EcoStruxure™

Foxboro™ DCS

Calculation (CALC) Block

PSS 41S-3CALC

Product Specification

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Schneider Electric™

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Overview

The Calculation (CALC) block is a multiple input, 50-step, floating point, programmable calculator that provides real-time computational capability for the modeling of specialized algorithms, signal characterization, and alteration of control waveforms to augment the operation of standard blocks.

The CALC block provides both arithmetic and Boolean computational capability and logical functions to implement specialized control functions that cannot be implemented with either the standard control blocks or the Sequence control blocks in time-critical applications.

All input connections, constant data values, and programming steps (represented by 6-character parameter string) are entered via the block configuration process.

General Features

- Up to 50 programming steps
- Interchangeable arithmetic or Boolean operations
- Reverse Polish notation entry
- 24 data storage elements
- Chaining ability for up to 16 calculations
- Syntax check following installation
- Preview function (checks calculation in manual)
- Conditional execution of arithmetic calculations
- Input and output parameter error detection and control
- Auto/Manual output control
- Detection of runtime errors
- Range and engineering units for each real input/output parameter

Mathematical Operations

- Change sign of operand
- Addition, subtraction, multiplication, division, absolute, square, square root
- Common logarithms and antilogarithms
- Natural logarithms and antilogarithms
- Exponentiation
- Trigonometric and inverse trigonometric
- Selection: minimum, maximum, median

Boolean Operations

- Logical AND, OR (inclusive), XOR (exclusive), NOT, NAND, NOR, NXOR

Logic and Timing

- One-shot pulse, set-reset flip-flop
- On-delay timer, off-delay timer
- Get time of day (in seconds) since midnight

WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov/.

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