

HART® to PROFibus® PA gateway, the T500



Summary:

- ◆ DIN rail mounted module
- ◆ PROFibus PA device
- ◆ PROFibus PA profile 3.0
- ◆ Any HART transmitter may be connected
- ◆ PROFibus DP V1 services supported
- ◆ Change address function is supported
- ◆ Optional bus terminator included
- ◆ Supports up to 4 HART instruments
- ◆ One dynamic variable (Primary variable) per instrument
- ◆ Completely plug and play
- ◆ HART Master- PROFibus PA slave
- ◆ Pluggable screw terminals for easy and safe cable termination



General description

The **T500** is a **DIN rail mounted module** for interfacing up to four HART transmitters to a PROFibus PA network. Both current sinking and current sourcing HART transmitters are supported.

The **T500** is a complete transmitter module.

The **T500** will automatically detect the connected multidrop HART instruments at power-up. No configuration is required.

The HART instruments must be preconfigured to multidrop and be given addresses in the range 1 - 16. The **T500** will automatically establish connection to the HART transmitter at power-up. When the HART instrument is detected, key parameters are read from the instrument and will be visible on the PROFibus side. The **T500** will read Unit codes, sensor limits and range values from the HART transmitters. These values will be available on PROFibus from a Master Class two using DP V1.

The **T500** supports the PROFibus PA profile 3.0. The **T500** supports four AI Function Blocks, one for each instrument. By reconfiguring the **T500** it is possible to read four dynamic variables from one instrument. The latter application will

require use of a configuration tool or the **T500** can be ordered preconfigured from FINT.

The HART instrument may be powered through the **T500**. **T500** has a separate 24 V input for this.

The HART support is limited to the Universal commands. The **T500** does not support configuration of the HART transmitter through PROFibus.

The **T500** generates one measured variable including a status variable indicating the quality of the measurement for each HART transmitter. The Primary Variable (PV) will be continuously read and updated.

The **T500** supports alarm flagging. The user can configure four alarm levels using a standard configuration tool.

The **T500** supports low-pass filtering. The user can configure the damping value using a standard configuration tool.

T500 features:

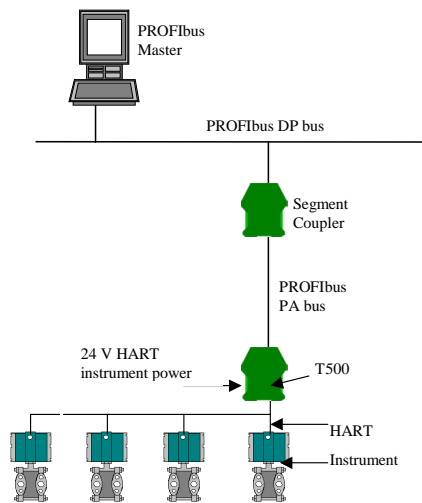
- ◆ PA 3.0 profile
- ◆ HART Master w/ automatic detection of HART instrument

Address:

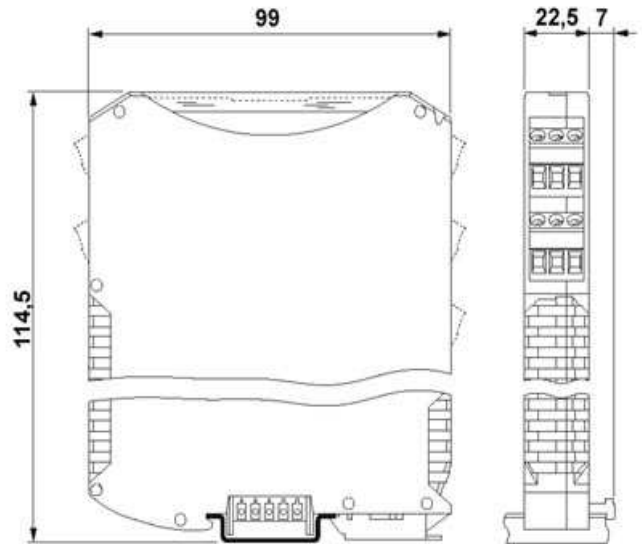
Fieldbus International AS
Ullern Alle 28
N-0381 OSLO
NORWAY

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

Configuration



Mechanical dimensions



T500 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 PROFibus 20mA
- ◆ Number of HART transmitters up to 4

Screw terminations

Terminal	Connection	Comment
1	PA+	PROFibus
2	PA-	PROFibus
3	EMC	Connection of PROFibus cable shield
4	EMC	Connection of PROFibus 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