

# ANALOGUE PANEL METER : AnDE, AnDS, AnFM



## Operating Manual

For Analogue Panel Meter type AnDE, AnDS, AnFM



**Read And Understand This Manual Before Using The Instrument**

### Installation:

The product should be panel mounted using the mounting kit provided. Consideration should be given to the space required behind the unit to allow for bends in the connecting cables. Additional protection to the panel may be obtained by the use of an optional panel gasket. The terminals at the rear of the case should be protected from liquids. Units should be mounted in a reasonably stable ambient temperature.

The unit should not be mounted where it can be subjected to excessive direct sunlight and vibration should be kept to a minimum. Connection wires should be sized to comply with local regulations and should be terminated on to tags suitable for screw connection. The products do not have internal fuses therefore; external fuses must be used for safety protection under fault conditions.

### Electromagnetic Compatibility (EMC) Installation Requirements

This product range has been designed to meet the certification requirements of the EU Directives when installed to a good code of practice for EMC in industrial environments e.g.

1. Screen all leads. In the event of RF fields causing problems where screened leads can not be used, provision for fitting RF suppression components, such as ferrite absorbers, line filters etc., must be made.  
N.B. It is good practice to install sensitive electronic instruments that are performing critical functions, in EMC enclosures that protect against electrical interference causing a disturbance in function.

2. Avoid routing leads alongside cables and products that are, or could be, a source of interference.

3. To protect the product against permanent damage, surge transients must be limited to 2kV peak

4. Electro Static Discharge (ESD) precautions must be taken at all times when handling this product.

For assistance on protection requirements please contact your local sales office.

Low Voltage Directive: This product complies with EN61010-1

### AnDE, AnDS, AnFM

Where models have different terminal markings all options are illustrated. Voltage circuits should be fused. When practical, Instrument circuits should be earthed at one point CTs must not be open circuited on load.

### Indoor Use

Altitude up to 2000m or above 2000m if specified by the manufacturer.

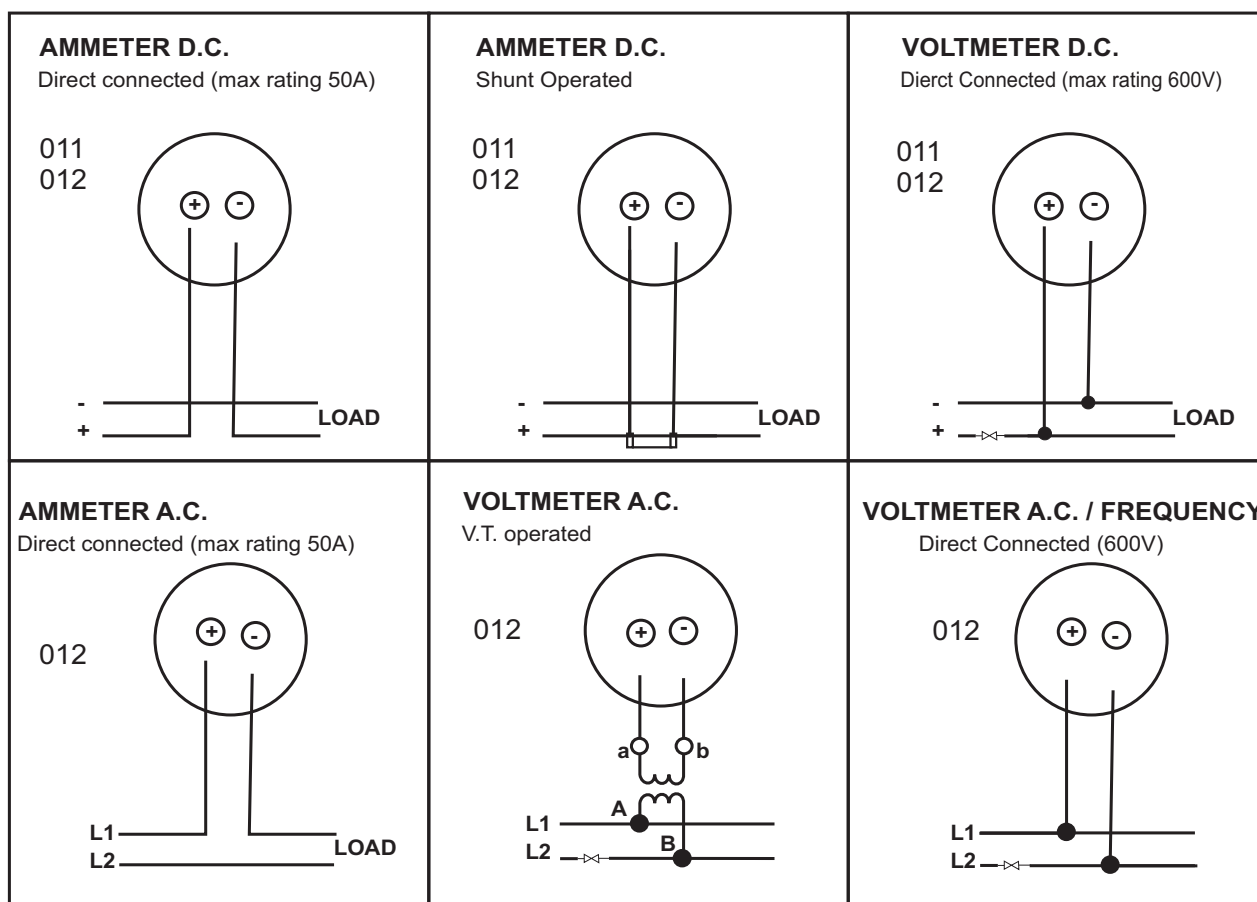
Temperature 0 to 40°C;

Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C;

Transient voltage according to INSTALLATION CATEGORIES ( OVER VOLTAGE CATEGORIES) I, II, and III,. For mains supply the minimum and normal category is II; POLLUTION DEGREE is 1 or 2 in accordance with IEC 664.



Risk! Electric Shock



This product do not have internal fuses, so external fuses must be use for safety protection under fault condition. Voltage input line were required must be fused with a quick blow fuse 1 Amp (UL marked) maximum. current metering circuits directly connected in line with load must be fuse and rated current for the meter unless the circuit into which they are connected is limited so that it can't deliver excessive current. Do not fuse CT circuit.

#### Specification of Disconnecting Device:

Disconnecting device used must meet the relevant requirement of IEC 60947-1 & IEC 60947-3.  
Electrical Rating should be 1.5 times of the measuring input, switching time of the device should be < 0.1s

The information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, Sifam Tinsley has no control over the field conditions, which influence product installation. It is the user's responsibility to determine the suitability of installation method in the user's field condition. Sifam Tinsley only obligations are those in Sifam Tinsle standard conditions of sale for this product & in no case will Sifam Tinsle be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products.

**NOTE: The meters to be used in panel or setup which is grounded.**

Subject to change without notice!

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