ABB MEASUREMENT & ANALYTICS | MANUFACTURER INFORMATION

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 $L_I = 160 \text{ μH}$ (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.
### Compatibility

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

- [ ] No
- [x] 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?

- [x] No
- [ ] Yes

#### 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.

### Accompanying documents

Is an update of the associated documentation needed?

- [ ] No
- [x] 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

### Price

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

- [x] No
- [ ] Yes

#### Comments:

- Accompanying documents

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