Foxboro Evo™ Process Automation System

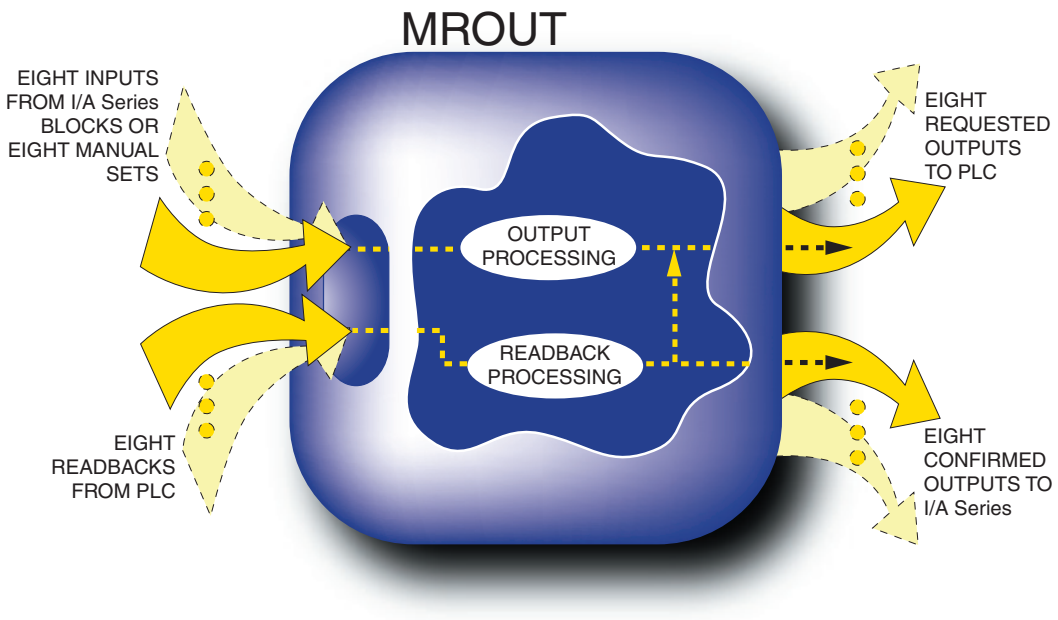
Product Specifications

Foxboro®

by Schneider Electric

PSS 31S-3MROUT

Multiple Real Output (MROUT) Block



The Multiple Real Output (MROUT) block provides the control strategy with the capability to pass eight analog values to contiguous addresses in an Allen-Bradley™ Programmable Logic Controller (PLC™).

OVERVIEW

The Multiple Real Output (MROUT) block sends up to eight real values to the group address of the PLC. When in Auto mode, the MROUT block accepts real inputs from the upstream control strategy. In Manual mode, it accepts real values from operator sets, generally from an I/A Series Display Manager or FoxView™ display. Output from MROUT is change driven; the block only writes to the device when a change occurs in the value of at least one of the request components of the outputs.

The block provides conversion between I/A Series engineering unit scaling and the normalized data scaling of the PLC. The engineering units may be used for scaled display of bar indicators on Foxboro® displays. The I/A Series station continuously reads back all of the eight values. If a readback value differs from the value which had been sent by MROUT block, the MROUT inputs are changed to copy the readback. This updates the baseline values of the inputs for future change detection. Also the request components are changed, but no writing to the PLC occurs at this time.

To aid diagnostic testing, the structure of the block output causes the values read back from the PLC to be reflected in the block outputs. The value which was sent to the PLC as the request component is provided by another parameter.

MROUT does not support cascade handling, and does not provide any alarm detection or reporting capability.

Features

- Manual/Auto control of the block output signal, which can be initiated by a host process or another block
- Specification of PLC group address as a device-specific string
- Outputs written to the device only when at least one output value changes
- Inverse signal conditioning applied to limited output values
- Readback values scaled into I/A Series raw count range before further processing
- Displayed output values always the conditioned readback values
- Eight independent change timers (checks that the PLC has received the most recent I/A Series change) used to synchronize values at both ends for each channel.

Principal Parameters

Input

- 8 real inputs, derived from control strategy in Auto mode, or set by operator in Manual mode
- Manual/Auto control mode switching

Output

- 8 real outputs.

SUPPORT

MROUT is a PLC block which allows the following I/A Series equipment to interface Allen-Bradley PLCs:

- AW70 processors with control software (see 70 Series Application Workstation Model AW70 [PSS 21H-4U1 B3])
- AW51 Integrators (see 50 Series Application Workstation Model AW51 [PSS 21H-4R1 B3])
- Micro-I/A Station (see Field Automation Subsystem Micro-I/A™ Allen-Bradley PLC5/E Remote I/O Interface [PSS 21H-6C6 B4])
- Allen-Bradley Station (see Allen-Bradley Station [PSS 21H-1F1 B3]).

PLC blocks are supported on I/A Series software version 6.2 or later. Value points for PLC blocks are listed in Micro-I/A FoxBlock™ Integrated Control Software (PSS 21H-6C1 B4).

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