

Main characteristics

- EtherCAT slave- Modbus RTU Master
- Baud rate 100 Base-TX
- Auto-Crossover
- Internal installation

PROFILE

The GFX4-ETH2 module installs inside GFX4/GFXTERMO4/GFX4-IR products and expands communication by providing EtherCAT protocol.

The module has two communication channels:

- Ethernet: 2 ports for IN/OUT connections
- Modbus Master: allows communication with a maximum of 20 Slave devices.

Installation of the expansion can be requested when ordering the products or the expansion can be installed later.

Notes:

- The GFX4-ETH2 card **CANNOT** be inserted in GFX4 / GFXTERMO4 / GFX4-IR products equipped with the 4 auxiliary inputs option (mV/TC Aux).

- To set the 3 Rotary-Switches for addressing, you have to unscrew the fastening screw on the side cover of the GFX4 / GFXTERMO4 / GFX4-IR and temporarily remove the cover from the product.

TECHNICAL DATA

Ethernet port	
Protocol	EtherCAT slave CoE (Can Open over EtherCAT)
Function	Connects GFX4 / GFXTERMO4 / GFX4-IR to an EtherCAT Master device
Baud rate	100 Mbit/s automatic
Connector	RJ45 conforms CAT5 100 BaseT
Address	Implicit, via 3 rotary-switches, assigned to EtherCAT master
Msg. supported	Cyclical Acyclical
Diagnostics	for each ETHn port
GREEN Led On	Packet activity
YELLOW Led On	Link integrity
Modbus port	
Protocol	ModBus RTU (master) RS485 serial
Function	Connects GFX4 /GFXTERMO4/GFX4IR to ModBus RTU network
Baud rate	19200
Connector	RJ10 4-4 (max 20 nodes without repeater)
General characteristics	
Dimensions	106x76x17mm (H x W x D)
Installation	Inside module
Weight	35g
Power supply requirement	+24Vdc, 3W max. powered directly by GFX4 / GFXTERMO4 / GFX4-IR
Work/storage temperature	0...40°C/-20...70°C
Relative humidity	20...85% RH non-condensing
Ambient conditions for use	Internal use, altitude up to 2000m
Installation	Inside module (see manual "INSTRUCTIONS FOR USE AND WARNINGS")
Certifications	See GFX4 / GFXTERMO4 / GFX4-IR modules

ELECTRICAL CONNECTIONS

Connector J2 RJ10 4-4 pin

Pin N°	Name	Description	Note
1	GND1 (**)	-	(**) It is advisable to also connect the GND signal between Modbus devices with a line distance > 100 m
2	Rx/Tx+	Data reception/transmission (A)	
3	Rx/Tx-	Data reception/transmission (B)	
4	+V (reserved)	-	

Cable type: flat telephonic for 4-4 pin 28AWG conductor

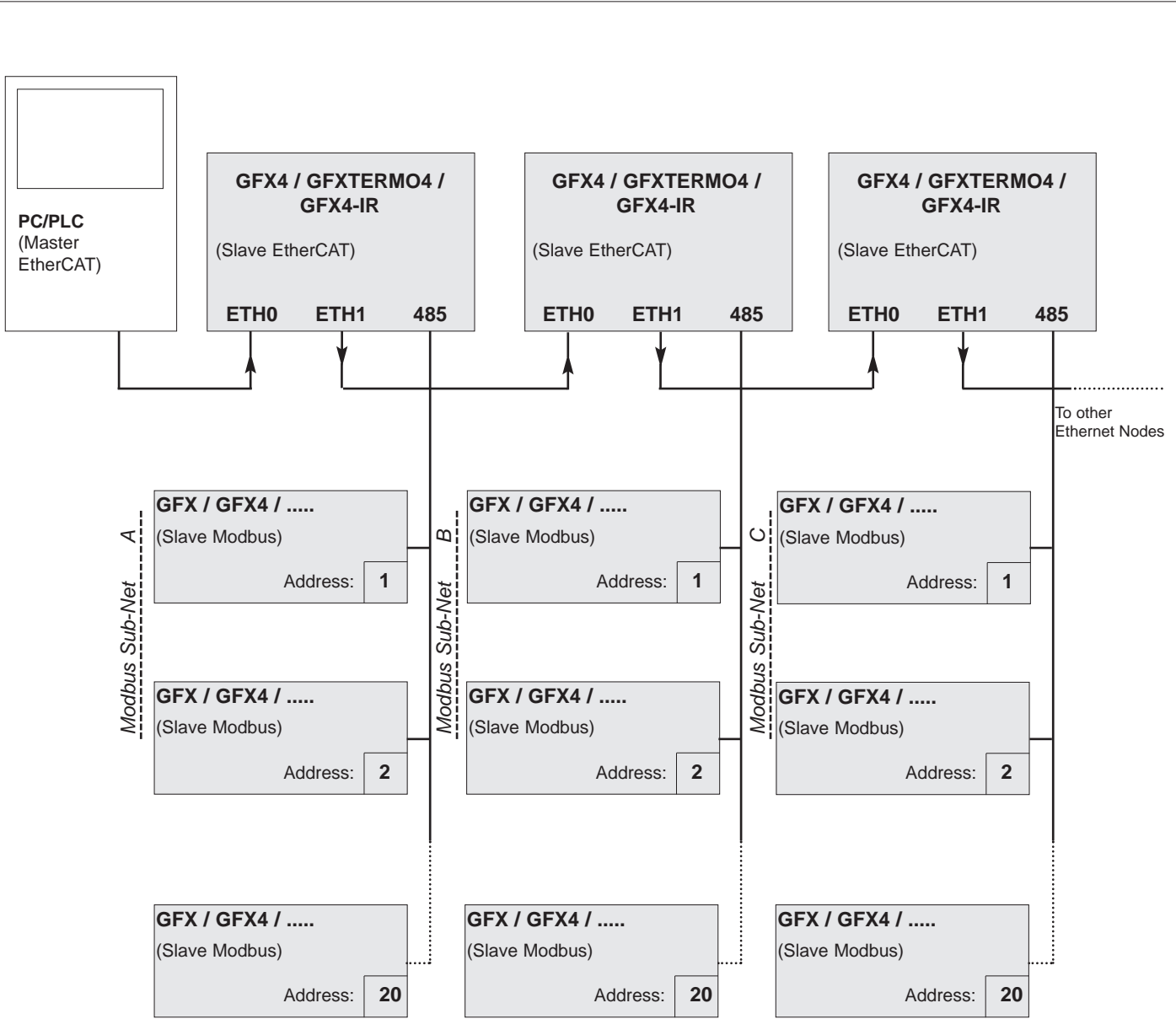
Connector J1 and J3 RJ45

Pin N°	Name	Description	Note
1	TX+	Data transmission +	
2	TX-	Data transmission -	
3	RX+	Data reception +	
4	n.c.		
5	n.c.		
6	RX-	Data reception -	
7	n.c.		
8	n.c.		

Cable type: use standard category 5 cable according to TIA/EIA-568B

H1	LINK Led	Port ETH0
H2	RX-TX Led	Port ETH0
H7	RX-TX Led	Port ETH1
H8	LINK Led	Port ETH1
J1	Connector	Port ETH0 (IN)
J3	Connector	Port ETH1 (OUT)
J2	Connector	Modbus serial

CONNECTION EXAMPLE



INSTALLATION NOTE:

To apply to each Ethernet cable a ferrite (cod. 42509, supplied with thr GFX4-ETH2 board) close to the ETH0 and ETH1 connectors.

ORDER CODE

GFX4 ETH2