



FieldPoint I/O Module Quick Reference Help

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Use this help file to reference FieldPoint I/O module attributes, commands, and ranges.

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Conventions

The following conventions appear in this help file:

- [] Square brackets enclose optional items—for example, [response].
- » The » symbol leads you through nested menu items and dialog box options to a final action. The sequence **File»Page Setup»Options** directs you to pull down the **File** menu, select the **Page Setup** item, and select **Options** from the last dialog box.
- bold** Bold text denotes items that you must select or click on in the software, such as menu items and dialog box options. Bold text also denotes parameter names, emphasis, or an introduction to a key concept.
- green Underlined text in this color denotes a link to a help topic, help file, or Web address.
- monospace Text in this font denotes text or characters that you should enter from the keyboard, sections of code, programming examples, and syntax examples. This font is also used for the proper names of disk drives, paths, directories, programs, subprograms, subroutines, device names, functions, operations, variables, filenames and extensions, and code excerpts.

Related Documentation

The following documents contain information that you might find helpful as you use this help file:

- The Operating Instructions for your specific FieldPoint I/O modules.

[c]FP-AI-100

All ID values are hexadecimal.

Module ID

010A

Channel Status

Message	ID
Out of range	01

Ranges

Name	ID
024 mA	00
3.524 mA	01
±24 mA	02
±6 V	05
06 V	06
±1.2 V	07
01.2 V	08
018 V	0E
±36 V	0F
036 V	11
±18 V	12

No Attributes

No Commands

[c]FP-AI-102

All ID values are hexadecimal.

Module ID

0115

Channel Status

Message	ID
Out of range	01

Ranges

Name	ID
020 V	13
±20 V	14
060 V	15
±60 V	16
0120 V	17
±120 V	18

No Attributes

No Commands

[c]FP-AI-110

All ID values are hexadecimal.

Module ID

0101

Channel Status

Message	ID
Out of range	01

Ranges

Name	ID
021 mA	00
3.521 mA	01
±21 mA	02
±10.4 V	03
010.4 V	04
±5.2 V	05
05.2 V	06
±1.04 V	07
01.04 V	08
±325 mV	09
±65 mV	0A

Attributes

Name	ID	Value	ID
Noise Rejection	01	60 Hz	00
		50 Hz	01
		500 Hz	02

No Commands

[c]FP-AI-111

All ID values are hexadecimal.

Module ID

010C

Channel Status

Message	ID
Out of range	01

Ranges

Name	ID
021 mA	00
3.521 mA	01
±21 mA	02

Attributes

Name	ID	Value	ID
Noise Rejection	01	60 Hz	00
		50 Hz	01
		500 Hz	02

No Commands

[c]FP-AIO-600

All ID values are hexadecimal.

Module ID

0123

Channel Status

Message	ID
Overcurrent protection (inputs)	01
Open current loop (outputs)	02

Ranges

Type	Name	ID
Input	024 mA	00
	3.524 mA	01
	±24 mA	02
	±12 V	03
	012 V	04
	±6 V	05
	06 V	06
	018 V	0E
	±36 V	0F
	036 V	11
	±18 V	12
	Output	021 mA
3.521 mA		01

No Attributes

No Commands

[c]FP-AO-200

All ID values are hexadecimal.

Module ID

0102

Channel Status

Message	ID
Open current loop	01

Ranges

Name	ID
021 mA	00
3.521 mA	01

No Attributes

No Commands

[c]FP-AO-210

All ID values are hexadecimal.

Module ID

010F

Channel Status

Message	ID
Overcurrent protection	01

Ranges

Name	ID
010.2 V	04

No Attributes

No Commands

[c]FP-CTR-500

All ID values are hexadecimal.

Module ID

010D

Channel Status

Message	ID
Overflow since last read	01

Ranges

Name	ID
Boolean	10
065535 Counts	40

Attributes

Name	ID	Value	ID
Terminal Count	05	065535	
Terminal Count MSB [Most Significant Byte]	06		
Count Source	07	External Count Input	00
		Previous Channel	01
		1 kHz Reference	02
		32 kHz Reference	03
Gate Source	08	Gate Input 0	00
		Gate Input 1	01
		Gate Input 2	02
		Gate Input 3	03
		Always Disabled	04
		Always Enabled	05
Read Reset Mode	09	Dont Reset On Read	00
		Reset On Read	01
Noise Rejection	01	200 Hz	03
		50 kHz	04
Output Source	0A	Counter Channel 0	00
		Counter Channel 1	01
		Counter Channel 2	02
		Counter Channel 3	03
		Counter Channel 4	04
		Counter Channel 5	05
		Counter Channel 6	06
		Counter Channel 7	07
		Discrete Data	08
Output Mode	0B	Toggle, Reset Off	00
		Toggle, Reset On	01
		On Pulse	02
		Off Pulse	03

Commands

Name	ID	Action	ID
Control	01	Increment	02
		Reset	01

[c]FP-CTR-502

All ID values are hexadecimal.

Module ID

0114

Channel Status

Message	ID
Overflow since last read	01

Ranges

Name	ID
Boolean	10
065535 Counts	40

Attributes

Name	ID	Value	ID
Terminal Count	05	065535	
Terminal Count MSB [Most Significant Byte]	06		
Count Source	07	External Count Input	00
		Previous Channel	01
		1 kHz Reference	02
		32 kHz Reference	03
Gate Source	08	Gate Input 0	00
		Gate Input 1	01
		Gate Input 2	02
		Gate Input 3	03
		Always Disabled	04
		Always Enabled	05
Read Reset Mode	09	Dont Reset On Read	00
		Reset On Read	01
Noise Rejection	01	200 Hz	03
		50 kHz	04
Output Source	0A	Counter Channel 0	00
		Counter Channel 1	01
		Counter Channel 2	02
		Counter Channel 3	03
		Counter Channel 4	04
		Counter Channel 5	05
		Counter Channel 6	06
		Counter Channel 7	07
		Discrete Data	08
Output Mode	0B	Toggle, Reset Off	00
		Toggle, Reset On	01
		On Pulse	02
		Off Pulse	03

Commands

Name	ID	Action	ID
Control	01	Increment	02
		Reset	01

[c]FP-DI-300

All ID values are hexadecimal.

Module ID

0109

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-DI-301

All ID values are hexadecimal.

Module ID

0105

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-DI-330

All ID values are hexadecimal.

Module ID

0103

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-DO-400

All ID values are hexadecimal.

Module ID

0104

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-DO-401

All ID values are hexadecimal.

Module ID

0106

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-DO-403

All ID values are hexadecimal.

Module ID

0111

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-DO-410

All ID values are hexadecimal.

Module ID

0110

Channel Status

Message	ID
Current limited	07

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-PG-522

All ID values are hexadecimal.

Module ID

0113

Ranges

Name	ID
Boolean	10
065535 Counts	40

Attributes

Name	ID	Value	ID
Pulse Mode	0E	Finite	00
		Continuous	01
On Time	0F	165535	
On Time MSB [Most Significant Byte]	10		
Off Time	11	065535	
Off Time MSB	12		
Resolution	13	100 μ s	00
		10 ms	01
		1 s	02

Commands

Name	ID	Action	ID
Control	01	Stop After Current Pulse	04
		Stop Immediately	03
Generate Pulses	02	165535	
Generate Pulses MSB	03		

[c]FP-PWM-520

All ID values are hexadecimal.

Module ID

010E

Ranges

Name	ID
0100%	38

Attributes

Name	ID	Value	ID
Period (ms)	0C	165535	
Period (ms) MSB [Most Significant Byte]	0D		

No Commands

[c]FP-QUAD-510

All ID values are hexadecimal.

Module ID

0116

Ranges

Name	ID
Boolean	10
065535	40
± 160 count/ μ s	50
± 80 count/ μ s	51
± 40 count/ μ s	52
± 20 count/ μ s	53
± 10 count/ μ s	54
± 5 count/ μ s	55
± 2.5 count/ μ s	56
± 1.25 count/ μ s	57

Attributes

Name	ID	Value	ID
Reset Mode	14	Dont Reset on Index	00
		Reset on Index	01

Commands

Name	ID	Action	ID
Control	01	Reset	01

FP-RLY-420

All ID values are hexadecimal.

Module ID

0108

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

cFP-RLY-421

All ID values are hexadecimal.

Module ID

0121

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-RLY-422

All ID values are hexadecimal.

Module ID

0112

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

cFP-RLY-423

All ID values are hexadecimal.

Module ID

0122

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

[c]FP-RTD-122

All ID values are hexadecimal.

Module ID

010B

Channel Status

Message	ID
Out of range	01
Open RTD	02

Ranges

Name	ID
731123 K	26
200 to 850 °C	27
328 to 1562 °F	28
0400 Ω	30
04000 Ω	31

Attributes

Name	ID	Value	ID
RTD Type (R0 and TCR) 04		Pt100, TCR=0.00375	00
		Pt100, TCR=0.00385	01
		Pt100, TCR=0.003911	02
		Pt100, TCR=0.003916	03
		Pt100, TCR=0.003920	04
		Pt100, TCR=0.003928	05
		Pt1000, TCR=0.00375	06
		Pt1000, TCR=0.00385	07
		Pt1000, TCR=0.003911	08
		Pt1000, TCR=0.003916	09
		Pt1000, TCR=0.003920	0A
		Pt1000, TCR=0.003928	0B

No Commands

[c]FP-RTD-124

All ID values are hexadecimal.

Module ID

0118

Channel Status

Message	ID
Out of range	01
Open RTD	02

Ranges

Name	ID
731123 K	26
200 to 850 °C	27
328 to 1562 °F	28
0400 Ω	30

Attributes

Name	ID	Value	ID
RTD Type (R0 and TCR) 04		Pt100, TCR=0.00375	00
		Pt100, TCR=0.00385	01
		Pt100, TCR=0.003911	02
		Pt100, TCR=0.003916	03
		Pt100, TCR=0.003920	04
		Pt100, TCR=0.003928	05

No Commands

[c]FP-SG-140

All ID values are hexadecimal.

Module ID

0119

Channel Status

Message	ID
Out of range	01
Overcurrent protection	02

Ranges

Name	ID
± 3.90625 mV/V	64
± 7.8125 mV/V	65
± 31.25 mV/V	66
± 62.5 mV/V	67

Attributes

Name	ID	Value	ID
Noise Rejection	01	15 Hz	09
		60 Hz	00
		240 Hz	0A
Excitation Voltage	15	10 V	00
		5 V	01
		2.5 V	02
Half-Bridge Completion	16	Half-Bridge Completion OFF	00
		Half-Bridge Completion ON	01

No Commands

[c]FP-TC-120

All ID values are hexadecimal.

Module ID

0107

Channel Status

Message	ID
Out of range	01
Open thermocouple	02

Ranges

Name	ID
± 50 mV	0A
± 25 mV	0B
20 to 80 mV	0C
± 100 mV	0D
02048 K	20
270 to 1770 °C	21
454 to 3218 °F	22

Attributes

Attribute Name	Attribute ID	Attribute Value	Attribute ID
Thermocouple Type 02		J	00
		K	01
		T	02
		E	03
		R	04
		S	05
		N	06
		B	07
CJC Source 03		Internal	00
		0 °C	01
		25 °C	02

No Commands

FP-TB-10

All ID values are hexadecimal.

Module ID

0217

Ranges, Attributes, and Commands

Refer to the module reference pages for the dual-channel modules you are using.

FP-AI-C020

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
020 mA	00

Attributes

Name	ID	Value	ID
Input Filter 01		20 Hz	07
		100 Hz	06

No Commands

FP-AI-C420

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
420 mA	01

Attributes

Name	ID	Value	ID
Input Filter 01		20 Hz	07
		100 Hz	06

No Commands

FP-AI-V1

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
01 V	08

Attributes

Name	ID	Value	ID
Input Filter	01	20 Hz	07
		2 kHz	05

No Commands

FP-AI-V5

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
05 V	06

Attributes

Name	ID	Value	ID
Input Filter	01	20 Hz	07
		2 kHz	05

No Commands

FP-AI-V5B

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
$\pm 5\text{ V}$	05

Attributes

Name	ID	Value	ID
Input Filter	01	20 Hz	07
		2 kHz	05

No Commands

FP-AI-V10

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
010 V	04

Attributes

Name	ID	Value	ID
Input Filter	01	20 Hz	07
		2 kHz	05

No Commands

FP-AI-V10B

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
± 10 V	03

Attributes

Name	ID	Value	ID
Input Filter	01	20 Hz	07
		2 kHz	05

No Commands

FP-AI-V50m

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
050 mV	19

Attributes

Name	ID	Value	ID
Input Filter	01	20 Hz	07
		500 Hz	02

No Commands

FP-AI-V100m

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Out of range	02

Ranges

Name	ID
0100 mV	1A

Attributes

Name	ID	Value	ID
Input Filter	01	1 kHz	08
		20 Hz	07

No Commands

FP-AO-C020

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
020 mA	00

No Attributes

No Commands

FP-AO-C024

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
0-24 mA	00

No Attributes

No Commands

FP-AO-C420

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
420 mA	01

No Attributes

No Commands

FP-AO-V5

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
05 V	06

No Attributes

No Commands

FP-AO-V5B

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
$\pm 5\text{ V}$	05

No Attributes

No Commands

FP-AO-V10

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
010 V	04

No Attributes

No Commands

FP-AO-V10B

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
± 10 V	03

No Attributes

No Commands

FP-DI-AC120

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-DI-AC240

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-DI-DC

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-DO-AC120

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-DO-AC240

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-DO-DC60

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-DO-DC200

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01

Ranges

Name	ID
Boolean	10

No Attributes

No Commands

FP-RTD-PT100

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Open RTD	02

Ranges

Name	ID
50 to 350 °C	2F
58 to 622 °F	32

No Attributes

No Commands

FP-RTD-PT100-3

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Open RTD	02

Ranges

Name	ID
50 to 350 °C	2F
58 to 622 °F	32

No Attributes

No Commands

FP-RTD-PT100-4

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Open RTD	02

Ranges

Name	ID
50 to 350 °C	2F
58 to 622 °F	32

No Attributes

No Commands

FP-TC-J

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Open thermocouple	02

Ranges

Name	ID
210 to 1200 °C	29
346 to 2191 °F	2A

No Attributes

No Commands

FP-TC-K

All ID values are hexadecimal.

Channel Status

Message	ID
Empty	01
Open thermocouple	02

Ranges

Name	ID
100 to 1372 °C	2B
148 to 2501 °F	2C

No Attributes

No Commands

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Austria	43 0 662 45 79 90 0
Belgium	32 0 2 757 00 20
Brazil	55 11 3262 3599
Canada (Calgary)	403 274 9391
Canada (Montreal)	514 288 5722
Canada (Ottawa)	613 233 5949
Canada (Québec)	514 694 8521
Canada (Toronto)	905 785 0085
Canada (Vancouver)	514 685 7530
China	86 21 6555 7838
Czech Republic	420 2 2423 5774
Denmark	45 45 76 26 00
Finland	385 0 9 725 725 11
France	33 0 1 48 14 24 24
Germany	49 0 89 741 31 30
Greece	30 2 10 42 96 427
India	91 80 51190000
Israel	972 0 3 6393737
Italy	39 02 413091
Japan	81 3 5472 2970
Korea	82 02 3451 3400
Malaysia	603 9131 0918
Mexico	001 800 010 0793
Netherlands	31 0 348 433 466
New Zealand	64 09 914 0488
Norway	47 0 32 27 73 00
Poland	48 0 22 3390 150
Portugal	351 210 311 210
Russia	7 095 238 7139
Singapore	65 6226 5886
Slovenia	386 3 425 4200
South Africa	27 0 11 805 8197
Spain	34 91 640 0085
Sweden	46 0 8 587 895 00
Switzerland	41 56 200 51 51

Taiwan	886 2 2528 7227
Thailand	662 992 7519
United Kingdom	44 0 1635 523545
United States (Corporate)	512 683 0100