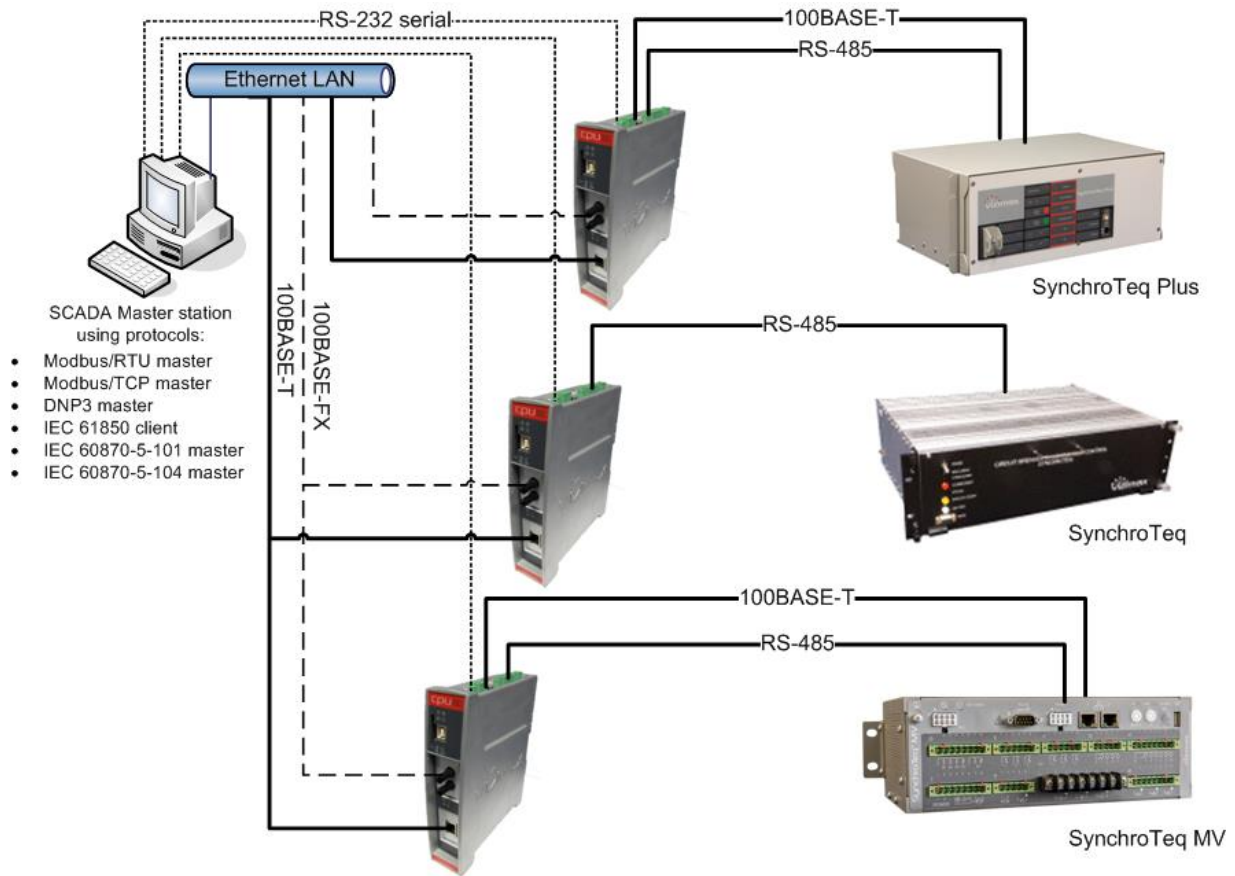


FIGURE 1 SynchroTeq Communication Module connection

FEATURES

PROTOCOLS SUPPORTED

The following protocols are supported by SynchroTeq Communication Module:

- DNP3 Slave
- IEC 61850 Server
- IEC 60870-5-101 Slave
- IEC 60870-5-104 Slave
- Modbus slave

MOUNTING

DIMENSIONS

Specifications	Value
Width	44.5 mm (1.75")
Height	152 mm (6")
Depth	133 mm (5.25")
Weight	720g (1.6 lb.)
Enclosure	Aluminium
Mounting	DIN rail or panel mount with optional adapter (RWA AA0000)



FIGURE 2 Din rail Mounting



FIGURE 3 Panel mount with optional adapter (RWA AA0000)

PRODUCT REF CHARACTERISTICS

COMPLIANCE



CONFORMITY

Specifications		Value	Standards
Temperature	Operating	-40°C to 75°C	
	Storage	-65°C to 90°C	
Relative humidity		5% to 95%, non-condensing	
Immunity			IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6

COMMUNICATIONS

SERIAL PORTS

SynchroTeq Communication module has double serial ports with the following characteristic:

Specifications	Value
Number	2
Communication modes	RS 232 and RS-485 two-wire or RS-422 4-wire mode
Support	Full support of modem control signals with RS-485
Connector	screw type
Isolation	2 kV galvanic isolation

ETHERNET PORTS

The SynchroTeq Communication Module has one (1) 100BASE-T Ethernet port on the top, one (1) 100BASE-T Ethernet port and one (1) 100BASE-F(X) Ethernet port on the front

Specifications	Value
Number	1
Location	Top Ethernet port
Communication	Ethernet communications on twisted-pair copper (category 5)
Interface	Auto MDIX, 10 Mbps (10Base-T) and 100 Mbps (100Base-T)
Support	Multi-protocol support
Connector	RJ45
Isolation	1500 Vrms galvanic

Specifications	Value
Number	1
Location	Front Ethernet port
Communication	Twisted-pair copper (category 5)
Interface	Auto MDIX, 10 Mbps (10Base-T) and 100 Mbps (100Base-T)
Support	Multi-protocol support
Connector	RJ45
Isolation	500 Vrms galvanic isolation

Specifications	Value
Number	1
Location	Front Ethernet port
Communication	Fiber optic
Interface	100 Mbps (100Base-FX version of IEEE 802.3u)
Support	Multi-protocol support
Connector	Duplex ST connector
Others	1300 nm product with optical performance compliant with the FDDI PMD standard (ISO/IEC 9314-3:1990 and ANSI X3.166 – 1990) Support of up to 2 km multimode fiber backbone

DIGITAL OUTPUT

Specifications	Value
Number	1
Rated voltage	250 V dc, 250 V ac maximum; 0.5 A maximum
Isolation	2 kV galvanic
Others	Used as a watchdog timer output ("System OK" application) or as a general purpose output

POWER SUPPLY

Specifications	Value
Operating range	8 to 30 VDC \pm 10% (7.2 to 33 VDC)
Power requirements	3W nominal
AC/DC power supply recommendation:	Lambda DPP30-24 (85-260 VAC, 90-375 VDC, 15W))

SPECIFICATIONS, LED DISPLAY AND CABLING

The SynchroTeq Communication Module comprises the following products:

- A RightWON Satellite CPU. For Technical details, please refer to RWU010000-SP-en, RightWON Satellite CPU – Datasheet
- A 100Base-FX Ethernet plug-in on the unit's Front-1 slot. For Technical details, please refer to RWCOD0000-SP-en, 100Base-FX Ethernet Plug-in - Datasheet.
- A 100Base-T Ethernet plug-in on the unit's Front-2 slot. For Technical details, please refer to RWCOC0000-SP-en, 100Base-T Ethernet Plug-in - Datasheet.
- A 100Base-T isolated combo plug-in, one RS-485-422, one RS-232, one DO on the unit's Top-1 slot. For Technical details, please refer to RWCOT0000-SP-en, Isolated Combo Plug-In - 100Base-T, 1xRS485-422, 1xRS232, 1DO – Datasheet.

INSTALL AND CONFIGURE THE SYNCHROTEQ COMMUNICATION MODULE

For more information on the installation and configuration of the SynchroTeq Communication Module, please refer SynchroTeq Communication Module User Guide.

ORDERING INFORMATION

RWK 000016 Standard SynchroTeq Communication Module for the STU 0x5000 or STP 030000 (2 x Ethernet 100BASE-T + 1 x Ethernet 100BASE-FX multimode + 2 x serial ports) – Protocols DNP3 client and IEC 61850 server + GOOSE – integrated XCBR LN, -40° C to 75° C (-40° F to 165° F).

Options:

RWS 020000 SynchroTeq Communication Software, with integrated SCL editor and activation key (Dongle) included. (See *RightWON Configuration Suite - Manual*.)



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