

DIN rail mounting

data acquisition,

isolation, transmitter

D7 line

Quick Guide · 17/11 · ISTR_Q_D7_1_03_--



82

S E R I E S



viale Indipendenza 56, 27029 - Vigevano (PV)

Tel.: +39 0381 698 71, Fax: +39 0381 698 730

internet site: www.ascontecnologic.com

E-mail: sales@ascontecnologic.com



Declaration of conformity and manual retrieval

D7 is a rear panel mounting, Class II instrument, it has been designed with compliance to the European Directives. All information about the controller can be found in the Installation or in the User Manual: [ISTR_I_D7_E_03_--.pdf](#) and [ISTR_U_D7_E_04_--.pdf](#). The Manual and the Declaration of Conformity of the instrument can be downloaded (free of charge) from the web-site: www.ascontecnologic.com

Once connected to the web-site, search: **D7**; then click on **D7** on the search result list.

In the lower part of the product page (in any language) is present the download area with the links to the documents available for the requested intrument (in the available languages).

**Warning!**

- Whenever a failure or a malfunction of the device may cause dangerous situations for persons, things or animals, please remember that the plant must be equipped with additional devices which will guarantee safety.

- We warrant that the products will be free from defects in material and workmanship for 18 months from the date of delivery. Products and components that are subject to wear due to conditions of use, service life and misuse are not covered by this warranty.

**Disposal**

The appliance (or the product) must be disposed of separately in compliance with the local standards in force on waste disposal.

Mounting several instruments

1

Mounted the instruments on the rail, put them side by side so that the male side connector fits into the corresponding female connector

2

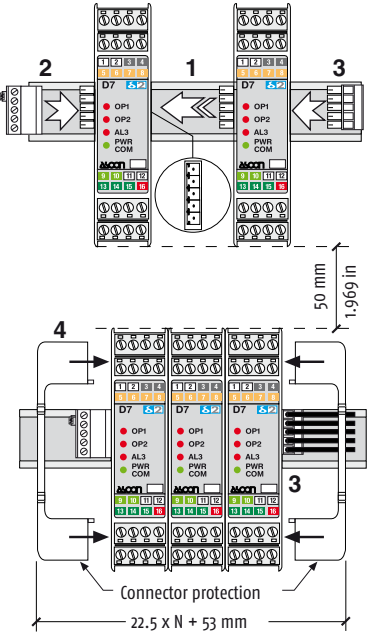
Then, insert the female 5-pole connector with the termination resistor of the serial communications into the corresponding male connector;

3

Wire the 5-pole male power supply and serial communications connector and insert it in the corresponding female connector

4

When assembled insert the connector protection on both sides.



Parameters list

In the table that follows are listed the parameters of the controller associated to the correspondent serial ModBus address. For further details, consult the manual: "[gammadue® and deltadue® controller series Serial communications and configuration software](#)".

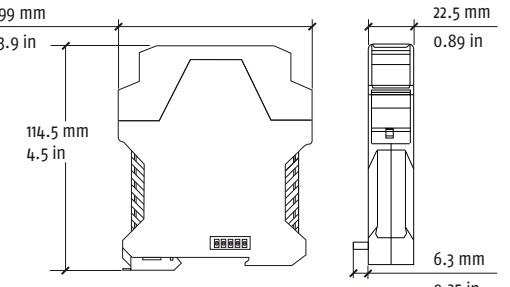
Analogue

ModBus address	Parameter name	Value		
		Default	Modbus	User
0	PV process variable			
10	Low range			
11	High range			
12	AL2 alarm threshold	0	0	
13	AL3 alarm threshold	0	0	
14	AL2 alarm hysteresis	0.5	5	
15	AL3 alarm hysteresis	0.5	5	
36	Input filter	inhibited	0	
37	Input shift	inhibited	0	
42	Retransmission low range	low range		
43	Retransmission high range	high range		
56	AL1 alarm threshold	0	0	
57	AL1 alarm hysteresis	0.5	5	
58	AL1 latching and blocking	none	0	
59	AL2 latching and blocking	none	0	
60	AL3 latching and blocking	none	0	
61	LBA delay	inhibited	0	
62	Instrument position	single	0	
63	Read the first 16 coils on word (B.O.R. = Bit On Register)			

Digital

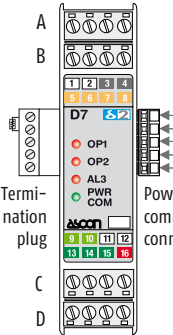
ModBus address	Command	Values
3	OP1 digital output status	0 = OFF, 1 = ON
4	OP2 digital output status	0 = OFF, 1 = ON
5	OP3 digital output status	0 = OFF, 1 = ON
6	Out of range	0 = Normal operation, 1 = Safety
11	Output status	0 = Not influenced, 1 = forced to OFF
12	IL Digital input status	0 = OFF, 1 = ON
15	Latching alarms acknowledge	1 = Acknowledges the alarm

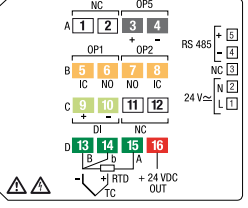
Dimensions



Terminal connectors

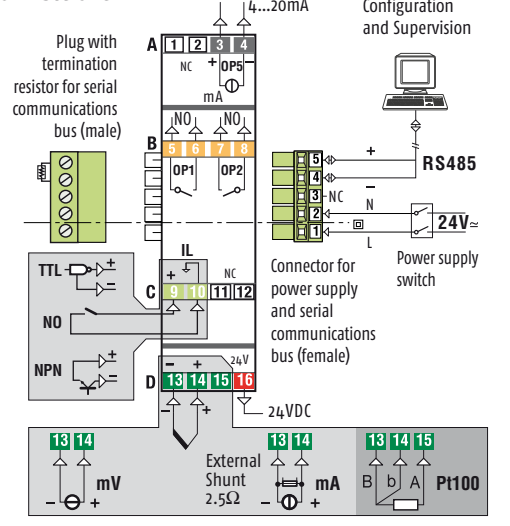
4 terminal connectors





Power supply voltage:
24Vac (-25...+12%) or
24Vdc (-15....+25%)

Connections



Terminals

Features	A - B - C - D	Bus/Power Supply
 Stripped wire	L = 7 mm - 0.28 in.	L = 7 mm - 0.28 in.
 Flat blade screwdriver	0.6 x 3.5 mm	0.4 x 2.5 mm
 Tightening torque	0.5... 0.6 Nm	0.4... 0.5 Nm

Extracting/Inserting the module From/In the housing

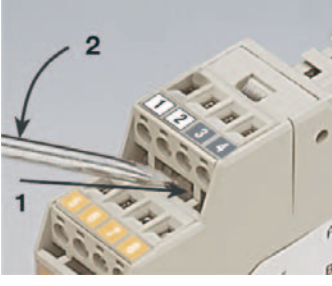
Extracting the module

The electronic module of the instruments can be extracted from the housing in order to allow an easy maintenance, wiring and setting. For example, completed the wiring of the electrical panel, the instruments can be configured by extracting all the modules from the housings, then re-inserting a module at a time in order to set all the ModBus address with no overlaps and conflicts.

1) Insert the blade of a flat blade screwdriver under the I/O polarised connectors;

2) Moving the screwdriver as indicated, unplug the connector from the module;

3) Remove the connector and repeat these steps in order to unplug all the external connections;



4) With the blade of the screwdriver, press the two slots (at the top and bottom of the module) in order to free the I/O module from the housing;

5) Firmly grip the front panel in the terminal block area and pull the module outside the housing.



Re-inserting the module in the housing

In order to correctly re-insert the module in its housing, invert the previous extracting sequence, paying particular attention in inserting the printed circuit board in the slots present at the top and bottom of the case.



DIN rail mounting

1

Clip the upper part of the instrument on the rail;

2

Rotate the instrument downwards until the click;

Removing the instrument from the DIN rail

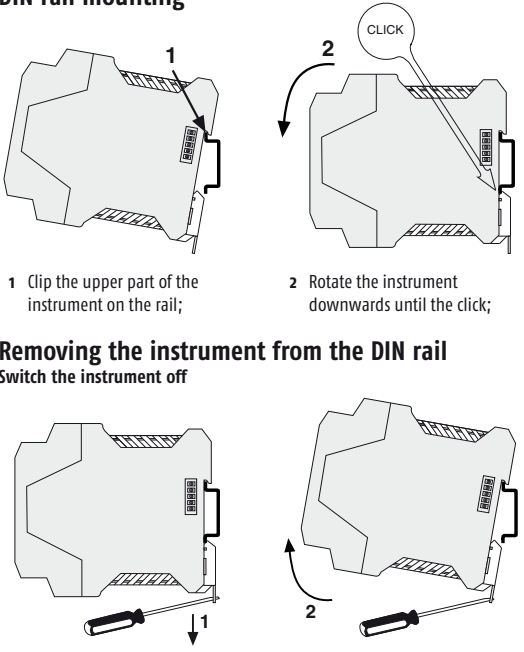
Switch the instrument off

1

Lower the spring slide by inserting a flat-blade screwdriver as indicated;

2

Turn and lift the instrument upwards.

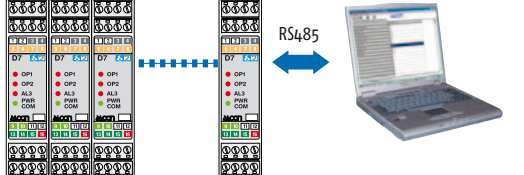


Serial communications connection examples

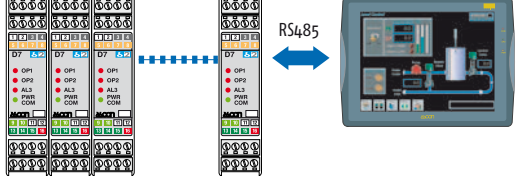
Configuration



Acquisition and centralized supervision



Local control



Model code

The product code indicates the specific hardware configuration of the instrument, that can be modified by specialized engineers only.

Line	Basic	Accessories	Configuration		
			1 st part	2 nd part	
Model:	D 7	5 B 5 D - 0 9 0 0	/	I L M N	- O P Q R

Line	D	7
Output OP1 - OP2	B	
None	0	
Relay - Relay	1	

Options	D
None	0
Analogue output (retransmission)	5

Configuration code

A 4 + 4 digits index code follows the model (letters from I... R). This code can be used to buy a pre-configured controller.

Input type and range	I	L		
TR Pt100 IEC751	-99.9...300.0°C	-99.9...572.0°F	0	0
TR Pt100 IEC751	-200...600°C	-328...1112°F	0	1
TC L Fe-Const DIN43710	0...600°C	32...1112°F	0	2
TC J Fe-Cu45% Ni IEC584	0...600°C	32...1112°F	0	3
TC T Cu-CuNi	-200 ...400°C	-328...752°F	0	4
TC K Chromel-Alumel IEC584	0...1200°C	32...2192°F	0	5
TC S Pt10%Rh-Pt IEC584	0...1600°C	32...2912°F	0	6
TC R Pt13%Rh-Pt IEC584	0...1600°C	32...2912°F	0	7
TC B Pt30%Rh-Pt6%Rh IEC584	0...1800°C	32...3272°F	0	8
TC N Nichrosil-Nisil IEC584	0...1200°C	32...2192°F	0	9
TC E Ni10%Cr-CuNi IEC584	0...600°C	32...1112°F	1	0
TC Ni-NiMo18%	0...1100°C	32...2012°F	1	1
TC W3%Re-W25%Re	0...2000°C	32...3632°F	1	2
TC W5%Re-W26%Re	0...2000°C	32...3632°F	1	3
Dc input 0...50mV linear	Engineering units		1	4
Dc input 10...50mVlinear	Engineering units		1	5
Custom input range [1]			1	6

1) For instance, other thermocouples types, ΔT (with 2 PT100), custom linearisation etc.

Alarm type and function

	AL	1	2	3
Disabled	0	0	0	0
Sensor break/Loop Break Alarm (LBA)	1	1	1	1
Band				
active out	2	2	2	2
active in	3	3	3	3

