EcoStruxure™

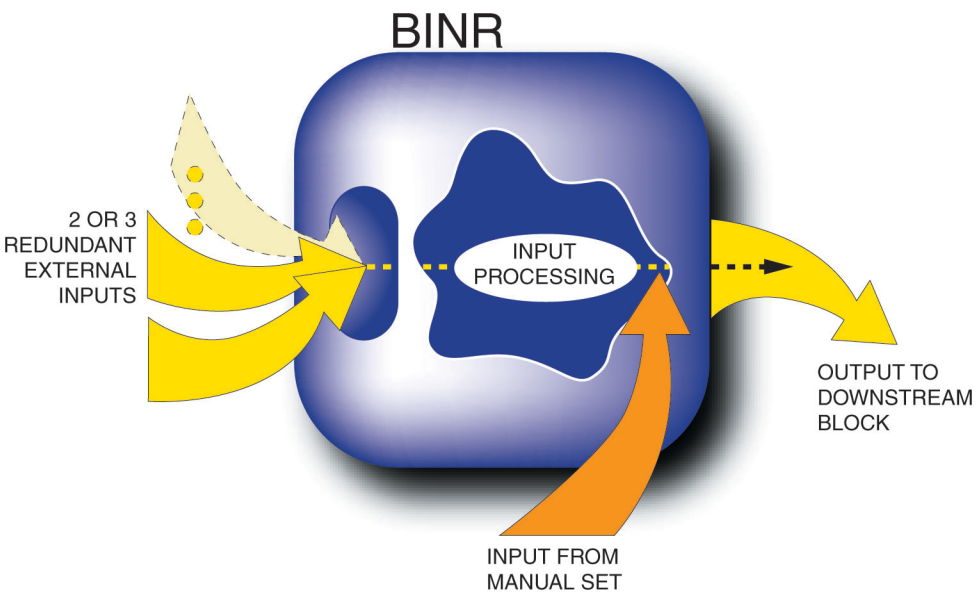
Foxboro™ DCS

Redundant Binary Input (BINR) Block

PSS 41S-3BINR

Product Specification

March 2019



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Legal Information

Overview

The Redundant Binary Input (BINR) block is a Distributed Control Interface (DCI) block. (DCI blocks support connectivity of control stations to various bus resident devices via a general purpose interface.) The BINR block receives one binary value from an external device. The source of the value can be specified as either two or three redundant inputs. The redundant inputs can either be from the same device or from different devices. The block's selection algorithm determines which of the two or three input values is presented to the control strategy as the block output BIN.

The Redundant Binary Input (BINR) block receives inputs from 1, 2, or 3 device ECBs. The inputs contain discrete values read from BI1_PT, BI2_PT, and BI3_PT in the device ECBs specified by IOMID1, IOMID2, and IOMID3 respectively. The ECBOPT parameter determines whether the redundant inputs can be from the same device or from different devices.

The ARBOPT parameter enables the block to consider two or three redundant inputs. The block's selection algorithm then determines which of the two or three input values is presented to the control strategy as the block output BIN. In Auto mode, this value is copied to parameter Contact Input (CIN). In Manual mode, it is not copied to CIN, and you can set the value of CIN.

The BINR block provides alarming upon detection of a fault in the operational status of the Fieldbus Module or input channel or for any state changes (transitions).

Features

- Reads up to three binary values from up to three external device ECBs, and arbitrates between these redundant inputs
- In Auto mode, copies its input to the Contact Input (CIN) parameter
- In Manual mode, enables manual setting of the Contact Input (CIN) parameter

Additional Features

- Bad-input-point and state-change alarming of the conditioned measurement output signal. The output includes 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.
- 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.
- Invert option inverts the value of the Fieldbus Module or input channel signal before sending it to the next block. All alarming and state change message generation will be based on this inverted value.
- Workstation lock. Set requests to any of the block's parameters (subject to the usual access rules) may be restricted to a specific workstation that locks the block.
- Quality Status output parameter provides a single source for the block's value record status, block status, and alarm status.

⚠ **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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