

HART® to Foundation Fieldbus® gateway, the T700



Summary:

- ◆ DIN rail mounted module
- ◆ FF device
- ◆ Loop powered
- ◆ Any HART transmitter may be connected
- ◆ Completely plug and play
- ◆ HART master – FF H1 slave
- ◆ Supports up to 4 HART instruments
- ◆ One dynamic variable (Primary variable) per instrument
- ◆ Optional bus terminator included
- ◆ Pluggable screw terminals for easy and safe cable termination



General description

The **T700** is a **DIN rail mounted module** for interfacing up to four HART transmitters to a Foundation Fieldbus, FF, network. Both current sinking and current sourcing HART transmitters are supported.

The power draw from the FF bus is 20 mA. The HART instruments are separately powered.

The **T700** is a complete transmitter module.

On command the **T700** will scan the HART network for HART instruments. No configuration is required.

The HART instruments must be preconfigured to multidrop and be given addresses in the range 1 - 16. The **T700** will establish connection to the HART transmitter on network scan. When the HART instrument is detected, key parameters are read from the instrument and will be visible on the FF side. The **T700** will read Unit codes, sensor limits and range values from the HART transmitters. These values will be available on FF from any Host system.

The **T700** generates the measured variables including a status variable indicating the quality of the measurement.

The **T700** supports alarm flagging in the module. The user can configure four alarm levels using a standard configuration tool.

The **T700** supports low-pass filtering in the module. The user can configure the damping value using a standard configuration tool.

The **T700** will scan the address space for connected HART instruments. The HART instrument should be in multidrop mode. In this case the power draw is limited to 4 mA. When the HART instrument is detected, key parameters are read from the instrument and will be visible on the FF bus side.

The Primary Variable (PV) will be continuously read and updated.

Any HART communication problem will be reported in the FF XD Error alert.

The T700 is programmed using any DD based Host system.

T700 Specifications:

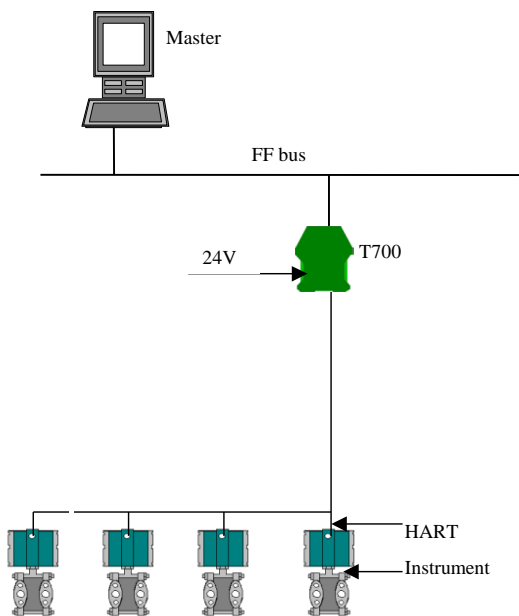
- | | |
|-------------------------------|-------------------|
| ◆ Mechanical size | 114,5mm x 99 mm |
| ◆ Mounting | DIN rail |
| ◆ Module width | 22,5 mm |
| ◆ Operating temperature range | -40 °C to + 85 °C |
| ◆ Current draw on FF | 20mA |
| ◆ Number of HART transmitters | up to 4 |

Address:

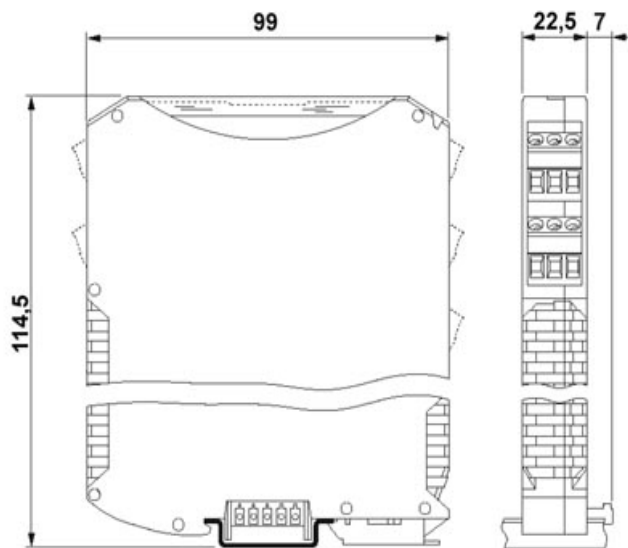
Fieldbus International AS
Ullern Alle 28
N-0381 OSLO
NORWAY

Phone: +47 22 13 19 10
Fax: +47 22 13 19 11
e-mail info@fint.no
<http://www.fint.no>

Current loop connection



Mechanical dimensions



Screw terminations

| Terminal | Connection | Comment |
|----------------|------------|--|
| 1 | FF+ | FF bus |
| 2 | FF- | FF bus |
| 3 | EMC | Connection of FF cable shield |
| 4 | EMC | Connection of FF cable shield |
| 5 | +24V | Power for current sinking HART transmitters |
| 6 | GND | Ground for current sinking HART transmitters |
| 7 | EMC | Connection of HART cable shield |
| 8 | EMC | Connection of HART cable shield |
| 9,11,13,15 | HART + | Connection for HART instruments |
| 10, 12, 14, 16 | HART - | Connection for HART instruments |