EcoStruxure™

Foxboro™ DCS

Real Alarm (REALM) Block

PSS 41S-3REALM

Product Specification

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Overview

The REALM block provides a signal out-of-range detector/indicator for a supplementary or redundant process condition alarm or rate-of-change indication.

The REALM block supports three basic types of alarming:

- Two forms of absolute alarming of the measurement
- Deviation alarming of the difference between the measurement and set point
- Rate-of-change alarming of the measurement

The block generates the alarm and return to normal messages. The block also identifies the highest priority among current alarms, indicating alarm type and priority level.

The delayed alarming feature reduces the number of nuisance alarms as a block parameter crosses over an alarm limit multiple times in a short period.

The alarm and return to normal messages contain the following:

- Block name
- Point descriptor
- Alarm state descriptor
- Alarm message type
- Alarm priority
- Alarm group
- Alarm limit value
- Alarmed variable

Standard Features

- Manual/Auto transfer, which can be initiated by a host process or another block
- Inhibiting of alarm messages
- Loop identifier which allows the user to identify the loop or process unit that contains the block

Absolute Alarming

- Alarm limits – high, low, high-high, and low-low
- Alarm deadband to avoid nuisance re-alarming
- Alarm indicators – high, low, high-high, and low-low
- Alarm state descriptors – high, low, high-high, and low-low – specifiable
- Re-alarming level indicator (0 to 10) – for high and low alarms only
- Alarm priorities – absolute and high-high absolute
- Alarm groups – absolute and high-high absolute

Deviation Alarming

- Alarm limits – high and low
- Alarm deadband to avoid nuisance re-alarming
- Alarm indicators – high and low
- Alarm state descriptors – high and low – specifiable
- Alarm priority
- Alarm group
- Re-alarming level indicator (0 to 10)

Rate of Change Alarming

- Alarm limit
- Alarm time interval
- Alarm indicator
- Alarm state descriptor – specifiable
- Alarm priority
- Alarm group
- Rate of change value

Standard Options

- Absolute high and low alarming of the measurement
- Absolute high-high and low-low alarming of the measurement
- Absolute re-alarming using a specifiable increment for the re-alarm limits
- Deviation high and low alarming of the difference between the measurement and set point
- Deviation re-alarming using a specifiable increment for the re-alarm limits
- Rate-of-change alarming of the measurement

Extended Features

- Disabling of alarm detection
- Workstation lock allows write access to the block parameters only by the Display Manager that owns the block
- Owner identifier allows the user to allocate control blocks to applications

Additional Features

- Delayed alarming. A configurable timer delays alarm detection or return-to-normal messages for a specific alarm to reduce the number of alarm messages generated when a block parameter crosses back and forth over an alarm limit.
- Quality Status output parameter provides a single source for the block's value record status, block status, and alarm status.

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