C-DIAS EtherNet/IP Slave   CIP 022

The C-DIAS EtherNet/IP CIP 022 slave module is an interface
module between the C-DIAS control system and EtherNet/IP bus.

Technical Data

Performance data

Bus Controller	EtherNet/IP Bus Controller with a slot for a branch module	
Type	EtherNet/IP	
Configuration	2 x shielded RJ45 Port	
Cable length	maximum of 100 m between two stations (segment length)	
Data transfer rate	10/100 Mbit/s full duplex auto negotiation auto crossover	
Status display	module status, bus function	
Diagnosis	module status	yes, status LED and SW status
	bus function	yes, status LED and SW status

Electrical requirements

| Voltage supply from C-DIAS bus	+5 V	
Current consumption	typically 35 mA	maximum 80 mA
Voltage supply from C-DIAS bus	+24 V	
Current consumption	typically 85 mA	maximum 120 mA

Miscellaneous

Article number	12-058-022
Hardware version	1.x
Standard	UL in preparation

Environmental conditions

| Storage temperature	-20 – +85 °C	
Operating temperature	0 – +60 °C	
Humidity	0 - 95 %, non-condensing	
EMC stability	in accordance with EN 61000-6-2:2001 (industrial area)	
EMC - noise generation	in accordance with EN 61000-6-4 (industrial area)	
Shock resistance	EN 60068-2-27	150 m/s²
Protection Type	EN 60529	IP 20

Mechanical Dimensions
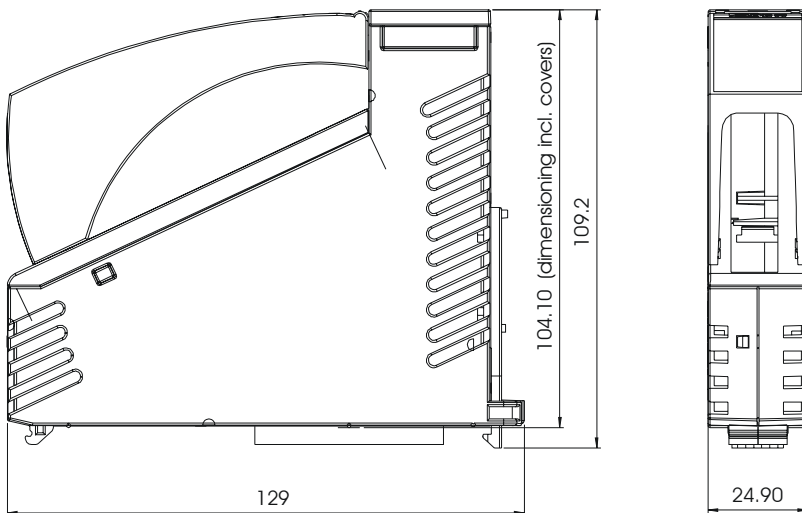
Connector Layout

X1: EtherNetIP-In (RJ45)

X1: EtherNetIP-Out (RJ45)
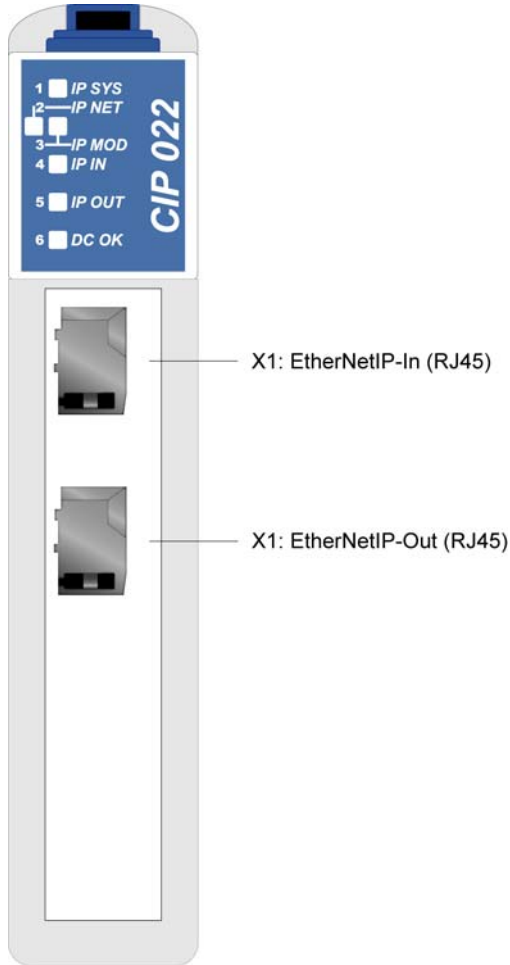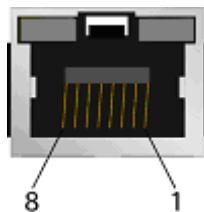
X1: EtherNet/IP-In

Pin	Function
1	TX +
2	TX -
3	RX +
4 – 5	-
6	RX-
7 – 8	-

X2: EtherNet/IP-Out
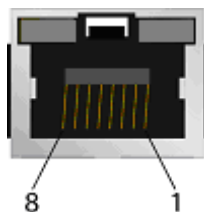
Pin	Function
1	TX +
2	TX -
3	RX +
4 – 5	-
6	RX-
7 – 8	-

Status Displays

LED number	LED color	Definition
1	yellow / green	IP SYS
2	green / red	IP NET
3	green / red	IP MOD
4	yellow / green	IP IN
5	yellow / green	IP OUT
6	green	DC OK

LED	Color	Status	Definition
IP SYS yellow / green	green	on	operating system active
	yellow	static	boot loader waiting for the software
	yellow / green	off	Supply voltage for the module missing or hardware defective
IP NET green / red	green	on	**Connected:** If the module has at least one existing connection (to message router also), the network status display lights statically green.
	green	blinks	**No connections:** If the module has no connections, but received an IP address, the network status display blinks green.
	red	on	**Double IP:** If the module has detected that its IP address is already in use, the network status display lights statically red.
	red	blinks	**Connection time-out:** If one or more of the connections to the module goes into time-out status, the network status display blinks read. This status is then ended when all timed-out connections are restored or the module is reset.
	green / red	blinks	**Self test:** While the module is conducting its self test, the network status display blinks green / red.
	green / red	off	**Not activated, no IP address:** If the module has no IP address (or is turned off), the network status display does not light.
IP MOD green/ red	green	on	**Module ready:** If turned on and running correctly, the network status display lights statically green
	green	blinks	**Standby** If the module is not configured, the module status display blinks green
	red	on	**Severe error:** If the module has detected a severe and irreparable error, the module status display lights statically red.
	red	blinks	**Simple error:** If the module has detected a reparable error, the module status display blinks red NOTE: An incorrect or inconsistent configuration is , for example, a simple error.
	green / red	blinks	**Self test:** While the module is performing a self test, the module status display blinks green/red.
	green / red	off	**Not activated:** If the module is not turned on, the module stats display does not late.

IP IN yellow/green	green	on	a connection has been established.
IP OUT yellow/green			
	green	blinks	the module is sending/receiving Ethernet frames
	green / yellow	off	no connection has been made.
	yellow	-	-
DC OK	green	on	if the module is supplied with 24 V.
	green	off	no 24 V module supply

LED Status Definitions

LED Statuses	Description
On	The display lights statically
Off	the display does not light
Blinking	the display turned on and off in phases with a frequency of 2.5 Hz: on for 200 ms then off for 200 ms.
Simple flash	The display shows a short flash (200 ms) followed by a long off-time (1000 ms)
Double flash	The display shows a sequence of 2 short flashes (each 200 ms), interrupted by a short off-time (200 ms). The sequence is ended with a long off phase (1000 ms).