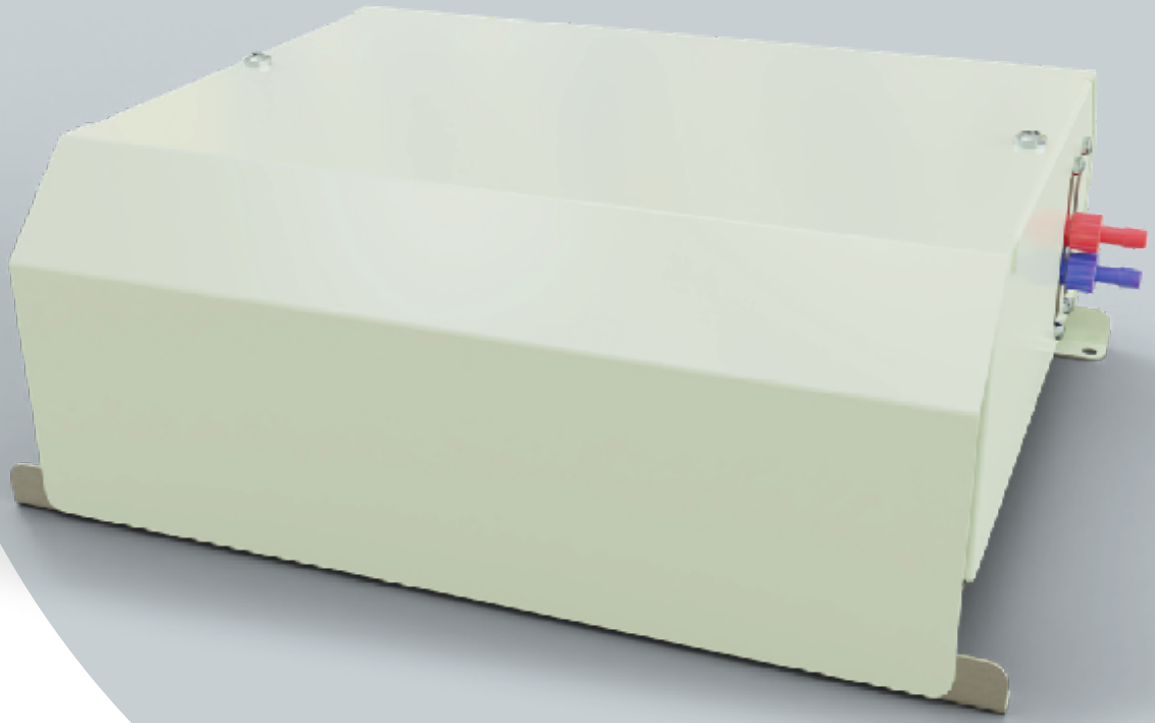

Configuration Values
Fume Hood Controller FC400

SCHNEIDER
SCHAKO Group

General Information

Device Type Fume Hood Controller FC400

Firmware Version FC400 1.9a

Firmware Release Date 2025-09-29

This document lists all configuration and display values that can be read or configured via the service interface of the FC400. The visibility of values may depend on several factors. In general, entries that are rarely required are hidden by default. These can be identified by the *Expert Setting* symbol. To make them visible, activate Expert Mode in the settings of the PC4500.

The type of each parameter can be identified by the symbol preceding it.

Standard. Basic configuration for commissioning.
Advanced. Configuration or display values that are less frequently required.
Expert. These values normally remain unchanged in all standard applications.

In addition, individual parameters or entire groups may be hidden in the configuration software depending on the state of other values. For example, configuration parameters of analog interfaces only appear if these interfaces are present and active in the respective device variant. If such dependencies exist, they are indicated for the corresponding parameter.

Example:

> Availability depends on **Other Parameter**.

1 Present Values

1.0.1 Face Velocity

The current face velocity, measured with the connected airflow sensor.

Resolution 0.01 m/s

1.0.2 Volume Flow

The current volume flow, determined from the current differential pressure.

1.0.3 Pressure Volume Flow

The current differential pressure for the volume flow calculation.

Resolution 0.01 Pa

1.0.4 Pressure Support Jet

The current differential pressure for the support jet monitoring.

Resolution 0.01 Pa

1.0.5 Pressure Air Washer

The current differential pressure for the air washer monitoring.

Resolution 0.01 Pa

1.0.6 Damper State

Current Damper State

Availability depends on **Type**.

Disconnected *(Default Value)*	The damper actuator is not connected.
Blocked	The damper is blocked.
Steady	The damper position is currently stable.
Opening	The damper is currently opening.
Closing	The damper is currently closing.
Fully Opened	The damper is completely opened.

Fully Closed	The damper is completely closed.
Limit Min	The damper is at the lower limit.
Limit Max	The damper is at the upper limit.

1.0.7 Damper Position

The current damper position.

1.0.8 Fan Speed

Current fan speed.

Availability depends on **Type**.

1.0.9 Sash Position

The current sash position, measured with the connected sash position sensor.

1.0.10 Sash State

The current sash state.

Unknown *(Default Value)*	The position sensor is not calibrated or the configuration is incorrect.
Not Connected	The position sensor is not connected.
Broken	The position sensor is outside the calibrated range, cable may have broken.
Closed	The sash is completely closed.
Below Working Height	The sash is not closed, but under working height.
Working Height	The sash is at working height.
Above Working Height	The sash is above working height.

1.0.11 Temperature

The current temperature.

Resolution 0.01 °C

1.0.12 DIN 1 Value

The current status of the digital input.

LOW *(Default Value)*

HIGH

1.0.13 DIN 2 Value

The current status of the digital input.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.14 DIN 3 Value

The current status of the digital input.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.15 DIN 4 Value

The current status of the digital input.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.16 DIN 5 Value

The current status of the digital input.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.17 DIN 6 Value

The current status of the digital input.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.18 DIN 7 Value

The current status of the digital input.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.19 Relay 1 State

Current state of the relay

LOW *(Default Value)*

HIGH

1.0.20 Relay 2 State

Current state of the relay

LOW *(Default Value)*

HIGH

1.0.21 Relay 3 State

Current state of the relay

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.22 Relay 4 State

Current state of the relay

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.23 Relay 5 State

Current state of the relay

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.24 Relay 6 State

Current state of the relay

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.25 Relay 7 State

Current state of the relay

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

LOW *(Default Value)*

HIGH

1.0.26 Analog Interface 1

The current voltage at the analog interface.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

Resolution 0.001 V

1.0.27 Analog Interface 2

The current voltage at the analog interface.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

Resolution 0.001 V

1.0.28 Analog Interface 3

The current voltage at the analog interface.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

Resolution 0.001 V

1.0.29 Analog Interface 4

The current voltage at the analog interface.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

Resolution 0.001 V

1.0.30 Analog Interface 5

The current voltage at the analog interface.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

Resolution 0.001 V

1.0.31 Analog Interface 6

The current voltage at the analog interface.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

Resolution 0.001 V

1.0.32 Light

The current status of the fume hood cupboard light relay (on or off).

Off *(Default Value)*

On

1.0.33 Alarm

Current alarm state of the Device (active or inactive)

Inactive *(Default Value)*

Active

1.0.34 Operating Mode

Displays the current operating mode (Day, Night, Override, Off).

Day *(Default Value)*

Night

Override

Off

1.0.35 Power State

The current power state.

Power Supply Operation *(Default Value)*

Standby Power Operation

1.0.36 Battery Fault

Indicates whether the connected UPS is reporting a battery error.

Battery Fault *(Default Value)*

Battery OK

1.0.37 UPS Connected

Indicates whether a UPS is connected.

Not Connected *(Default Value)*

Connected

2 Operating Mode

2.1 General

2.1.1 Startup Mode

Defines the operating mode in which the device starts operating after a restart - for example, due to a power failure. In addition to the four operating modes DAY, NIGHT, OVERRIDE and OFF, the „Previous State“ option is also available. If this option is selected, the device always returns to the last active state after a restart.

Previous State	Starts in the last operating mode before restarting the device.
Day *(Default Value)*	
Night	
Override	
Off	

2.1.2 Follow Room Operating Mode

Determines how the local operating mode follows the room operating mode.

Never *(Default Value)*	The local operating mode never follows the room operating mode.
Always Permanent	The local operating mode always follows the room operating mode permantent (local operating mode can not been different from room operating mode).
All Change Events	The local operating mode always follows the changes of the room operating mode.
Night Change Event	The local operating mode follows the changes of the room operating mode in night.

2.2 Day

2.2.1 Actuato Mode

Determines the function of the actuator in the operating mode day.

Stop (Freeze)	The current actuator position is retained. No control takes place!

Control *(Default Value)*	The actuator is controlled by the control system. Depending on the configured control type, the setpoint volume flow or face velocity is controlled.
Close Completely	The actuator is closed completely (without consideration of actuator limits).
Open Completely	The actuator is opened completely (without consideration of actuator limits).
Upper Limit	The upper actuator limit is the highest actuator position which may be approached during the control process.
Lower Limit	The lower actuator limit is the lowest actuator position which may be approached during the control process.
Modbus	The actuator position is determined by the Modbus data point.
Swing	The actuator alternately opens completely and closes completely (for testing purposes).

2.2.2 Light Behavior

Determines the influence of the change to day operating mode on the fume hood cupboard light.

No Change *(Default Value)*	The previous status of the fume hood cupboard light is retained.
Switch On	When switching to this operating mode, the fume hood cupboard light is switched on.
Switch Off	When switching to this operating mode, the fume hood cupboard light is switched off.
Always On	In this operating mode, the fume hood cupboard light is always switched on.
Always Off	In this operating mode, the fume hood cupboard light is always switched off.

2.3 Night

2.3.1 Actuator Mode

Determines the function of the actuator in the operating mode night.

Stop (Freeze)	The current actuator position is retained. No control takes place!
Control *(Default Value)*	The actuator is controlled by the control system. Depending on the configured control type, the setpoint volume flow or face velocity is controlled.
Close Completely	The actuator is closed completely (without consideration of actuator limits).

Open Completely	The actuator is opened completely (without consideration of actuator limits).
Upper Limit	The upper actuator limit is the highest actuator position which may be approached during the control process.
Lower Limit	The lower actuator limit is the lowest actuator position which may be approached during the control process.
Modbus	The actuator position is determined by the Modbus data point.
Swing	The actuator alternately opens completely and closes completely (for testing purposes).

2.3.2 Light Behavior

Determines the influence of the change to night operating mode on the fume hood cupboard light.

No Change *(Default Value)*	The previous status of the fume hood cupboard light is retained.
Switch On	When switching to this operating mode, the fume hood cupboard light is switched on.
Switch Off	When switching to this operating mode, the fume hood cupboard light is switched off.
Always On	In this operating mode, the fume hood cupboard light is always switched on.
Always Off	In this operating mode, the fume hood cupboard light is always switched off.

2.3.3 Endless Night Mode Duration

Determines whether the night operating mode can be active endlessly (adjustable duration or endless).

Adjustable Duration

Endless *(Default Value)*

2.3.4 Maximum Duration

Night operating mode is deactivated after the night mode duration has elapsed. Only if night operating mode endless is configured to 'Adjustable duration'.

Availability depends on **Endless Night Mode Duration** .

Minimum 0 min

Maximum 5999 min

Default Value 480 min

2.4 Override

2.4.1 Actuator Mode

Determines the function of the actuator in the operating mode override.

Stop (Freeze)	The current actuator position is retained. No control takes place!
Control *(Default Value)*	The actuator is controlled by the control system. Depending on the configured control type, the setpoint volume flow or face velocity is controlled.
Close Completely	The actuator is closed completely (without consideration of actuator limits).
Open Completely	The actuator is opened completely (without consideration of actuator limits).
Upper Limit	The upper actuator limit is the highest actuator position which may be approached during the control process.
Lower Limit	The lower actuator limit is the lowest actuator position which may be approached during the control process.
Modbus	The actuator position is determined by the Modbus data point.
Swing	The actuator alternately opens completely and closes completely (for testing purposes).

2.4.2 Light Behavior

Determines the influence of the change to override operating mode on the fume hood cupboard light.

No Change *(Default Value)*	The previous status of the fume hood cupboard light is retained.
Switch On	When switching to this operating mode, the fume hood cupboard light is switched on.
Switch Off	When switching to this operating mode, the fume hood cupboard light is switched off.
Always On	In this operating mode, the fume hood cupboard light is always switched on.
Always Off	In this operating mode, the fume hood cupboard light is always switched off.

2.4.3 Endless Override Mode Duration

Determines whether the override operating mode can be active endlessly (adjustable duration or endless).

Adjustable Duration *(Default Value)*

Endless

2.4.4 Maximum Duration

Once the maximum override duration has elapsed, the override operating mode is deactivated. Only if operating mode Override endless is configured to Adjustable duration.

Availability depends on **Endless Override Mode Duration** .

Minimum 0 min
Maximum 5999 min
Default Value 60 min

2.4.5 Priority

Determines the priority of the override operating mode in comparison to the night operating mode.

Above 'Night' *(Default Value)*

Below 'Night'

2.5 Off

2.5.1 Actuator Mode

Determines the function of the actuator in the operating mode off.

Stop (Freeze)	The current actuator position is retained. No control takes place!
Control	The actuator is controlled by the control system. Depending on the configured control type, the setpoint volume flow or face velocity is controlled.
Close Completely *(Default Value)*	The actuator is closed completely (without consideration of actuator limits).
Open Completely	The actuator is opened completely (without consideration of actuator limits).
Upper Limit	The upper actuator limit is the highest actuator position which may be approached during the control process.

Lower Limit	The lower actuator limit is the lowest actuator position which may be approached during the control process.
Modbus	The actuator position is determined by the Modbus data point.
Swing	The actuator alternately opens completely and closes completely (for testing purposes).

2.5.2 Light Change

Determines the influence of the change to off operating mode on the fume hood cupboard light.

No Change *(Default Value)*	The previous status of the fume hood cupboard light is retained.
Switch On	When switching to this operating mode, the fume hood cupboard light is switched on.
Switch Off	When switching to this operating mode, the fume hood cupboard light is switched off.
Always On	In this operating mode, the fume hood cupboard light is always switched on.
Always Off	In this operating mode, the fume hood cupboard light is always switched off.

2.6 Power Fail

2.6.1 Operating Mode

Determines whether to switch to override operating mode in emergency power mode or whether to retain the current operating mode.

Keep current *(Default Value)*

Change to Override

2.6.2 Dampermode

Determines the actuator mode in the event of a power failure if the device is supplied via an emergency power supply.

Stop (Freeze)	The current actuator position is retained. No control takes place!
Control *(Default Value)*	The actuator is controlled by the control system. Depending on the configured control type, the setpoint volume flow or face velocity is controlled.

Close Completely	The actuator is closed completely (without consideration of actuator limits).
Open Completely	The actuator is opened completely (without consideration of actuator limits).
Upper Limit	The upper actuator limit is the highest actuator position which may be approached during the control process.
Lower Limit	The lower actuator limit is the lowest actuator position which may be approached during the control process.
Modbus	The actuator position is determined by the Modbus data point.

3 Control

3.1 General

3.1.1 Control Type

It is essential to ensure that all components and sensors required for the selected control type are connected and that the corresponding setpoints have been programmed.

Face Velocity	Control of the constant face velocity. With: Air flow sensor AFS100.
Face Velocity With Limit (FP)	Control of the constant face velocity with volume flow rate limitation to V_{min} and V_{max}. With: Air flow sensor AFS100 and differential pressure sensor.
Face Velocity From Sash Position (FW)	Control of the constant face velocity by calculating the opening area as a function of the sash position, the horizontal window position is not detected, volume flow limitation to V_{min} and V_{max} possible. With: Position sensor SPS100 and differential pressure sensor.
Position Sensor (W)	Variable volume flow control depending on the sash position, the horizontal window position is not detected. With: Position sensor SPS100 and differential pressure sensor.
Variable (V) *(Default Value)*	Variable volume flow control depending on the front sash and horizontal window position. With: Air flow sensor AFS100, position sensor SPS100 and differential pressure sensor.
Variable With Switches (VS)	Variable volume flow control depending on the front sash and horizontal window position. With: SPS100 position sensor, differential pressure sensor and on-site contacts for detecting the horizontal window opening.

Constant (K)	Constant volume flow control (1-, 2- or 3-point via on-site contacts) depending on the sash position, the horizontal window position is not detected. With: Differential pressure sensor and on-site contacts for detecting the sash opening.
Constant With Position Sensor (KW)	Constant volume flow control via position sensor SPS100 depending on the sash position, the horizontal window position is not detected. With: Position sensor SPS100 and differential pressure sensor.

3.2 Airflow Calculation

3.2.1 Face Velocity

The current face velocity, measured with the connected airflow sensor.

Resolution 0.01 m/s

3.2.2 Sensor Type

Selection of the sensor type used.

None	No airflow sensor connected.
AFS100 *(Default Value)*	Airflow sensor AFS100 connected.
AFS200	Airflow sensor AFS200 connected.

3.2.3 Adjustment Factor

The factor corrects the measured value of the air flow sensor in the event of an unfavorable installation position. The measured value can be adjusted as a percentage. Example: 95 % corresponds to a value reduced by 5 %, 110 % corresponds to a value increased by 10 %.

Availability depends on **Control Type**.

Minimum 50 %
Maximum 150 %
Default Value 100 %

3.3 Volume Flow Calculation

3.3.1 Pressure Volume Flow

The current differential pressure for the volume flow calculation.

Resolution 0.01 Pa

3.3.2 Volume Flow

The current volume flow, determined from the current differential pressure.

3.3.3 Constant of measuring unit (C-Value)

The C-Value is used when calculating the volume flow from a differential pressure, with the formula below.

$$\dot{V} = c\sqrt{\frac{\Delta p}{\rho}}$$

Minimum 0.1

Maximum 4999.9

Default Value 96.0

Resolution 0.1

3.3.4 Air Density

The air density Rho is required to calculate the volume flow, see Constant of measuring unit (C-Value).

Minimum 0.50 kg/m³

Maximum 2.00 kg/m³

Default Value 1.20 kg/m³

Resolution 0.01 kg/m³

3.4 Actuator

3.4.1 Type

Determines the actuator type (damper, fan or no actuator).

Damper *(Default Value)*	A damper motor as an actuator.
Fan	A fan as actuator. Controlled via analog output with 'Frequency Converter' function.
None	No actuator selected. The device only monitors the configured setpoints.

3.4.2 Slope Time Upwards

The ramp-up time determines the minimum time the high speed actuator needs to open the control damper from 0 % to 100 %. The ramp time does not determine the control speed but limits the maximum speed of the control damper movement.

Minimum 0 s
Maximum 99 s
Default Value 3 s

3.4.3 Slope Time Downwards

The ramp-down time determines the minimum time the high speed actuator needs to close the control damper from 100 % to 0 %. The ramp time does not determine the control speed but limits the maximum speed of the control damper movement.

Minimum 0 s
Maximum 99 s
Default Value 5 s

3.4.4 Upper Limit

The upper actuator limit is the highest actuator position which may be approached during the control process.

Minimum 0 %
Maximum 100 %
Default Value 100 %

3.4.5 Lower Limit

The lower actuator limit is the lowest actuator position which may be approached during the control process.

Minimum 0 %
Maximum 100 %
Default Value 0 %

3.4.6 Damper State

Current Damper State

Availability depends on **Type**.

Disconnected *(Default Value)*	The damper actuator is not connected.

Blocked	The damper is blocked.
Steady	The damper position is currently stable.
Opening	The damper is currently opening.
Closing	The damper is currently closing.
Fully Opened	The damper is completely opened.
Fully Closed	The damper is completely closed.
Limit Min	The damper is at the lower limit.
Limit Max	The damper is at the upper limit.

3.4.7 Damper Position

The current damper position.

> Availability depends on **Type**.

3.4.8 Fan Speed

Current fan speed.

> Availability depends on **Type**.

3.5 Alarm

3.5.1 Alarm State

Current alarm state of the Device (inactive, pending, active or silenced)

None *(Default Value)*	The alarm is inactive.
Pending	An alarm source reports an alarm, the alarm delay has not yet expired.
Active	The alarm is active.
Silenced	The alarm is active, but silenced.

3.5.2 Alarm Delay Air

An alarm is triggered as soon as the actual value of the controlled variable has been outside the alarm limits for the time set here.

Minimum 1 s

Maximum 60 s

Default Value 10 s

3.5.3 Alarm Delay External

An alarm is triggered as soon as a digital input with the external alarm function is active for the time set here.

Minimum 1 s

Maximum 60 s

Default Value 10 s

3.5.4 Alarm Delay Temperature

An alarm is triggered as soon as a digital input with the temperature alarm function is active or the temperature has exceeded the alarm value for the time set here.

Minimum 1 s

Maximum 60 s

Default Value 10 s

3.5.5 Start Alarm Delay

After switching on the FC400 laboratory fume hood cupboard controller, only visual but no acoustic alarms are triggered within the time configured here.

Minimum 5 s

Maximum 900 s

Default Value 30 s

3.5.6 Endless Buzzer Duration

Determines whether the buzzer duration can be endless.

Adjustable Duration *(Default Value)*

Endless

3.5.7 Max Buzzer Duration

The maximum time after which the acoustic alarm is deactivated. Only if buzzer duration endless is configured to 'Adjustable duration'.

Availability depends on **Endless Buzzer Duration** .

Minimum 0 s
Maximum 900 s
Default Value 60 s

3.6 Face Velocity

3.6.1 Control Factor

Determines the control speed of the face velocity controller. Higher values accelerate the control function, but also increase the risk of overshoot. Lower values lead to slower control, which is more stable in return.

Minimum 0.0001
Maximum 0.9999
Default Value 0.0800
Resolution 0.0001

3.6.2 Control Bias

The control bias of the face velocity controller determines how strongly the controller is slowed down within a close range of the setpoint. Small values lead to increased deceleration. A bias of 0.5 corresponds to a uniform speed independent of the control deviation.

Minimum 0.0001
Maximum 0.6000
Default Value 0.2000
Resolution 0.0001

3.6.3 Deadband

The actual value of the controller must move away from the setpoint by at least this value to move the actuator of a stationary controller. Should be at least as large as the smallest possible value change of the actuator.

Minimum 0.00 m/s
Maximum 0.50 m/s
Default Value 0.05 m/s
Resolution 0.01 m/s

3.6.4 Deadband Hysteresis

Hysteresis of the face velocity controller. Within this range the actuator is always kept unchanged. The value is given as a percentage of the deadband, so it must be between 0 % and 100 %.

Minimum 0 %

Maximum 100 %

Default Value 50 %

3.7 Volume Flow

3.7.1 Control Factor

Determines the control speed of the volume flow controller. Higher values accelerate the control function, but also increase the risk of overshoot. Lower values lead to slower control, which is more stable in return.

Minimum 0.0001

Maximum 0.9999

Default Value 0.0060

Resolution 0.0001

3.7.2 Control Bias

The control bias of the volume flow controller determines how strongly the controller is slowed down within a close range of the setpoint. Small values lead to increased deceleration. A bias of 0.5 corresponds to a uniform speed independent of the control deviation.

Minimum 0.0001

Maximum 0.6000

Default Value 0.2000

Resolution 0.0001

3.7.3 Deadband Auto

Determines whether the deadband should be determined automatically.

Manual *(Default Value)*

Automatic

3.7.4 Deadband

The actual value of the controller must move away from the setpoint by at least this value to move the actuator of a stationary controller. Should be at least as large as the smallest possible value change of the actuator.

Availability depends on **Deadband Auto** .

Minimum 0 m³/h

Maximum 100 m³/h

Default Value 20 m³/h

3.7.5 Deadband Hysteresis

Hysteresis of the volume flow controller. Within this range the actuator is always kept unchanged. The value is given as a percentage of the deadband, so it must be between 0 % and 100 %.

Availability depends on **Deadband Auto** .

Minimum 0 %

Maximum 100 %

Default Value 0 %

3.7.6 Sash Influence

Determines the influence of the sash on the volumetric flow setpoint. Values greater than zero cause the setpoint value to increase disproportionately quickly when the sash is opened. Values less than zero cause the setpoint value to increase less rapidly when the sash is opened.

Minimum -0.5000

Maximum 1.0000

Default Value 0.0000

Resolution 0.0001

4 Setpoints

4.1 Face Velocity

4.1.1 Face Velocity

The current face velocity, measured with the connected airflow sensor.

Availability depends on **Control Type** .

Resolution 0.01 m/s

4.1.2 Unit

Determines the unit in which the face velocity is displayed.

Availability depends on **Control Type**.

m/s *(Default Value)*

ft/min

4.1.3 Day

Setpoint value of the face velocity control in day operating mode.

Availability depends on **Actuato Mode** **Control Type**.

Minimum 0.00 m/s
Maximum 2.00 m/s
Default Value 0.50 m/s
Resolution 0.01 m/s

4.1.4 Night

Setpoint value of the face velocity control in night operating mode.

Availability depends on **Actuator Mode** **Control Type**.

Minimum 0.00 m/s
Maximum 2.00 m/s
Default Value 0.30 m/s
Resolution 0.01 m/s

4.1.5 Override

Setpoint value of the face velocity control in override operating mode.

Availability depends on **Actuator Mode** **Control Type**.

Minimum 0.00 m/s
Maximum 2.00 m/s
Default Value 0.80 m/s
Resolution 0.01 m/s

4.1.6 Off

Setpoint value of the face velocity control in off operating mode.

> Availability depends on **Actuator Mode** **Control Type** .

> **Minimum** 0.00 m/s
> **Maximum** 2.00 m/s
> **Default Value** 0.00 m/s
> **Resolution** 0.01 m/s

4.1.7 Alarm Quota

Percentage deviation from the setpoint of the face velocity control above which an alarm is triggered.

> Availability depends on **Control Type** .

> **Minimum** 0 %
> **Maximum** 50 %
> **Default Value** 5 %

4.2 Volume Flow

4.2.1 Current Setpoint

Shows the current Volume Flow setpoint.

4.2.2 Volume Flow

The current volume flow, determined from the current differential pressure.

> Availability depends on **Control Type** .

4.2.3 Unit

Determines the unit in which the volume flow value is displayed.

> Availability depends on **Control Type** .

> **m³/h** *(Default Value)*
> **l/s**

4.2.4 Maximum

Setpoint value for volume flow control in day operating mode with front sash completely open.

Availability depends on **Actuato Mode** **Control Type** .

Minimum 0 m³/h
Maximum 49999 m³/h
Default Value 600 m³/h

4.2.5 Working Height

Setpoint value for volume flow control in day operating mode with front sash at working level.

Availability depends on **Actuato Mode** **Control Type** .

Minimum 0 m³/h
Maximum 49999 m³/h
Default Value 480 m³/h

4.2.6 Minimum

Setpoint value for volume flow control in day operating mode with front sash closed.

Availability depends on **Actuato Mode** **Control Type** .

Minimum 0 m³/h
Maximum 49999 m³/h
Default Value 200 m³/h

4.2.7 Night

Setpoint value for volume flow control in night operating mode.

Availability depends on **Actuator Mode** **Control Type** .

Minimum 0 m³/h
Maximum 49999 m³/h
Default Value 200 m³/h

4.2.8 Override

Setpoint value for volume flow control in override operating mode.

> Availability depends on **Actuator Mode** **Control Type** .

> **Minimum** 0 m³/h
> **Maximum** 49999 m³/h
> **Default Value** 800 m³/h

4.2.9 Off

Setpoint value for volume flow control in off operating mode.

> Availability depends on **Actuator Mode** **Control Type** .

> **Minimum** 0 m³/h
> **Maximum** 49999 m³/h
> **Default Value** 0 m³/h

4.2.10 Alarm Quota

Percentage deviation from the setpoint value of the volume flow control from which an alarm is triggered.

> Availability depends on **Control Type** .

> **Minimum** 0 %
> **Maximum** 50 %
> **Default Value** 3 %

5 Sash

5.0.1 Sash Calibration

Starts the sash calibration.

5.0.2 Sash Calibration

Confirms the current step in the sash calibration.

5.0.3 Sash Calibration State

The current status of the sash calibration.

Inactive *(Default Value)*	Sash calibration inactive
Close Sash	Close the sash completely.
Open to Working Height	Open the sash to working height.
Open Sash completely	Open the sash completely.
Finished	Sash calibration completed.

5.0.4 Sash State

The current sash state.

Unknown *(Default Value)*	The position sensor is not calibrated or the configuration is incorrect.
Not Connected	The position sensor is not connected.
Broken	The position sensor is outside the calibrated range, cable may have broken.
Closed	The sash is completely closed.
Below Working Height	The sash is not closed, but under working height.
Working Height	The sash is at working height.
Above Working Height	The sash is above working height.

5.0.5 Position

The current sash position, measured with the connected sash position sensor.

5.0.6 Actual Height

Shows the current front sash position in centimeters.

5.0.7 Width

The width of the front sash window is required to calculate the opening area in the face velocity with sash position sensor operating mode (FW).

Minimum 1 cm
Maximum 200 cm
Default Value 120 cm

5.0.8 Sash Closed Height

Gap height of the front sash when closed.

Minimum 1 cm

Maximum 200 cm

Default Value 4 cm

5.0.9 Working Height

Window height of the front sash in the working height state.

Minimum 1 cm

Maximum 200 cm

Default Value 50 cm

5.0.10 Tolerance

Maximum deviation of the current value from the positions recorded during calibration. Is required to derive the front sash state from the front sash position.

Minimum 1 %

Maximum 10 %

Default Value 2 %

5.0.11 Sash Open Buzzer

Determines the behavior of the buzzer when the sash is open.

Adjustable Delay

Deactivated *(Default Value)*

5.0.12 Sash Open Buzzer Delay

Delay of the acoustic alarm when opening the sash above the working height.

Availability depends on **Sash Open Buzzer** .

Minimum 0 s

Maximum 900 s

Default Value 10 s

5.0.13 Voltage

Displays the current voltage at the sash input in volts.

Resolution 0.001 V

5.0.14 Voltage Min

Displays the sash voltage when closed

Resolution 0.001 V

5.0.15 Voltage Max

Displays the sash voltage when fully open.

Resolution 0.001 V

5.0.16 Sash Voltage Working Height

Displays the sash voltage when on working hight.

Resolution 0.001 V

6 MC10 Modules

6.0.1 Expected Module Slot 1

Expected MC10 expansion module in this slot. Only if the expected MC10 module matches the one actually present will it be used.

MC10-PSM-6B (0 Pa - 300 Pa) *(Default Value)*	MC10 Expansion module with a differential pressure sensor 0 Pa to 300 Pa.
MC10-PSM-5B (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-2B (0 Pa - 1000 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 1000 Pa.
MC10-PSM-0D (+/-2500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 2500 Pa.
MC10-PSM-7E (+/-500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 500 Pa.
MC10-PSM-5F (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-8F (+/-400 Pa)	MC10 Expansion module with a differential pressure sensor +/- 400 Pa.
MC10-PSM-9F (+/-1000 Pa)	MC10 Expansion module with a differential pressure sensor +/- 1000 Pa.
MC10-MOD (Modbus)	MC10 Expansion module with a Modbus server interface.

MC10-RTC (Real Time Clock)	MC10 Expansion module with a Real Time Clock.
MC10-PTC (Temperature)	MC10 Expansion module for connection of PTC temperature sensors.
MC10-DI3 (3x DIN)	MC10 Expansion module with 3 Digital Inputs.
MC10-AO1 (1x Analog Output)	MC10 Expansion module with one analog voltage or current output.
MC10-AIO3 (3x Analog Input/Output)	MC10 Expansion module with 3 analog voltage or current inputs or outputs.
MC10-AO2 (2x Analog Output)	MC10 Expansion module with 2 analog voltage outputs.
MC10-DO2 (2x Relay)	MC10 Expansion module with 2 Relays with changeover resp. working contact (SPDT).
MC10-DO3 (3x Relay)	MC10 Expansion module with 3 Relays with working contact.

6.0.2 Expected Module Slot 2

Expected MC10 expansion module in this slot. Only if the expected MC10 module matches the one actually present will it be used.

(Default Value)	
MC10-PSM-6B (0 Pa - 300 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 300 Pa.
MC10-PSM-5B (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-2B (0 Pa - 1000 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 1000 Pa.
MC10-PSM-0D (+/-2500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 2500 Pa.
MC10-PSM-7E (+/-500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 500 Pa.
MC10-PSM-5F (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-8F (+/-400 Pa)	MC10 Expansion module with a differential pressure sensor +/- 400 Pa.
MC10-PSM-9F (+/-1000 Pa)	MC10 Expansion module with a differential pressure sensor +/- 1000 Pa.
MC10-MOD (Modbus)	MC10 Expansion module with a Modbus server interface.
MC10-RTC (Real Time Clock)	MC10 Expansion module with a Real Time Clock.
MC10-PTC (Temperature)	MC10 Expansion module for connection of PTC temperature sensors.
MC10-DI3 (3x DIN)	MC10 Expansion module with 3 Digital Inputs.
MC10-AO1 (1x Analog Output)	MC10 Expansion module with one analog voltage or current output.

MC10-AIO3 (3x Analog Input/Output)	MC10 Expansion module with 3 analog voltage or current inputs or outputs.
MC10-AO2 (2x Analog Output)	MC10 Expansion module with 2 analog voltage outputs.
MC10-DO2 (2x Relay)	MC10 Expansion module with 2 Relays with changeover resp. working contact (SPDT).
MC10-DO3 (3x Relay)	MC10 Expansion module with 3 Relays with working contact.

6.0.3 Expected Module Slot 3

Expected MC10 expansion module in this slot. Only if the expected MC10 module matches the one actually present will it be used.

(Default Value)	
MC10-PSM-6B (0 Pa - 300 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 300 Pa.
MC10-PSM-5B (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-2B (0 Pa - 1000 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 1000 Pa.
MC10-PSM-0D (+/-2500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 2500 Pa.
MC10-PSM-7E (+/-500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 500 Pa.
MC10-PSM-5F (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-8F (+/-400 Pa)	MC10 Expansion module with a differential pressure sensor +/- 400 Pa.
MC10-PSM-9F (+/-1000 Pa)	MC10 Expansion module with a differential pressure sensor +/- 1000 Pa.
MC10-MOD (Modbus)	MC10 Expansion module with a Modbus server interface.
MC10-RTC (Real Time Clock)	MC10 Expansion module with a Real Time Clock.
MC10-PTC (Temperature)	MC10 Expansion module for connection of PTC temperature sensors.
MC10-DI3 (3x DIN)	MC10 Expansion module with 3 Digital Inputs.
MC10-AO1 (1x Analog Output)	MC10 Expansion module with one analog voltage or current output.
MC10-AIO3 (3x Analog Input/Output)	MC10 Expansion module with 3 analog voltage or current inputs or outputs.
MC10-AO2 (2x Analog Output)	MC10 Expansion module with 2 analog voltage outputs.
MC10-DO2 (2x Relay)	MC10 Expansion module with 2 Relays with changeover resp. working contact (SPDT).
MC10-DO3 (3x Relay)	MC10 Expansion module with 3 Relays with working contact.

6.0.4 Expected Module Slot 4

Expected MC10 expansion module in this slot. Only if the expected MC10 module matches the one actually present will it be used.

(Default Value)	
MC10-PSM-6B (0 Pa - 300 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 300 Pa.
MC10-PSM-5B (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-2B (0 Pa - 1000 Pa)	MC10 Expansion module with a differential pressure sensor 0 Pa to 1000 Pa.
MC10-PSM-0D (+/-2500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 2500 Pa.
MC10-PSM-7E (+/-500 Pa)	MC10 Expansion module with a differential pressure sensor +/- 500 Pa.
MC10-PSM-5F (+/-150 Pa)	MC10 Expansion module with a differential pressure sensor +/- 150 Pa.
MC10-PSM-8F (+/-400 Pa)	MC10 Expansion module with a differential pressure sensor +/- 400 Pa.
MC10-PSM-9F (+/-1000 Pa)	MC10 Expansion module with a differential pressure sensor +/- 1000 Pa.
MC10-MOD (Modbus)	MC10 Expansion module with a Modbus server interface.
MC10-RTC (Real Time Clock)	MC10 Expansion module with a Real Time Clock.
MC10-PTC (Temperature)	MC10 Expansion module for connection of PTC temperature sensors.
MC10-DI3 (3x DIN)	MC10 Expansion module with 3 Digital Inputs.
MC10-AO1 (1x Analog Output)	MC10 Expansion module with one analog voltage or current output.
MC10-AIO3 (3x Analog Input/Output)	MC10 Expansion module with 3 analog voltage or current inputs or outputs.
MC10-AO2 (2x Analog Output)	MC10 Expansion module with 2 analog voltage outputs.
MC10-DO2 (2x Relay)	MC10 Expansion module with 2 Relays with changeover resp. working contact (SPDT).
MC10-DO3 (3x Relay)	MC10 Expansion module with 3 Relays with working contact.

6.0.5 Auto Config Slots

Automatically configures the MC10 slot with the currently inserted expansion card.

7 Relays

7.1 Power 1 (Wet Contact)

Availability depends on **HW Version** .

7.1.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.

External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.1.2 Connector Name

The connector name of the relay.

7.1.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.2 Power 2 (Dry Contact)

7.2.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.

Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.2.2 Connector Name

The connector name of the relay.

7.2.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.3 #1

7.3.1 Function

Determines the function of the relay.

Inactive	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm *(Default Value)*	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.

Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.3.2 Connector Name

The connector name of the relay.

7.3.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.4 #2

7.4.1 Function

Determines the function of the relay.

Inactive	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night *(Default Value)*	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.

Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.4.2 Connector Name

The connector name of the relay.

7.4.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.5 #3

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

7.5.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.

Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.5.2 Connector Name

The connector name of the relay.

7.5.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.6 #4

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

7.6.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.

Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.6.2 Connector Name

The connector name of the relay.

7.6.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.7 #5

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

7.7.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.

External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.7.2 Connector Name

The connector name of the relay.

7.7.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.8 #6

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

7.8.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.

Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.
Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.8.2 Connector Name

The connector name of the relay.

7.8.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

7.9 #7

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

7.9.1 Function

Determines the function of the relay.

Inactive *(Default Value)*	The relay is not active.
Mode Day	The relay is active when the device is in operating mode Day.
Mode Night	The relay is active when the device is in operating mode Night.
Mode Override	The relay is active when the device is in operating mode Override.
Mode Off	The relay is active when the device is in operating mode Off.
Alarm Pending	The relay is active if the control value is outside the permissible alarm limit.
Alarm	The relay is active when the alarm is active.
Light	The relay is active when the light is on.
Buzzer	The relay is active when the buzzer is active.
Window closed	The relay is active when the sash is completely closed.
Window Working Height	The relay is active when the sash is above working height.
Open Sash	The relay is active when the Open function button is pressed.
Close Sash	The relay is active when the Close function button is pressed.
Damper Actuator Active	The relay is active when the actuator is active and therefore the setpoint has not yet been reached.
Damper Actuator Blocked	The relay is active if an actuator blockage has been detected.
Modbus	The relay is active if the associated Modbus data point is active.
Simultaneity Alarm	The relay is active when the balancing simultaneity alarm is active.
Power Supply	The relay is active when the device is in emergency power mode.
Support Jet	The relay is active when the support jet is to switched on.
Fume Hood Alarm	The relay is active when the fumehood alarm is active.
Sash Alarm	The relay is active when the sash alarm is active.

Temperature Alarm	The relay is active when the temerpature alarm is active.
External Alarm	The relay is active when the external alarm is active.
Washer Alarm	The relay is active when the washer alarm is active.
Warning	The relay is active when the washer warnig is active.
Aggregated Alarm	The relay is active when an alarm of one of the connected devices is active.
Sash Closing Required	The relay is active when closing of the front sash is required.
Service	The relay is active when sevice is required.

7.9.2 Connector Name

The connector name of the relay.

7.9.3 Polarity

Determines the polarity of the relay.

Normal *(Default Value)*

Inverted

8 Digital Inputs

8.1 General

8.1.1 Occupancy Sensor Delay

Determines the follow-up time of the digital input occupancy sensor. Absence is only detected after no more movement has been detected for the time configured here.

Minimum 0 s
Maximum 900 s
Default Value 10 s

8.2 #1

8.2.1 Function

Determines the function of the digital input.

None	No function selected.
Mode Off *(Default Value)*	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.
PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.
Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.
Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.
Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.
Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.
Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.

Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.2.2 Connector Name

The connector name of the digital input.

8.2.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

8.3 #2

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

8.3.1 Function

Determines the function of the digital input.

None *(Default Value)*	No function selected.
Mode Off	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.
PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.

Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.
Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.
Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.
Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.
Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.
Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.3.2 Connector Name

The connector name of the digital input.

8.3.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

8.4 #3

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

8.4.1 Function

Determines the function of the digital input.

None *(Default Value)*	No function selected.
Mode Off	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.
PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.
Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.
Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.

Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.
Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.
Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.
Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.4.2 Connector Name

The connector name of the digital input.

8.4.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

8.5 #4

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

8.5.1 Function

Determines the function of the digital input.

None *(Default Value)*	No function selected.
Mode Off	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.
PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.
Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.
Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.
Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.
Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.

Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.
Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.5.2 Connector Name

The connector name of the digital input.

8.5.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

8.6 #5

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

8.6.1 Function

Determines the function of the digital input.

None *(Default Value)*	No function selected.
Mode Off	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.

PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.
Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.
Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.
Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.
Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.
Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.
Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.6.2 Connector Name

The connector name of the digital input.

8.6.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

8.7 #6

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

8.7.1 Function

Determines the function of the digital input.

None *(Default Value)*	No function selected.
Mode Off	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.
PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.
Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.

Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.
Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.
Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.
Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.
Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.7.2 Connector Name

The connector name of the digital input.

8.7.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

8.8 #7

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

8.8.1 Function

Determines the function of the digital input.

None *(Default Value)*	No function selected.
Mode Off	Digital input active means that request operating mode off.
Mode Night	Digital input active means that request operating mode night.
Mode Override	Digital input active means that request operating mode override.
Sash Closed	Digital input active means that the sash is completely closed.
Sash Above Working Height	Digital input active means that the sash is under working height.
Horizontal Window closed	Digital input active means that the horizontal window is completely closed.
PIR	Digital input active means that a person is in front of the fume hood.
External Alarm	Digital input active means that an external alarm is present.
Temperature Alarm	Digital input active means that a temperature alarm is present.
Washer Operating	Digital input active means that th washer is operating.
Washer Alarm	Digital input active means that a washer alarm is present.
Quit	Digital input active means that button quit is pressed.
Light	Digital input active means that the light shall be toggled.
Room Mode permanently Off (switch)	Digital input active means that request room operating mode off.
Room Mode permanently Night (switch)	Digital input active means that request room operating mode night.
Room Mode permanently Override (switch)	Digital input active means that request room operating mode override.
Room Mode switch to Off (button)	Digital input switch to active means that the room operating mode should switch to off.
Room Mode switch to Night (button)	Digital input switch to active means that the room operating mode should switch to night.

Room Mode switch to Override (button)	Digital input switch to active means that the room operating mode should switch to override.
Room Mode switch to Day (button)	Digital input switch to active means that the room operating mode should switch to day.
Room Mode toggle Day/Night	Digital input switch to active means that the room operating mode should switch to day or night.
Room Mode toggle Day/Override	Digital input switch to active means that the room operating mode should switch to day or override.
Room Mode toggle Day/Off	Digital input switch to active means that the room operating mode should switch to day or off.
Exhaust Volume Flow Switchable	Digital input active means that die switchalbe exhaust is active and should be taken into account in the balance.

8.8.2 Connector Name

The connector name of the digital input.

8.8.3 Polarity

Determines the polarity of the digital input.

Normal *(Default Value)*

Inverted

9 Sensors

9.1 Pressure

9.1.1 Pressure Sensor 1 Function

Determines the function of the differential pressure sensor 1.

None	The pressure value is not used.
Volume Flow *(Default Value)*	The pressure value is used for the volume flow calculation.
Support Jet	The pressure value is used for support jet monitoring.
Air Washer	The pressure value is used for the washer monitoring.

9.1.2 Pressure Sensor 1 Invert

Determines whether the measured pressure of the differential pressure sensor should be inverted.

Not Inverted *(Default Value)*

Inverted

9.1.3 Pressure Sensor 2 Function

Determines the function of the differential pressure sensor 2.

None *(Default Value)*	The pressure value is not used.
Volume Flow	The pressure value is used for the volume flow calculation.
Support Jet	The pressure value is used for support jet monitoring.
Air Washer	The pressure value is used for the washer monitoring.

9.1.4 Pressure Sensor 2 Invert

Determines whether the measured pressure of the differential pressure sensor should be inverted.

Not Inverted *(Default Value)*

Inverted

9.1.5 Calibrate Pressure Sensors

Starts the pressure sensor zero point calibration, for all sensors as required.

9.1.6 Pressure Sensor Calibration State

Unknown *(Default Value)*

Ok

In Progress

Failed

9.2 Temperature

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

9.2.1 Sensor Type

Indicates which temperature sensor is connected and which temperature characteristic is to be used.

None *(Default Value)*	No temperature sensor type selected.
PT1000	
NI1000_TK6180	
NI1000_TK5000	
KTY81_110	
KTY81_121	
RAW	

9.2.2 Temperature

The current temperature.

Resolution 0.01 °C

9.2.3 Correction Offset

Determines the temperature correction offset, which is added to the measured value and can be used for calibration.

Minimum -10.0 °C
Maximum 10.0 °C
Default Value 0.0 °C
Resolution 0.1 °C

9.2.4 Alarm Value

Determines the temperature above which a temperature alarm is triggered.

Minimum 0 °C
Maximum 200 °C
Default Value 60 °C

9.2.5 Warning Value

Determines the temperature above which a temperature warning is triggered.

Minimum 0 °C

Maximum 200 °C

Default Value 50 °C

9.2.6 Change to Override on Temperature Warning

Determines whether the system switches to override operating mode when the temperature warning value is exceeded. After the temperature falls below the warning threshold and the hysteresis again and the override run-on time has elapsed, the system automatically switches back to the previous operating mode.

Off *(Default Value)*

On

9.2.7 Override Time

Determines the run-on time of the override operating mode after the temperature has fallen below the warning value again.

Availability depends on **Change to Override on Temperature Warning** .

Minimum 0 s

Maximum 600 s

Default Value 0 s

9.2.8 Override Hysteresis

Determines the value by which the temperature must be lower than the warning value in order to switch back to the original operating mode after a change to the override operating mode.

Availability depends on **Change to Override on Temperature Warning** .

Minimum 0 °C

Maximum 40 °C

Default Value 0 °C

9.3 Washer

Availability depends on **Pressure Sensor 1 Function** **Pressure Sensor 2 Function** .

9.3.1 Alarm Threshold

Determines the pressure at which a washer alarm is triggered.

Minimum 0 Pa
Maximum 300 Pa
Default Value 0 Pa

9.3.2 Warning Threshold

Determines the pressure at which a washer warning is triggered.

Minimum 0 Pa
Maximum 200 Pa
Default Value 0 Pa

9.3.3 DIN Alarm Delay

An alarm is triggered as soon as a digital input with the washer alarm function is active for the time set here.

Minimum 0 s
Maximum 360 s
Default Value 5 s

9.3.4 Pressure Alarm Delay

An alarm is triggered as soon as the pressure is above the washer alarm threshold for the time set here.

Minimum 0 s
Maximum 360 s
Default Value 120 s

9.3.5 Pressure Filter Time

Determines the scrubber pressure filter time constant.

Minimum 1 s
Maximum 360 s
Default Value 5 s

9.4 Support Jet

Availability depends on **Pressure Sensor 1 Function** **Pressure Sensor 2 Function** .

9.4.1 Support Jet Offset

Determines the volume flow offset by which the volume flow setpoint value is reduced when the sash is open as soon as the support jet is active.

Minimum 0 m³/h

Maximum 1000 m³/h

Default Value 150 m³/h

9.4.2 Support Jet Threshold

Determines the pressure threshold above which the support jet is considered active.

Minimum 5 Pa

Maximum 100 Pa

Default Value 20 Pa

10 Analog Interfaces

10.1 #1

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

10.1.1 Type

Determines the type of the analog interface.

Disabled *(Default Value)*	The analog interface is disabled.
Voltage Output	The analog interface is used as a voltage output (0 to 10 V).
Current Output	The analog interface is used as a current output (4 to 20 mA).
Voltage Input	The analog interface is used as a voltage input (0 to 10 V).
Current Input	The analog interface is used as a current input (4 to 20 mA).

10.1.2 Connector Name

The connector name of the analog interface.

10.1.3 Output Function

Determines the analog output function of this analog interface if voltage output or current output is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Face Velocity	The analog output scales depending on the current face velocity.
Volume Flow Present Value	The analog output scales depending on the current volume flow.
Volume Flow Setpoint	The analog output scales depending on the current volume flow setpoint.
Pressure	The analog output scales depending on the current pressure.
Sash Position	The analog output scales depending on the sash position.
Damper Position	The analog output scales depending on the current damper position.
Modbus	The analog output outputs the value set via Modbus.
Frequency Converter	The analog output controls a frequency converter instead of a damper actuator.
Sum Exhaust	The analog output scales depending on the current balancing sum exhaust volume flow.
Sum Supply	The analog output scales depending on the current balancing sum supply volume flow.
Controlled Supply	The analog output scales depending on an supply volume flow specified by the balance. The analog output specifies the supply volume flow for one controlled supply.
Pressure Washer	The analog output scales depending on the current washer pressure.
Controlled Exhaust	The analog output scales depending on an exhaust volume flow specified by the balance. The analog output specifies the exhaust volume flow for one controlled exhaust.

10.1.4 Input Function

Determines the analog input function of this analog interface if voltage input or current input is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Volume Flow Offset	The analog input specifies the volume flow offset in day mode.
Volume Flow Setpoint	The analog input specifies the volume flow setpoint in day mode.
Pressure Setpoint	The analog input specifies the pressure setpoint in day mode.
Exhaust Device	The analog input indicates the volume flow of an exhaust device to be balanced.
Pressure	The analog input specifies a pressure value, which can be used for volume flow calculation, support jet monitoring or washer monitoring.
Supply Device	The analog input indicates the volume flow of an supply device to be balanced.

10.1.5 Voltage/Current Minimum

Determines the minimum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 0.000 V
Resolution 0.001 V

10.1.6 Voltage/Current Maximum

Determines the maximum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 10.000 V
Resolution 0.001 V

10.1.7 Value Minimum

Determines the value at which the minimum voltage respectively minimal current is reached.

Availability depends on **Type**.

Minimum -40000
Maximum 40000
Default Value 0

10.1.8 Value Maximum

Determines the value at which the maximum voltage respectively the maximum current is reached.

Availability depends on **Type**.

Minimum -40000
Maximum 40000
Default Value 100

10.2 #2

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant**.

10.2.1 Type

Determines the type of the analog interface.

Disabled *(Default Value)*	The analog interface is disabled.
Voltage Output	The analog interface is used as a voltage output (0 to 10 V).
Current Output	The analog interface is used as a current output (4 to 20 mA).
Voltage Input	The analog interface is used as a voltage input (0 to 10 V).
Current Input	The analog interface is used as a current input (4 to 20 mA).

10.2.2 Connector Name

The connector name of the analog interface.

10.2.3 Output Function

Determines the analog output function of this analog interface if voltage output or current output is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Face Velocity	The analog output scales depending on the current face velocity.
Volume Flow Present Value	The analog output scales depending on the current volume flow.
Volume Flow Setpoint	The analog output scales depending on the current volume flow setpoint.
Pressure	The analog output scales depending on the current pressure.
Sash Position	The analog output scales depending on the sash position.
Damper Position	The analog output scales depending on the current damper position.
Modbus	The analog output outputs the value set via Modbus.
Frequency Converter	The analog output controls a frequency converter instead of a damper actuator.
Sum Exhaust	The analog output scales depending on the current balancing sum exhaust volume flow.
Sum Supply	The analog output scales depending on the current balancing sum supply volume flow.
Controlled Supply	The analog output scales depending on an supply volume flow specified by the balance. The analog output specifies the supply volume flow for one controlled supply.
Pressure Washer	The analog output scales depending on the current washer pressure.
Controlled Exhaust	The analog output scales depending on an exhaust volume flow specified by the balance. The analog output specifies the exhaust volume flow for one controlled exhaust.

10.2.4 Input Function

Determines the analog input function of this analog interface if voltage input or current input is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.

Volume Flow Offset	The analog input specifies the volume flow offset in day mode.
Volume Flow Setpoint	The analog input specifies the volume flow setpoint in day mode.
Pressure Setpoint	The analog input specifies the pressure setpoint in day mode.
Exhaust Device	The analog input indicates the volume flow of an exhaust device to be balanced.
Pressure	The analog input specifies a pressure value, which can be used for volume flow calculation, support jet monitoring or washer monitoring.
Supply Device	The analog input indicates the volume flow of an supply device to be balanced.

10.2.5 Voltage/Current Minimum

Determines the minimum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 0.000 V
Resolution 0.001 V

10.2.6 Voltage/Current Maximum

Determines the maximum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 10.000 V
Resolution 0.001 V

10.2.7 Value Minimum

Determines the value at which the minimum voltage respectively minimal current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 0

10.2.8 Value Maximum

Determines the value at which the maximum voltage respectively the maximum current is reached.

Availability depends on **Type** .

Minimum -40000

Maximum 40000

Default Value 100

10.3 #3

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant** .

10.3.1 Type

Determines the type of the analog interface.

Disabled *(Default Value)*	The analog interface is disabled.
Voltage Output	The analog interface is used as a voltage output (0 to 10 V).
Current Output	The analog interface is used as a current output (4 to 20 mA).
Voltage Input	The analog interface is used as a voltage input (0 to 10 V).
Current Input	The analog interface is used as a current input (4 to 20 mA).

10.3.2 Connector Name

The connector name of the analog interface.

10.3.3 Output Function

Determines the analog output function of this analog interface if voltage output or current output is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Face Velocity	The analog output scales depending on the current face velocity.
Volume Flow Present Value	The analog output scales depending on the current volume flow.
Volume Flow Setpoint	The analog output scales depending on the current volume flow setpoint.
Pressure	The analog output scales depending on the current pressure.
Sash Position	The analog output scales depending on the sash position.
Damper Position	The analog output scales depending on the current damper position.
Modbus	The analog output outputs the value set via Modbus.
Frequency Converter	The analog output controls a frequency converter instead of a damper actuator.
Sum Exhaust	The analog output scales depending on the current balancing sum exhaust volume flow.
Sum Supply	The analog output scales depending on the current balancing sum supply volume flow.
Controlled Supply	The analog output scales depending on an supply volume flow specified by the balance. The analog output specifies the supply volume flow for one controlled supply.
Pressure Washer	The analog output scales depending on the current washer pressure.
Controlled Exhaust	The analog output scales depending on an exhaust volume flow specified by the balance. The analog output specifies the exhaust volume flow for one controlled exhaust.

10.3.4 Input Function

Determines the analog input function of this analog interface if voltage input or current input is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.

Volume Flow Offset	The analog input specifies the volume flow offset in day mode.
Volume Flow Setpoint	The analog input specifies the volume flow setpoint in day mode.
Pressure Setpoint	The analog input specifies the pressure setpoint in day mode.
Exhaust Device	The analog input indicates the volume flow of an exhaust device to be balanced.
Pressure	The analog input specifies a pressure value, which can be used for volume flow calculation, support jet monitoring or washer monitoring.
Supply Device	The analog input indicates the volume flow of an supply device to be balanced.

10.3.5 Voltage/Current Minimum

Determines the minimum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 0.000 V
Resolution 0.001 V

10.3.6 Voltage/Current Maximum

Determines the maximum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 10.000 V
Resolution 0.001 V

10.3.7 Value Minimum

Determines the value at which the minimum voltage respectively minimal current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 0

10.3.8 Value Maximum

Determines the value at which the maximum voltage respectively the maximum current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 100

10.4 #4

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant**.

10.4.1 Type

Determines the type of the analog interface.

Disabled *(Default Value)*	The analog interface is disabled.
Voltage Output	The analog interface is used as a voltage output (0 to 10 V).
Current Output	The analog interface is used as a current output (4 to 20 mA).
Voltage Input	The analog interface is used as a voltage input (0 to 10 V).
Current Input	The analog interface is used as a current input (4 to 20 mA).

10.4.2 Connector Name

The connector name of the analog interface.

10.4.3 Output Function

Determines the analog output function of this analog interface if voltage output or current output is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Face Velocity	The analog output scales depending on the current face velocity.
Volume Flow Present Value	The analog output scales depending on the current volume flow.
Volume Flow Setpoint	The analog output scales depending on the current volume flow setpoint.
Pressure	The analog output scales depending on the current pressure.
Sash Position	The analog output scales depending on the sash position.
Damper Position	The analog output scales depending on the current damper position.
Modbus	The analog output outputs the value set via Modbus.
Frequency Converter	The analog output controls a frequency converter instead of a damper actuator.
Sum Exhaust	The analog output scales depending on the current balancing sum exhaust volume flow.
Sum Supply	The analog output scales depending on the current balancing sum supply volume flow.
Controlled Supply	The analog output scales depending on an supply volume flow specified by the balance. The analog output specifies the supply volume flow for one controlled supply.
Pressure Washer	The analog output scales depending on the current washer pressure.
Controlled Exhaust	The analog output scales depending on an exhaust volume flow specified by the balance. The analog output specifies the exhaust volume flow for one controlled exhaust.

10.4.4 Input Function

Determines the analog input function of this analog interface if voltage input or current input is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.

Volume Flow Offset	The analog input specifies the volume flow offset in day mode.
Volume Flow Setpoint	The analog input specifies the volume flow setpoint in day mode.
Pressure Setpoint	The analog input specifies the pressure setpoint in day mode.
Exhaust Device	The analog input indicates the volume flow of an exhaust device to be balanced.
Pressure	The analog input specifies a pressure value, which can be used for volume flow calculation, support jet monitoring or washer monitoring.
Supply Device	The analog input indicates the volume flow of an supply device to be balanced.

10.4.5 Voltage/Current Minimum

Determines the minimum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 0.000 V
Resolution 0.001 V

10.4.6 Voltage/Current Maximum

Determines the maximum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 10.000 V
Resolution 0.001 V

10.4.7 Value Minimum

Determines the value at which the minimum voltage respectively minimal current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 0

10.4.8 Value Maximum

Determines the value at which the maximum voltage respectively the maximum current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 100

10.5 #5

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant**.

10.5.1 Type

Determines the type of the analog interface.

Disabled *(Default Value)*	The analog interface is disabled.
Voltage Output	The analog interface is used as a voltage output (0 to 10 V).
Current Output	The analog interface is used as a current output (4 to 20 mA).
Voltage Input	The analog interface is used as a voltage input (0 to 10 V).
Current Input	The analog interface is used as a current input (4 to 20 mA).

10.5.2 Connector Name

The connector name of the analog interface.

10.5.3 Output Function

Determines the analog output function of this analog interface if voltage output or current output is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Face Velocity	The analog output scales depending on the current face velocity.
Volume Flow Present Value	The analog output scales depending on the current volume flow.
Volume Flow Setpoint	The analog output scales depending on the current volume flow setpoint.
Pressure	The analog output scales depending on the current pressure.
Sash Position	The analog output scales depending on the sash position.
Damper Position	The analog output scales depending on the current damper position.
Modbus	The analog output outputs the value set via Modbus.
Frequency Converter	The analog output controls a frequency converter instead of a damper actuator.
Sum Exhaust	The analog output scales depending on the current balancing sum exhaust volume flow.
Sum Supply	The analog output scales depending on the current balancing sum supply volume flow.
Controlled Supply	The analog output scales depending on an supply volume flow specified by the balance. The analog output specifies the supply volume flow for one controlled supply.
Pressure Washer	The analog output scales depending on the current washer pressure.
Controlled Exhaust	The analog output scales depending on an exhaust volume flow specified by the balance. The analog output specifies the exhaust volume flow for one controlled exhaust.

10.5.4 Input Function

Determines the analog input function of this analog interface if voltage input or current input is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.

Volume Flow Offset	The analog input specifies the volume flow offset in day mode.
Volume Flow Setpoint	The analog input specifies the volume flow setpoint in day mode.
Pressure Setpoint	The analog input specifies the pressure setpoint in day mode.
Exhaust Device	The analog input indicates the volume flow of an exhaust device to be balanced.
Pressure	The analog input specifies a pressure value, which can be used for volume flow calculation, support jet monitoring or washer monitoring.
Supply Device	The analog input indicates the volume flow of an supply device to be balanced.

10.5.5 Voltage/Current Minimum

Determines the minimum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 0.000 V
Resolution 0.001 V

10.5.6 Voltage/Current Maximum

Determines the maximum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 10.000 V
Resolution 0.001 V

10.5.7 Value Minimum

Determines the value at which the minimum voltage respectively minimal current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 0

10.5.8 Value Maximum

Determines the value at which the maximum voltage respectively the maximum current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 100

10.6 #6

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** **HW Variant**.

10.6.1 Type

Determines the type of the analog interface.

Disabled *(Default Value)*	The analog interface is disabled.
Voltage Output	The analog interface is used as a voltage output (0 to 10 V).
Current Output	The analog interface is used as a current output (4 to 20 mA).
Voltage Input	The analog interface is used as a voltage input (0 to 10 V).
Current Input	The analog interface is used as a current input (4 to 20 mA).

10.6.2 Connector Name

The connector name of the analog interface.

10.6.3 Output Function

Determines the analog output function of this analog interface if voltage output or current output is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.
Face Velocity	The analog output scales depending on the current face velocity.
Volume Flow Present Value	The analog output scales depending on the current volume flow.
Volume Flow Setpoint	The analog output scales depending on the current volume flow setpoint.
Pressure	The analog output scales depending on the current pressure.
Sash Position	The analog output scales depending on the sash position.
Damper Position	The analog output scales depending on the current damper position.
Modbus	The analog output outputs the value set via Modbus.
Frequency Converter	The analog output controls a frequency converter instead of a damper actuator.
Sum Exhaust	The analog output scales depending on the current balancing sum exhaust volume flow.
Sum Supply	The analog output scales depending on the current balancing sum supply volume flow.
Controlled Supply	The analog output scales depending on an supply volume flow specified by the balance. The analog output specifies the supply volume flow for one controlled supply.
Pressure Washer	The analog output scales depending on the current washer pressure.
Controlled Exhaust	The analog output scales depending on an exhaust volume flow specified by the balance. The analog output specifies the exhaust volume flow for one controlled exhaust.

10.6.4 Input Function

Determines the analog input function of this analog interface if voltage input or current input is selected for analog interface type.

Availability depends on **Type**.

Disabled *(Default Value)*	No function selected.

Volume Flow Offset	The analog input specifies the volume flow offset in day mode.
Volume Flow Setpoint	The analog input specifies the volume flow setpoint in day mode.
Pressure Setpoint	The analog input specifies the pressure setpoint in day mode.
Exhaust Device	The analog input indicates the volume flow of an exhaust device to be balanced.
Pressure	The analog input specifies a pressure value, which can be used for volume flow calculation, support jet monitoring or washer monitoring.
Supply Device	The analog input indicates the volume flow of an supply device to be balanced.

10.6.5 Voltage/Current Minimum

Determines the minimum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 0.000 V
Resolution 0.001 V

10.6.6 Voltage/Current Maximum

Determines the maximum voltage respectively current of the analog interface.

Availability depends on **Type**.

Minimum 0.000 V
Maximum 10.000 V
Default Value 10.000 V
Resolution 0.001 V

10.6.7 Value Minimum

Determines the value at which the minimum voltage respectively minimal current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 0

10.6.8 Value Maximum

Determines the value at which the maximum voltage respectively the maximum current is reached.

Availability depends on **Type**.

Minimum -40000

Maximum 40000

Default Value 100

11 User Interface

11.1 General

11.1.1 Button On/Off

Determines whether the ON / OFF button can be used.

Disabled *(Default Value)*

Enabled

11.1.2 Button Night

Determines whether the Night button can be used.

Disabled *(Default Value)*

Enabled

11.1.3 Button Override

Determines whether the Override button can be used.

Disabled

Enabled *(Default Value)*

11.2 Advanced

11.2.1 Language

Determines the display language of the device.

English *(Default Value)*	
German	
Spanish	
French	
Turkish	
Polish	

11.2.2 Display Unit

Determines the unit of the function display in the main view. With AUTO, the value and unit are automatically determined from the control type and setpoint units.

Auto *(Default Value)*	The display value and display unit on the function display are selected automatically.
Airflow m/s	The display value on the function display is face velocity and the display unit is m/s.
Airflow ft/min	The display value on the function display is face velocity and the display unit is ft/min.
Volume Flow m³/h	The display value on the function display is volume flow and the display unit is m³/h.
Volume Flow l/s	The display value on the function display is volume flow and the display unit is l/s.
Pressure Pa	The display value on the function display is pressure and the display unit is Pa.
Pressure mBar	The display value on the function display is pressure and the display unit is mBar.

11.2.3 Password User Interface

Sets a new password for the user interface.

Minimum 0

Maximum 9999

Default Value 0

11.2.4 Brightness Day

Brightness of the connected display in day mode (maximum brightness).

Minimum 50 %

Maximum 100 %

Default Value 100 %

11.2.5 Brightness Night

Brightness of the connected display in night mode (reduced brightness).

Minimum 25 %

Maximum 100 %

Default Value 80 %

11.2.6 Brightness Time to Dim

Specifies the time after which the display is dimmed back to the reduced brightness in day mode after a change.

Minimum 5 s

Maximum 255 s

Default Value 60 s

11.2.7 Soft Button 1 Function

Determines the function of the soft button on the function display.

Function Inactive *(Default Value)*	Pressing the button has no effect.
Menu	Pressing the button opens the menu on the function display.
Day	Pressing the button switches to day mode.
Night	Pressing the button switches to night mode.
Override	Pressing the button switches to override mode.
Toggle Night	Pressing the button switches between night and day mode.
Toggle Override	Pressing the button switches between override and day mode.
Open Sash	Pressing the button opens the sash window.

Close Sash	Pressing the button closese the sash window.

11.2.8 Soft Button 2 Function

Determines the function of the soft button on the function display.

Function Inactive *(Default Value)*	Pressing the button has no effect.
Menu	Pressing the button opens the menu on the function display.
Day	Pressing the button switches to day mode.
Night	Pressing the button switches to night mode.
Override	Pressing the button switches to override mode.
Toggle Night	Pressing the button switches between night and day mode.
Toggle Override	Pressing the button switches between override and day mode.
Open Sash	Pressing the button opens the sash window.
Close Sash	Pressing the button closese the sash window.

11.2.9 Soft Button 3 Function

Determines the function of the soft button on the function display.

Function Inactive *(Default Value)*	Pressing the button has no effect.
Menu	Pressing the button opens the menu on the function display.
Day	Pressing the button switches to day mode.
Night	Pressing the button switches to night mode.
Override	Pressing the button switches to override mode.
Toggle Night	Pressing the button switches between night and day mode.
Toggle Override	Pressing the button switches between override and day mode.
Open Sash	Pressing the button opens the sash window.
Close Sash	Pressing the button closese the sash window.

11.2.10 Soft Button 4 Function

Determines the function of the soft button on the function display.

Function Inactive *(Default Value)*	Pressing the button has no effect.
Menu	Pressing the button opens the menu on the function display.
Day	Pressing the button switches to day mode.
Night	Pressing the button switches to night mode.
Override	Pressing the button switches to override mode.
Toggle Night	Pressing the button switches between night and day mode.
Toggle Override	Pressing the button switches between override and day mode.
Open Sash	Pressing the button opens the sash window.
Close Sash	Pressing the button closese the sash window.

11.2.11 Status Icon 1

Determines which information will be display at the status icon 1 at the function display.

None	The status icon is deactivated.
Operating Mode *(Default Value)*	The status icon indicates the current operating status.
Mode Day	The status icon indicates whether the device is in operating mode day.
Mode Night	The status icon indicates whether the device is in operating mode night.
Mode Override	The status icon indicates whether the device is in operating mode overide.
Alarm Pending	The status icon indicates wheter an alarm is pending.
Alarm	The status icon indicates wheter an alarm is active.
Light	The status icon indicates wheter the light is on.
Occupancy	The status icon indicates whether a person is detected in front of the fume-hood.
Sash Position	The status icon indicates the current sash position in percent.
Sash State	The status icon indicates the current sash state.
Sash Above Working Height	The status icon indicates whether the front sash is above working height.
Sash Closed	The status icon indicates whether the front sash is closed.
Horizontal Window Open	The status icon indicates whether the horizontal window is opened.
Sash Closing Required	The status icon indicates whether closing of the front sash is required.

Service Required	The status icon indicates whether service is required.

11.2.12 Status Icon 2

Determines which information will be display at the status icon 2 at the function display.

None	The status icon is deactivated.
Operating Mode	The status icon indicates the current operating status.
Mode Day	The status icon indicates whether the device is in operating mode day.
Mode Night	The status icon indicates whether the device is in operating mode night.
Mode Override	The status icon indicates whether the device is in operating mode overide.
Alarm Pending	The status icon indicates wheter an alarm is pending.
Alarm	The status icon indicates wheter an alarm is active.
Light *(Default Value)*	The status icon indicates wheter the light is on.
Occupancy	The status icon indicates whether a person is detected in front of the fume-hood.
Sash Position	The status icon indicates the current sash position in percent.
Sash State	The status icon indicates the current sash state.
Sash Above Working Height	The status icon indicates whether the front sash is above working height.
Sash Closed	The status icon indicates whether the front sash is closed.
Horizontal Window Open	The status icon indicates whether the horizontal window is opened.
Sash Closing Required	The status icon indicates whether closing of the front sash is required.
Service Required	The status icon indicates whether service is required.

12 Modbus

12.1 General

Availability depends on **HW Variant** .

12.1.1 HW Variant

Analog

Modbus *(Default Value)*

12.1.2 Function

Determines the function of the Modbus interface (deactivated or server)

Disabled	The Modbus interface is disabled.
Server *(Default Value)*	The Modbus interface is configured as a server.
Client	The Modbus interface is configured as a client.

12.1.3 Use Automatic Device ID

Determines whether the device automatically gets to the Modbus device ID via Modbus.

Availability depends on **Function** .

Static Device ID

Automatic Device ID *(Default Value)*

12.1.4 Device ID

The device ID or device address must be unique within the Modbus network. Values from 1 - 247 are available.

Availability depends on **Function** **Use Automatic Device ID** .

Minimum 1

Maximum 247

Default Value 1

12.1.5 Automatic Device ID

The device ID obtained automatically via Modbus.

Availability depends on **Function** **Use Automatic Device ID** .

12.1.6 Baud Rate

The baud rate (transmission speed) of the Modbus interface. This must be uniform in the Modbus network.

1200

2400

4800

9600

19200 *(Default Value)*

38400

57600

115200

12.1.7 Parity

Determines the presence and function of the parity bit during transmission. This bit helps detecting faulty transmissions.

None	No Parity and two Stopbits
Even *(Default Value)*	Parity Even and one Stopbit.
Odd	Parity Odd and one Stopbit.

12.1.8 Broadcast

Modbus allows communication via broadcasts. This is useful e.g. to switch the operating mode of all devices in the network with a single transmission. If this feature is not desired or leads to any incompatibility with devices of other manufacturers, it can be deactivated.

Availability depends on **Function**.

No

Yes *(Default Value)*

12.1.9 Device Config via Modbus

It is possible to change all configuration parameters of the device via Modbus. This is useful e.g. if the serial configuration interface is no longer physically accessible or if parameters are to be changed globally across many devices. If this feature is not desired, it can be deactivated.

Availability depends on **Function** .

No

Yes *(Default Value)*

12.1.10 Update Interval

The interval at which the Modbus client queries the data points of the individual connected servers. If the polling takes longer than the time set here, the next cycle starts later.

Availability depends on **Function** .

Minimum 100 ms
Maximum 9999 ms
Default Value 500 ms

12.1.11 Client Load

The percentage utilization of the Modbus client. Not only the actual bus load is taken into account, but also the internal processing times and any timeouts.

Availability depends on **Function** .

Resolution 0.1 %

12.2 Device Search

Availability depends on **HW Variant** **Function** .

12.2.1 Clear and Search Devices

The list of Modbus servers found is deleted, the automatically assigned IDs are reset and a new search is started. Both servers with a static ID and servers with an automatic ID are searched for.

12.2.2 Search Devices

A new search is started, the devices already found remain saved, the automatically assigned IDs are not reset. Both servers with a static ID and servers with an automatic ID are searched for.

12.2.3 Device Search State

Status of the Modbus device search and the automatic address assignment process.

Unknown *(Default Value)*

Scanning

Searching new Devices

Assigning Addresses

Indentify Devices

Done

12.2.4 Number of connected Devices

Number of Modbus devices in the network that were found during a search. Regardless of whether they are currently accessible.

12.3 MC10 Expansion Card

12.3.1 Device ID

Determines the Modbus device id of the Modbus interface on the MC10 expansion card. The device ID or device address must be unique within the Modbus network. Values from 1 - 247 are available.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

Minimum 1

Maximum 247

Default Value 1

12.3.2 Baud Rate

The baud rate (transmission speed) of the Modbus interface on the MC10 expansion card. This must be standardized in the Modbus network.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

1200

2400

4800

9600

19200 *(Default Value)*

38400

57600

115200

12.3.3 Parity

Determines the motion and function of the parity bit during transmission of the Modbus interface on the MC10 expansion card. This bit helps detecting faulty transmissions.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

None	No Parity and two Stopbits
Even *(Default Value)*	Parity Even and one Stopbit.
Odd	Parity Odd and one Stopbit.

12.3.4 Broadcast

Determines whether Modbus broadcast packets will be handled from the Modbus MC10 expansion card. Modbus allows communication via broadcasts. This is useful e.g. to switch the operating mode of all devices in the network with a single transmission. If this feature is not desired or leads to any incompatibility with devices of other manufacturers, it can be deactivated.

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

No

Yes *(Default Value)*

13 Balancing

13.1 Settings

13.1.1 Exhaust Volume Flow Day

Determines the minimum exhaust for balancing in day mode. The volume flow rate specification of the controlled exhaust devices is increased by the amount that this value is reached.

Minimum 0 m³/h
Maximum 50000 m³/h
Default Value 1000 m³/h

13.1.2 Exhaust Volume Flow Night

Determines the minimum exhaust for balancing in night mode. The volume flow rate specification of the controlled exhaust devices is increased by the amount that this value is reached.

Minimum 0 m³/h
Maximum 50000 m³/h
Default Value 500 m³/h

13.1.3 Exhaust Volume Flow Override

Determines the minimum exhaust for balancing in override mode. The volume flow rate specification of the controlled exhaust devices is increased by the amount that this value is reached.

Minimum 0 m³/h
Maximum 50000 m³/h
Default Value 1500 m³/h

13.1.4 Exhaust Volume Flow Off

Determines the minimum exhaust for balancing in off mode. The volume flow rate specification of the controlled exhaust devices is increased by the amount that this value is reached.

Minimum 0 m³/h
Maximum 50000 m³/h
Default Value 0 m³/h

13.1.5 Exhaust Volume Flow Constant

Determines the volume flow that is to be included in the balance via constant exhaust loads.

Minimum -5000 m³/h
Maximum 5000 m³/h
Default Value 0 m³/h

13.1.6 Exhaust Volume Flow Switchable

Determines the volume flow with which the switchable exhaust is to be included in the balance.

Minimum -5000 m³/h
Maximum 5000 m³/h
Default Value 0 m³/h

13.1.7 Exhaust Offset

Determines the volume flow that the supply should be greater than the exhaust.

Minimum -5000 m³/h
Maximum 5000 m³/h
Default Value -50 m³/h

13.2 Simultaneity

13.2.1 Simultaneity (Exhaust Maximum)

Determines the value of the maximum exhaust volume flow. An alarm is triggered if this value is exceeded.

Minimum 0 m³/h
Maximum 50000 m³/h
Default Value 0 m³/h

13.2.2 Simultaneity Alarm Hysteresis

Specifies the hysteresis of the simultaneity alarm. The status of the alarm is not changed in the hysteresis range around the alarm value.

Minimum 0 m³/h
Maximum 10000 m³/h
Default Value 100 m³/h

13.2.3 Simultaneity Alarm Delay

An alarm is triggered as soon as the balanced exhaust volume flow is greater than the balancing simultaneity value for the time set here.

Minimum 0 s

Maximum 120 s

Default Value 0 s

13.3 Present Values

13.3.1 Operating Mode Balancing

The current Operating Mode of the Balancing.

Day *(Default Value)*

Night

Override

Off

13.3.2 Sum Exhaust

The current sum of the balanced exhaust volume flow.

13.3.3 Sum Supply

The current sum of the balanced supply volume flow.

13.3.4 Present Value Exhaust Offset

The current difference between the sum exhaust and sum supply.

13.4 Time Control

Availability depends on **Expected Module Slot 1** **Expected Module Slot 2** **Expected Module Slot 3** **Expected Module Slot 4** .

13.4.1 Day Light Saving Time Rule

Determines according to which day light saving time regulation the time is changed.

None

European *(Default Value)*

13.4.2 Nightmode End Time

Determines the time at which the device changes back in daymode from nightmode.

Minimum -

Maximum -

Default Value 360 min

13.4.3 Nightmode Starting Time

Determines the time at which the device changes in nightmode.

Minimum -

Maximum -

Default Value 1080 min

13.4.4 Nightmode control days

Determines the days of the week on which the device switches to night mode and back again. This means that the device does not switch back to day mode on unselected days, but remains in night mode.

None *(Default Value)*

Mo-Fr

Mo-Sa

Mo-Su

14 Service

14.0.1 Firmware Version

The currently installed firmware version.

14.0.2 Serial Number Device

The unique serial number of the device set at the factory.

14.0.3 Build Nr

The Build Nr of the current Firmware Version

14.0.4 HW Version

FC400-M *(Default Value)*

FC400-A

FM400-M

FM400-A

VAV400-M

VAV400-A

FC400-M

FC400-A

14.0.5 Demo Mode

Determines whether the device is in demo mode. In demo mode, the volume flow and airflow values are simulated and the real values are not monitored.

Off *(Default Value)*

On

14.0.6 Endless Service Interval

Determines whether the service interval can be endless and therefore no service reminder and warning is generated.

Adjustable Duration *(Default Value)*

Endless

14.0.7 Service Interval

Determines the runtime of the device after which a service should take place.

Availability depends on **Endless Service Interval** .

Minimum 0 days
Maximum 9999 days
Default Value 365 days

14.0.8 Service Reminder

Defines the time from which a reminder is to be sent before the service interval expires that a service will soon be required.

Minimum 0 days
Maximum 9999 days
Default Value 30 days

14.0.9 Reset Service Timer

14.0.10 Factory Reset

Resets the device to factory settings. All settings will be lost and the device must be recommissioned.

14.0.11 Reboot

Triggers a restart of the device.

15 Runtime

15.0.1 Current Runtime

Current uptime since last restart.

15.0.2 Total Runtime

Total operating hours of the device.

15.0.3 Time in Day Mode

Number of operating hours in day operating mode.

15.0.4 Time in Night Mode

Number of operating hours in night operating mode.

15.0.5 Time in Override Mode

Number of operating hours in override operating mode.

15.0.6 Time in Off Mode

Number of operating hours in off operating mode.

15.0.7 Time since last Change

Number of operating hours that have elapsed since the last configuration change.

15.0.8 Runtime Damper Actuator

Total actuator activity time (no standstill).

15.0.9 Time until Service

Number of operating hours until the next service is due.

Resolution 0.000694444444444444 days

15.0.10 Time since Service

Number of operating hours that have elapsed since last service.

Resolution 0.000694444444444444 days

15.0.11 Time Service is overdue

Number of operating hours that have elapsed since service is required.

Resolution 0.000694444444444444 days

The information and data contained in this documentation have been compiled to the best of our knowledge and in accordance with the current state of the art (subject to technical changes). The currently valid version applies. The proven properties of SCHNEIDER products are based on the use of the products recommended in this documentation. Diverging situations and individual cases are not taken into account, so that we cannot assume any warranty and liability.

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Do you have any questions? We look forward to your message:

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