

Twido

Information sheet

Nb: 39

Version :1.0

Product :	Twido	Protocol :	Ethernet / Modbus
Software :	Twido Soft	Version :	V1.0

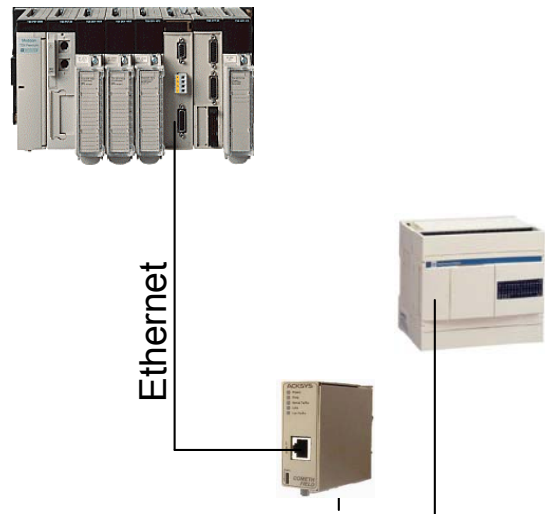
Application type : TSX57 Scan IO + Cometh + 1 slave Twido Mod. connection

Application short wording : Twido and TSX57 connection via Ethernet with I/O scanner function

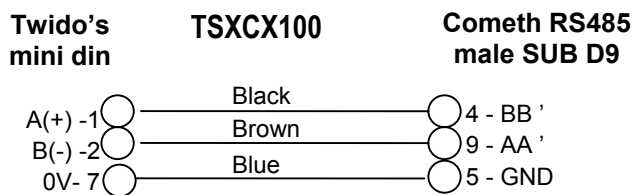
List of items :

- TSX57203 V5.3
- TSXETY5102
- ACKSYS's Cometh Field & **TCP modbus protocol**
- TWDLCAA24DRF
- 1 Ethernet cross cable
- 1 +24VDC power supply for the COMETH gateway

Functional diagram :



Cabling diagram :



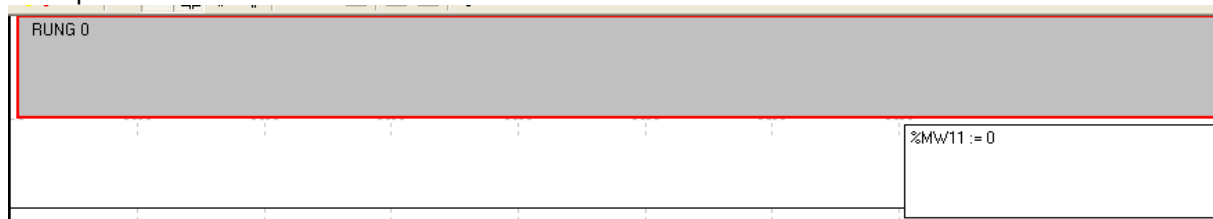
Twido configuration :

Taking into account the wiring on the Twido's 8 pins mini din (no 5-DPT/7-0V connection), communication parameters are fixed to **19200 bps**, 8 bits, no parity, 1 stop , **@ Modbus = 1**. In that case, Port 1 tab parameters of TwidoSoft are without effect. It can be left to its default parameters (remote connection @1)

In order to work with other Modbus parameters, connect pin 5/7 of the Twido's mini din and configure the required parameters in the TwidoSoft Port 1 tab, then configure the gateway accordingly. This is applicable only when using the built-in link of the Twido (console port UC=Port 1)

The internal words of the Twido aimed at read and write requests must be used in the Twido program. Record in the Twido a program containing at least one line in which the higher ranked word +1 used in request is allocated to a value or define these words in the I/O transfer instructions of the Twido which will be raised to Ethernet.

Example :



TSXETY5102 configuration :

IP configuration :

Configuration

Désignation : COUPLEUR FACTORYCAST Version : 2.0

Adresse IP du coupleur
 Adresse IP: 139, 160, 86, 70 Masque sous-réseau: 255, 255, 252, 0 Adresse du Gateway: 0, 0, 0, 0

Services coupleur
 IO Scanning Global data
 Serveur d'adresse Bande passante

Messagerie | **IO Scanning** | Serveur d'adresse | SNMP | Global Data | Bande passante | Bridge

Adresse XWAY
 Réseau: 1 Station: 24

Configuration adresses IP
 Configurée
 Adresse IP: 139, 160, 86, 70
 Masque sous-réseau: 255, 255, 252, 0
 Adresse du Gateway: 0, 0, 0, 0
 Configuration servie

Configuration Ethernet
 Ethernet II 802.3

Configuration des connexions

	Adr Xway	Adresse IP	Protocole	Accès	Mode
1	1,101	139.160.86.75	MODBUS	<input checked="" type="checkbox"/>	MULTI
2			UNITE	<input checked="" type="checkbox"/>	MULTI
3			UNITE	<input checked="" type="checkbox"/>	MULTI
4			UNITE	<input checked="" type="checkbox"/>	MULTI
5			UNITE	<input checked="" type="checkbox"/>	MULTI
6			UNITE	<input checked="" type="checkbox"/>	MULTI
7			UNITE	<input checked="" type="checkbox"/>	MULTI
8			UNITE	<input checked="" type="checkbox"/>	MULTI
9			UNITE	<input checked="" type="checkbox"/>	MULTI
10			UNITE	<input checked="" type="checkbox"/>	MULTI
11			UNITE	<input checked="" type="checkbox"/>	MULTI
12			UNITE	<input checked="" type="checkbox"/>	MULTI

Scan IO configuration :

Adresse IP du coupleur
 Adresse IP: 139, 160, 86, 70 Masque sous-réseau: 255, 255, 252, 0 Adresse du Gateway: 0, 0, 0, 0

Services coupleur
 IO Scanning Global data
 Serveur d'adresse Bande passante

Messagerie **IO Scanning** Serveur d'adresse SNMP Global Data Bande passante Bridge

Repli des entrées
 Repli à 0
 Maintien

Réglage de la scrutation (ms)
 Slow: 250 Normal: 150 Fast: 10

Zones %MW du master
 Read Ref. De 10 à 19 Write Ref. De 0 à 9

Périphériques scannés

	Adresse IP	Unit ID	Repetitive rate	RD ref. master	RD ref. slave	RD count	VR ref. master	VR ref. slave	VR count	Description
1	139.160.86.75	1	SLOW	10	0	0	0	0	10	Ecriture mots Twido %mw0 à %mw9
2	139.160.86.75	1	NORMAL	10	0	10	10	0	0	Lecture mots Twido %mw10 à %mw19
3			NONE							
4			NONE							
5			NONE							
6			NONE							
7			NONE							
8			NONE							

Please note that Unit ID = 1 in order to enable the gateway to access the default Twido address = @1 modbus

ACKSYS COMETH-FIELD gateway configuration :

Parameters in **bold** must be configured using the Set param command according to the documentation of the COMETH-FIELD. Configuration can be achieved by using Hyperterminal and a serial cable or with Telnet and a cross Ethernet cable.

```

root> COMETH MODBUS version 1.4.0.0, Administration mode ready
root> show net ip
139.160.86.75
root> show net mask
255.255.252.0
root> show serial interface
Electrical interface: 2wires noecho
root> show serial baudrate
19200 bps
root> show serial format
data bits: 8, parity: none, stop bits: 1
root> show serial mode
Modbus Slave RTU
root> show net tcpto
500
root> show net slaveid
ID fixed : 0 * (parameter available on the Cometh field TCP Modbus V1.4, = 0 in that case)
root> show serial stout
time out = 150 (this value must be adjusted according to the number of words and to the scan IO timings, 150 mS seems to be the better value for this configuration and prevents errors on remote addresses)
root> show net authip
1 - 0.0.0.0
2 - 0.0.0.0
3 - 0.0.0.0
4 - 0.0.0.0
root> show net mdbport
502

```

* The modbus slave address is fixed by the scanIO configuration in the TSXETY5102 coupler.



Application operation :

Values to be wrote must be filled in words %mw0 to %mw9 (10 words)

Read values are accessible in words %mw10 to %mw19 (10 words)

Attached file : TSX_PREM_COMETH_1Twido.STX