

Ac Active Phase Angle Transducer v4 **APT193**

DESCRIPTION

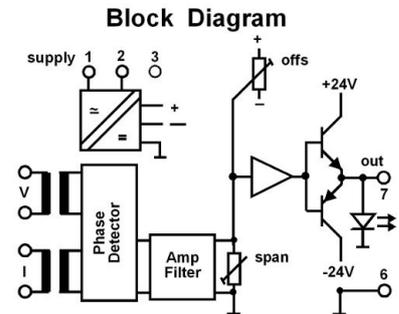
The APT193 converts the instantaneous phase angle, (difference between the current and voltage inputs); in a single phase or 3 phase (3 or 4 wire) balanced load system into a standard DC output signal, which is proportional to the measured value. The DC signal is suitable for driving measurement and/or control equipment either at the measurement point or at a remote location. Input voltages of 63.5 to 415V and input currents of 0.5 to 10A can be connected directly to the transducer terminals, or inputs can be connected via external current and voltage transformers. Internal transformers provide galvanic isolation between, input voltage, input current and power supply circuits. The output signal can be uni-directional, bi-directional or offset. A green LED on the front that gives a clear indication of module function indicates the output signal level. Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments. Various power supply choices are available ranging from 415Vac down to 12Vdc. These transducers are Australian designed and manufactured and offer a vast range of input to output combinations. The design is fully solid state - for long term stability. These transducers have been designed to class 0.2 AS1384-1973 and comply with BS6253 and IEC688.



General Specifications

Size:	52 W x 70 H x 110 D (mm).
Mounting:	DIN-Rail, gear plate.
Termination:	Screw terminals on front.
Protection class:	IP40.
Weight:	0.400 kg.
Housing material:	ABS.
Calibration accuracy:	0.2% of span.
Combined linearity and error:	0.2% of span.
Accuracy as AS1384-1973:	Class 0.2.
Front 'OFFS' adjust:	±25% typical.
Front 'SPAN' adjust:	±25% typical.
Response time:	<500ms.
Ambient temperature	0...+60°C (operating).
Temperature effect:	0.02% per °C.
Input range:	Current: 0.5 up to 10A (40 - 60Hz). Voltage: 63.5 to 415Vac (40 - 60Hz).
Input burden:	Current: <0.3VA; Voltage: 1mA.
Input/output isolation:	2kVrms.
Auxiliary supply isolation:	2kV.
Overload continuous:	150% of rated input (current & voltage).
Overload short term (2 sec):	20 times rated input current, 1.9 times rated input voltage.
Output loop drive:	Max 20mA drive for voltage output. Max 20V drive for current output.
Output load change effect:	less than 0.2% up to max. load.
Output ripple:	less than 0.2%.
Power requirements:	3W.
Electromagnetic compatibility:	Complies with AS/NZS 4251.1 (EN 50081.1) 

For input / output combinations refer to TYPE NO. DESIGNATION overleaf.



TYPE NO. DESIGNATION

Power Supply:

- 1 = 90-280Vac 50/60Hz (65-280Vdc).
- *) 3 = 16-48Vac 50/60Hz (10-60Vdc)
- *) 4 = 415V, 50/60Hz $\pm 10\%$.
- *) 6 = 8 - 60Vdc.
- *) 9 = Other specify.

System Configurations *1:

- 1 = Single Phase.
- 2 = 3 Phase, 3 Wire, balanced load.
- 3 = 3 Phase, 4 Wire, balanced load.

Input Current:

- 1 = 0 - 0.5A (0.02VA).
- 2 = 0 - 1A (0.03VA).
- 3 = 0 - 2A (0.1VA).
- 4 = 0 - 5A (0.3VA).
- 5 = 0 - 10A (0.6VA).
- ^) 6 = External APCS CT
- *) 9 = Other (Specify).

^) Also specify Type: [SCT007(50A), SCT012(100A), SCT008(200A), SCT009(600A)] All external current transformers must be ordered separately.

Input Voltage:

- 1 = 63.5V.
- 2 = 110V.
- 3 = 240V.
- 4 = 415V.
- *) 9 = Other (Specify).

Output:

UNIPOLAR

- 01 = 4 - 20mA (1k Ω max).
- 02 = 0 - 20mA (1k Ω max).
- 03 = 0 - 10mA (2k Ω max).
- 04 = 0 - 1mA (20k Ω max).
- 05 = 0 - 10V (500 Ω min).
- 06 = 0 - 5V (250 Ω min).
- 07 = 1 - 5V (250 Ω min).

BIPOLAR

- 12 = -20...+20mA (1k Ω max).
- 13 = -10...+10mA (2k Ω max).
- 14 = -1...+1mA (20k Ω max).
- 15 = -10...+10V (500 Ω min).
- 16 = -5...+5V (250 Ω min).

*) 09 = Other (Specify).

*) 19 = Other (Specify).

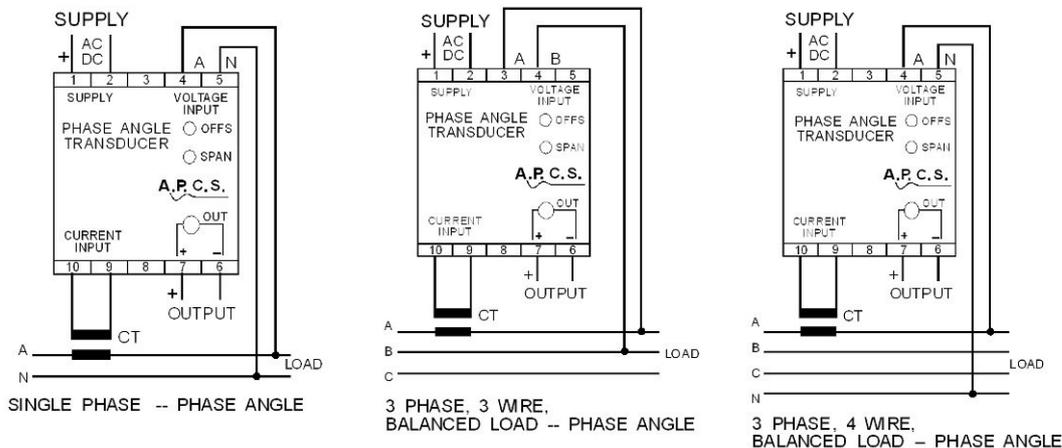
Options:

0 = None.

*) = Price Extra, #) = Non Stock Item, ^) = Extra order detail for external CT.

Ordering Information:

In addition to above, specify the system frequency, eg.50Hz, and the calibration range of the input phase for full-scale output eg. -90.... 0....+90 degrees.



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