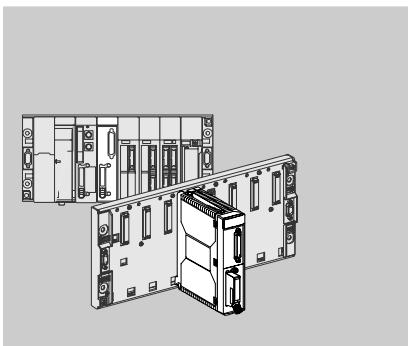


# Modicon Premium PLCs TSX SCY 21601

Communication Module  
Module de Communication

Quick reference guide  
Instruction de service

Edition September 2004

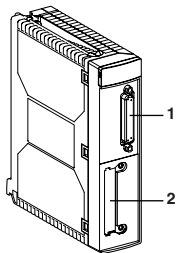


## Presentation

The TSX SCY 21601 communication module is a standard format module with two communication channels, an RS 485 integrated channel (1) and a PCMCIA host channel (2).

**Functions :** The module provides :

- A multi-protocol RS 485 asynchronous serial link (UNI-TELWAY, Jbus/Modbus, character mode) on the integrated channel
- The host for a PCMCIA card:
  - either FIPWAY (TSX FPP 20) network
  - or multi-protocol (UNI-TELWAY, Modbus /Jbus or character mode):
    - non-isolated RS 232 D serial link: TSX SCP 111
    - current loop link: TSX SCP 112
    - isolated RS 485 / RS 422 serial link: TSX SCP 114
  - or single protocol JNET:
    - current loop link: TSX JNP 112
    - isolated RS 485 serial link: TSX JNP 114



### Installation:

The TSX SCY 21601 module can be installed in any TSX RKY  $\pm$ EX rack slot.

A TSX SCY 21601 module has a maximum of two application-specific channels (1 integrated channel + 1 serial link via the PCMCIA communication card installed).

### Number of channels managed by the processor:

TSX P57 0244 : 4 application-specific channels,

TSX P57 1\*\* / 1634 / TMPX P57 102 / TPCX 57 1012 : 8 application-specific channels,

TSX P57 2\*\* / 2\*23 / 2634 / TMPX P57 202 / TPCX P57 203 / TSX PCI 57 204 : 24 application-specific channels,

TSX P57 3\*\* / 3623 / 3634 / TMPX P57 352 / TPCX P57 353 / TSX PCI 57 354 : 32 application-specific channels,

TSX P57 4\*2 / TMPX P57 4\*2 : 48 application-specific channels,

TSX P57 453 / 454 / 4823 / 4634 / 554 / 5634 : 64 application-specific channels.

**Warning: the TSX SCY 21601 module is only compatible with TSX P57 \*\* version  $\geq$  V3, TPMX P57 \*\* and TPCX 57 \*\* processors.**

Refer to the following manuals for installing the module :

- TSX DM 57 2E, Volume 3, Section D,
- Communication manual TLX DS COM PL7 xxF,
- Asynchronous serial link User manual 35006178.

## Characteristics of the integrated channel

Protocols	UNI-TELWAY	Modbus	Character mode
Type	Master/Slave	Master/Slave	Half-Duplex
Rate	1200...19200 bauds		
Number of devices	1... 28	1...28	—
Length of bus	1000 m	1000 m	1000 m
Size of exchanges	240 bytes	256 bytes	4 Kb
Services	Message handling	Read words/bits	Transmission
	M/S, S/S	Write words/bits	Reception
	UNI-TE requests	Diagnostics	

## Diagnostics

RUN	ERR	CH0	Comments
○	(1)	(1)	Module powered down or not working
●	○	●	No communication on the integrated channel
●	○	● (2)	Communication on the integrated channel
●	●	(1)	Serious error on the integrated channel
●	○	○	Integrated channel fault - configuration fault
●	○	○	Faulty device on the channel
○	○	○	Self-tests

**Key:** ● Lamp on ○ Lamp off ○ Lamp flashing  
 (1) lamp status not applicable  
 (2) line activity

## Installation/removal

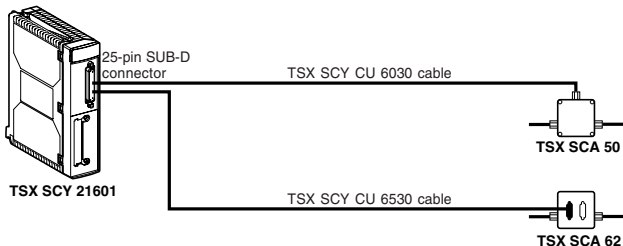
The SCY module can be installed or removed with the PLC powered up.  
 PCMCIA cards **cannot** be disconnected while powered up.

## Connection

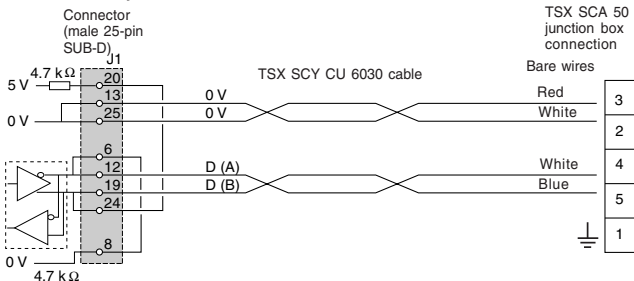
## • Connection of the integrated channel to the UNI-TELWAY bus

The communication channel integrated in the module:

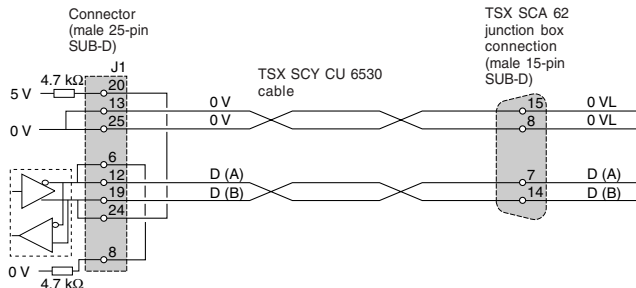
- either by means of the TSX SCY CU 603 cable via the TSX SCA 50 T-junction box
- or by means of the TSX SCY CU 6530 cable via the TSX SCA 62 junction box



## TSX SCA 50 T-junction box connection : TSX SCY CU 6030 cable

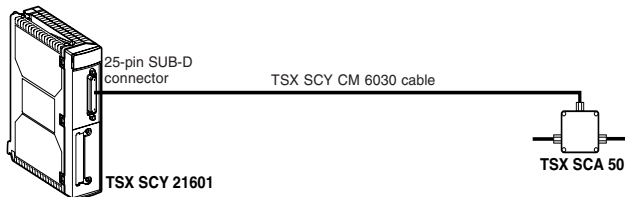


## TSX SCA 62 junction box connection : TSX SCY CU 6530 cable

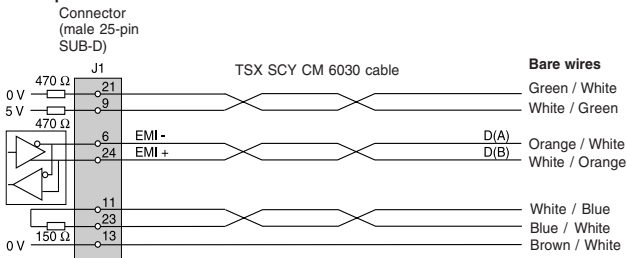


### • Jbus/Modbus bus connection

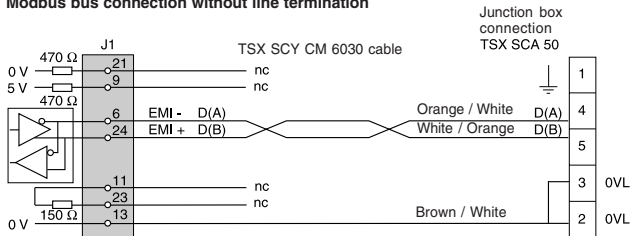
The integrated channel is connected to the bus via the TSX SCA 50 T-junction box by means of the TSX SCY CM 6030 cable.



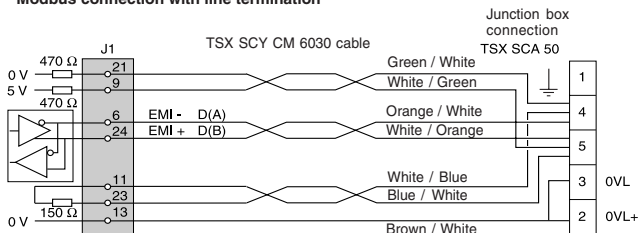
### Description of the TSX SCY CM 6030 cable



### Modbus bus connection without line termination

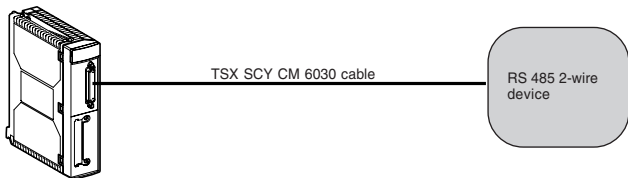


## Modbus connection with line termination



## • Character mode connection

The TSX SCY CM 6030 cable is used to connect the TSX SCY 21601 module integrated channel to a standard RS 485 device.

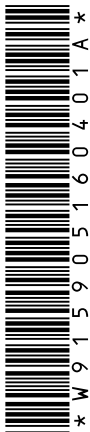


## TSX SCY 21601 module power consumption

This table shows the power consumption of the TSX SCY 21601 module, without a PCMCIA card in the host channel and with no connections on the integrated channel.

Voltage	Typical current	Maximum current
5 Volts	350 mA	420 mA





03



W915905160401A 03

**Schneider Electric Industries SAS**

Headquarters

89, bd Franklin Roosevelt  
F - 92506 Rueil Malmaison Cedex

<http://www.schneider-electric.com>

Owing to changes in standards and equipment,  
the characteristics given in the text and images  
in this document are not binding us  
until they have been confirmed with us.

Printed in Italy

September 2004