

Twido

Information sheet

Nb:40

Version :1.0

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

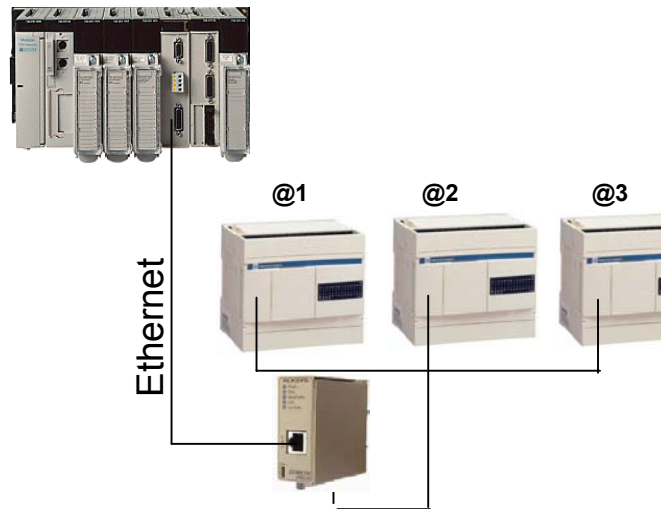
Application type : TSX57 Scan IO + Cometh + 3 slaves Twido Mod. connection

Application short wording : Twido & TSX57 connection via Ethernet with read scanner I/O function and writing of 10 words using the Uni TE mail system write_var request

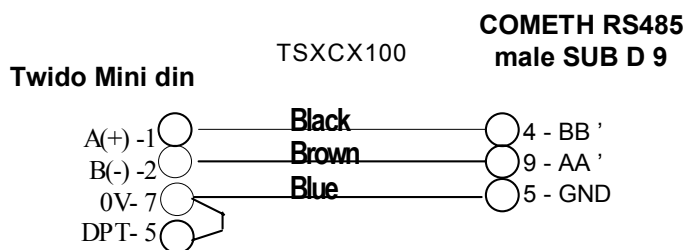
List of items :

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

Functional diagram :



Cabling diagram :



Configuration Twido :

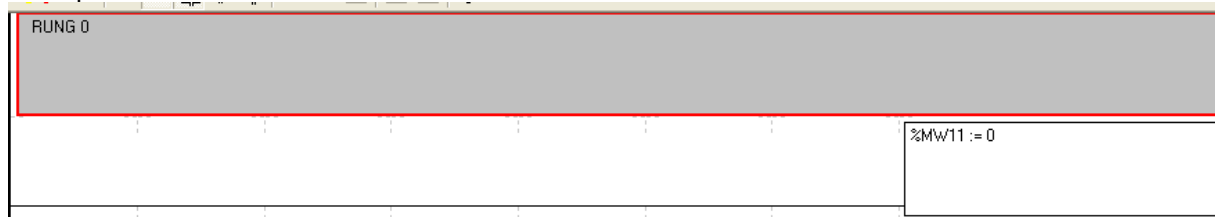
Strap Twido mini din pin 5/7 to activate Port 1 parameters tap.

Configure a different address for each slaves with serial parameters 19200 bps, no parity, 8 bits, 1 stop.

Gateway parameters will be the same as parameters configured for the Twido.

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 :

The image shows the configuration interface for a TSXETY5102 device. The 'IP configuration' section is active, showing the following settings:

- Configuration:** 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
- Configuration des connexions:**
 - Contrôle d'accès:
 - Tableau de 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: 400 Normal: 150 Fast: 10

Zones %Mw du master
 Read Ref. De 0 à 29 Write Ref. De 0 à

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	NORMAL	0	0	10	0	0	0	Lecture mots Twido %mw0 à %mw9@1
2	139.160.86.75	2	NORMAL	10	0	10	0	0	0	Lecture mots Twido %mw0 à %mw9@2
3	139.160.86.75	3	NORMAL	20	0	10	0	0	0	Lecture mots Twido %mw0 à %mw9@3
4			NONE							
5			NONE							
6			NONE							
7			NONE							
8			NONE							

Please notice the value of Unit ID = 1, 2 or 3 for each Modbus slave

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 = 200
```

(this value must be adjusted according to the number of words and to the scan IO timings, 200 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 %mw30 to %mw39 (10 words) for @1 and controlled with the %M1 bit.

Values to be wrote must be filled in words %mw40 to %mw49 (10 words) for @2 and controlled with the %M2 bit.

Values to be wrote must be filled in words %mw50 to %mw59 (10 words) for @3 and controlled with the %M3 bit.

Read values are accessible in words %mw0 to %mw29 (30 words, 10 per address via scan IO)

Fichier joint : TSX_PREM_COMETH_3Twido.STX