

Enapter ENP-HTE Module Datasheet



Hydrogen Tank Module

The Hydrogen Tank Module is used to read pressure and temperature data from sensors installed on hydrogen storage tanks and allows to calculate the amount of hydrogen storage. The Hydrogen Tank Module sends the collected data to the Enapter Gateway and Cloud via secure wireless connection.

Technical Data

Voltage	9...24 V DC
Connected sensors number	2 x Analog temperature sensors (PT1000) 2 x Analog pressure sensors (0...10 V)
Wireless Communication	Wi-Fi 2.4 GHz Bluetooth 4.0 LE
Integrated connection type	Isolated RS-485 interface
Antenna connection type	SMA-F (module) – SMA-M (antenna)
Local signaling	1 LED (green) steady – correct operation blinking – establishing connection with server 1 LED (red) module error
Current consumption	50 mA 12 V DC, max. 300 mA
Mounting	35 mm Din rail acc. to IEC 60715
Height	90.2 mm (3.55 inch)
Depth	57.5 mm (2.26 inch)
Width	53.3 mm (2.10 inch)
Net weight	0.120 kg

Environmental Conditions

Ambient air temperature for operation	-40...+60 °C
Ambient air temperature for storage	-40...+60 °C
Relative humidity for operation	20...90 %, without condensation
Relative humidity for storage	20...90 %, without condensation
Operating altitude	0...2000 m
Storage altitude	0...3500 m
Pollution degree	2
IP degree of protection	IP20

Analog Temperature Sensors

Type	PT1000
Sensor	PT1000 Class B
Temperature range	-50...+105 °C
Connection	2-wire

For example, Italcoppie sensori s.r.l. IKE type temperature sensor can be used.

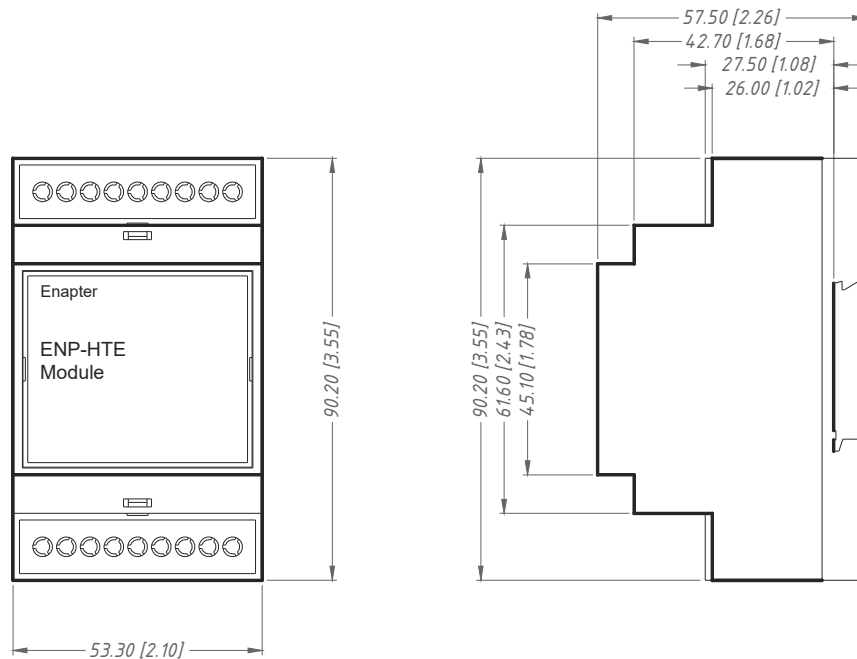
Analog Pressure Sensors

Type	Output voltage 0...10 V
Pressure range	Inc. at least 40 bar
Power voltage	9...24 V DC
Connection	3-wire

For example, Huba Control 520.933.s0.6.6.3.0.1 type pressure sensor can be used.

Dimensions

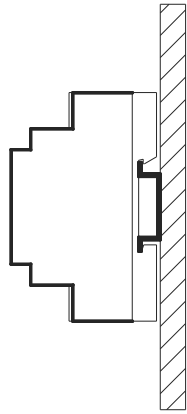
The dimensions are in mm and in brackets in inch.



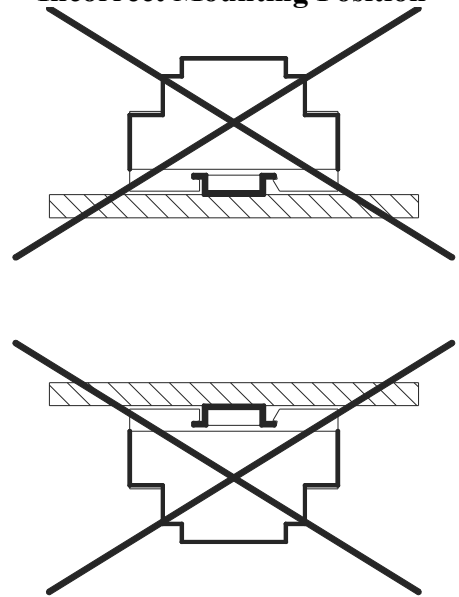
Mounting

The ENP-HTE Module must be horizontally mounted on 35 mm DIN rail according to IEC 60715.

Correct Mounting Position

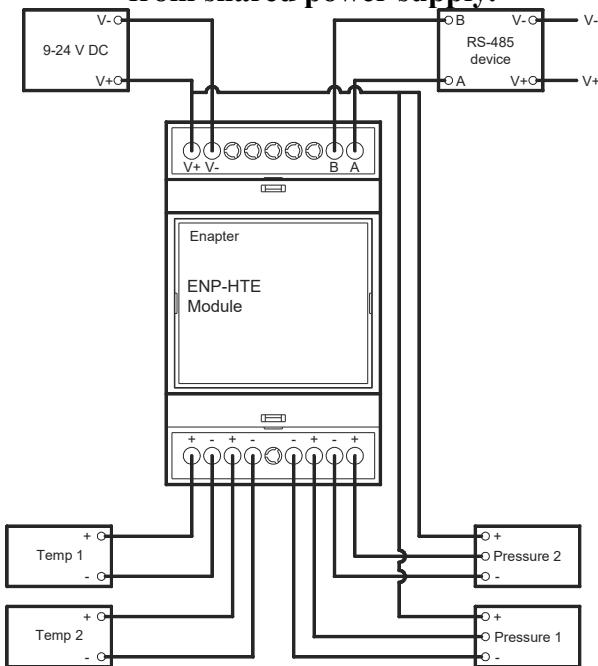


Incorrect Mounting Position

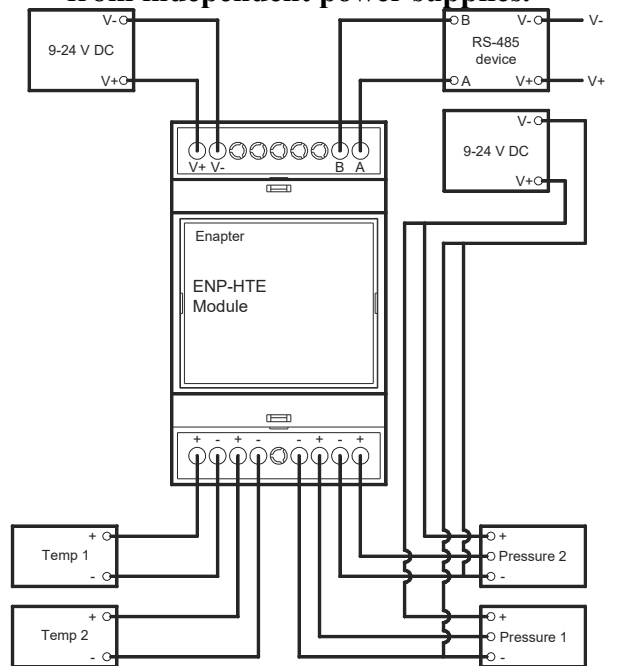


Connection Examples

Module and pressure sensors powered from shared power supply.



Module and pressure sensors powered from independent power supplies.



Note: 1 Amp Circuit Breaker recommended to use on power line for the ENP-HTE Module.

Note: For Huba Control pressure sensor use following wire colors: V+ – brown; GND and Pressure “-” – blue; Pressure “+” – black.

Standards

Wi-Fi protocols – 802.11 b/g/n/e/i (802.11n up to 150 Mbit/s).

Bluetooth protocols – Bluetooth v4.2 BR/EDR and BLE specification.

Warnings



Alternating current voltage of 110 – 220 V is potentially lethal!



All works on assembly and installation should be performed only with a disconnected power supply!



The installation and assembly of electrical equipment must be carried out by electrically qualified persons.

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