

Fire detection and evacuation solutions that save lives.

# Ampac Input Output Interfaces

- ✓ Loop Powered
- ✓ Monitored Input
- ✓ Built in Short Circuit Isolator
- ✓ DIN Rail Mounting
- ✓ Diagnostic LED Indications
- ✓ Compatible with FireFinder Plus & LoopSense
- ✓ Clean Contact Relay Output
- ✓ Activfire Certified



## Product Overview

Ampac's extensive range of Input Output Interface devices are designed to control and monitor third party equipment connected to fire detection and alarm systems. The monitored input provides supervision for one or more normally open contacts connected to a single pair of cables and a relay output contact is provided to control the operation of plant equipment.

The input is monitored for both short and open circuit conditions, and is protected against accidental connection to the detection loop. The input circuit is conditioned with de-bounce circuitry for enhanced noise rejection and is protected against high transient voltages.

The output incorporates a single pole, voltage free clean contact changeover relay with common, normally open and normally closed terminals provided for field cabling.

The Ampac Input Output Interface device is loop powered and incorporates bi directional isolation circuitry to provide protection against detection loop short circuits. On board LED status indication is provided for service and commissioning purposes, a feature that can be deactivated during normal operation to reduce the current draw on the system.

Three interface device variants are available, the Single Input/Output, Dual Input/Output and the Triple Input/Output, each with 3mm screw fixing (supplied) or provision for 35mm DIN rail mount fixings.

The EOL Device comprising 20K EOL resistor and 4K7 Alarm initiating resistor is included with each Input/Output interface device. A 10K resistor (not supplied) can also be placed in parallel with the EOL and will initiate a Pre-alarm at the control panel.

A 10-way DIP switch is provided to set the device address, loop protocol and LED control.

## Typical Applications

- ✓ Fire Fan Controls
- ✓ Damper Controls
- ✓ Lift Control
- ✓ Sprinkler Monitoring
- ✓ HVAC Control
- ✓ Aspirating Systems
- ✓ Gas Valves
- ✓ Beam Detectors

## Item Numbers

4210-0151	Single Input Output Interface Device
4210-0152	Dual Input Output Interface Device
4210-0153	Triple Input Output Interface Device
4210-0034	ABS Interface Enclosure
4210-0035	Mild Steel Interface Enclosure
4210-0159	Fire Alarm Interface Label for 4210-0035

## Device Status Indications

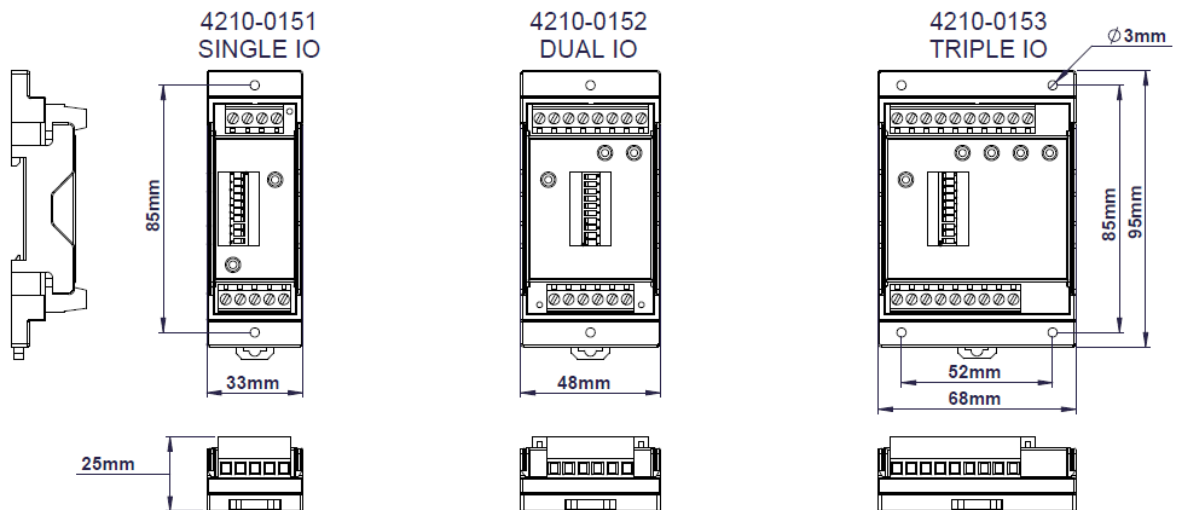
LED	State	Defect Description
Yellow (Input 1,2 & 3)	Off	Input normal
	Steady	Alarm condition
	Flashing	Input fault: short or open
Green (Status)	Off	No isolation fault and device not being polled
	Steady	Device has an isolation fault
	Flashing	Device has been polled at its address

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**Specifications**

Description	Single Input/Output Interface Device	Dual Input/Output Interface Device	Triple Input/Output Interface Device
Item No.	4210-0151	4210-0152	4210-0153
Operating Voltage	17 to 28V dc (nominal voltage 27Vdc)		
Quiescent current @ 27Vdc	0.42mA	0.58mA	0.66mA
Power-up surge current	5.34mA	5.61mA	5.97mA
Max current LEDs On	3.00mA	4.42mA	6.10mA
Max Current LEDs disabled	1.61mA	2.42mA	3.07mA
Relay output contact rating	1A at 30V dc or ac		
Operating Temperature	- 40°C + 70°C		
Humidity	0 to 95% RH (no condensation or icing)		
Weight	40g	55g	76g
Standards & Approvals	AS ISO 7240.17:2021 and AS ISO 7240.18:2018 - Activfire certificate # afp-3690		

**Dimensions**



**Short Circuit Isolator Specification**

Maximum line voltage - $V_{max}$	28Vdc
Nominal line voltage - $V_{nom}$	27Vdc
Minimum line voltage - $V_{min}$	17Vdc
Maximum voltage device isolates - $V_{SO max}$	16Vdc
Minimum voltage device isolates - $V_{SO min}$	12Vdc
Maximum voltage device reconnects - $V_{SC max}$	17Vdc
Minimum voltage device reconnects - $V_{SC min}$	12Vdc
Maximum rated current - $I_{C max}$	1A
Maximum rated switching current - $I_{S max}$	3.3A
Maximum leakage current - $I_{L max}$	32mA
Maximum series impedance switch closed - $Z_{C max}$	60mΩ

**Wiring Schematic**

