

## Modbus® to HART® gateway, the T310



### Summary:

- ◆ DIN rail mounted module
- ◆ Modbus input
- ◆ Loop powered.
- ◆ Low Pass filter support
- ◆ Range setting supported
- ◆ Unit conversion supported
- ◆ Modbus Master – HART Slave



### General description

The **T310** is a three-wire **DIN rail module** for interfacing Modbus transmitters to a HART network.

The **T310** is a complete transmitter module.

The **T310** generates a measured variable including a status variable indicating the quality of the measurement. In addition to the Primary Variable (PV), the **T310** may transfer three dynamic variables from the Modbus instrument.

The **T310** contains low-pass filtering functionality. The user can configure the damping value using a standard configuration tool.

The **T310** communicates with an instrument through an RS485 communication line.

The Primary Variable (PV) is continuously read and updated.

The standard protocol used between the T310 and the instrument is the MODbus RTU protocol, but custom specific protocols may be accommodated.

The **T310** supports the HART Universal Commands and the most used Common Practice commands.

The T310 contains an active current source. The module is powered from instrument power 24 V and also contains connections for power lines to the connected instrument.

There are terminals for connection of a handheld configurator.

The terminals are pluggable screw terminals.

Fint also provides gateways with tailored functionality.

Set-up of the T310 is done using a PC software tool, the SW002, purchased from Fint. Modbus address, register addresses, data types etc can be configured. Fint may preconfigure the T310 with the settings required for your specific Modbus instrument.

### T310 Specifications:

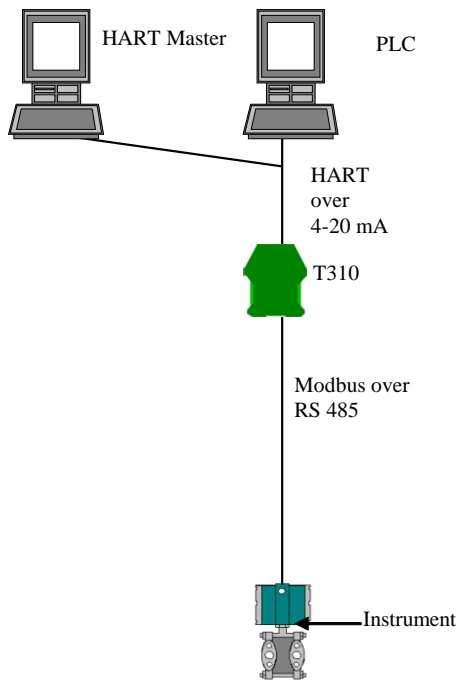
- |                               |                       |
|-------------------------------|-----------------------|
| ◆ Mechanical size             | 111 * 99* 23 mm       |
| ◆ Weight                      | 150 g                 |
| ◆ Mounting                    | DIN rail              |
| ◆ Module width                | 23 mm                 |
| ◆ Operating temperature range | -40 °C to + 85 °C     |
| ◆ Power supply                | 10– 34 Vdc            |
| ◆ Current draw                | 2.5 VA.               |
| ◆ 4-20 mA                     | Active current source |
| ◆ Accuracy of current loop    | 0.5% of FR            |

### Address:

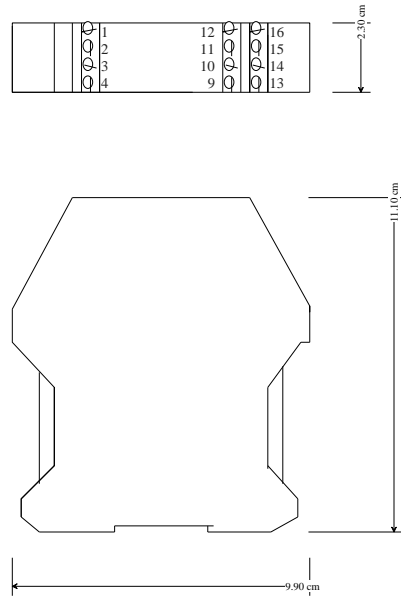
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## Current loop connection



## Mechanical dimensions



## Screw terminations

Terminal	Connection	Comment
1	HART+	
2	HART -	
3	Shield	
5	Handheld +	
6	Handheld -	
7	Power +	24 V dc
8	Power -	Gnd
9	Modbus A	RS 485
10	Modbus B	RS 485
11	Shield	
14	Power + out	For connection of power lines to instrument - + 24 V
13	Power - out	