

# TTH300 / TTF300

## Temperature transmitter

### Notification of change according to NAMUR NE53

#### Type of device

Field device / signal-processing device

#### Manufacturer:

ABB Automation Products GmbH, Measurement & Analytics, Schillerstr. 72, 32425 Minden, Germany

#### Device type:

TTH300 temperature transmitter for sensor head mounting, TTF300 temperature transmitter for field mounting

#### Previous hardware version:

Hardware HW 01.07 of 12.2012

#### Previous firmware versions:

Firmware 01.01.08 of 07.2011 (only TTH300 proven in use)

Firmware 01.03.00 of 12.2015

#### Previous device code (order code):

TTH300 xx H ..., TTF300 xx H ... (H: HART communications protocol)

#### Comments:

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#### New hardware

##### New hardware version:

Hardware 02.00.xx of 2020

##### New firmware

##### New firmware version:

Firmware 03.00.yy of 2020

##### New device code (order code):

Unchanged

#### Hardware change description:

- Device switch eliminated, thus extended explosion protection (dust ignition protection).
- Extended memory (RAM / ROM), also allows for future function enhancements.
- Updated HW components.

The electrical data regarding intrinsic safety remain unchanged or improve:

Internal capacitance  $C_i = 0.57 \text{ nF}$  (unchanged),

Internal inductance  $L_i = 160 \text{ } \mu\text{H}$  (previously  $L_i = 0.5 \text{ mH}$ ).

#### Firmware change description:

- HART 5 (Rev. 5.9) and HART 7 (Rev. 7.6, standard) communications protocols, can be selected via configuration tools, HART commands and optional LCD indicator with configuration function.
- Standard setting of the error current signal ex works: Low alarm 3,5 mA (acc. to NE 93, NE 107 and NE 131), configurable. Previously: High alarm 22 mA.
- If the current loop mode is deactivated or device in multidrop mode, the loop current is constantly 4.0 mA (previously 3.6 mA).

#### Offering greater functionality.

- Device status signaling in accordance with NE 107.
- Freely configurable diagnosis categorization in accordance with NE 107.
- Extended configuration options for redundant operation (with two sensors).
- Information stored in the transmitter for evaluation in an external configuration and event monitor (via configuration tools).
- SIL Check Function for the detection of a SIL-compliant device configuration.

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**Compatibility**

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Is there compatibility after the new hardware and software has been replaced?

- No  
 Yes, see comments

**Comments:**

Note the changed standard setting of error current signal ex works (low alarm 3.5 mA instead of high alarm 22 mA, configurable).

Note the changed loop current if current loop mode is deactivated or device in multidrop mode (4.0 mA, previously 3.6 mA).

Updated device drivers (DTM, EDD, FDI Package) will be provided to support extended functionality, among other things.

Is the update of existing devices needed?

- No  
 Yes

**Comments:**

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**Accompanying documents**

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Is an update of the associated documentation needed?

- No  
 Yes

**Information on the new documentation (Product: Doc ID of the documentation, revision level):**

- TTH300: OI/TTH300, Rev. G
- TTF300: OI/TTF300, Rev. H
- Interface description TTX300 HART: COM/TTX300/HART, Rev. D

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**Price**

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Price of the device – any change compared to previous version?

- No  
 Yes

**Comments:**

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