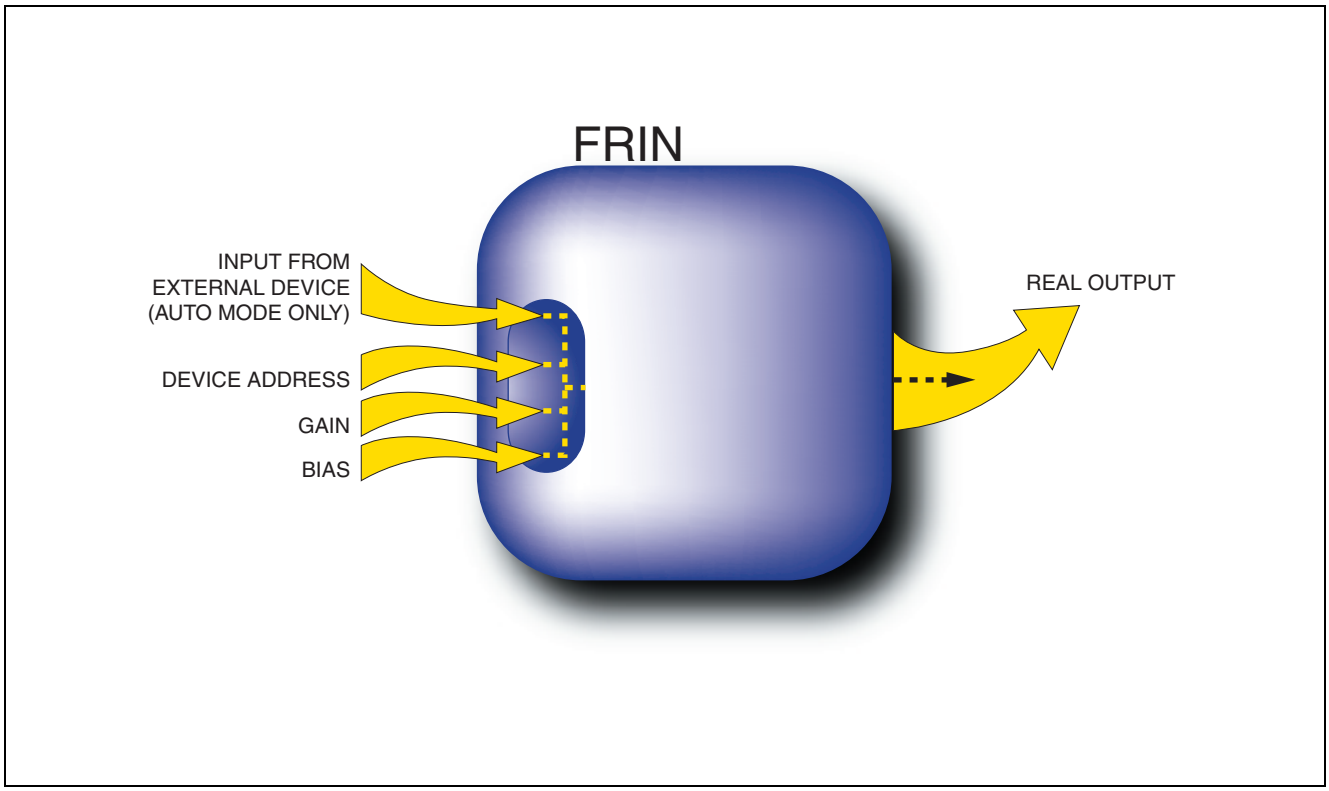
I/A Series® Software
Foreign Device Real Input (FRIN) Block



The Foreign Device Real Input (FRIN) block provides the control strategy or operator interface with a single analog value received real time from a PROFIBUS™-DP or Modbus™ remote I/O device via a Micro-I/A™ Station, or from a foreign device via an I/O gate. The block supports Auto/Manual control.

OVERVIEW

The Foreign Device Real Input (FRIN) block writes an analog value received from its applicable field device to its output during every execution.

FRIN can accept values from:

- PROFIBUS-DP or Modbus remote I/O devices via a Micro-I/A Station
- foreign (third-party) devices(1) via an I/O gate.

The value can be scaled if desired, and the result is stored in the output.

As long as the block is in Auto and no error conditions exist, the value is moved from the block's raw value storage to the connectable output.

When the block is in Manual, the processing of field device data is suspended and the input is not retrieved by the block.

(1) Refer to *DDE I/O Gate* (PSS 21S-3A4 B3) for an explanation on how an I/O gate interfaces foreign devices.

Features

- Reads a single analog value from applicable field device
- Gain and bias terms for scaling input
- Manual/Auto control of the block output signal; can be initiated by a host process or another block
- Supports a series of validation checks to ensure process is on-line before block initialization
- Specification of source point for a PROFIBUS-DP and Modbus remote I/O device via a device-specific string, or for a foreign device via a three-level addressing scheme.

Principal Parameters

Input

- 1 real input derived from applicable field device, in Auto mode
- Manual/Auto control mode switching
- Gain and Bias (real inputs for scaling).

Output

- 1 real output to I/A Series control strategy.

SUPPORT

FRIN allows the following I/A Series equipment to interface the applicable field devices:

- AW70 processors with control software (see *70 Series Application Workstation Model AW70* [PSS 21H-4U1 B3])
- AW51 processors (see *50 Series Application Workstation Model AW51* [PSS 21H-4R1 B3])
- Micro-I/A Station (see *Field Automation Subsystem Micro-I/A PROFIBUS-DP Remote I/O Interface* [PSS 21H-6C4 B4] or *Field Automation Subsystem Micro-I/A Modbus Remote I/O Interface* [PSS 21H-6C5 B4])
- I/O gate (see *DDE I/O Gate* [PSS 21S-3A4 B3]).

The Foxboro Company
33 Commercial Street
Foxboro, Massachusetts 02035-2099
United States of America
http://www.foxboro.com
Inside U.S.: 1-508-543-8750 or 1-888-FOXBORO (1-888-369-2676)
Outside U.S.: Contact your local Foxboro representative.

MB 021 Printed in U.S.A. 1200