

HDIO



HDIO unit

The HDIO unit is an interface to make available a set of inputs and outputs directly controlled via a LAN-Ethernet and SNMP ver.2 connections.

Main Features:

The container is a unit RACK STD, depth 206 mm excluding handles and GND terminal (see outline drawing Figure 6)

Supply 90-264 Vac 47-60 Hz 50W LAN Ethernet Interface 10-100MBps Operating Temperature 0 / 50 °C Storage Temperature -20 / 70°C

16 relay with NC / NA contacts

dry contact
0.5Amp 30Volts
Connection via two DB25 cannon
male connectors.

8 opto-isolated inputs

Available configurations: Control via open collector.

Control through positive or negative

voltage

Common reference 12V or 5V

available.

Connection via cannon DB25 male.



Description of connectors

The following tables shows the different types of connectors on the HDIO unit and the description of the pin.

VDE Connector:

Function: Supply connector

Type: VDE

PIN	FUNCTION	ELECTRICAL CHARACTERISTICS
1	Supply	input 220 Vac phase 1
2	Supply	input 220 Vac phase 2
3	gnd	GND

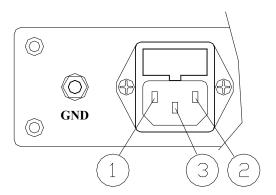


Fig.1 VDE supply connector

Note: Inside the VDE socket are located fuses.



COM Connector:

Function: Control connector via serial

Type: DB9 Female

PIN	FUNCTION	ELECTRICAL CHARACTERISTICS
1	Not used	
2	RX DATA CONTROL	SERIAL DATA RS232
3	TX DATA CONTROL	SERIAL DATA RS232
4	Not used	
5	GND	Reference
6	Not used	
7	Not used	
8	Not used	
9	Not used	

LAN Connector:

Function: ETHERNET Communication connector

Type: RJ45

PIN	FUNCTION	ELECTRICAL CHARACTERISTICS
1	TX+ DATA TRANSMISSION	ETHERNET 10/100 Mbit DATA
2	TX- DATA TRANSMISSION	ETHERNET 10/100 Mbit DATA
3	RX+ DATA RECEIVING	ETHERNET 10/100 Mbit DATA
4	Not used	
5	Not used	
6	RX- DATA RECEIVING	ETHERNET 10/100 Mbit DATA
7	Not used	
8	Not used	



INPUT Connector:

Function: Connector for input signals

Type: DB25 pin

PIN	FUNCTION	ELECTRICAL CHARACTERISTICS
1	IN1-	Negative input optically isolated (Vf 1.15V 10mA)
2	IN2-	Negative input optically isolated (Vf 1.15V 10mA)
3	IN3-	Negative input optically isolated (Vf 1.15V 10mA)
4	IN4-	Negative input optically isolated (Vf 1.15V 10mA)
5	IN5-	Negative input optically isolated (Vf 1.15V 10mA)
6	IN6-	Negative input optically isolated (Vf 1.15V 10mA)
7	IN7-	Negative input optically isolated (Vf 1.15V 10mA)
8	IN8-	Negative input optically isolated (Vf 1.15V 10mA)
9	GND	
10	+5VDC	Common reference + 5V available
11	GND	
12	+12VDC	Common reference + 12V available
13	GND	
14	IN1+	Positive input optically isolated (Vf 1.15V 10mA)
15	IN2+	Positive input optically isolated (Vf 1.15V 10mA)
16	IN3+	Positive input optically isolated (Vf 1.15V 10mA)
17	IN4+	Positive input optically isolated (Vf 1.15V 10mA)
18	IN5+	Positive input optically isolated (Vf 1.15V 10mA)
19	IN6+	Positive input optically isolated (Vf 1.15V 10mA)
20	IN7+	Positive input optically isolated (Vf 1.15V 10mA)
21	IN8+	Positive input optically isolated (Vf 1.15V 10mA)
22	+5VDC	Common reference + 5V available
23	GND	
24	+12VDC	Common reference + 12V available
25	GND	

Note 2500 Vrms minimum inputs isolation



OUTPUT 1-8 Connector :

Function: Connector for output commands (channels $1 \div 8$)

Type: DB25 pin

Type: See Fig.2

PIN	FUNCTION	ELECTRICAL CHARACTERISTICS
1	NC1 (Contact NC relay n.1)	Contact relay 30 Vdc 4A
2	NA1 (Contact NA relay n.1)	Contact relay 30 Vdc 4A
3	COM2 (Common relay n.2)	Contact relay 30 Vdc 4A
4	NC3 (Contact NC relay n.3)	Contact relay 30 Vdc 4A
5	NA3 (Contact NA relay n.3)	Contact relay 30 Vdc 4A
6	COM4 (Common relay n.4)	Contact relay 30 Vdc 4A
7	NC5 (Contact NC relay n.5)	Contact relay 30 Vdc 4A
8	NA5 (Contact NA relay n.5)	Contact relay 30 Vdc 4A
9	COM6 (Common relay n.6)	Contact relay 30 Vdc 4A
10	NC7 (Contact NC relay n.7)	Contact relay 30 Vdc 4A
11	NA7 (Contact NA relay n.7)	Contact relay 30 Vdc 4A
12	COM8 (Common relay n.8)	Contact relay 30 Vdc 4A
13	GND	
14	COM1 (Common relay n.1)	Contact relay 30 Vdc 4A
15	NC2 (Contact NC relay n.2)	Contact relay 30 Vdc 4A
16	NA2 (Contact NA relay n.2)	Contact relay 30 Vdc 4A
17	COM3 (Common relay n.3)	Contact relay 30 Vdc 4A
18	NC4 (Contact NC relay n.4)	Contact relay 30 Vdc 4A
19	NA4 (Contact NA relay n.4)	Contact relay 30 Vdc 4A
20	COM5 (Common relay n.5)	Contact relay 30 Vdc 4A
21	NC6 (Contact NC relay n.6)	Contact relay 30 Vdc 4A
22	NA6 (Contact NA relay n.6)	Contact relay 30 Vdc 4A
23	COM7 (Common relay n.7)	Contact relay 30 Vdc 4A
24	NC8 (Contact NC relay n.8)	Contact relay 30 Vdc 4A
25	NA8 (Contact NA relay n.8)	Contact relay 30 Vdc 4A



OUTPUT 9-16 Connector:

Function: Connector for output commands (channels 9 ÷ 16)

Type: DB25 pin

Vedere Fig.2

PIN	FUNCTION	ELECTRICAL CHARACTERISTICS
1	NC9 (Contact NC relay n.9)	Contact relay 30 Vdc 4A
2	NA9 (Contact NA relay n.9)	Contact relay 30 Vdc 4A
3	COM10 (Common relay n.10)	Contact relay 30 Vdc 4A
4	NC11 (Contact NC relay n.11)	Contact relay 30 Vdc 4A
5	NA11 (Contact NA relay n.11)	Contact relay 30 Vdc 4A
6	COM12 (Common relay n.12)	Contact relay 30 Vdc 4A
7	NC13 (Contact NC relay n.13)	Contact relay 30 Vdc 4A
8	NA13 (Contact NA relay n.13)	Contact relay 30 Vdc 4A
9	COM14 (Common relay n.14)	Contact relay 30 Vdc 4A
10	NC15 (Contact NC relay n.15)	Contact relay 30 Vdc 4A
11	NA15 (Contact NA relay n.15)	Contact relay 30 Vdc 4A
12	COM16 (Common relay n.16)	Contact relay 30 Vdc 4A
13	GND	
14	COM9 (Common relay n.9)	Contact relay 30 Vdc 4A
15	NC10 (Contact NC relay n.10)	Contact relay 30 Vdc 4A
16	NA10 (Contact NA relay n.10)	Contact relay 30 Vdc 4A
17	COM11 (Common relay n.11)	Contact relay 30 Vdc 4A
18	NC12 (Contact NC relay n.12)	Contact relay 30 Vdc 4A
19	NA12 (Contact NA relay n.12)	Contact relay 30 Vdc 4A
20	COM13 (Common relay n.13)	Contact relay 30 Vdc 4A
21	NC14 (Contact NC relay n.14)	Contact relay 30 Vdc 4A
22	NA14 (Contact NA relay n.14)	Contact relay 30 Vdc 4A
23	COM15 (Common relay n.15)	Contact relay 30 Vdc 4A
24	NC16 (Contact NC relay n.16)	Contact relay 30 Vdc 4A
25	NA16 (Contact NA relay n.16)	Contact relay 30 Vdc 4A

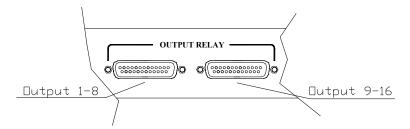


Fig.2 OUTPUT Connector



Description of the indicators

The following table shows the indicators on the front of the HDIO unit and their function.

DESCRIPTION INDICATORS	FUNCTION
ON FRONT	FUNCTION
Green Led PWR	Displays the ON status of the unit
Green Led RUN	Blink signaling the normal CPU activity
Green Led LINK	Device connected to the Ethernet network
Led OUTPUT 1	It indicates the state of output 1: illuminated -> output
L - 4 OUTDUT 2	activated
Led OUTPUT 2	It indicates the state of output 2: illuminated -> output
Led OUTPUT 3	It indicates the state of output 3: illuminated -> output
Led OOTFOT 3	activated
Led OUTPUT 4	It indicates the state of output 4: illuminated -> output
Led OOTFOT 4	activated
Led OUTPUT 5	It indicates the state of output 5: illuminated -> output
Led Oo II o I 3	activated
Led OUTPUT 6	It indicates the state of output 6: illuminated -> output
	activated
Led OUTPUT 7	It indicates the state of output 7: illuminated -> output
	activated
Led OUTPUT 8	It indicates the state of output 8: illuminated -> output
	activated
Led OUTPUT 9	It indicates the state of output 9: illuminated -> output
	activated
Led OUTPUT 10	It indicates the state of output 10: illuminated -> output
	activated
Led OUTPUT 11	It indicates the state of output 11: illuminated -> output
	activated
Led OUTPUT 12	It indicates the state of output 12: illuminated -> output
	activated
Led OUTPUT 13	It indicates the state of output 13: illuminated -> output
	activated
Led OUTPUT 14	It indicates the state of output 14: illuminated -> output
	activated
Led OUTPUT 15	It indicates the state of output 15: illuminated -> output
I 1 OLITPLET 16	activated
Led OUTPUT 16	It indicates the state of output 16: illuminated -> output
Lod INDITT 1	activated It indicates the state of input 1, illuminated > input estimated
Led INPUT 1	It indicates the state of input 1: illuminated -> input activated
Led INPUT 2 Led INPUT 3	It indicates the state of input 2: illuminated -> input activated
Led INPUT 4	It indicates the state of input 3: illuminated -> input activated It indicates the state of input 4: illuminated -> input activated
Led INPUT 5	It indicates the state of input 4: illuminated -> input activated It indicates the state of input 5: illuminated -> input activated
Led INPUT 6	It indicates the state of input 5: infuminated -> input activated It indicates the state of input 6: illuminated -> input activated
Led INPUT 7	It indicates the state of input 6. Infullinated -> input activated It indicates the state of input 7: illuminated -> input activated
Led INPUT 8	It indicates the state of input 7. Infilminated -> input activated It indicates the state of input 8: illuminated -> input activated
LCU IINF U I O	it moreates the state of input of mullimated -> input activated



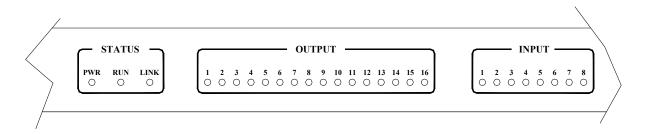


Fig.3 Indicators on HDIO

The following table shows the indicators on the rear panel of the HDIO unit and their function.

DESCRIPTION INDICATORS	FUNCTION
REAR PANEL	
Green LED integrated into the	Device connected to the Ethernet network
LAN socket	
Orange LED integrated into the	Receiving data from Ethernet
LAN socket	

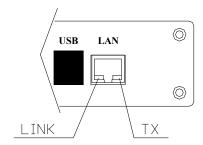


Fig. 4: Indicators on the rear panel



Description of the controls

On the front panel there is a switch for the power-on of the unit.

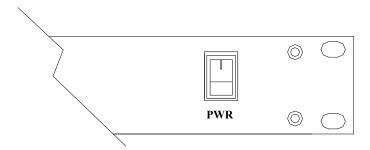


Fig.5 PWR Switch Position



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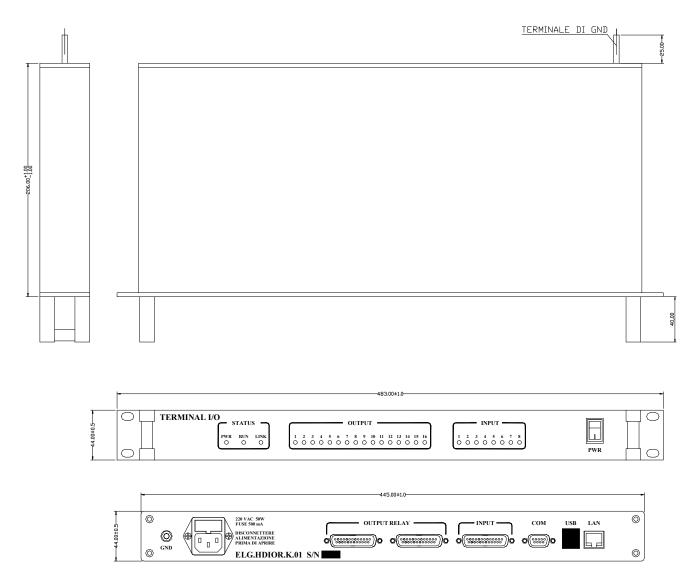


Fig.6: OUTLINE HDIO