AMELEC
SIGNAL CONDITIONING

Series APT 440-Power Factor

The APT 441 transducer gives an output signal linear with the phase angle. To obtain a signal linear with Power Factor a lineariser must be fitted and this is APT 442. Burden on the inputs is very low. To achieve the stated accuracy both inputs must have the same harmonic content. Models are self powered if the voltage is always above 80V use suffix SP.

MODEL APT 441

Input ±30° ±45° ±60° ±90°
Voltage 0 to 150V
Current 0 to 5A
Accuracy ±0.5%
Output ±1mA ±5mA ±10mA
0 to 10, 4 to 20, 1 to 5mA DC
0 to 1, 0 to 10, 1 to 5V DC
Linearity ±0.25% at unity

MODEL APT 442

As model 441 but with output linearised with power factor
Accuracy ±1%

Series APT 450-AC Volts/Current

The 450 series accepts inputs from voltage or current transformers.

Units can be self powered if volts are above 80V use suffix SP.

Output signals available as 0 to 10, 4 to 20, 0 to 1, 1 to 5mA DC or 0 to 1, 0 to 10, 2 to 10, 1 to 5V DC.

MODEL APT 451

Input 1.0 or 5.0A, 40 to 500Hz
Overange ×4 continuous
Accuracy ±0.5%
Linearity ±0.25%

MODEL APT 452

Input 0 to 150V 40 to 500Hz
Overrange 200V continuous
Accuracy ±0.5%
Linearity ±0.25%

Series APT 460-Frequency

The 460 series accepts voltage input and gives DC output signal linear with frequency. Unit can be self powered if voltage is above 80V use suffix SP. Output any standard signal.

MODEL APT 461

Input 45 to 55Hz or
55 to 65Hz
Input Voltage 0 to 150V
Accuracy ±0.5%
Linearity ±0.2% at mid point

Series APT 470-Hours Run

Accepts input from clean contact closure and gives an accurate output of 24V DC 30ms pulse for each hour of operation. Can be used in planning the routine maintenance of heavy electrical machinery.

MODEL APT 471

Input–Contact closure
Output–24V DC Pulses 30ms duration
Power Supply–110V or 240V ±20% 50/60Hz 24V DC ±2.5V

Tel: 01908-567003 E-Mail: sales@amelec-uk.com www.amelec-uk.com Fax: 01908-566735
Unit 5 Cochran Close, Crownhill, Milton Keynes
MK8 0AJ.

AMELEC
SIGNAL CONDITIONING

ORDERING INFORMATION

INSTRUMENT TYPE	POWER	POWER FACTOR	VOLTAGE	CURRENT	FREQUENCY	HOURS RUN or kWh
No. of Elements	●					
Inputs Volts Range & VT	●		●			
Input current Range & CT	●			●		
Output Signal	●	●	●	●	●	
Frequency Range					●	
Power Factor Range		●				
Power Factor Scaling		●				
Pulse Output Volts						●
Special Conditions	●	●	●	●	●	●
Two Outputs Option	●	●	●	●	●	

OPTIONAL EXTRAS

Description	Suffix Code
kWh	H
Dual Output	D
Self Powered	SP

Tel: 01908-567003 E-Mail: sales@amelec-uk.com www.amelec-uk.com Fax: 01908-566735
Unit 5 Cochran Close, Crownhill, Milton Keynes
MK8 0AJ.

AMELEC
SIGNAL CONDITIONING

Inputs Data

	UNITS	No of elements 1	2	3	P.F.	V	I	f
Nominal Calibration WATTS or VARS		500	1000	1500	–	–	–	–
Potential Input Normal	V	0–150	0–150	0–150	0–150	0–150	–	0–150
O/L Cont.	V	200	200	200	200	200	–	200
Burden	VA	4	4	4	2	1	–	1
Current Input Normal	A	0 to 5	0 to 5	0 to 5	5	–	5	–
O/L Cont.	A	15	15	15	15	–	20	–
Burden	VA	1	1	1	2	–	1	–

Output Data

Output load – maximum voltage 20V on external power
When self powered option SP is used maximum voltage output is 12V
Output open and short circuit has no effect
Output ripple 0.3% maximum
Zero and span controls by 15 turn potentiometers
Zero adjustment ±10%
Span adjustment ±50%
Response time 400ms

Conditions

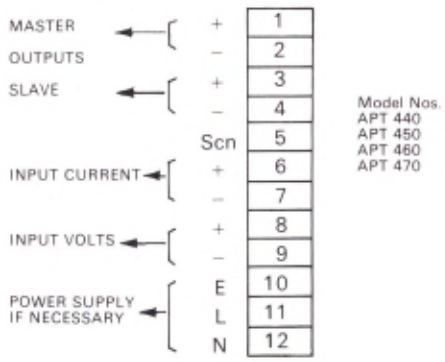
Insulation Resistance 5.0kV
Impulse Test to BS 923, IEC 255–4 (1976)
Vibrations 15 to 150Hz 1g has no effect
Temperature Range −20 to +70°C

Performance

Accuracy Class 0.5%
Linearity ±0.25%
Temperature Coefficient ±0.01% per °C

Termination

Termination Spade type for conductors up to 4mm²

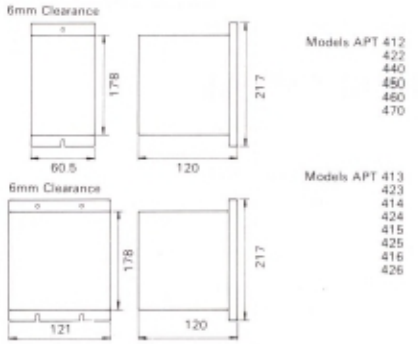


Model Nos.
APT 440
APT 450
APT 460
APT 470

Mountings

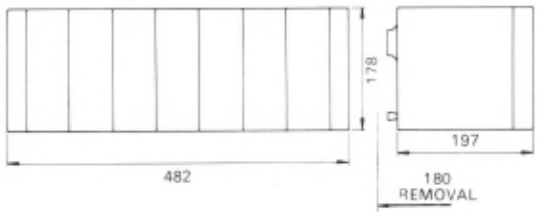
Weight	Typical 1.5kg
Position	Any Position
Types of Mounting	Free Standing
	19" International Rack

Surface Mounting



International 19" Rack

Up to 7 Amelec units can be mounted in one 19" Rack section. The rack is made of precision extruded aluminium and fits any standard 19" Rack. Most Watt and Var transducers require two units space. All dimensions in mm.



OTHER ENCLOSURES

Enclosures are available for single and multiple units to meet IP65 and other requirements.
For full details contact our Sales Office.

Tel: 01908-567003 E-Mail: sales@amelec-uk.com www.amelec-uk.com Fax: 01908-566735
Unit 5 Cochran Close, Crownhill, Milton Keynes
MK8 0AJ.