



AFP Analog to Floating Point

The AFP allows an analog (voltage or current) signal to control a floating point actuator. It converts an analog signal into two relay contact outputs (one increase/one decrease). The isolated floating point output can be controlled by any one of nine analog input signal ranges (using an offset jumper). Upon power-up, the decrease relay will drive 100% of the chosen timing range to ensure that the output is at its minimum position. On a loss of power, the output relays will be open and no signal will be generated. The actuator will remain at the last commanded position unless it has "spring return". The AFP output rate of change (sixteen ranges, in eight versions) is DIP switch selectable. In **Version 2**, upon power-up, the decrease

relay will drive 200% of the chosen timing range to ensure that the output is at its minimum position. At 2 to 5% or below and 95 to 98% or higher of the input signal, the up or down contact will drive for an additional 100% of the chosen timing range. This assures that the control signal and actuator are in synchronization. In **Version 4**, the relays stay on at minimum and maximum voltage. In **Version 5**, the AFP relays stays on with 5% of maximum or minimum input voltage. There is no overshoot on maximum or minimum input voltage. In **Version 7**, upon power-up, the increase relay will drive 105% of the chosen timing range to ensure that the output is at its maximum.

Applications: Electric Actuator Control

The AFP is covered by ACI's Two (2) Year Limited Warranty. The warranty can be found in the front of ACI's Sensors & Transmitters catalog, as well as on ACI's website, www.workaci.com.

PRODUCT SPECIFICATIONS

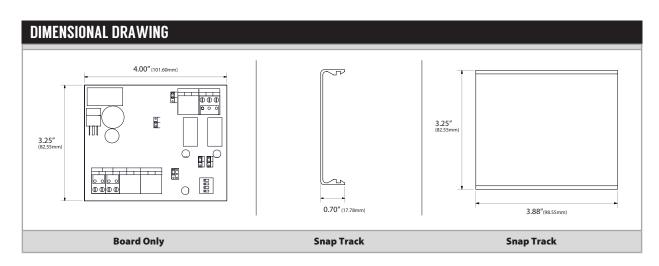
Supply Voltage:	24 VAC or 24 VDC, (+/- 10%), 50/60 Hz	
Supply Current:	105 mA maximum without 24 VDC auxiliary output	
	190 mA maximum with 24 VDC auxiliary output	
Input Voltage Signal Range:	0-5 VDC, 0-10 VDC, 0-15 VDC	
Input Current Signal Range:	0-20 mA	
Analog Voltage Signal Input Range with Offset Jumper:		
Analog Current Signal Input Range with Offset Jumper:	4-20 mA	
Input Impedances (Nominal):	Voltage @ 10,000 Ω Nominal / Current @ 250 Ω nominal	
Output (Floating Point):	Two relay contact outputs (Increase / Decrease)	
Relay Contact Rating:	Dry Contact, Form C, 2A maximum @ 24 VDC	
Relay Electrical Life:	100,000 operations minimum	
Relay Mechanical Life:	1,000,000 operation	
Connections:	90° Pluggable Screw Terminal Blocks	
Wire Size:	16 (1.31 mm²) to 26 AWG (0.129 mm²)	
Terminal Block Torque Rating:	0.5 Nm (Minimum); 0.6 Nm (Maximum)	
Operating Temperature Range:	35 to 120°F (1.7 to 48.9°C)	
Operating Humidity Range:	10 to 95% non-condensing	
Storage Temperature:	-20 to 150°F (-28.9 to 65.5°C)	
Snaptrack Material:	Polyvinyl Chloride (PVC)	
Snaptrack Flammability Rating:	UL94 V-0	
Product Dimensions:	(L) 4.00" (W) 3.25" (H) 1.15" (101.6 x 82.55 x 29.21 mm)	
Product Weight:	0.325 lbs. (0.147 Kg)	
Agency Approvals:	RoHS2, WEEE	



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STANDARD ORDERING Model # Example: AFP -OR- 10631					
Model #	ltem #	Firmware Version #	Rate of Change*	Additional Information	
AFP	106317	AFP_0101.hex	30, 60, 90s		
AFP VERSION #2	105626	AFP_0201.hex	120, 150, or 180s	Drives actuator down 200% of range (power reapplied) At 2-5% or below & 95-98% or higher (input signal), the up or down contact will drive an additional 100% of chosen timing range	
AFP VERSION #3	129865	AFP_0301.hex	14, 16.5, or 19s		
AFP VERSION #4	112382	AFP_0401.hex	30, 60 or 90s	Relay stays on at Min. & Max. voltage	
AFP VERSION #5	128283	AFP_0501.hex	90, 135 or 180s	Relay stays on with 5% of Max. or Min. input voltage. No overshoot on Max. or Min. input voltage	
AFP VERSION #6	130469	AFP_0601.hex	18, 75 or 360s		
AFP VERSION #7	144859	AFP_0701.hex	30, 60 or 90s	Drives actuator up 105% of range (power reapplied)	
AFP VERSION #8	144604	AFP_0801.hex	46, 240 or 600s		

Note*: Rates of Change unit of measurement = seconds

ACCESSORIES		A/D0008 -0R- 142583
Model #	ltem #	Description
A/D0008	142583	Transient Voltage Suppressor, Bi-directional, 56 VAC/DC, 1500W
A/DRC 3.88 X 3.25	142621	DIN Rail Adapter Kit