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Description of Device Parameters FTL62 HART

Vibronic







Table of contents

| 1 | About this document 3 |
|--------------------------------------|--|
| 1.1 1 2 | Document function |
| 1.3 | Using this document |
| 1.4 | Symbols 4 |
| 1.5 | Documentation 4 |
| 2 | Overview of the operating menu 5 |
| | |
| 3 | Description of device parameters 17 |
| 3 3.1 | Description of device parameters 17 "Guidance" menu |
| 3 3.1 3.2 | Description of device parameters17"Guidance" menu19"Diagnostics" menu29 |
| 3 3.1 3.2 3.3 | Description of device parameters17"Guidance" menu19"Diagnostics" menu29"Application" menu |
| 3 3.1 3.2 3.3 3.4 | Description of device parameters17"Guidance" menu19"Diagnostics" menu29"Application" menu50"System" menu70 |

1 About this document

1.1 Document function

The document is part of the Operating Instructions and serves as a reference for parameters. The document provides a detailed explanation of each individual parameter.

Performance of tasks that require detailed knowledge of the functioning of the device:

- Commissioning measurements under difficult conditions
- Optimal adaptation of the measurement to difficult conditions
- Detailed configuration of the communication interface
- Error diagnostics in difficult cases

1.2 Target group

The document is aimed at specialists who work with the device over the entire life cycle and perform specific configurations.

1.3 Using this document

1.3.1 Information on the document structure

This document lists the submenus and parameters that are available when the **"Maintenance" option** user role is enabled.

For the operating concept of the operating menus, see the Operating Instructions.

1.3.2 Structure of a parameter description

The individual parts of a parameter description are described in the following section:

- Navigation: Navigation path to the parameter via the local display
- Prerequisite: The parameter is only available under these specific conditions
- Description: Description of the parameter function
- Selection: List of the individual options for the parameter
- User entry: Input range for the parameter
- User interface: Display value/data of the parameter
- Factory setting: Default setting on leaving the factory
- Additional information:
 - On individual options
 - On display values/data
 - On the input range
 - On the factory setting
 - On the parameter function

1.4 Symbols

1.4.1 Symbols for certain types of information

Additional information: 🚹

Reference to documentation: 🗈

Operation via local display: 🗔

Operation via operating tool: 📃

Write-protected parameter: 🖻

1.5 Documentation

1.5.1 Standard documentation

Operating Instructions

The Operating Instructions are available via the Internet: www.endress.com \rightarrow Download

1.5.2 Supplementary device-dependent documentation

Special Documentation



The Special Documentation is available via the Internet: www.endress.com \rightarrow Download

2 Overview of the operating menu

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| Image: State with the state with the state with the state state with the state stat | User role | |] | | |
| Guidance > ▷ □ □ • Commissioning > ▷ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ | 0361 1016 | | | | |
| ▶ Commissioning ⇒ B 19 □ Device tag □ □ Temperature unit ⇒ B 19 □ Mode of operation ⇒ B 19 □ Safety function ⇒ B 19 □ Bensity setting ⇒ B 20 □ Device range value output ⇒ B 20 □ Lower range value output ⇒ B 20 □ Upper range value output ⇒ B 20 □ Upper range value output ⇒ B 20 □ Eurent range value output ⇒ B 20 □ Failure behavior current output ⇒ B 20 ▶ Safety lock ⇒ B 21 ▶ Safety lock ⇒ B 22 □ Device text via Binetorch allowed? ⇒ B 22 □ Device text via Binetorch allowed? ⇒ B 22 □ Device text string ⇒ B 22 □ Character text string ⇒ B 22 □ Device tag ⇒ B 23 □ Device tag ⇒ B 23 □ Serial number ⇒ B 23 □ Ext (Ewvice configuration ⇒ B 23 □ Ext (Ewvice configuration ⇒ B 23 | Guidance | |] | | → 🖺 19 |
| P commissioning P E 19 Device tag Temperature unit P E 19 Mode of operation P E 19 Safery function P E 19 Density setting P E 20 Density setting P E 20 Upper range value output P E 20 Upper range value output P E 20 Querent range output P E 21 Failure behavior current output P E 21 Enter safety lock P E 21 Enter safety locking code P E 22 Inter safety locking code P E 22 Device tag P E 23 Device tag P E 23 Device tag P E 23 Inter affety locking code P E 23 Inter safety locking code P E 23 Inter safety locking code P E 23 | | | - | | |
| Device tag Temperature unit → ▷ 19 Mode of operation → ▷ 19 Mode of operation → ▷ 19 Safery function → ▷ 19 Density setting → ▷ 20 Lower range value output → ▷ 20 Upper range value output → ▷ 20 Current range output → ▷ 21 Failure behavior current output → ▷ 21 Failure behavior current output → ▷ 21 Enter safety locking code → ▷ 22 Inter safety locking code → ▷ 22 Indig status → ▷ 22 Inter safety locking code → ▷ 22 Device tag → ▷ 22 Device tag → ▷ 22 Device tag → ▷ 23 Serial number → ▷ 23 GRC device configuration → ▷ 23 | | ► Commissioning | | | → 🖺 19 |
| Temperature unit ⇒ B 19 Mode of operation ⇒ B 19 Mode of operation ⇒ B 19 Satery function ⇒ B 19 Density setting ⇒ B 20 Density setting ⇒ B 20 Upper range value output ⇒ B 20 Upper range value output ⇒ B 20 Current range output ⇒ B 21 Failure behavior current output ⇒ B 21 Failure behavior current output ⇒ B 21 Enter safety locking code ⇒ B 22 Locking status ⇒ B 22 Character test string ⇒ B 22 Device tag ⇒ B 22 Device tag ⇒ B 23 Scred CRC device configuration ⇒ B 23 | | | Device tag | | |
| Temperature unit > B 19 Mode of operation > B 19 Safety function > B 19 Density setting > B 20 Lewer range value output > B 20 Upper range value output > B 20 Qurrent range output > B 20 Failure behavior current output > B 21 Failure behavior current output > B 21 Proof test via Bluetooth allowed? > B 22 Locking status > B 22 Locking status > B 22 Character test string > B 22 Device tag > B 23 Serial number > B 23 CRC device configuration > B 23 | | | | - | |
| Mode of operation → № 19 Safety function → № 19 Density setting → № 20 Lower range value output → № 20 Upper range value output → № 20 Current range output → № 21 Failure behavior current output → № 21 Proof test via Bluetooth allowed? → № 21 Enter safety locking code → № 22 Locking status → № 22 Character test string → № 22 Device tag → № 23 Setial number → № 23 CRC device configuration → № 23 | | | Temperature unit | | → 🖺 19 |
| Mode of operation → ≧ 19 Safety function → ≧ 19 Density setting → ≧ 20 Lower range value output → ≧ 20 Upper range value output → ≧ 20 Current range output → ≧ 21 Failure behavior current output → ≧ 21 Failure behavior current output → ≧ 21 Proof test via Bluetooth allowed? → ≧ 22 Locking status → ≧ 22 Locking status → ≧ 22 Character test string → ≧ 22 Device tag → ≧ 23 Serial number → ≧ 23 CRC device configuration → ≧ 23 | | | Mada af an anation |] | \ A |
| Safety function⇒ È 19Density setting⇒ È 20Lower range value output⇒ È 20Upper range value output⇒ È 20Current range output⇒ È 21Faiture behavior current output⇒ È 21► Safety lock⇒ È 21Proof test via Bluetooth allowed?⇒ È 22Locking status⇒ È 22Character test string⇒ È 22Device tag⇒ È 23Device tag⇒ È 23Setal number⇒ È 23CRC device configuration⇒ È 23Storeq CRC device configuration⇒ È 23Storeq CRC device configuration⇒ È 23 | | | | | 7 🗏 19 |
| Density setting> ▷ ▷ 20Lower range value output> ▷ ▷ 20Upper range value output> ▷ ▷ 20Current range output> ▷ ▷ 21Fallure behavior current output> ▷ ▷ 21▶ Safety lock> ▷ ▷ 21Proot test via Bluetooth allowed?> ▷ ▷ 21Enter safety locking code> ▷ ▷ 22Locking status> ▷ ▷ 22Character test string> ▷ ▷ 22Device tag> ▷ ▷ 23Serial number> ▷ ▷ 23CRC device configuration> ▷ ▷ 23Stored CRC device configuration> ▷ ▷ 23 | | | Safety function | | → 🗎 19 |
| Density setting → ▷ 20 Lower range value output → ▷ 20 Upper range value output → ▷ 20 Current range output → ▷ 21 Fallure behavior current output → ▷ 21 ▶ Safety lock → ▷ 21 ■ Proof test via Bluetooth allowed? → ▷ 21 Enter safety locking code → ▷ 22 Locking status → ▷ 22 Character test string → ▷ 22 Device tag → ▷ 23 Sertial number → ▷ 23 CRC device configuration → ▷ 23 | | | | | |
| Lower range value output→ ▷ 20Upper range value output→ ▷ 21Current range output→ ▷ 21Failure behavior current output→ ▷ ▷ 21▶ Safety lock→ ▷ ▷ 21Proof test via Bluetooth allowed?→ ▷ ▷ 21Enter safety locking code→ ▷ ▷ 22Locking status→ ▷ ▷ 22StL status→ ▷ ▷ 22Character test string→ ▷ ▷ 22Device tag→ ▷ ▷ 22Device tag→ ▷ ▷ 23Serial number→ ▷ ▷ 23CRC device configuration→ ▷ ▷ 23 | | | Density setting | | → 🗎 20 |
| Upper range value output> □ 20Current range output> □ 21Failure behavior current output> □ 21► Safety lock> □ 21► Safety lock> □ 21Proof test via Bluetooth allowed?> □ 21Enter safety locking code> □ 22Locking status> □ 22Character test string> □ 22Device tag> □ 22Device tag> □ 22Certal number> □ 23Serial number> □ 23Stored CRC device configuration> □ 23 | | | Lower range value output | | → 🗎 20 |
| upper range value output → ▷ 20 Current range output → ▷ 21 Failure behavior current output → ▷ 21 ▶ Safety lock → ▷ 21 ▶ Of test via Bluetooth allowed? → ▷ 22 Enter safety locking code → ▷ 22 Locking status → ▷ 22 Character test string → ▷ 22 Device tag → ▷ 22 Serial number → ▷ 23 CRC device configuration → ▷ 23 Stored CRC device configuration → ▷ 23 | | | |] | |
| Current range output→ ▷ 21Failure behavior current output→ ▷ 21► Safety lock→ ▷ 21Proof test via Bluetooth allowed?→ ▷ 22Enter safety locking code→ ▷ 22Locking status→ ▷ 22SIL status→ ▷ 22Character test string→ ▷ 22Device tag→ ▷ 22Device tag→ ▷ 23Serial number→ ▷ 23CRC device configuration→ ▷ 23Stored CRC device configuration→ ▷ 23 | | | Upper range value output | | → 🖺 20 |
| Failure behavior current output → □ 21 ▶ Safety lock → □ 21 Proof test via Bluetooth allowed? → □ 21 Enter safety locking code → □ 22 Locking status → □ 22 SIL status → □ 22 Character test string → □ 22 Device tag → □ 23 Serial number → □ 23 CRC device configuration → □ 23 Stored CRC device configuration → □ 23 | | | Current range output | | → 🗎 21 |
| Failure behavior current output → 월 21 ▶ Safety lock → 월 21 Proof test via Bluetooth allowed? → 월 21 Enter safety locking code → 월 22 Locking status → 월 22 SIL status → 월 22 Device tag → 월 23 Device tag → 월 23 Serial number → 월 23 CRC device configuration → 월 23 Stored CRC device configuration → 월 23 | | | |] | |
| ▶ Safety lock → □ 21 Proof test via Bluetooth allowed? → □ 21 □Enter safety locking code → □ 22 □Locking status → □ 22 □SIL status → □ 22 □Character test string → □ 22 □Device tag → □ 23 □Evice name → □ 23 □CRC device configuration → □ 23 □Streed CRC device configuration → □ 23 | | | Failure behavior current output | | → 🗎 21 |
| Find the string > □ 21 Proof test via Bluetooth allowed? > □ 21 Enter safety locking code > □ 22 Locking status > □ 26 SIL status > □ 22 Character test string > □ 22 Device tag > □ 22 Device tag > □ 23 Serial number > □ 23 CRC device configuration > □ 23 Stored CRC device configuration > □ 23 | | ► Safety lock | | | → 🕾 21 |
| Proof test via Bluetooth allowed?→ ■ 21Enter safety locking code→ ■ 22Locking status→ ■ 26SIL status→ ■ 22Character test string→ ■ 22Device tag→ ■ 22Device name→ ■ 23Serial number→ ■ 23CRC device configuration→ ■ 23Stored CRC device configuration→ ■ 23 | | Safety lock | | | / 🗆 21 |
| Enter safety locking code $\rightarrow \square 22$ Locking status $\rightarrow \square 26$ SIL status $\rightarrow \square 22$ Character test string $\rightarrow \square 22$ Device tag $\rightarrow \square 22$ Device tag $\rightarrow \square 23$ Serial number $\rightarrow \square 23$ CRC device configuration $\rightarrow \square 23$ Stored CRC device configuration $\rightarrow \square 23$ | | | Proof test via Bluetooth allowed? | | → 🗎 21 |
| Enter safety locking code → 월 22 Locking status → 월 26 SIL status → 월 22 Character test string → 월 22 Device tag → 월 22 Device name → 월 23 Serial number → 월 23 CRC device configuration → 월 23 Stored CRC device configuration → 월 23 | | | | | _ |
| Locking status→ ▷ 26SIL status→ ▷ 22Character test string→ ▷ 22Device tag→ ▷ 22Device name→ ▷ 23Serial number→ ▷ 23CRC device configuration→ ▷ 23Stored CRC device configuration→ ▷ 23 | | | Enter safety locking code | | → 🗎 22 |
| SL status $\rightarrow \square 22$ Character test string $\rightarrow \square 22$ Device tag $\rightarrow \square 22$ Device name $\rightarrow \square 23$ Serial number $\rightarrow \square 23$ CRC device configuration $\rightarrow \square 23$ Stored CRC device configuration $\rightarrow \square 23$ | | | Locking status | | → 🗎 26 |
| SIL status $\rightarrow \square 22$ Character test string $\rightarrow \square 22$ Device tag $\rightarrow \square 22$ Device name $\rightarrow \square 23$ Serial number $\rightarrow \square 23$ CRC device configuration $\rightarrow \square 23$ Stored CRC device configuration $\rightarrow \square 23$ | | | | L L L L L L L L L L L L L L L L L L L | |
| Character test string $\rightarrow \square 22$ Device tag $\rightarrow \square 22$ Device name $\rightarrow \square 23$ Serial number $\rightarrow \square 23$ CRC device configuration $\rightarrow \square 23$ Stored CRC device configuration $\rightarrow \square 23$ | | | SIL status | | → 🖺 22 |
| Device tag → ■ 22 Device name → ■ 23 Serial number → ■ 23 CRC device configuration → ■ 23 Stored CRC device configuration → ■ 23 | | | Character test string | | → 🗎 22 |
| Device tag → ➡ 22 Device name → ➡ 23 Serial number → ➡ 23 CRC device configuration → ➡ 23 Stored CRC device configuration → ➡ 23 | | | - | J | |
| Device name → 🖹 23 Serial number → 🖺 23 CRC device configuration → 🖺 23 Stored CRC device configuration → 🖺 23 | | | Device tag | | → 🖺 22 |
| Serial number $\rightarrow \bowtie 23$ CRC device configuration $\rightarrow \bowtie 23$ Stored CRC device configuration $\rightarrow \bowtie 23$ | | | Device name | | → 🗎 23 |
| Serial number → ≧ 23 CRC device configuration → ≧ 23 Stored CRC device configuration → ≧ 23 | | | L | - | - |
| CRC device configuration $\rightarrow \square 23$ Stored CRC device configuration $\rightarrow \square 23$ | | | Serial number | | → 🖺 23 |
| Stored CRC device configuration → 🗎 23 | | | CRC device configuration | | → 酉 22 |
| Stored CRC device configuration $\rightarrow \cong 23$ | | | |] | , L 7 |
| | | | Stored CRC device configuration | | → 🗎 23 |

| | | Operating time |] | → 🖺 24 |
|-------------|-------------------|--------------------------------------|---|--------|
| | | Timestamp stored CRC device config. |] | → 🖺 24 |
| | | Operating time |] | → 🖺 24 |
| | | Configuration counter |] | |
| | | Density setting |] | → 🖺 24 |
| | | Safety function |] | → 🖺 24 |
| | | Switching delay uncovered to covered |] | → 🖺 24 |
| | | Switching delay uncovered to covered |] | → 🖺 25 |
| | | Switching delay covered to uncovered |] | → 🖺 25 |
| | | Switching delay covered to uncovered |] | → 🖺 25 |
| | | Failure behavior current output |] | → 🗎 25 |
| | | Current range output |] | → 🗎 26 |
| | | Lower range value output |] | → 🗎 26 |
| | | Upper range value output |] | → 🗎 26 |
| | | Enter safety locking code |] | → 🖺 22 |
| | | Code incorrect |] | → 🗎 27 |
| | | Locking status |] | → 🖺 26 |
| | ► Safety unlock | | | → 🖺 27 |
| | | Enter safety unlocking code |] | → 🖺 27 |
| | | Code incorrect |] | → 🖺 27 |
| | | Locking status | | → 🖺 28 |
| Diagnostics | | | - | → 🖺 29 |
| | ► Active diagnost | ics | | → 🖺 29 |
| | | Active diagnostics | | → 🖺 29 |
| | | Timestamp | | → 🖺 29 |
| | | | - | |

| | Previous diagnostic | IS | → 🗎 29 |
|------------------|-----------------------|----------------------------------|--------|
| | Timestamp | | → 🗎 29 |
| | Operating time from | n restart | → 🗎 30 |
| | Operating time | | → 🖺 30 |
| ► Minimum/maxi | mum values |] | → 🗎 30 |
| | Frequency min | | → 🗎 30 |
| | Frequency max | | → 🗎 30 |
| | Minimum terminal | voltage | → 🖺 31 |
| | Maximum terminal | l voltage | → 🖺 31 |
| | Minimum electroni | cs temperature | → 🖺 31 |
| | Maximum electroni | ics temperature | → 🗎 31 |
| | Minimum sensor te | emperature | → 🖺 31 |
| | Maximum sensor te | emperature | → 🗎 32 |
| ► Simulation | |] | → 🖺 32 |
| | Value current outpu | ut | → 🗎 32 |
| | Simulation | | → 🖺 32 |
| | Frequency simulation | on value | → 🖺 33 |
| | Fork state simulation | on value | → 🗎 33 |
| | Diagnostic event ca | tegory | → 🗎 33 |
| | Diagnostic event sir | mulation | → 🗎 33 |
| ► Heartbeat Tech | nology |] | → 🗎 34 |
| | ► Heartbeat Verifi | ication | → 🖺 34 |
| | | Start verification | → 🖺 34 |
| | | Date/time Heartbeat Verification | → 🖺 34 |
| | | Operating time (Verification) | → 🗎 34 |

| | Overall result | → 🗎 35 |
|-------------------|---------------------|--------|
| | Status | → 🖺 35 |
| ► Frequency histo | ry | → 🖺 35 |
| | Sensor frequency 1 | → 🗎 35 |
| | Sensor frequency 2 | → 🗎 35 |
| | Sensor frequency 3 | → 🖺 36 |
| | Sensor frequency 4 | → 🖺 36 |
| | Sensor frequency 5 | → 🗎 36 |
| | Sensor frequency 6 | → 🖺 36 |
| | Sensor frequency 7 | → 🖺 36 |
| | Sensor frequency 8 | → 🖺 36 |
| | Sensor frequency 9 | → 🖺 37 |
| | Sensor frequency 10 | → 🖺 37 |
| | Sensor frequency 11 | → 🖺 37 |
| | Sensor frequency 12 | → 🗎 37 |
| | Sensor frequency 13 | → 🖺 37 |
| | Sensor frequency 14 | → 🖺 37 |
| | Sensor frequency 15 | → 🖺 38 |
| | Sensor frequency 16 | → 🖺 38 |
| | Date 1 | → 🗎 38 |
| | Date 2 | → 🗎 38 |
| | Date 3 | → 🖺 38 |
| | Date 4 | → 🖺 38 |
| | Date 5 | → 🖺 39 |
| | Date 6 | → 🗎 39 |

| | Date 7 | → 🖺 39 |
|-------------------|--------------------------------------|---------|
| | Date 8 | → 🖺 39 |
| | Date 9 | → 🖺 39 |
| | Date 10 | → 🗎 39 |
| | Date 11 | → 🖺 40 |
| | Date 12 | → 🗎 40 |
| | Date 13 | → 🖺 40 |
| | Date 14 | → 🖺 40 |
| | Date 15 | → 🗎 40 |
| | Date 16 | → 🖺 40 |
| ► Loop diagnostic | | → 🖭 /ı1 |
| | | / [] +1 |
| | Rebuild baseline | → 🖺 41 |
| | Tolerated deviation +/- | → 🖺 41 |
| | Baseline status | → 🗎 41 |
| | Loop diagnostics | → 🖺 42 |
| | Terminal voltage 1 | → 🖺 42 |
| | Clamping voltage lower threshold | → 🖺 42 |
| | Clamping voltage upper threshold | → 🗎 42 |
| | 806 Alarm delay | → 🖺 42 |
| ► Process window | | → 🗎 43 |
| | Songor fraguer av | → 📇 //2 |
| | Sensor frequency | / 🖽 40 |
| | 900 Process alert frequency too low | → 🖺 43 |
| | 900 Alarm delay | → 🖺 43 |
| | Low alert value | → 🖺 43 |
| | 901 Process alert frequency too high | → 🗎 44 |
| | | |

| | | | 901 Alarm delay | → 🖺 44 |
|-------------|---------------------|---------------------|-----------------------------|--------|
| | | | High alert value | → 🖺 44 |
| | ► Proof test | |] | → 🖺 44 |
| | | Date/time proof tes | st | → 🖺 44 |
| | | Time stamp of last | proof test | → 🗎 45 |
| | ► Diagnostic settin | ngs |] | → 🗎 45 |
| | | ► Properties | | → 🖺 45 |
| | | | 49 Corrosion warning | → 🖺 45 |
| | | | Upper warning frequency | → 🖺 45 |
| | | | 825 Electronics temperature | → 🖺 46 |
| | | | 826 Sensor temperature | → 🖺 46 |
| | | ► Sensor | | → 🖺 46 |
| | | | 49 Diagnostic behavior | → 🖺 46 |
| | | | 49 Event category | → 🗎 47 |
| | | ► Process | | → 🗎 47 |
| | | | 806 Diagnostic behavior | → 🗎 47 |
| | | | 806 Event category | → 🗎 47 |
| | | | 900 Diagnostic behavior | → 🗎 48 |
| | | | 900 Event category | → 🗎 48 |
| | | | 901 Diagnostic behavior | → 🗎 48 |
| | | | 901 Event category | → 🗎 49 |
| Application | |] | | → 🗎 50 |
| | ► Measured value | S | | → 🗎 50 |
| | | Sensor frequency | _ | → 🗎 50 |
| | | Fork state | | → 🗎 50 |

| | \ 🖻 ΕΟ |
|---------------------------------|--------|
| | 7 🖬 30 |
| | → 🖺 50 |
| | → 🗎 51 |
| | → 🗎 51 |
| - | → 🖺 51 |
| | → 🗎 51 |
| - | → 🗎 52 |
| - | → 🖺 52 |
| e of operation - | → 🗎 52 |
| y function - | → 🗎 52 |
| ity setting - | → 🖺 52 |
| ping - | → 🖺 53 |
| hing delay uncovered to covered | → 🗎 53 |
| omer delay to covered | → 🖺 53 |
| bing delay covered to uncovered | → 🖹 54 |
| | > B 54 |
| | |
| | 7 🗏 04 |
| d uncovered frequency | > 🖺 54 |
| d covered frequency | → 🗎 54 |
| | → 🗎 55 |
| r switching point at density | → 🖺 55 |
| r switching point at density | → 🗎 55 |
| uency at delivery status | → 🗎 55 |
| r warning frequency | → 🖺 55 |
| r alarm frequency | → 🗎 56 |
| | |

| ► Current output | |] | → 🗎 56 |
|------------------|----------------------|--------------------------|--------|
| | Assign PV | | → 🗎 56 |
| | Current range output | ıt | → 🗎 56 |
| | Lower range value of | putput | → 🗎 57 |
| | Upper range value o | putput | → 🗎 57 |
| | Failure behavior cu | rrent output | → 🗎 57 |
| | Failure current | | → 🗎 57 |
| | Output current | | → 🖺 58 |
| | Terminal current | | → 🖺 58 |
| ► HART output | |] | → 🖺 58 |
| | ► Configuration | | → 🗎 58 |
| | | HART address | → 🖺 58 |
| | | HART short tag | → 🖺 58 |
| | | Device tag | → 🖺 59 |
| | | No. of preambles | → 🖺 59 |
| | | Loop current mode | → 🖺 59 |
| | ► HART output | | → 🖺 60 |
| | | Assign PV | → 🗎 60 |
| | | Primary variable (PV) | → 🗎 60 |
| | | Assign SV | → 🖺 60 |
| | | Secondary variable (SV) | → 🗎 61 |
| | | Assign TV | → 🗎 61 |
| | | Tertiary variable (TV) | → 🗎 61 |
| | | Assign QV | → 🗎 61 |
| | | Quaternary variable (QV) | → 🗎 62 |

| Þ | Burst configurat | ion 1 | | → 🗎 62 |
|--------|------------------|---------------------|---------------------------------------|--------|
| | | Burst mode 1 | | → 🗎 62 |
| | | Burst command 1 | | → 🖺 62 |
| | | Burst variable 0 | | → 🖺 63 |
| | | Burst variable 1 |] | → 🗎 63 |
| | | Burst variable 2 | | → 🗎 64 |
| | | Burst variable 3 | | → 🗎 64 |
| | | Burst variable 4 | | → 🗎 65 |
| | | Burst variable 5 | | → 🗎 65 |
| | | Burst variable 6 | | → 🖺 65 |
| | | Burst variable 7 | | → 🖺 66 |
| | | Burst trigger mode | | → 🗎 66 |
| | | Burst trigger level |] | → 🗎 67 |
| | | Min. update period |] | → 🗎 67 |
| | | Max. update period |] | → 🗎 67 |
| | Information | | · · · · · · · · · · · · · · · · · · · | → 🗎 67 |
| | | Device ID |] | → 🗎 67 |
| | | Device type |] | → 🗎 68 |
| | | Device revision | | → 🗎 68 |
| | | HART short tag | | → 🗎 68 |
| | | HART revision |] | → 🗎 68 |
| | | HART descriptor | | → 🗎 68 |
| | | HART message | | → 🗎 69 |
| | | HART date code |] | → 🗎 69 |
| System | | | | → 🗎 70 |

| ► Device management | → 🗎 70 |
|-----------------------|----------|
| Device tag | → 🗎 70 |
| Locking status | → 🗎 70 |
| Configuration counter | → 🗎 71 |
| Reset device | → 🗎 71 |
| ► User management | → 🖺 71 |
| User role | → 🗎 71 |
| ► Change user role | → 🗎 72 |
| Enter access code |) → 🗎 72 |
| ► Change user role | → 🗎 72 |
| Start | → 🗎 72 |
| Password |) → 🗎 72 |
| Status password entry |) → 🗎 73 |
| ► Define password | → 🗎 73 |
| Start | → 🗎 73 |
| New password | → 🗎 73 |
| Status password entry |) → 🗎 73 |
| Confirm new password | → 🗎 74 |
| Status password entry |) → 🗎 73 |
| ► Change password | → 🗎 74 |
| Start | → 🗎 74 |
| Old password |) → 🗎 74 |
| Status password entry |) → 🗎 75 |
| New password |) → 🗎 75 |
| Status password entry |) → 🗎 75 |

| Confirm new password | → 🗎 75 |
|-----------------------|---|
| Status password entry | → ¹ ² ³ ⁵ ³ |
| password | → 🗎 76 |
| Start | → ⇒ 76 |
| Old password | → 🗎 76 |
| Status password entry | → 🗎 76 |
| password | → 🗎 77 |
| Start | → 🗎 77 |
| Reset password | → 🗎 77 |
| Status password entry | → 🗎 77 |
| | → 🗎 78 |
| Start | → 🗎 78 |
| User role | → 🗎 78 |
| | → 🗎 78 |
| activation | → 🗎 78 |
| | → 🗎 79 |
| | → 🗎 79 |
| isplay | → 🗎 79 |
| isplay | → 🗎 79 |
| places 1 | → 🗎 80 |
| isplay | → 🖺 80 |
| places 2 | → 🗎 80 |
| isplay | → 🗎 81 |
| places 3 | → 🗎 81 |
| isplay | → 🗎 81 |
| | Confirm new password Status password entry password Start Old password entry Status pas |

| | Decimal places 4 | → [| 81 |
|-------------------|-------------------------------------|-----|------------|
| | Contrast display | → [| ₿ 82 |
| ► Geolocation | | → [| 82 |
| | Process Unit Tag | → [| ₿ 82 |
| | Location Description | → [| 82 |
| | Longitude | → [| ₿ 82 |
| | Latitude | → [| 8 3 |
| | Altitude | → [| ₿ 83 |
| | Location method | → [| ₿ 83 |
| ► Information | | → [| ₿ 84 |
| | Device name | → [| ₿ 84 |
| | Manufacturer | → [| ₿ 84 |
| | Serial number | → [| ₿ 84 |
| | Order code | → [| 84 |
| | Firmware version | → [| ₿ 85 |
| | Hardware version | → [| ₿ 85 |
| | Extended order code 1 | → [| ₿ 85 |
| | Extended order code 2 | → [| ₿ 85 |
| | Extended order code 3 | → [| ₿ 85 |
| ► Software config | uration | → [| ₿ 86 |
| | CRC device configuration | → [| ₿ 86 |
| | Stored CRC device configuration | → [| ₿ 86 |
| | Timestamp stored CRC device config. | → [| ₿ 86 |
| | Activate SW option | → [| ₿ 86 |
| | Software option overview | → [| 8 7 |

3 Description of device parameters

In the following section, the parameters are listed according to the menu structure of the local display.

The operating menu is dynamic and adapts the choice of parameters to the selected options.

The parameter description of the operating tool is contained in the operating tool.

Navigation $\textcircled{B} \boxminus$ System \rightarrow Display

Navigation \square System \rightarrow User manag. \rightarrow User role

| Language | |
|-------------|--|
| Navigation | Image: Boost System → Display → Language |
| Description | Set display language |
| Selection | English Deutsch* Français* Français* Español* Italiano* Nederlands* Portuguesa* Polski* pycский язык (Russian)* Svenska* Türkçe* 中文 (Chinese)* 日本語 (Japanese)* 한국어 (Korean)* 延국어 (Korean)* エュンゴル (Arabic)* Bahasa Indonesia* ลาษาไพย (Thai)* tiếng Việt (Vietnamese)* čeština (Czech)* |

User role

Navigation

□ □ System \rightarrow User manag. \rightarrow User role

Description

Shows the access authorization to the parameters via the operating tool

^{*} Visibility depends on order options or device settings

User interface

- Operator Maintenance
- ExpertProduction
- Development

3.1 "Guidance" menu

Navigation 🛛 🗐 🖾 Guidance

3.1.1 "Commissioning" wizard

Navigation $\blacksquare \square$ Guidance \rightarrow Commissioning

| Temperature unit | | | | æ |
|------------------|----------------------|---------------------------|--------------------------------------|---|
| Navigation | | Guidance → Commissie | oning \rightarrow Temperature unit | |
| Description | Used | to display the electronic | es temperature. | |
| Selection | SI un ■ °C ■ K | its | US units ℉ | |

| Mode of operation | |
|-------------------|--|
| Navigation | □ Guidance \rightarrow Commissioning \rightarrow Mode of operat. |
| Description | Level limit detection: Switching mode, output is either 8 mA (demand) or 16 mA (good). Sensor frequency : Continuous mode, output between 4 mA and 20 mA proportional to sensor frequency. |
| Selection | Level limit detectionSensor frequency |
| Safety function | |
| Navigation | □ Guidance \rightarrow Commissioning \rightarrow Safety function |
| Description | MIN: Use for dry run protection. MAX: Use for overfill protection. |

Selection

MINMAX

| Density setting | | |
|------------------------|--|--|
| Navigation | ⓐ Guidance → Commissioning → Density setting | |
| Selection | > 0.4 g/cm³* > 0.4 g/cm³* > 0.5 g/cm³ > 0.7 g/cm³ | |
| Additional information | Selection > 0.4 g/cm³ option For liquids with a density of 0.40.6 g/cm³ > 0.4 g/cm³ option For liquids with a density of 0.40.6 g/cm³ > 0.5 g/cm³ option For liquids with a density 0.50.8 g/cm³ > 0.7 g/cm³ option Standard setting for liquids with a density > 0.7 g/cm³ | |

| Lower range value output | | æ |
|--------------------------|---|----|
| Navigation | ⓐ Guidance → Commissioning → Low.range outp | |
| Description | Depending of which variable has been selected as PV, define the related lower and upp range values. Assignment PV value to 4 mA and 20 mA. | er |
| User entry | 4 to 23 mA | |

| Upper range value output |
|--------------------------|
|--------------------------|

| Navigation | $ \qquad \qquad$ |
|-------------|---|
| Description | Depending of which variable has been selected as PV, define the related lower and upper range values. Assignment PV value to 4 mA and 20 mA. |
| User entry | 4 to 23 mA |

A

^{*} Visibility depends on order options or device settings

| Current range output | | A |
|----------------------|---|---|
| Navigation | □ Guidance \rightarrow Commissioning \rightarrow Cur.range outp | |
| Description | Defines the current range used to transmit the measured or calculated value. In brackets are indicated the "low saturation value" and the "high saturation value". If Measured value \leq "low saturation", the output current is set to "low saturation". If Measured value \geq "high saturation", the output current is set to "high saturation". | |
| | Note: Currents below 3.6 mA or above 21.5 mA can be used to signal an alarm. | |
| Selection | 420 mA (4 20.5 mA) 420 mA NE (3.820.5 mA) 420 mA US (3.920.8 mA) | |

| Failure behavior current output | | | |
|---------------------------------|------------------------------------|---|--|
| Navigation | ١ | Guidance → Commissioning → Fail.behav.out | |
| Description | Defi Min Max | nes which current the output assumes in the case of an error. : < 3.6 mA : >21.5 mA | |
| Selection | Ma Ma | in. ax. | |

3.1.2 "Safety lock" wizard

| Proof test via Bluetooth allowed? | | |
|-----------------------------------|---|--|
| Navigation | ⓐ Guidance → Safety lock → Bluetooth | |
| Description | After completion of the Safety mode wizard, the device will be write protected via software lock. | |
| | To use the proof test wizard (optional), the device does not have to be unlocked. | |
| | It must be defined, if the proof test wizard via Bluetooth is allowed. | |
| Selection | ■ No ■ Yes | |

| Enter safety locking code | <u>j</u> | ß |
|---------------------------|---|-----|
| Navigation | | |
| Description | The Safety locking/unlocking code can be found in the corresponding safety manual or WHG documentation. | the |
| User entry | 0 to 65 535 | |
| SIL status | | |
| Navigation | ⓐ Guidance → Safety lock → SIL status | |
| User interface | Not active SIL sequence active Active Failed Finished | |

Character test string Navigation Image: Guidance → Safety lock → Char.test string Description The following character string is displayed: 0123456789+-,.
Set the 'Confirm' parameter to 'Yes' if this string is rendered correctly.
Set the 'Confirm' parameter to 'No' if this string is not rendered correctly. Safety locking is not possible in this case. User interface Character string comprising numbers, letters and special characters Device tag Image: Character string comprising numbers, letters and special characters

| Navigation | | Guidance \rightarrow Safety lock \rightarrow Device tag |
|----------------|-------|--|
| Description | Enter | the name for the measuring point. |
| User interface | Chara | cter string comprising numbers, letters and special characters |

| Device name | | |
|----------------|---|--|
| Navigation | □ Guidance \rightarrow Safety lock \rightarrow Device name | |
| Description | Use this function to display the device name. It can also be found on the nameplate. | |
| User interface | Character string comprising numbers, letters and special characters | |
| | | |
| Serial number | | |
| Navigation | \bigcirc Guidance → Safety lock → Serial number | |
| Description | The serial number is a unique alphanumerical code identifying the device. It is printed on the nameplate. In combination with the Operations app it allows to access all device related documentation. | |
| User interface | Character string comprising numbers, letters and special characters | |

| CRC device configuration | | |
|--------------------------|---|--|
| Navigation | ⓐ Guidance → Safety lock → CRC device conf. | |
| Description | CRC device configuration based on current settings of safety relevant parameters. The CRC device configuration is unique and can be used to detect changes in safety relevant parameter settings. | |
| User interface | 0 to 65 535 | |

| Stored CRC device configuration | | |
|---------------------------------|--|--|
| Navigation | ⓐ Guidance → Safety lock → Stored CRC conf. | |
| Description | Stored CRC after the last safety lock. Factory delivery is 65535 means that the device has not yet been safety locked. | |
| User interface | 0 to 65 535 | |

| Timestamp stored CR | C device config. |
|---------------------|--|
| Navigation | ⓐ Guidance → Safety lock → TS stored CRC |
| Description | Gives the time stamp when the CRC was last stored following completion of the safety lock wizard. |
| User interface | Character string comprising numbers, letters and special characters |
| Operating time | |
| Navigation | |
| Description | Indicates how long the device has been in operation. |
| User interface | Days (d), hours (h), minutes (m), seconds (s) |
| Density setting | |
| Navigation | |
| User interface | > 0.4 g/cm³* > 0.4 g/cm³* > 0.5 g/cm³ > 0.7 g/cm³ |
| Safety function | |
| Navigation | ⓐ Guidance → Safety lock → Safety function |
| User interface | MIN MAX |

| Switching delay uncovered to covered | |
|--------------------------------------|--|
| | |

Navigation

User interface

0.25 s
0.50 s
1.00 s

* Visibility depends on order options or device settings

1.50 s5.00 s

Customer specific

| Switching delay uncovered to covered | | |
|--------------------------------------|---|--|
| Navigation | □ Guidance \rightarrow Safety lock \rightarrow Time delay cover | |
| User interface | Character string comprising numbers, letters and special characters | |
| Switching delay cove | red to uncovered | |
| Navigation | ⓐ Guidance → Safety lock → Time delay free | |
| User interface | 0.25 s 0.50 s 1.00 s 1.50 s 5.00 s Customer specific | |

| Switching delay covered to uncovered | | |
|--------------------------------------|-------|--|
| Navigation | 8 | Guidance \rightarrow Safety lock \rightarrow Time delay free |
| User interface | Chara | cter string comprising numbers, letters and special characters |

| Failure behavior current output | | |
|---------------------------------|---|--|
| Navigation | □ Guidance \rightarrow Safety lock \rightarrow Fail.behav.out | |
| Description | Assigned value of current output in case of an error. | |
| User interface | Min.Max. | |

| Current range output | t |
|----------------------|---|
| Navigation | ⓐ Guidance → Safety lock → Cur.range outp |
| Description | Assigned current range used to transmit the measured value. |
| User interface | 420 mA (4 20.5 mA) 420 mA NE (3.820.5 mA) 420 mA US (3.920.8 mA) Customer specific |
| Lower range value ou | ıtput |

| Navigation | | Guidance \rightarrow Safety lock \rightarrow Low.range outp |
|----------------|--------|---|
| Description | Assign | ned value 4 mA. |
| User interface | Charao | cter string comprising numbers, letters and special characters |

| Upper range value output | | | |
|--------------------------|--|--|--|
| | | | |
| Navigation | $ \qquad \qquad$ | | |
| Description | Assigned value 20 mA. | | |
| User interface | Character string comprising numbers, letters and special characters | | |
| | | | |
| Locking status | | | |
| Navigation | Image: Boundary Guidance → Safety lock → Locking status | | |
| Description | Indicates the type of locking. | | |
| | 'Hardware locked' (HW) The device is locked by the 'WP' switch on the main electronics module. To unlock, set the switch into the OFF position. | | |
| | 'Safety locked' (SW) Unlock the device by entering the appropriate access code in 'Enter safety unlocking code'. | | |
| | 'Temporarily locked' (SW) The device is temporarily locked by processes in the device (e.g. data upload/download, reset). The device will automatically be unlocked after completion of these processes. | | |

User interface

- Hardware locked
- Safety lockedTemporarily locked

| Code incorrect | | |
|----------------|---|--|
| Navigation | □ Guidance \rightarrow Safety lock \rightarrow Code incorrect | |
| Description | Abort SIL confirmation sequence or reenter SIL locking code. | |
| Selection | Reenter codeAbort sequence | |

3.1.3 "Safety unlock" wizard

| Enter safety unlockin | g code |
|-----------------------|---|
| Navigation | ⓐ Guidance → Safety unlock → Safe.unlock code |
| Description | The Safety locking/unlocking code can be found in the corresponding safety manual or the WHG documentation. |
| User entry | 0 to 65 535 |
| Code incorrect | Ê |
| Navigation | Guidance \rightarrow Safety unlock \rightarrow Code incorrect |
| Description | Abort SIL confirmation sequence or reenter SIL locking code. |
| Selection | Reenter codeAbort sequence |

| Locking status | |
|----------------|---|
| Navigation | ⓐ Guidance → Safety unlock → Locking status |
| Description | Indicates the type of locking. |
| | 'Hardware locked' (HW) The device is locked by the 'WP' switch on the main electronics module. To unlock, set the switch into the OFF position. |
| | 'Safety locked' (SW) Unlock the device by entering the appropriate access code in 'Enter safety unlocking code'. |
| | Temporarily locked' (SW) The device is temporarily locked by processes in the device (e.g. data upload/download, reset). The device will automatically be unlocked after completion of these processes. |
| User interface | Hardware locked Safety locked Temporarily locked |

3.2 "Diagnostics" menu

Navigation 🙆 Diagnostics

3.2.1 "Active diagnostics" submenu

| Active diagnostics | |
|----------------------|--|
| Navigation | □ □ Diagnostics → Active diagnos. → Active diagnos. |
| Description | Displays the currently active diagnostic message. |
| | If there is more than one pending diagnostic event, the message for the diagnostic event with the highest priority is displayed. |
| User interface | Positive integer |
| Timestamp | |
| Navigation | □ □ Diagnostics → Active diagnos. → Timestamp |
| Description | Displays the timestamp for the currently active diagnostic message. |
| User interface | Days (d), hours (h), minutes (m), seconds (s) |
| Previous diagnostics | |
| Navigation | □ □ Diagnostics → Active diagnos. → Prev.diagnostics |
| Description | Displays the diagnostic message for the last diagnostic event that has ended. |
| User interface | Positive integer |
| Timestamp | |
| Navigation | |
| Description | Displays the timestamp of the diagnostic message generated for the last diagnostic event that has ended. |

User interface

Days (d), hours (h), minutes (m), seconds (s)

| Operating time from restart | |
|-----------------------------|---|
| Navigation | |
| Description | Indicates how long the device has been in operation since the last time the device was restarted. |
| User interface | Days (d), hours (h), minutes (m), seconds (s) |
| | |

| Operating time | | |
|----------------|--|--|
| Navigation | | |
| Description | Indicates how long the device has been in operation. | |
| User interface | Days (d), hours (h), minutes (m), seconds (s) | |

3.2.2 "Minimum/maximum values" submenu

Navigation

Diagnostics \rightarrow Min/max val.

| Frequency min | |
|----------------|--|
| Navigation | □ □ Diagnostics \rightarrow Min/max val. \rightarrow Frequency min |
| Description | Minimum or maximum measured sensor frequency. |
| User interface | Signed floating-point number |
| | |

Frequency max

| Navigation | |
|----------------|---|
| Description | Minimum or maximum measured sensor frequency. |
| User interface | Signed floating-point number |

Minimum terminal voltage

| Navigation | ■ □ Diagnostics \rightarrow Min/max val. \rightarrow Min.term.volt. |
|----------------|---|
| Description | Minimum or maximum measured terminal (supply) voltage. |
| User interface | 0.0 to 50.0 V |

Maximum terminal voltage

| Navigation | B □ Diagnostics → Min/max val. → Max.term.voltage |
|----------------|--|
| Description | Minimum or maximum measured terminal (supply) voltage. |
| User interface | 0.0 to 50.0 V |

Minimum electronics temperature

| Navigation | B □ Diagnostics → Min/max val. → Min.electr.temp. |
|----------------|---|
| Description | Minimum or maximum measured main electronics temperature. |
| User interface | Signed floating-point number |

Maximum electronics temperature

| Navigation | B □ Diagnostics → Min/max val. → Max.electr.temp. |
|----------------|---|
| Description | Minimum or maximum measured main electronics temperature. |
| User interface | Signed floating-point number |

| Minimum sensor temperature | | |
|----------------------------|---|--|
| Navigation | Image: Barbon Barb | |
| Description | Minimum or maximum measured sensor (sensor electronics) temperature. | |

| User interface | Signed floating-point number |
|----------------|------------------------------|

| Maximum sensor temperature | | |
|----------------------------|--|--|
| | | |
| Navigation | ■ □ Diagnostics → Min/max val. → Max. Sensor temp | |
| Description | Minimum or maximum measured sensor (sensor electronics) temperature. | |
| User interface | Signed floating-point number | |

"Simulation" submenu 3.2.3

Navigation Diagnostics \rightarrow Simulation

| Value current output | | æ |
|----------------------|---|---|
| Navigation | | |
| Description | Defines the value of the simulated output current. | |
| User entry | 3.59 to 23 mA | |
| | | |
| Simulation | | A |
| Navigation | | |
| Description | By activating the simulation, the following can be simulated: - Fork state - Sensor frequency - Current output - Diagnostic event simulation The simulation can affect the output current. | |
| Selection | OffFork stateSensor frequency | |

- Current outputDiagnostic event simulation

| Frequency simulation value | | |
|----------------------------|---|-----------|
| Navigation | | |
| Description | In level limit detection mode, output current and fork state are independent of simulation value. | frequency |
| User entry | 0 to 10 000 Hz | |
| | | |

| Fork state simulation | n value | A |
|-----------------------|--|---------|
| Navigation | \blacksquare □ Diagnostics → Simulation → Fork. simul.val. | |
| Description | In sensor frequency mode, output current is independent of fork state simulation value. I level limit detection mode, sensor frequency is independent of fork state simulation value | n e. |
| Selection | Fork coveredFork uncovered | |

| Diagnostic event category | | |
|---------------------------|--|--|
| Navigation | Diagnostics → Simulation → Event category | |
| Description | Select which diagnostic events can be simulated. | |
| Selection | SensorElectronicsConfigurationProcess | |

| Diagnostic event simulation | | Ê |
|-----------------------------|---|---|
| Navigation | | |
| Description | Select the diagnostic event to be simulated. Note: To terminate the simulation, select "Off". | |
| Selection | Off | |

3.2.4 "Heartbeat Technology" submenu

Navigation $extbf{B}$ Diagnostics \rightarrow Heartbeat Techn.

"Heartbeat Verification" submenu

Navigation \square Diagnostics \rightarrow Heartbeat Techn. \rightarrow Heartbeat Verif.

Date/time Heartbeat Verification

| Navigation | B □ Diagnostics → Heartbeat Techn. → Heartbeat Verif. → Date/time Heartbeat Verification |
|----------------|---|
| Description | Date and time of last Hearbeat Verification. This value is updated with every Heartbeat verification. |
| | Note: If time information is not available, e.g. Heartbeat verification is started from display, '' is shown. |
| User interface | Character string comprising numbers, letters and special characters |

| Start verification | | Ê |
|--------------------|---|-----|
| Navigation | Diagnostics → Heartbeat Techn. → Heartbeat Verif. → Start verific | at. |
| Description | Start verification. | |
| Selection | CancelStart | |

Operating time (Verification)

| Navigation | 8 8 | $Diagnostics \rightarrow Heartbeat \; Techn. \rightarrow Heartbeat \; Verif. \rightarrow Operating \; time$ |
|----------------|--------|---|
| User interface | Days (| (d), hours (h), minutes (m), seconds (s) |

| Overall result | |
|----------------|--|
| Navigation | □ □ Diagnostics → Heartbeat Techn. → Heartbeat Verif. → Overall result |
| User interface | Not done Passed Not done Failed |

| Status | |
|--------------------|---|
| Navigation | Image Big |
| Description | Shows the actual status. |
| User interface | Done Busy Failed Not done |
| | "Frequency history" submenu |
| | NavigationImage: Diagnostics \rightarrow Heartbeat Techn. \rightarrow Freq. history |
| Sensor frequency 1 | |
| Navigation | Image Big |
| User interface | Signed floating-point number |
| Sensor frequency 2 | |
| Navigation | Image Diagnostics → Heartbeat Techn. → Freq. history → Frequency 2 |

User interface Signed floating-point number

| Sensor frequency 3 | |
|--------------------|--|
| Navigation | Image Diagnostics → Heartbeat Techn. → Freq. history → Frequency 3 |
| User interface | Signed floating-point number |
| Sensor frequency 4 | |
| Navigation | Image Diagnostics → Heartbeat Techn. → Freq. history → Frequency 4 |
| User interface | Signed floating-point number |
| Sensor frequency 5 | |
| Navigation | Image Diagnostics → Heartbeat Techn. → Freq. history → Frequency 5 |
| User interface | Signed floating-point number |
| Sensor frequency 6 | |
| Navigation | |
| User interface | Signed floating-point number |
| Sensor frequency 7 | |
| Navigation | |
| User interface | Signed floating-point number |
| Sensor frequency 8 | |
| Navigation | Image Diagnostics → Heartbeat Techn. → Freq. history → Frequency 8 |
| User interface | Signed floating-point number |
| Sensor frequency 9 | |
|---------------------|--|
| Navigation | Image B Big Diagnostics → Heartbeat Techn. → Freq. history → Frequency 9 |
| User interface | Signed floating-point number |
| Sensor frequency 10 | |
| Navigation | Image Biagnostics → Heartbeat Techn. → Freq. history → Frequency 10 |
| User interface | Signed floating-point number |
| Sensor frequency 11 | |
| Navigation | |
| User interface | Signed floating-point number |
| Sensor frequency 12 | |
| Navigation | |
| User interface | Signed floating-point number |
| Sensor frequency 13 | |
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Frequency 13 |
| User interface | Signed floating-point number |
| Sensor frequency 14 | |
| Navigation | |
| User interface | Signed floating-point number |

| Sensor frequency 15 | |
|---------------------|---|
| Navigation | Image Biagnostics → Heartbeat Techn. → Freq. history → Frequency 15 |
| User interface | Signed floating-point number |
| Sensor frequency 16 | |
| Navigation | |
| User interface | Signed floating-point number |
| Date 1 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 2 | |
| Navigation | Image Big |
| User interface | Character string comprising numbers, letters and special characters |
| Date 3 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 4 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |

| Date 5 | |
|----------------|---|
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Date 5 |
| User interface | Character string comprising numbers, letters and special characters |
| Date 6 | |
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Date 6 |
| User interface | Character string comprising numbers, letters and special characters |
| Date 7 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 8 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 9 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 10 | |
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Date 10 |
| User interface | Character string comprising numbers, letters and special characters |

| Date 11 | |
|----------------|---|
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 12 | |
| Navigation | Image Diagnostics → Heartbeat Techn. → Freq. history → Date 12 |
| User interface | Character string comprising numbers, letters and special characters |
| Date 13 | |
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Date 13 |
| User interface | Character string comprising numbers, letters and special characters |
| Date 14 | |
| Navigation | |
| User interface | Character string comprising numbers, letters and special characters |
| Date 15 | |
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Date 15 |
| User interface | Character string comprising numbers, letters and special characters |
| Date 16 | |
| Navigation | B □ Diagnostics → Heartbeat Techn. → Freq. history → Date 16 |
| User interface | Character string comprising numbers, letters and special characters |

"Loop diagnostics" submenu

Navigation 🛛 🗐

Diagnostics \rightarrow Heartbeat Techn. \rightarrow Loop diagn.

| Rebuild baseline | | £ |
|-------------------------|---|---|
| Navigation | □ □ Diagnostics → Heartbeat Techn. → Loop diagn. → Reb. baseline | |
| Description | Notice The current output is simulated. Bridge the PLC or take other appropriate measures to prevent an erroneous triggering o alarm messages or changes in the control loop behavior. | f |
| | The baseline should be rebuilt if planned changes have been made in the loop. | |
| Selection | NoYes | |
| Tolerated deviation +/- | | |
| Novigation | A Discussion Mantheat Techn Maan discus Malar deviation | |
| Navigation | \square | |
| Description | A value should be chosen to ensure that normal voltage deviations do not lead to unwanted messages. | |
| | Default 1.5 V DC | |
| User entry | 0.5 to 3.0 V | |
| Baseline status | | |
| Navigation | □ □ Diagnostics → Heartbeat Techn. → Loop diagn. → Baseline status | |
| Description | 'Failed' Means, baseline is not available or creation not possible. 'Passed' Baseline is available. | |
| User interface | FailedSuccess | |

| Loop diagnostics | | £ |
|-----------------------|--|---|
| Navigation | | |
| Selection | DisableEnable | |
| Terminal voltage 1 | | |
| Navigation | | |
| Description | Shows the current terminal voltage that is applied at the output | |
| User interface | 0.0 to 50.0 V | |
| Clamping voltage lowe | er threshold | |
| Navigation | | |
| User interface | 0.0 to 50.0 V | |
| Clamping voltage uppe | er threshold | |
| Navigation | | |
| User interface | 0.0 to 50.0 V | |
| 806 Alarm delay | | |
| Navigation | □ Diagnostics \rightarrow Heartbeat Techn. \rightarrow Loop diagn. \rightarrow 806 Alarm delay | |
| User entry | 0 to 60 s | |

"Process window" submenu

Navigation \square Diagnostics \rightarrow Heartbeat Techn. \rightarrow Process window

| Sensor frequency | | |
|-----------------------|---|-------|
| Navigation | Image Bar | |
| Description | Actual fork frequency. | |
| User interface | 0 to 10000 Hz | |
| 900 Process alert fre | quency too low | A |
| Navigation | Image and the set of the set | |
| Description | Note: With the MAX safety function, no event for 'Process alert frequency too low' is triggered if the fork is covered. | |
| Selection | DisableEnable | |
| 900 Alarm delay | | |
| Navigation | Image Diagnostics → Heartbeat Techn. → Process window → 900 Alarm delay | |
| User entry | 0 to 300 s | |
| Low alert value | | Â |
| Navigation | Image and the set of the set | |
| Description | If this limit value is undercut, an event is generated. There is no hysteresis. A typical v is 1% below the actual frequency. | value |
| User entry | 0 to 2 000 Hz | |

| 901 Process alert frequenc | y too high | Ê |
|----------------------------|---|---|
| Navigation | | |
| Description | Note: With the MIN safety function, no event for 'Process alert frequency too high' is triggered if the fork is uncovered. | |
| Selection | DisableEnable | |
| 901 Alarm delay | | Â |
| Navigation | | |
| User entry | 0 to 300 s | |
| High alert value | | |
| Navigation | □ □ Diagnostics → Heartbeat Techn. → Process window → High alert value | |
| Description | If this limit value is exceeded an event is generated. There is no hysteresis. With stable environmental conditions a typical value is 1% above the actual frequency. | 1 |
| User entry | 0 to 2 000 Hz | |
| | | |
| | 3.2.5 "Proof test" submenu | |
| | Navigation \boxtimes Diagnostics \rightarrow Proof test | |
| Date/time proof test | | |
| Navigation | | |
| Description | This value is updated with every proof test and with inspector decision "Passed". | |

| Time stamp of last proof te | est |
|-----------------------------|--|
| Navigation | □ □ Diagnostics → Proof test → Last proof test |
| Description | As soon as key is pressed, actual operating hours counter is saved. |
| User interface | Character string comprising numbers, letters and special characters |
| | 3.2.6 "Diagnostic settings" submenu |
| | Navigation \square Diagnostics \rightarrow Diag. settings |
| | "Properties" submenu |
| | Navigation \boxdot Diagnostics \rightarrow Diag. settings \rightarrow Properties |
| 49 Corrosion warning | |
| Navigation | ■ □ Diagnostics \rightarrow Diag. settings \rightarrow Properties \rightarrow 49 Corr. warning |
| Description | Enables or disable the corrosion warning. The corrosion warning is set if sensor frequency exceeds frequency at delivery status by 5%. If turned on event category can be set in menu -> Diagnostics -> Diagnostic settings -> Configuration Diagnostic behaviour can be changed to 'Logbook entry only' in the same menu. |
| Selection | OffOn |
| Upper warning frequency | |
| Navigation | |

| Description | If the sensor frequency is currently greater than the upper warning frequency, then a warning is generated. The switching output remains in the current state. It is recommended to remove the sensor and check it for corrosion. |
|-------------|---|
| | |

User interface 0 to 10000 Hz

| 825 Electronics tempe | erature |
|-----------------------|--|
| | |
| Navigation | B □ Diagnostics → Diag. settings → Properties → 825 Electr. temp |
| Description | Activates the monitoring of the electronics temperature. The limit values are fixed and depend on the order code of the device (+85°C and -40/-50/-60°C or 185° F and -40/-58/-76°F). |
| Selection | OffOn |
| 826 Sensor temperatu | ure đ |
| Navigation | B □ Diagnostics → Diag. settings → Properties → 826 Sensor temp. |
| Description | Activates the monitoring of the sensor (electronics) temperature. The limit values are fixe and depend on the order code of the device (+85°C and -40/-50/-60°C or 185°F and -40/-58/-76°F). |
| Selection | OffOn |
| | "Sensor" submenu |
| | NavigationImage: Diagnostics \rightarrow Diag. settings \rightarrow Sensor |
| 49 Diagnostic behavio | or đ |
| Navigation | Diagnostics → Diag. settings → Sensor → 49 Diag. behav. |
| Description | Select event behavior |
| | 'Logbook entry only': no digital or analog transmission of the message. |
| | 'Warning': Current output unchanged. Message is output digitally (default). |
| | If the permissible conditions are reached again, the warning is no longer available in the instrument. |
| Selection | WarningLogbook entry only |

| 49 Event category | | æ |
|-------------------------|---|---|
| Navigation | ■ Diagnostics → Diag. settings → Sensor → 49Event category | |
| Selection | Failure (F) Function check (C) Out of specification (S) Maintenance required (M) No effect (N) | |
| | "Process" submenuNavigationImage: Diagnostics \rightarrow Diag. settings \rightarrow Process | |
| 806 Diagnostic behavior | | |
| Navigation | ■ Diagnostics \rightarrow Diag. settings \rightarrow Process \rightarrow 806 Diag. behav. | |
| Description | Select event behavior 'Logbook entry only': no digital or analog transmission of the message. 'Warning': Current output unchanged. Message is output digitally (default). | |

If the permissible conditions are reached again, the warning is no longer available in the instrument.

Selection• Warning• Logbook entry only

| 806 Event category | | |
|--------------------|--|--|
| | | |
| Navigation | ■ Diagnostics \rightarrow Diag. settings \rightarrow Process \rightarrow 806Event category | |
| Description | Select category for diagnostic message. | |
| Selection | Failure (F) Function check (C) Out of specification (S) Maintenance required (M) No effect (N) | |

| 900 Diagnostic behavior | | Â | |
|-------------------------|--|-----|--|
| Navigation | Diagnostics → Diag. settings → Process → 900 Diag. behav. | | |
| Description | Select event behavior | | |
| | 'Logbook entry only': no digital or analog transmission of the message. | | |
| | 'Warning': Current output unchanged. Message is output digitally (default). | | |
| | If the permissible conditions are reached again, the warning is no longer available in instrument. | the | |
| Selection | WarningLogbook entry only | | |
| | | | |

| 900 Event category | | Ê |
|--------------------|--|-----|
| Navigation | □ Diagnostics \rightarrow Diag. settings \rightarrow Process \rightarrow 900Event categ | ory |
| Selection | Failure (F) Function check (C) Out of specification (S) Maintenance required (M) No effect (N) | |

| 901 Diagnostic behav | vior | | |
|----------------------|--|-------|--|
| | | | |
| Navigation | Diagnostics → Diag. settings → Process → 901 Diag. behav. | | |
| Description | Select event behavior | | |
| | 'Logbook entry only': no digital or analog transmission of the message. | | |
| | 'Warning': Current output unchanged. Message is output digitally (default). | | |
| | If the permissible conditions are reached again, the warning is no longer available in instrument. | n the | |
| Selection | WarningLogbook entry only | | |

| 901 Event category | | |
|--------------------|---|--|
| NT- 1/1 | | |
| Navigation | \square Diagnostics \rightarrow Diag. settings \rightarrow Process \rightarrow 901Event category | |
| Selection | Failure (F) | |
| | Function check (C) | |
| | Out of specification (S) | |
| | Maintenance required (M) | |
| Selection | Failure (F) Function check (C) Out of specification (S) Maintenance required (M) | |

• No effect (N)

3.3 "Application" menu

Navigation 🛛 Application

3.3.1 "Measured values" submenu

| Navigation 🛛 🖉 | D Applio | cation \rightarrow | Measured | values |
|----------------|----------|----------------------|----------|--------|
|----------------|----------|----------------------|----------|--------|

| Sensor frequency | | |
|------------------|---|--|
| Navigation | ■ □ Application \rightarrow Measured values \rightarrow Frequency | |
| Description | Actual fork frequency. | |
| User interface | 0 to 10 000 Hz | |
| | | |
| Fork state | | |
| Navigation | □ Application \rightarrow Measured values \rightarrow Fork state | |
| Description | The condition of the fork is displayed. | |
| User interface | Fork coveredFork uncovered | |

Terminal voltage 1

| Navigation | |
|----------------|--|
| Description | Shows the current terminal voltage that is applied at the output |
| User interface | 0.0 to 50.0 V |

Terminal current

| Navigation | |
|----------------|---|
| Description | Shows the current value of the current output which is currently measured |
| User interface | 0 to 30 mA |

| Sensor temperature | | | |
|-------------------------|---|--|--|
| Navigation | | | |
| User interface | Signed floating-point number | | |
| Electronics temperature | | | |
| Navigation | $ \blacksquare \square Application \rightarrow Measured values \rightarrow Electronics temp $ | | |
| User interface | Signed floating-point number | | |
| | | | |
| | 3.3.2 "Measuring Units" submenu | | |
| | Navigation Θ Application \rightarrow Measuring Units | | |
| Temperature unit | | | |
| | | | |
| Navigation | | | |
| Description | Used to display the electronics temperature. | | |
| Selection | SI units US units ● °C °F | | |
| | • K | | |

3.3.3 "Sensor" submenu

| Navigation | Application \rightarrow |
|------------|---------------------------|
| | |

"Sensor configuration" submenu

Navigation $extsf{ }$ Application \rightarrow Sensor \rightarrow Sensor conf.

Sensor

| Mode of operation | |
|-------------------|--|
| | |

| Navigation | $\textcircled{\ } \Box \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $ |
|-------------|--|
| Description | Level limit detection: Switching mode, output is either 8 mA (demand) or 16 mA (good). Sensor frequency : Continuous mode, output between 4 mA and 20 mA proportional to sensor frequency. |
| Selection | Level limit detectionSensor frequency |

| Safety function | | Â |
|-----------------|--|---|
| Navigation | $ \blacksquare \square Application \rightarrow Sensor \rightarrow Sensor conf. \rightarrow Safety function $ | |
| Description | MIN: Use for dry run protection. MAX: Use for overfill protection. | |
| Selection | MINMAX | |

Density setting

Â

| $ \blacksquare \blacksquare Application \rightarrow Sensor \rightarrow Sensor conf. \rightarrow Density setting $ |
|---|
| > 0.4 g/cm³* > 0.4 g/cm³* |
| |

> 0.5 g/cm³
 > 0.7 g/cm³

^{*} Visibility depends on order options or device settings

| Additional information | Selection |
|------------------------|---|
| | > 0.4 g/cm³ option For liquids with a density of 0.40.6 g/cm³ > 0.4 g/cm³ option For liquids with a density of 0.40.6 g/cm³ > 0.5 g/cm³ option For liquids with a density 0.50.8 g/cm³ > 0.7 g/cm³ option Standard setting for liquids with a density > 0.7 g/cm³ |
| | Standard Setting for inquite whith a density (6), g, chi |

| Damping | 8 |
|-------------|--|
| Navigation | |
| Description | Damping, used for Sensor frequency only. Does not affect Level limit detection and Fork state. |
| User entry | 0 to 999 s |

| Switching delay un | covered to covered | £ |
|--------------------|---|---|
| Navigation | Image: Boundary Sensor → Sensor conf. → Delay to covered | |
| Description | Choose between predefined values or select 'Customer specific' to enter a value between 1.00 s and 60.00 s. | |
| Selection | 0.25 s 0.50 s 1.00 s 1.50 s 5.00 s Customer specific | |

| Customer delay to covered | | Ê |
|---------------------------|-----------|---|
| Navigation | | |
| User entry | 1 to 60 s | |

| Switching delay covered to | uncovered | Â |
|----------------------------|--|-----------|
| Navigation | ■ Application \rightarrow Sensor \rightarrow Sensor conf. \rightarrow Delay to uncov. | |
| Description | Choose between predefined values or select 'Customer specific' to enter a value | |
| | between 1.00 s and 60.00 s. | |
| Selection | • 0.25 s | |
| | • 0.50 s | |
| | ■ 1.00 s | |
| | ■ 5.00 s | |
| | Customer specific | |
| Customer delay to uncover | | A |
| Customer actay to uncover | | |
| Navigation | Image: Application → Sensor conf. → Cust. delay unc. | |
| User entry | 1 to 60 s | |
| | | |
| | "Stored frequency" submenu | |
| | NavigationImage: Image: I | |
| Stored uncovered frequent | zy | |
| Navigation | □ □ Application → Sensor → Stored frequency → St. uncov. freq | |
| Description | In this parameter the actual sensor frequency can be stored, which is only possible if th fork is uncovered. The value is displayed on the Heartbeat Technology verification repo and can be used as a reference for further/future analyses. | le ort |
| User interface | 0 to 10 000 Hz | |
| Stored covered frequency | | |
| Navigation | | |
| Description | In this parameter the actual sensor frequency can be stored, which is only possible if th fork is covered. The value is displayed on the Heartbeat Technology verification report a can be used as a reference for further/future analyses. | e and |

User interface

0 to 10000 Hz

"Sensor calibration" submenu

Navigation \square Application \rightarrow Sensor \rightarrow Sensor cal.

Lower switching point at density

| Navigation | |
|----------------|---|
| Description | This is the sensor frequency at which the fork status changes to covered (depending on the density selected). |
| User interface | 0 to 2 000 Hz |

Upper switching point at density Navigation Image: Application → Sensor → Sensor cal. → Upper sw. point Description This is the sensor frequency at which the fork status changes to uncovered (depending on the density selected).

User interface 0 to 2 000 Hz

Frequency at delivery status

| Navigation | |
|----------------|--------------------------------------|
| Description | Sensor frequency at delivery status. |
| User interface | 0 to 10 000 Hz |

Upper warning frequency

| Navigation | |
|-------------|---|
| Description | If the sensor frequency is currently greater than the upper warning frequency, then a warning is generated. The switching output remains in the current state. It is recommended to remove the sensor and check it for corrosion. |

User interface 0 to 10000 Hz

| Upper alarm frequen | су |
|---------------------|--|
| Navigation | |
| Description | If the sensor frequency is currently greater than the upper alarm frequency, then an alarm is generated and the switching output switches to the safety related state. |
| User interface | 0 to 10 000 Hz |

3.3.4 "Current output" submenu

Navigation

ⓐ Application → Curr.output

| Assign PV | |
|----------------|---|
| Navigation | Image: Image: Second structure Image: Application → Curr.output → Assign PV |
| Description | Assign a measured variable to the primary dynamic variable (PV). Additional information: The assigned measured variable is also used by the current output. |
| User interface | Level limit detectionSensor frequency |

Current range output

| Navigation | |
|-------------|---|
| Description | Defines the current range used to transmit the measured or calculated value. In brackets are indicated the "low saturation value" and the "high saturation value". If Measured value \leq "low saturation", the output current is set to "low saturation". If Measured value \geq "high saturation", the output current is set to "high saturation". |
| | Note: Currents below 3.6 mA or above 21.5 mA can be used to signal an alarm. |
| Selection | 420 mA (4 20.5 mA) 420 mA NE (3.820.5 mA) 420 mA US (3.920.8 mA) |

ß

A

| Lower range value output | | 1 |
|--------------------------|---|---|
| Navigation | | |
| Description | Depending of which variable has been selected as PV, define the related lower and upper range values. Assignment PV value to 4 mA and 20 mA. | |
| User entry | 4 to 23 mA | |

Upper range value output

| Navigation | |
|-------------|---|
| Description | Depending of which variable has been selected as PV, define the related lower and upper range values. Assignment PV value to 4 mA and 20 mA. |
| User entry | 4 to 23 mA |

| Failure behavior curr | rent output | |
|-----------------------|---|---|
| Navigation | | |
| Description | Defines which current the output assumes in the case of an error. Min: < 3.6 mA Max: >21.5 mA | |
| Selection | Min.Max. | |
| Failure current | | Â |
| Navigation | □ Application \rightarrow Curr.output \rightarrow Failure current | |
| Description | Enter current output value in alarm condition | |
| User entry | 21.5 to 23 mA | |

| Output current | |
|------------------|---|
| Navigation | $ \blacksquare \square Application \rightarrow Curr.output \rightarrow Output curr. $ |
| Description | Shows the value currently calculated for the current output |
| User interface | 3.59 to 23 mA |
| | |
| Terminal current | |
| Navigation | |

Description Shows the current value of the current output which is currently measured

User interface 0 to 30 mA

3.3.5 "HART output" submenu

Navigation \square Application \rightarrow HART output

"Configuration" submenu

Navigation \square Application \rightarrow HART output \rightarrow Configuration

HART address

| Navigation | |
|-------------|---|
| Description | Enter the address to exchange data via the HART protocol. |
| User entry | 0 to 63 |

HART short tag

| Navigation | $\textcircled{\ } \blacksquare \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $ |
|-------------|--|
| Description | Defines the short tag for the measuring point. |
| | Maximum length: 8 characters Allowed characters: A-Z, 0-9, certain special characters |

A

A

User entry Character string comprising numbers, letters and special characters (8)

| Device tag | | Ê |
|-------------|--|---|
| Navigation | | |
| Description | Enter a unique name for the measuring point to identify the device quickly within the plant. | |
| User entry | Character string comprising numbers, letters and special characters (32) | |

| No. of preambles | | Ê |
|------------------|--|---|
| Navigation | | |
| Description | Defines the number of preambles in the HART telegram | |
| User entry | 5 to 20 | |
| | | |

| Loop current mode | |
|-------------------|--|
| Navigation | |
| Description | If Loop current mode is disabled, Multi-drop communication mode is activated. Multi-drop is a HART digital communication mode where multiple devices may share the same pair of wires for power and communications. In this mode the output current is fixed. |
| Selection | DisableEnable |

"HART output" submenu

Navigation

Assign PV Navigation Image: Image: Image: Application → HART output → HART output → Assign PV Description Assign a measured variable to the primary dynamic variable (PV). Additional information: The assigned measured variable is also used by the current output. User interface • Level limit detection • Sensor frequency

Primary variable (PV)

| Navigation | |
|----------------|---|
| Description | Shows the current measured value of the primary dynamic variable (PV) |
| User interface | 4 to 23 mA |

| Assign SV | | æ |
|------------------------|--|---|
| Navigation | | |
| Description | Assign a measured variable to the second dynamic variable (SV). | |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current * Terminal voltage * Not used | |
| Additional information | Selection | |
| | Fork state option Indicates fork state 'Fork covered ' (1) or 'Fork uncovered ' (0). Sensor temperature option Temperature of sensor electronics in the housing. | |

Visibility depends on order options or device settings

| Secondary variable (SV) | | |
|-------------------------|--|---|
| Navigation | | |
| Description | Shows the current measured value of the secondary dynamic variable (SV) | |
| User interface | 0 to 10 000 Hertz | |
| Assign TV | | Â |
| Navigation | | |
| Description | Assign a measured variable to the tertiary dynamic variable (TV). | |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current * Terminal voltage * Not used | |
| Additional information | Selection Fork state option Indicates fork state 'Fork covered ' (1) or 'Fork uncovered ' (0). Sensor temperature option Temperature of sensor electronics in the housing. | |
| Tertiary variable (TV) | | |
| Navigation | | |
| Description | Shows the current measured value of the tertiary (third) dynamic variable (TV) | |
| User interface | 0 to 1.0 ManufacturerNoUnit | |

| Assign QV | | ß |
|-------------|---|---|
| Navigation | | |
| Description | Assign a measured variable to the quaternary dynamic variable (QV). | |

^{*} Visibility depends on order options or device settings

Selection

- Level limit detection
 - Sensor frequency
 - Fork state
 - Sensor temperature
 - Electronics temperature
 - Measured current
 - Terminal voltage²
 - Not used

Selection

Additional information

- Fork state option
- Indicates fork state 'Fork covered ' (1) or 'Fork uncovered ' (0).
- Sensor temperature option
- Temperature of sensor electronics in the housing.

| Quaternary variable (QV) | |
|--------------------------|---|
| Navigation | |
| Description | Shows the current measured value of the quaternary (fourth) dynamic variable (QV) |
| User interface | Signed floating-point number |

"Burst configuration 1" submenu

Navigation

Burst mode

| Navigation | |
|-------------|---|
| Description | Switch HART burst mode for burst message on |
| Selection | OffOn |

Burst command

| Navigation | |
|-------------|---|
| Description | Select the HART command that is sent to the HART master |

^{*} Visibility depends on order options or device settings

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| Selection | Primary variable (PV) Loop Current and Percent of Range Dynamic Variables Device variables with status Device variables Additional device status |
|------------------|--|
| Burst variable 0 | |
| Navigation | Image: Boundary Burst config. 1 → Burst variable 0 |
| Description | For HART command 9 and 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current* Terminal voltage 1* Percent of range Measured current Primary variable (PV) Secondary variable (SV) Tertiary variable (TV) Quaternary variable (QV) Not used |
| Burst variable 1 | |

| Navigation | |
|-------------|--|
| Description | For HART command 9 and 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current * Terminal voltage 1 * Percent of range Measured current Primary variable (PV) Secondary variable (SV) |

^{*} Visibility depends on order options or device settings

- Tertiary variable (TV)Quaternary variable (QV)Not used

| Burst variable 2 | 8 |
|------------------|--|
| Navigation | |
| Description | For HART command 9 and 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current * Terminal voltage 1 * Percent of range Measured current Primary variable (PV) Secondary variable (SV) Tertiary variable (TV) Quaternary variable (QV) Not used |

| Burst variable 3 | 8 |
|------------------|--|
| Navigation | ■ Application \rightarrow HART output \rightarrow Burst config. 1 \rightarrow Burst variable 3 |
| Description | For HART command 9 and 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current Terminal voltage 1 Percent of range Measured current Primary variable (PV) Secondary variable (SV) Tertiary variable (TV) |

- Quaternary variable (QV)
- Not used

^{*} Visibility depends on order options or device settings

| Burst variable 4 | ß |
|------------------|--|
| Navigation | |
| Description | For HART command 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current * Terminal voltage 1 * Percent of range Measured current Primary variable (PV) Secondary variable (SV) Tertiary variable (TV) Quaternary variable (QV) Not used |

| Burst variable 5 | 8 |
|------------------|--|
| Navigation | |
| Description | For HART command 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current * Terminal voltage 1 * Percent of range Measured current Primary variable (PV) Secondary variable (SV) Tertiary variable (TV) Quaternary variable (QV) Not used |

| Burst variable 6 | | A |
|------------------|--|------|
| Navigation | ■ Application \rightarrow HART output \rightarrow Burst config. 1 \rightarrow Burst variable 6 | |
| Description | For HART command 33, assign a HART device variable or process variable to burst vari | able |

^{*} Visibility depends on order options or device settings

Selection

- Level limit detection
 - Sensor frequency
 - Fork state
 - Sensor temperature
 - Electronics temperature
 - Measured current *
 - Terminal voltage 1 *
 Percent of range

 - Measured current
 - Primary variable (PV)
 - Secondary variable (SV)
 - Tertiary variable (TV)
 - Quaternary variable (QV)
 - Not used

| Burst variable 7 | <u>B</u> |
|------------------|--|
| Navigation | |
| Description | For HART command 33, assign a HART device variable or process variable to burst variable |
| Selection | Level limit detection Sensor frequency Fork state Sensor temperature Electronics temperature Measured current* Terminal voltage 1* Percent of range Measured current Primary variable (PV) Secondary variable (SV) Tertiary variable (TV) Quaternary variable (QV) Not used |

| Burst trigger mode | | Ĩ |
|--------------------|--|---|
| Navigation | | |
| Description | Select the event that triggers the burst message | |
| Selection | Continuous Window[*] Rising[*] Falling[*] On change | |

^{*} Visibility depends on order options or device settings

| Burst trigger level | | ß |
|---------------------|---|----|
| Navigation | ■ Application \rightarrow HART output \rightarrow Burst config. 1 \rightarrow Trigger level | |
| Description | Enter the burst trigger value that determines together with the option selected in 'Burs trigger mode' parameter the time of burst message | st |
| User entry | Signed floating-point number | |
| | | |

| Min. update period | | A |
|--------------------|--|---|
| Navigation | | |
| Description | Enter the minimum time span between two burst responses of one burst message | |
| User entry | Positive integer | |

| Max. update period | | Ê |
|--------------------|--|---|
| Navigation | ■ Application \rightarrow HART output \rightarrow Burst config. 1 \rightarrow Max. upd. per. | |
| Description | Enter the maximum time span between two burst responses of one burst message | |

User entry Positive integer

| "Information" | " submenu | |
|---------------|-----------|---|
| Navigation | 9 | Application \rightarrow HART output \rightarrow Information |

| Device ID | |
|----------------|--|
| Navigation | |
| Description | Shows the device ID for identifying the device in a HART network |
| User interface | Positive integer |

| Device type | | |
|-----------------|--|--|
| Navigation | | |
| Description | Shows the device type with which the measuring device is registered with the HART Communication Foundation | |
| User interface | 0 to 65 535 | |
| Device revision | | |
| Navigation | | |
| Description | Shows the device revision with which the device is registered with the HART Communication Foundation | |
| User interface | 0 to 255 | |
| HART short tag | | |
| Navigation | | |
| Description | Defines the short tag for the measuring point. | |
| | Maximum length: 8 characters Allowed characters: A-Z, 0-9, certain special characters | |
| User entry | Character string comprising numbers, letters and special characters (8) | |
| HART revision | | |
| Navigation | | |
| User interface | 5 to 7 | |
| HART descriptor | | |
| Navigation | | |
| Description | Use this function to define a description for the measuring point. | |
| | Maximum length: 16 characters Allowed characters: A-Z, 0-9, certain special characters | |

User entry Character string comprising numbers, letters and special characters (16)

| HART message | | Ê |
|----------------|---|---|
| Navigation | □ □ Application → HART output → Information → HART message | |
| Description | Use this function to define a HART message which is sent via the HART protocol whe requested by the master. | n |
| | Maximum length: 32 characters Allowed characters: A-Z, 0-9, certain special characters | |
| User entry | Character string comprising numbers, letters and special characters (32) | |
| HART date code | | |
| | | |
| Navigation | | |
| Description | Enter date of the last configuration change. Use this format yyyy-mm-dd | |
| User entry | Character string comprising numbers, letters and special characters (10) | |

"System" menu 3.4

Navigation

System

"Device management" submenu 3.4.1

Navigation

System \rightarrow Device manag.

| Device tag | | A |
|-------------|--|---|
| Navigation | Image: System → Device manag. → Device tag | |
| Description | Enter a unique name for the measuring point to identify the device quickly within the plant. | |
| User entry | Character string comprising numbers, letters and special characters (32) | |

| Locking status | |
|----------------|--|
| Navigation | Image: Boostimes and the second status Image: A provide the second status Image: B provide the second status |
| Description | Indicates the type of locking. |
| | 'Hardware locked' (HW) The device is locked by the 'WP' switch on the main electronics module. To unlock, set the switch into the OFF position. |
| | 'Safety locked' (SW) Unlock the device by entering the appropriate access code in 'Enter safety unlocking code'. |
| | 'Temporarily locked' (SW) The device is temporarily locked by processes in the device (e.g. data upload/download, reset). The device will automatically be unlocked after completion of these processes. |
| User interface | Hardware locked Safety locked Temporarily locked |

| Configuration counte | r | | | | |
|----------------------|--|--|--|--|--|
| Navigation | □ System → Device manag. → Config. counter | | | | |
| Description | Displays the counter for changes to the device parameters. Additional information: - If the value for a static parameter is changed when optimizing or configuring the parameter, the counter is incremented by 1. This is to enable tracking different parameter versions. - When multiple parameters are changed simultaneously, e.g. when loading parameters into the device from an external source such as FieldCare, the counter may display a high value. The counter cannot be reset, nor is it reset to a default value on performing a devic reset. - Once the counter has reached the value 65535, it restarts at 0. | | | | |
| User interface | 0 to 65 535 | | | | |
| Reset device | <u>گ</u> | | | | |
| Navigation | System → Device manag. → Reset device | | | | |
| Description | Reset the device configuration - either entirely or in part - to a defined state | | | | |
| Selection | Cancel To fieldbus defaults ** To factory defaults * To delivery settings * Restart device 3.4.2 "User management" submenu <i>Navigation</i> | | | | |
| User role | | | | | |

 $\textcircled{B} \boxminus \text{System} \rightarrow \text{User manag.} \rightarrow \text{User role}$ Navigation

Description Shows the access authorization to the parameters via the operating tool

^{**}

Visibility depends on communication Visibility depends on order options or device settings *

User interface

- Operator Maintenance

 - ExpertProduction
 - Development

"Change user role" wizard

| Navigation | System → User manag | \rightarrow | Change | user ro | าโค |
|------------|----------------------|---------------|--------|---------|-----|
| πανιγατισπ | System / User manay. | | Change | user ru | лe |

| Enter access code | | Â | | |
|-------------------|---|---|--|--|
| Navigation | System \rightarrow User manage \rightarrow Change user role \rightarrow Entraccess code | | | |
| Navigation | System / Oser manage user role / Ent. access code | | | |
| Description | For authorized service personnel only. | | | |
| User entry | 0 to 9 999 | | | |
| | | | | |
| | | | | |
| | "Change user role" wizard | | | |
| | Navigation $\begin{array}{ccc} System ightarrow User manag. ightarrow Change user role \end{array}$ | | | |
| | | | | |
| Start | | | | |
| Navigation | | | | |
| User interface | Character string comprising numbers, letters and special characters | | | |
| | | | | |
| Password | | | | |
| Navigation | | | | |
| Description | Enter the password for the 'Maintenance' user role to get access to the functionality of this role. | | | |
| User entry | Character string comprising numbers, letters and special characters (16) | | | |
| Status password entry | | |
|-----------------------|--|--|
| Navigation | | |
| Description | Use this function to display the status of the password verification. | |
| User interface | Wrong password Password rule violated Password accepted Permission denied Confirm PW mismatch Reset password accepted Invalid user role Wrong sequence of entry | |
| | "Define password" wizard Navigation \square System \rightarrow User manag. \rightarrow Define password | |
| Start | | |
| Navigation | | |
| User interface | Character string comprising numbers, letters and special characters | |
| New password | | |
| Navigation | ■ System → User manag. → Define password → New password | |
| Description | Define the new 'Maintenance' password. A new password is valid after it has been confirmed within the 'Confirm new password' parameter. Any valid password consists of 4 to 16 characters and can contain letters and numbers. | |
| User entry | Character string comprising numbers, letters and special characters (16) | |
| Status password entry | | |
| Navigation | Image: Boostime System → User manag. → Define password → Status pw entry | |

Description Use this function to display the status of the password verification.

User interface

-
- Wrong password
- Password rule violated
- Password accepted
- Permission denied
- Confirm PW mismatch
- Reset password acceptedInvalid user role
- Wrong sequence of entry

| Confirm new password | | â |
|----------------------|---|---|
| Navigation | System -> User manag -> Define password -> Conf new passw | |
| Navigation | System / Oser manag. / Denne passworu / Com. new passw. | |
| Description | Enter the new password again to confirm. | |
| User entry | Character string comprising numbers, letters and special characters (16) | |
| | | |
| | | |
| | "Change password" wizard | |
| | Navigation \Box System \rightarrow User manag. \rightarrow Change password | |
| | | |
| Start | | |
| Navigation | ■ System \rightarrow User manag. \rightarrow Change password \rightarrow Start | |
| User interface | Character string comprising numbers, letters and special characters | |
| | | |
| Old password | | Ê |
| | | |
| Navigation | System \rightarrow User manag. \rightarrow Change password \rightarrow Old password | |
| Description | Enter the current password, to subsequently change the existing password. | |
| User entry | Character string comprising numbers, letters and special characters (16) | |

| Status password entry | |
|-----------------------|--|
| Novigation | a System - Hear manage - Change paggyord - Statue my ontry |
| Navigation | System > Oser manag. > Change password > Status pw entry |
| Description | Use this function to display the status of the password verification. |
| User interface | Wrong password Password rule violated Password accepted Permission denied Confirm PW mismatch Reset password accepted Invalid user role Wrong sequence of entry |

| New password | | Â |
|--------------|--|------------------|
| Navigation | System → User manag. → Change password → New password | |
| Description | Define the new 'Maintenance' password. A new password is valid after it has been confirmed within the 'Confirm new pass parameter. Any valid password consists of 4 to 16 characters and can contain letters and nu | sword' mbers. |
| User entry | Character string comprising numbers, letters and special characters (16) | |

| Confirm new password | | | |
|----------------------|------|---|--|
| Navigation | 9 | System \rightarrow User manag. \rightarrow Change password \rightarrow Conf. new passw. | |
| Description | Ente | r the new password again to confirm. | |
| User entry | Cha | acter string comprising numbers, letters and special characters (16) | |

"Delete password" wizard

Navigation

System \rightarrow User manag. \rightarrow Delete password

| Start | | | |
|----------------------|--|---|--|
| Navigation | | | |
| User interface | Character string comprising numbers, letters and special characters | | |
| Old password | | ß | |
| Navigation | System → User manag. → Delete password → Old password | | |
| Description | Enter the current password, to subsequently change the existing password. | | |
| User entry | Character string comprising numbers, letters and special characters (16) | | |
| Status password entr | у | | |
| Navigation | | | |
| Description | Use this function to display the status of the password verification. | | |
| User interface | Wrong password Password rule violated Password accepted Permission denied Confirm PW mismatch Reset password accepted Invalid user role Wrong sequence of entry | | |

"Reset password" wizard

Navigation

□ System \rightarrow User manag. \rightarrow Reset password

| Start | | | | |
|---------------------|--|--|--|--|
| Navigation | | | | |
| User interface | Character string comprising numbers, letters and special characters | | | |
| Reset password | | | | |
| Navigation | | | | |
| Description | Enter a code to reset the current 'Maintenance' password. The code is deliverd by your local support. | | | |
| User entry | Character string comprising numbers, letters and special characters (16) | | | |
| Status password ent | ry | | | |
| Navigation | ⓐ System → User manag. → Reset password → Status pw entry | | | |
| Description | Use this function to display the status of the password verification. | | | |
| User interface | Wrong password Password rule violated Password accepted Permission denied | | | |

- Confirm PW mismatch
- Reset password accepted
- Invalid user role
- Wrong sequence of entry

| | "Logout" wizard | | | | |
|----------------|--|--|--|--|--|
| | Navigation \square System \rightarrow User manag. \rightarrow Logout | | | | |
| | | | | | |
| Start | | | | | |
| Navigation | System → User manag. → Logout → Start | | | | |
| User interface | Character string comprising numbers, letters and special characters | | | | |
| | | | | | |
| User role | | | | | |
| Navigation | | | | | |
| Description | Shows the access authorization to the parameters via the operating tool | | | | |
| User interface | Operator Maintenance Expert Production Development | | | | |

3.4.3 "Bluetooth configuration" submenu

Navigation

| Bluetooth activation | |
|----------------------|---|
| Navigation | System → Bluetooth conf. → Bluetooth active |
| Description | If Bluetooth is deactivated, it can only be reactivated via the display or the operating tool. Reactivating via the SmartBlue app is not possible. |
| Selection | DisableEnable |

3.4.4 "Display" submenu

Navigation \square System \rightarrow Display

| Language | |
|-------------|--|
| Navigation | |
| Description | Set display language |
| Selection | English Deutsch* Français* Español* Italiano* Nederlands* Portuguesa* Polski* pyccкий язык (Russian)* Svenska* Türkçe* 中文 (Chinese)* 日本語 (Japanese)* 한국 어 (Korean)* ಪيزينة (Arabic)* Bahasa Indonesia* ลาษาไทย (Thai)* tiếng Việt (Vietnamese)* |

čeština (Czech)

| Format display | |
|----------------|--|
| Navigation | |
| Description | Select how measured values are shown on the display |
| Selection | 1 value, max. size 1 bargraph + 1 value 2 values |

| Value 1 display | | X |
|-----------------|--|----------|
| Navigation | System → Display → Value 1 display | |
| Description | Select the measured value that is shown on the local display | |

^{*} Visibility depends on order options or device settings

A

Selection

- Level limit detection
- Sensor frequency
- Fork state
- Sensor temperature
- Current output
- Terminal voltage

| Decimal places 1 | | Â |
|------------------|--|---|
| Navigation | Image: Boost and the second state of the | |
| Description | This selection does not affect the measurement and calculation accuracy of the device. | |
| Selection | • X | |
| | • X.X • Y YY | |
| | ■ X.XXX | |
| | X.XXXX | |

| Value 2 display | , | | | |
|-----------------|---|--|--|--|
|-----------------|---|--|--|--|

| Navigation | System → Display → Value 2 display |
|-------------|---|
| Description | Select the measured value that is shown on the local display |
| Selection | None Level limit detection Sensor frequency Fork state Sensor temperature Current output Terminal voltage |

| Decimal places 2 | | Ê |
|------------------|--|---|
| Navigation | | |
| Description | This selection does not affect the measurement and calculation accuracy of the device. | |
| Selection | • X • X.X • X Y | |
| | X.XXX X.XXXX | |

| Value 3 display | | æ |
|-----------------|--|---|
| Navigation | Image: Boostimes and the second state of | |
| Description | Select the measured value that is shown on the local display | |
| Selection | None Level limit detection Sensor frequency Fork state Sensor temperature Current output Terminal voltage | |

| Decimal places 3 | | ß |
|------------------|--|---|
| Navigation | □ System → Display → Decimal places 3 | |
| Description | This selection does not affect the measurement and calculation accuracy of the device. | |
| Selection | X X.X X.XX X.XXX | |
| | X.XXXX | |

| Value 4 display | | ß |
|-----------------|---|---|
| Navigation | | |
| Description | Select the measured value that is shown on the local display | |
| Selection | None Level limit detection Sensor frequency Fork state Sensor temperature Current output Terminal voltage | |

| Decimal places 4 | | £ |
|------------------|--|---|
| | | |
| Navigation | Image: System → Display → Decimal places 4 | |
| Description | This selection does not affect the measurement and calculation accuracy of the device. | |

Selection

- X ■ X.X
 - x.xx
 - X.XXX
 - X.XXXX

| Contrast display | |
|------------------|--|
| Navigation | Image: Boostimes and the second state of |
| Description | Adjust local display contrast setting to ambient conditions (e.g. lighting or reading angle) |
| User entry | 20 to 80 % |
| | |

3.4.5 "Geolocation" submenu

Navigation

| Process Unit Tag | | |
|----------------------|--|--------|
| Navigation | Image: Boostimes and the second state of | |
| Description | Enter the process unit in which the device is installed. | |
| User entry | Character string comprising numbers, letters and special characters (32) | |
| Location Description | | |
| | | |
| Navigation | $ \blacksquare \Box System \rightarrow Geolocation \rightarrow Location Descr. $ | |
| Description | Use this function to enter a description of the location so that the device can be locat the plant. | ted in |
| User entry | Character string comprising numbers, letters and special characters (32) | |
| | | |
| Longitude | | |

Description Use this function to enter the longitude coordinates that describe the device location.

| Latitude | | |
|-----------------|---|----|
| Navigation | Image: Boostime of the second state of th | |
| Description | Use this function to enter the latitude coordinates that describe the device location. | |
| User entry | -5156.62015616066 to 5156.62015616066° | |
| Altitude | | |
| Navigation | Image: Boostime of the second state of th | |
| Description | Use this function to enter the altitude data that describe the device location. | |
| User entry | Signed floating-point number | |
| Location method | | Ê |
| Navigation | Image: Boostime of the second state of th | |
| Description | Use this function to select the data format for specifying the geographic location. The codes for specifying the location are based on the US National Marine Electronics Association (NMEA) Standard NMEA 0183. | l. |
| Selection | No fix GPS or Standard Positioning Service fix Differential GPS fix Precise positioning service (PPS) fix Real Time Kinetic (RTK) fixed solution Real Time Kinetic (RTK) float solution Estimated dead reckoning Manual input mode Simulation Mode | |

User entry

-180 to 180 °

3.4.6 "Information" submenu

Navigation

System → Information

| Device name | | |
|----------------|---|--|
| Navigation | | |
| Description | Use this function to display the device name. It can also be found on the nameplate. | |
| User interface | Character string comprising numbers, letters and special characters | |
| Manufacturer | | |
| Navigation | | |
| User interface | Character string comprising numbers, letters and special characters | |
| Serial number | | |
| Navigation | | |
| Description | The serial number is a unique alphanumerical code identifying the device. It is printed on the nameplate. In combination with the Operations app it allows to access all device related documentation. | |
| User interface | Character string comprising numbers, letters and special characters | |
| Order code | | |
| Navigation | | |
| Description | Shows the device order code. | |
| User interface | Character string comprising numbers, letters and special characters | |

| Firmware version | | _ |
|-----------------------|--|---|
| Navigation | Information → Firmware version $ = \text{System} \rightarrow \text{Information} \rightarrow \text{Firmware version} $ | |
| Description | Displays the device firmware version installed. | |
| User interface | Character string comprising numbers, letters and special characters | |
| Hardware version | | |
| Navigation | Information → Hardware version $ = 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1$ | |
| User interface | Character string comprising numbers, letters and special characters | |
| Extended order code 1 | | 3 |
| Navigation | Information → Ext. order cd. 1 $ = 1 \text{System} \rightarrow \text{Information} \rightarrow \text{Ext. order cd. 1} $ | |
| Description | The extended order code is an alphanumeric code containing all information to identify the device and its options. | |
| User interface | Character string comprising numbers, letters and special characters | |
| Extended order code 2 | Ē | |
| Navigation | Information → Ext. order cd. 2 $ = 1 + 2 + 2 = 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$ | |
| Description | The extended order code is an alphanumeric code containing all information to identify the device and its options. | |
| User interface | Character string comprising numbers, letters and special characters | |
| Extended order code 3 | Ē |) |
| Navigation | Information → Ext. order cd. 3 $ = 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3$ | |
| Description | The extended order code is an alphanumeric code containing all information to identify the device and its options. | |
| User interface | Character string comprising numbers, letters and special characters | |

3.4.7 "Software configuration" submenu

Navigation \square System \rightarrow Softw. config.

| CRC device configura | ation |
|----------------------|---|
| Navigation | Image: Bold System → Softw. config. → CRC device conf. |
| Description | CRC device configuration based on current settings of safety relevant parameters. The CRC device configuration is unique and can be used to detect changes in safety relevant parameter settings. |
| User interface | 0 to 65 535 |
| Stored CRC device co | nfiguration |
| Navigation | |
| Description | Stored CRC after the last safety lock. Factory delivery is 65535 means that the device has not yet been safety locked. |
| User interface | 0 to 65 535 |

Timestamp stored CRC device config.

| Navigation | System → Softw. config. → TS stored CRC |
|----------------|---|
| Description | Gives the time stamp when the CRC was last stored following completion of the safety lock wizard. |
| User interface | Character string comprising numbers, letters and special characters |

| Activate SW option | | |
|--------------------|---|--|
| | | |
| Navigation | \blacksquare System \rightarrow Softw. config. \rightarrow Activate SW opt. | |

DescriptionEnter the application package code or code of another re-ordered functionality to enable itUser entryPositive integer

Software option overview Navigation Image: System → Softw. config. → SW option overv. Description Shows all enabled software options User interface • SIL • WHG • Heartbeat Verification • Heartbeat Monitoring

Index

0...9

| 49 Corrosion warning (Parameter) |
|---|
| 49 Diagnostic behavior (Parameter) |
| 49 Event category (Parameter) |
| 806 Alarm delay (Parameter) |
| 806 Diagnostic behavior (Parameter) |
| 806 Event category (Parameter) 47 |
| 825 Electronics temperature (Parameter) |
| 826 Sensor temperature (Parameter) |
| 900 Alarm delay (Parameter) |
| 900 Diagnostic behavior (Parameter) |
| 900 Event category (Parameter) 48 |
| 900 Process alert frequency too low (Parameter) 43 |
| 901 Alarm delay (Parameter) |
| 901 Diagnostic behavior (Parameter) |
| 901 Event category (Parameter) 49 |
| 901 Process alert frequency too high (Parameter) 44 |

Α

В

| Baseline status (Parameter) |
|--------------------------------------|
| Bluetooth activation (Parameter) |
| Bluetooth configuration (Submenu) 78 |
| Burst command 1 (Parameter) |
| Burst configuration 1 (Submenu) 62 |
| Burst mode 1 (Parameter) 62 |
| Burst trigger level (Parameter) |
| Burst trigger mode (Parameter) |
| Burst variable 0 (Parameter) 63 |
| Burst variable 1 (Parameter) 63 |
| Burst variable 2 (Parameter) 64 |
| Burst variable 3 (Parameter) 64 |
| Burst variable 4 (Parameter) |
| Burst variable 5 (Parameter) |
| Burst variable 6 (Parameter) 65 |
| Burst variable 7 (Parameter) |

С

| Change password (Wizard) Change user role (Wizard) Character test string (Parameter) Clamping voltage lower threshold (Parameter) Clamping voltage upper threshold (Parameter) Code incorrect (Parameter) Commissioning (Wizard) | 74 72 42 42 27 19 |
|--|----------------------------------|
| Configuration (Submenu) | 58 |
| | |

| 71 |
|----|
| 75 |
| 32 |
| 36 |
| 56 |
| 56 |
| 53 |
| 54 |
| |

D

| Damping (Parameter) | | | 53 |
|--|-----|-----|-----|
| Date 1 (Parameter) | | | 38 |
| Date 2 (Parameter) | | | 38 |
| Date 3 (Parameter) | | | 38 |
| Date 4 (Parameter) | | | 38 |
| Date 5 (Parameter) | | | 39 |
| Date 6 (Parameter) | | | 39 |
| Date 7 (Parameter) | | | 39 |
| Date 8 (Parameter) | | | 39 |
| Date 9 (Parameter) | | | 39 |
| Date 10 (Parameter) | | | 39 |
| Date 11 (Parameter) | | | 40 |
| Date 12 (Parameter) | | | 40 |
| Date 13 (Parameter) | | | 40 |
| Date 14 (Parameter) | | | 40 |
| Date 15 (Parameter) | | | 40 |
| Date 16 (Parameter) | | | 40 |
| Date/time Heartbeat Verification (Parameter) | | | 34 |
| Date/time proof test (Parameter) | | | 44 |
| Decimal places 1 (Parameter) | | | 80 |
| Decimal places 2 (Parameter) | | | 80 |
| Decimal places 3 (Parameter) | | | 81 |
| Decimal places 4 (Parameter) | | | 81 |
| Define password (Wizard) | | | 73 |
| Delete password (Wizard) | | | 76 |
| Density setting (Parameter) | 20, | 24, | 52 |
| Description of device parameters | | | 17 |
| Device ID (Parameter) | | | 67 |
| Device management (Submenu) | | | 70 |
| Device name (Parameter) | | 23, | 84 |
| Device revision (Parameter) | | | 68 |
| Device tag (Parameter) | 22, | 59, | 70 |
| Device type (Parameter) | | | 68 |
| Diagnostic event category (Parameter) | | | 33 |
| Diagnostic event simulation (Parameter) | | | 33 |
| Diagnostic settings (Submenu) | | | 45 |
| Diagnostics (Menu) | | | 29 |
| Display (Submenu) | ••• | 17, | 79 |
| Document | | | |
| Explanation of the structure of a parameter | | | |
| description | | | . 3 |
| Function | | | 3 |
| Structure | | | . 3 |
| Symbols used | | | . 4 |
| Target group | | | 3 |
| Using the document | | | . 3 |
| | | | |

| Document function | 3 |
|---|--|
| E Electronics temperature (Parameter) Enter access code (Parameter) Enter safety locking code (Parameter) Enter safety unlocking code (Parameter) | 51 72 22 27 85 85 |
| F Failure behavior current output (Parameter) 21, 25, Failure current (Parameter) | 57 57 85 50 33 79 |
| Frequency at delivery status (Parameter) Frequency history (Submenu) Frequency max (Parameter) Frequency min (Parameter) Frequency simulation value (Parameter) Function see Parameters | 55 35 30 30 33 |
| G Geolocation (Submenu) | 82 19 |
| H Hardware version (Parameter) | 85 58 69 68 69 68 68 34 34 44 |
| I Information (Submenu) 67, | 84 |
| L Language (Parameter) | 79 83 82 83 |

Locking status (Parameter) 26, 28, 70

Logout (Wizard) 78

Longitude (Parameter) 82

Loop diagnostics (Parameter) 42

Loop diagnostics (Submenu) 41

Lower range value output (Parameter) 20, 26, 57

Lower switching point at density (Parameter) 55

N

| М |
|---|
| Manufacturer (Parameter)84Max. update period (Parameter)67Maximum electronics temperature (Parameter)31Maximum sensor temperature (Parameter)32Maximum terminal voltage (Parameter)31Measured values (Submenu)50Measuring Units (Submenu)51Menu |
| Application50Diagnostics29Guidance19System70Min. update period (Parameter)67Minimum electronics temperature (Parameter)31Minimum sensor temperature (Parameter)31Minimum terminal voltage (Parameter)31Minimum/maximum values (Submenu)30Mode of operation (Parameter)19, 52 |
| N New password (Parameter) |
| O Old password (Parameter) |
| PParametersStructure of a parameter description3Password (Parameter)72Previous diagnostics (Parameter)29Primary variable (PV) (Parameter)60Process (Submenu)47Process Unit Tag (Parameter)82Process window (Submenu)43Proof test (Submenu)44Proof test via Bluetooth allowed? (Parameter)45 |
| Q Quaternary variable (QV) (Parameter) 62 |
| R Rebuild baseline (Parameter) |
| S Safety function (Parameter) |

| Sensor (Submenu)46Sensor calibration (Submenu)5Sensor configuration (Submenu)46Sensor frequency (Parameter)47Sensor frequency 1 (Parameter)47Sensor frequency 2 (Parameter)5Sensor frequency 3 (Parameter)5Sensor frequency 4 (Parameter)5Sensor frequency 5 (Parameter)5Sensor frequency 6 (Parameter)5Sensor frequency 7 (Parameter)5Sensor frequency 8 (Parameter)5Sensor frequency 9 (Parameter)5Sensor frequency 10 (Parameter)5Sensor frequency 11 (Parameter)5Sensor frequency 12 (Parameter)5Sensor frequency 13 (Parameter)5Sensor frequency 14 (Parameter)5Sensor frequency 15 (Parameter)5Sensor frequency 16 (Parameter)5Sensor frequency 175Sensor frequency 18 (Parameter)5Sensor frequency 195Sensor frequency 10 (Parameter)5Sensor frequency 10 (Parameter)5Sensor frequency 15 (Parameter)5Sensor frequency 16 (Parameter)5Sensor temperature (Parameter)5Simulation (Submenu)5Software configuration (Submenu)5Software option overview (Parameter)5Start (Parameter)72, 73, 74, 76, 75Start verification (Parameter)5Start verification (Parameter)5Start verification (Parameter)5Start verification (Pa | 5, 52 5, 52 5, 52 3, 50 355 366 366 366 377 |
|---|---|
| Status (Parameter) | . 35 6,77 |
| Stored covered frequency (Parameter) | . 54 3,86 . 54 . 54 |
| Active diagnostics Bluetooth configuration Burst configuration 1 Configuration Current output Device management Diagnostic settings Display Geolocation HART output Heartbeat Technology Heartbeat Verification Information Measured values Measuring Units Minimum/maximum values | 29 . 78 . 62 . 58 . 56 . 70 . 45 7, 79 . 35 . 82 3, 60 . 34 . 34 . 34 . 41 . 50 . 51 . 51 . 30 . 47 |
| Process window | . 43 . 44 . 45 6, 52 |

| Sensor calibration |
|--|
| Sensor configuration |
| Simulation |
| Software configuration |
| Stored frequency |
| User management |
| Switching delay covered to uncovered (Parameter) |
| |
| Switching delay uncovered to covered (Parameter) |
| |
| System (Menu) |
| |

Т

U

| Upper alarm frequency (Parameter) | 56 |
|--|----|
| Upper range value output (Parameter) 20, 26, | 57 |
| Upper switching point at density (Parameter) | 55 |
| Upper warning frequency (Parameter) 45, | 55 |
| User management (Submenu) 17, | 71 |
| User role (Parameter) | 78 |

v

| Value 1 display (Parameter) | 79 |
|----------------------------------|----|
| Value 2 display (Parameter) | 80 |
| Value 3 display (Parameter) | 81 |
| Value 4 display (Parameter) | 81 |
| Value current output (Parameter) | 32 |

W Wiz

1

| Izard | |
|------------------|----|
| Change password | 74 |
| Change user role | 72 |
| Commissioning | 19 |
| Define password | 73 |
| Delete password | 76 |
| Logout | 78 |
| Reset password | 77 |
| Safety lock | 21 |
| Safety unlock | 27 |
| | |



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