

ATS - PANEL MOUNTED TRANSDUCERS

MEAN & RMS AC AMP & VOLT

FEATURES

- designed to International Standards
- proven reliability – over 27 years of experience
- high accuracy and stability
- IEC688 specification compliant
- 2kV isolation
- fire retardant, DIN rail and panel mount housing
- ac and dc auxiliary supplies
- simplified connection details on label
- extensive input and output combinations
- non-standard inputs and outputs available
- removable cover for quick inspection
- technical and after-sales support

APPLICATION

A Measuring transducer, as the name implies, measure and converts the input signal into a dc output signal which is proportional to, and galvanically isolated from the input signal.

In the Measurlogic system, the output is a standardized dc signal from a high impedance source and galvanically isolated from the input. This permits the connection of one or more readout systems, independent of burden, for local and/or remote measurements or telemetry.

However, transducers with live zero (eg. 4-20mA) or suppressed zero (eg. 88-132V) require an auxiliary supply to maintain live zero or suppression independent of the measured input.

The output circuit is arranged for both current and voltage limitation so that the transducer can be run continuously with short circuited or open circuited output without damage to the transducer or the connected equipment.

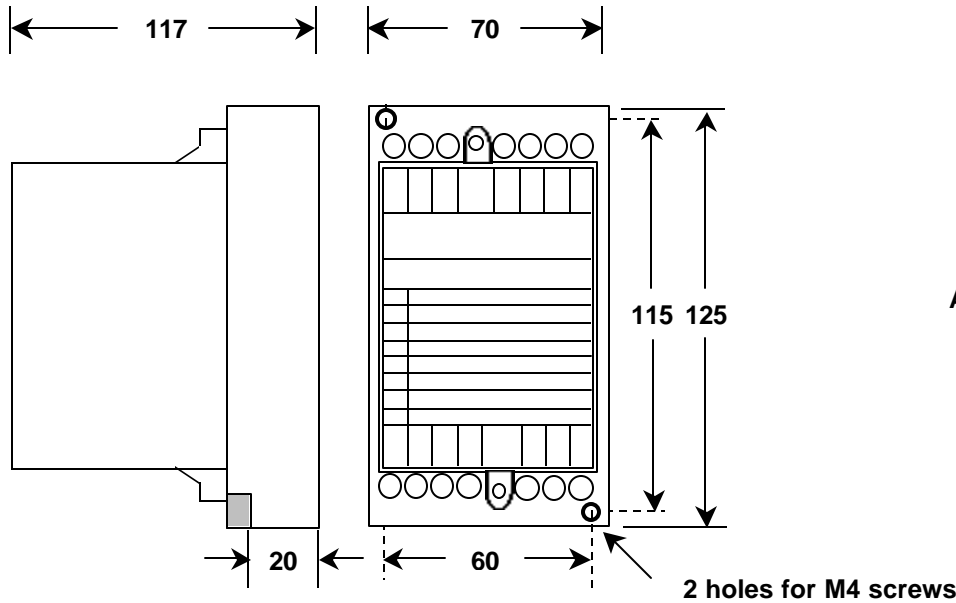
ORDERING INFORMATION

(Specific combinations to be confirmed on ordering. Other input/output values available.)

Model : K - - - -



| Transducer Type (group 2) | | Input Data (for current) (group 3) (for voltage) (group 3) | | | | Output Data (group 4) | | Class Accuracy (group 5) | | Auxiliary Supply (group 6) | |
|------------------------------|--------|---|-------|------|-------|--------------------------|--------|-----------------------------|-----|-------------------------------|---------------|
| A1 | I mean | A1 | 1A | V150 | 150V | A5M | 5mA | C5 | 0,5 | 0 | Self Powered |
| A2 | I RMS | A5 | 5A | V300 | 300V | A20M | 20mA | | | 1 | 115Vac |
| V1 | V mean | Ax | other | V600 | 600V | V10 | 10V | | | 2 | 230Vac |
| V2 | V RMS | | | Vx | other | A4M | 4-20mA | | | 3 | 18-70V ac/dc |
| | | | | | | V4 | 1-5V | | | 4 | 90-260V ac/dc |
| | | | | | | | | | | 5 | 115/230Vac |



All Dimensions in
Millimeters

| Transducer Model | KA1 | KV1 | KA2 | KV2 |
|------------------------|--|--|-----------------------------------|-----------------------------------|
| Measurand | Mean ac current | Mean ac voltage | True RMS | True RMS |
| Input | RMS calibrated | RMS calibrated | ac current | ac voltage |
| Overload | Specify up to 5A | Specify up to 600V | Specify up to 5A | Specify up to 600V |
| Input Frequency | 1,5x continuously | 1,2x continuously | 1,5x continuously | 1,2x continuously |
| Frequency error | 10x for 3 seconds | 2x for 10 seconds | 10x for 3 seconds | 2x for 10 seconds |
| Input wave shape | 50 or 60Hz | 50 or 60Hz | 30...50...60...1000Hz | 30...50...60...1000Hz |
| Consumption | <1VA | <1VA for 5mA <2VA for 20mA | <0,3% over range arbitrary | <0,3% over range arbitrary |
| Output | 0 - 20mA dc (other on request) | 0 - 20mA dc (other on request) | 4 - 20mA dc (other on request) | 4 - 20mA dc (other on request) |
| Output burden | 10V (2k for 5mA) | 10V (2k for 5mA) | 10V (2k for 5mA) | 10V (2k for 5mA) |
| Burden influence | <0,1% | <0,1% | <0,1% | <0,1% |
| Output ripple | <1% ptp | <1% ptp | <1% ptp | <1% ptp |
| Response time T80 | 200ms | 200ms | 200ms | 200ms |
| Ambient temperature | -10... +60°C | -10... +60°C | -10... +60°C | -10... +60°C |
| Temp. influence | <0,2% / 10°C | <0,2% / 10°C | <0,2% / 10°C | <0,2% / 10°C |
| Accuracy class | 0,5 | 0,5 | 0,5 | 0,5 |
| Calib. accuracy range | 0...10...140% | 0...80...120% | 0...10...140% | 0...80...120% |
| Zero suppression range | only with aux supply eg., 0/60...120% | only with aux supply eg., 0/90...110% | on request eg., 0/60...120% | on request eg., 0/90...110% |
| Auxiliary supply | none or 115 or 230V, ±20%, 50/60Hz | none or 115 or 230V, ±20%, 50/60Hz | 115/230Vac, ±20% | 115/230Vac, ±20%, |
| Insulation | 2kV, 50Hz | 2kV, 50Hz | 2kV, 50Hz | 2kV, 50Hz |
| Impulse withstand | 5kV peak, 1/50us wave, 0.5J | 5kV peak, 1/50us wave, 0.5J | 5kV peak, 1/50us wave, 0.5J | 5kV peak, 1/50us wave, 0.5J |
| Housing | Surface or DIN Rail mounted hard plastic base with protected screws for 2,5mm ² (12 AWG) conductors, and fire retardant removable cover | | | |
| Mass | 0,7 kg (1.54 lb) | 0,7 kg (1.54 lb) | 0,8 kg (1.76 lb) | 0,8 kg (1.76 lb) |

CONNECTIONS

| TRANSDUCER TYPE | TERMINALS | | | | | | | | | | | | | |
|--------------------------|----------------|----------------|----------------|---|----------------|---|---|---|---|----|-----|------------|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| MEAN AMP (self powered) | I ₁ | | I ₁ | | | | | | | | | | O- | O+ |
| MEAN AMP (aux. supply) | I ₁ | | I ₁ | | | | | | | | 0 | 115 or 230 | O- | O+ |
| MEAN VOLT (self powered) | | V ₁ | | | V ₂ | | | | | | | | O- | O+ |
| MEAN VOLT (aux. supply) | | V ₁ | | | V ₂ | | | | | | 0 | 115 or 230 | O- | O+ |
| RMS AMP | I ₁ | | I ₁ | | | | | | | 0 | 115 | 230 | O- | O+ |
| RMS VOLT | | V ₁ | | | V ₂ | | | | | 0 | 115 | 230 | O- | O+ |

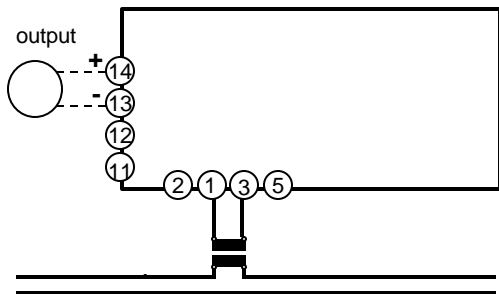
Also available with a SMPS with 18-70Vac/dc or 90-260Vac/dc and terminal connections 11(-ve) & 12(+ve)

TERMINAL DESIGNATION

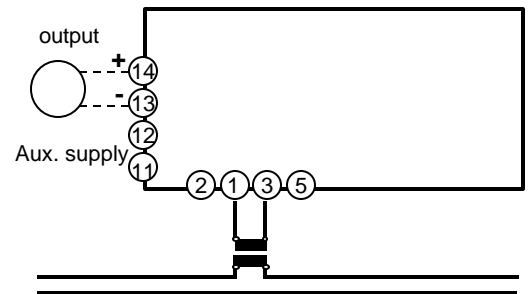
| | | | |
|----------------|----------------------|----------------|--------------------------|
| V ₁ | INPUT VOLTAGE RED | I ₁ | INPUT CURRENT RED |
| V ₂ | INPUT VOLTAGE YELLOW | I ₂ | INPUT CURRENT YELLOW |
| V ₃ | INPUT VOLTAGE BLUE | I ₃ | INPUT CURRENT BLUE |
| N | INPUT NEUTRAL | 115 | AUXILIARY SUPPLY 115V |
| O+ | OUTPUT POSITIVE | 230 | AUXILIARY SUPPLY 230V |
| O- | OUTPUT NEGATIVE | 0 | AUXILIARY SUPPLY NEUTRAL |

CONNECTION DIAGRAMS

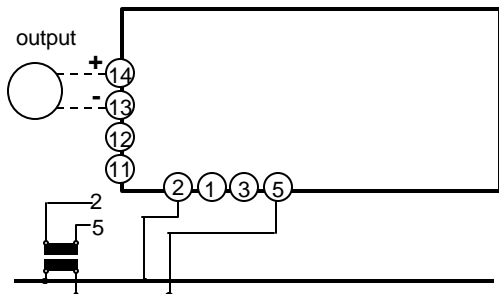
Amps (Self Powered): Type KA1



Amps (Aux Power): Type KA1 or KA2



Volts (Self Powered): Type KV1



Volts (Aux Power): Type KV1 or KV2

