Eco**struxure**™

Foxboro™ DCS

Accumulator (ACCUM) Block

PSS 41S-3ACCUM

Product Specification

April 2019

Schneider Electric™
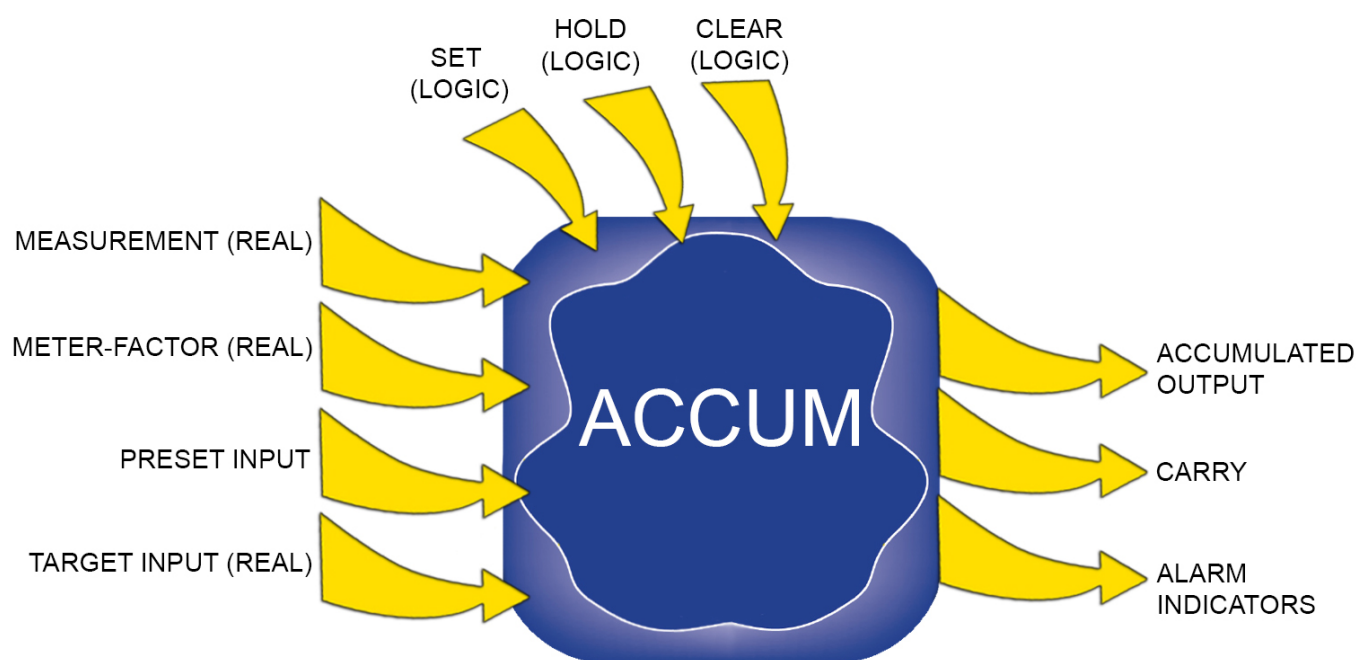
Legal Information

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Overview

The Accumulator (ACCUM) block serves as an integrator/totalizer for monitoring flow and shutting off flow at a specified total volume, blending, etc.

The ACCUM block accumulates a real input, normally scaled in rate units, and produces a real output. The accumulated value is a single precision floating point value with 7-decimal precision and a user-specifiable range. A meter factor scales the measurement input so that the accumulated output is compatible with the assigned output units.

When the accumulated output exceeds the predefined high engineering units range, the accumulator output rolls over and a carry is indicated – the continuous integration process is preserved.

The carry indicator can be used to cascade accumulator blocks.

Clear, Hold, and Set features control the accumulation process. A Hold logical input stops accumulation. A Clear logical input resets the accumulator to zero. A Set logical input forces the accumulator to be set to the Preset input value.

When transiting from Manual to Automatic control, the ACCUM block resets the Clear, Hold, and Set inputs, and continues totalization from the last output value.

Standard Features

- Meter factor for scaling the measurement input to the output units.
- Accumulator Hold, Clear, and Set.
- Preset input for setting the initial totalized value.
- Carry indication for accumulator rollover.
- Manual/Auto control of the accumulator output signal, which can be initiated by a host process or another block.

Extended Features

- Totalization of a pulse count input. The block checks for rollover of the pulse counter.
- Pre-Target (High) and Target (High-High) absolute alarming of the accumulator output. The outputs include alarm indicator signals and user-defined alarm messages.
- Inhibiting of block alarm messages.
- Indication of the alarm level (1 to 5) and alarm type of the highest-priority active alarm for the block.

Principal Parameters

Inputs:

- Measurement (real)
- Meter factor (real)
- Hold accumulator (Boolean)
- Clear accumulator (Boolean)
- Set accumulator (Boolean)
- Accumulator preset (real)
- Manual/Auto control mode switching (Boolean)

Outputs:

- Accumulator output (real)
- Accumulator carry indicator (Boolean)
- 2 alarm indicators (Boolean)

⚠ **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/.

PSS 41S-3ACCUM, Rev A