

XSeries^{G4} products

Combo digital module (2100543)



Overview

The 2100543 TFIO module is a configurable 8-point digital I/O module. Each point can be configured to be either an input and/or output. All points are always inputs; however, if the output is activated the input will be held steady state. The module also maintains a 16-bit accumulator for each input; thus allowing any point to be used as a pulse accumulator.

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Point specifications

Electrical for each point

- Open circuit voltage - 5VDC (Internally pulled up to 5VDC)
- Short circuit leakage current - -430uA typical
- Input capacitance - 1000pF typical
- Maximum allowable voltage range on input - -0.5VDC to 26.5VDC

Digital input

- Dry Contact or voltage type
- Minimum contact resistance to activate input 15 KΩ
- Maximum voltage to activate the input: 2.0V, referenced to GND terminal
- Minimum voltage to deactivate the input: 3.0V, referenced to GND terminal

Digital output

- Open Drain FET
- RDS(ON): 0.060Ω Typical.
- Maximum continuous sink current: 2A @ 24VDC

Pulse input

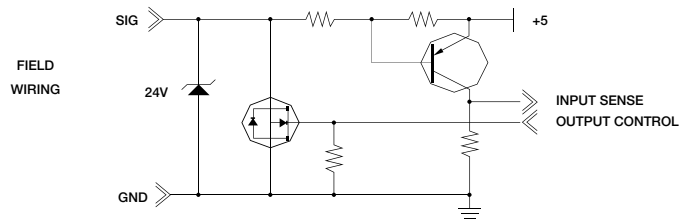
- Maximum input frequency: 2850Hz @ 50% duty cycle
- Minimum high or low period: 175uS

Wiring requirements

When digital outputs are used to sink current, the sum total sink current for all points and modules should not exceed 5A total. If more than 5A are required, separate ground wires from module output ground to power source ground terminal (bus bar) are required. Failure to do so may cause erratic system operation. Sufficient gauge wire should be used to handle total load current.

Use shielded pair or twisted pair conductors to reduce the possibility of erroneous transitions on the inputs in high EMI/RFI environments. (Ground the shield at field device).

Typical point schematic

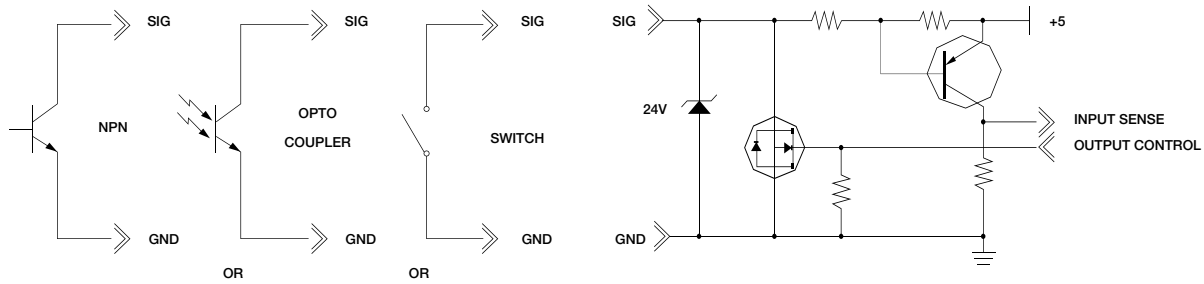


TFIO digital input/digital output module pin designation

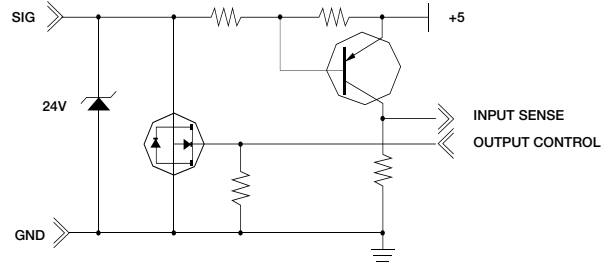
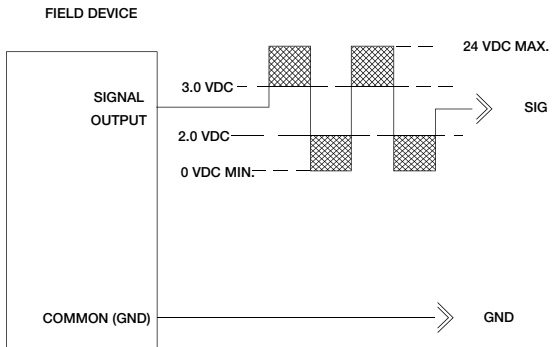
	J1	J2	J3	J4
1	POINT 1 SIG	POINT 3 SIG	POINT 5 SIG	POINT 7 SIG
2	POINT 1 GND	POINT 3 GND	POINT 5 GND	POINT 7 GND
3	POINT 2 SIG	POINT 4 SIG	POINT 6 SIG	POINT 8 SIG
4	POINT 2 GND	POINT 4 GND	POINT 6 GND	POINT 8 GND

Example connections

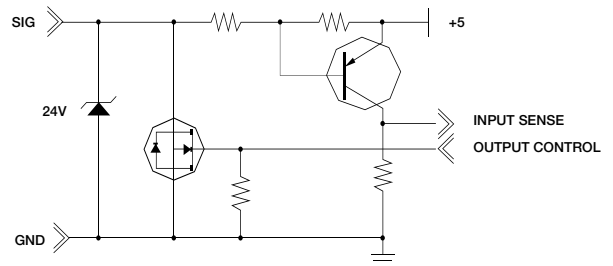
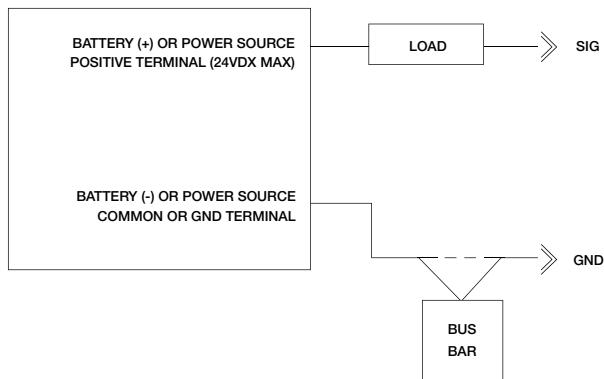
POINT CONNECTIONS



TYPICAL VOLTAGE INPUT FIELD



TYPICAL OUTPUT FIELD WIRING



For further information on this and other TFIO modules refer to the User Manual.

Contact us

ABB Inc.

Upstream Oil & Gas Process Automation

Toll-free: + 1 800 442 3097

Quotes: totalflow.inquiry@us.abb.com

Orders: totalflow.order@us.abb.com

Training: totalflow.training@us.abb.com

Support: totalflowsupport@us.abb.com

Upstream Oil & Gas Main Office

7051 Industrial Boulevard

Bartlesville, OK 74006

Ph: +1 918 338 4888

Upstream Oil & Gas California Office

4300 Stine Road, Suite 405-407

Bakersfield, CA 93313

Ph: +1 661 833 2030

Upstream Oil & Gas Kansas Office

2705 Centennial Boulevard

Liberal, KS 67901

Ph: +1 620 626 4350

Upstream Oil & Gas Texas Offices

3700 West Sam Houston

Parkway South, Suite 600

Houston, TX 77042

Ph: +1 713 587 8000

3900 South County Road 1290

Odessa, TX 79765

Ph: +1 432 563 5144

150 Eagle Ford Road

Pleasanton, TX 78064

Ph: +1 830 569 8062

www.abb.com/upstream

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