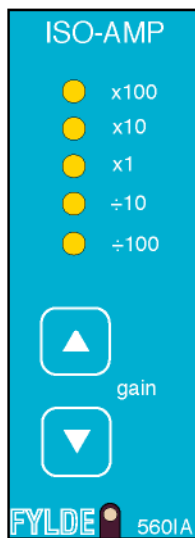


## FE-560-IA Isolation Amplifier



Front panel shown actual size

Power Line Monitoring

Ground Loop Elimination

Current Shunt Measurements

Oscilloscope front end

The FE-560-IA is an Isolation Amplifier in the FYLDE "blue panel" modular range of signal conditioning, and is a general purpose isolation amplifier for front end use when hazardous voltages must be measured.

Voltage isolation is up to 1500 V DC or pk\*

FYLDE offer a choice of input connectors including the "Protection" BNC connector (rated at 1000 V pk) or alternative Lemo plastic bodied 2 pin.

The amplifier is fully protected using advanced depletion mode FET devices and has a gain range of ÷100 up to x100.

The amplifier may be ordered with AC coupling if required. The low pass filter roll off may be changed in the field by replacing a plug in resistor network.

The module may be housed in the "PE" range of enclosures starting with the FE-PE2 for 2 channels up to the FE-PE17 for a maximum of 16 amplifiers.

Power source is either 115 or 230V 50/60Hz and a DC power option is available.

\* May be limited by input connector choice.

|                    |                                                                           |                                                                                                                                                                            |
|--------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISOLATION          | Voltage<br>Capacitance<br>Resistance<br>Mode Rejection<br>Leakage Current | >1500V dc or peak* (tested 5s @2500V).<br>15pF.<br>>50 x 10 <sup>9</sup> ohms.<br>>150dB** (dc to 60Hz). S/C source.<br>< 2 $\mu$ A RMS at 230V RMS 50Hz.                  |
| GAIN               | Switched<br>Linearity<br>Accuracy<br>Temp.Coefficient<br>Stability        | $\div$ 100, $\div$ 10, x1, x10, x100<br>$\pm$ 0.02% FS.<br>$\pm$ 0.25 % of gain setting.<br>< 0.01% per °C.<br>< 0.1% change over 12 months.                               |
| FREQUENCY RESPONSE | Internal AC coupling                                                      | DC - 50kHz (3dB).<br>1.6Hz (-3dB) Factory fitted option.                                                                                                                   |
| INPUT              | Voltage<br>Protection<br>Offset Voltage / TC<br>Impedance<br>Noise        | Maximum 1000V DC or Pk*<br>Against incorrect gain setting up to Maximum input.<br><200 $\mu$ V / <10 $\mu$ V/°C RTI.<br>>1M $\Omega$ .<br>< 20 $\mu$ V pk-pk dc-20kHz RTI. |
| FILTER             | Internal Low Pass filter<br>Setting                                       | 3 pole Butterworth (60dB/decade).<br>50Hz to 50kHz by plug in Resistor network.                                                                                            |
| OUTPUT             | Voltage Range<br>Noise / offset<br>Offset Temp Coefficient                | $\pm$ 10V nominally (min $\pm$ 9.8V) @ $\pm$ 2mA.<br><1mV RMS DC-20kHz / < $\pm$ 15mV<br>< 1mV/°C.                                                                         |
| TEMPERATURE RANGE  |                                                                           | 0 - 50°C.                                                                                                                                                                  |
| POWER SUPPLY       | Requirement                                                               | 200-250V 50Hz standard. 100-125V 50/60Hz to order.<br>11-14VDC by FE-605-DCC fitment.                                                                                      |
| CONNECTOR          |                                                                           | 25 way 0.1" pitch edge connector.                                                                                                                                          |
| MECHANICAL         | Dimensions / weight                                                       | panel 2.75" x 1", overall depth 8.2" / 200gm                                                                                                                               |
| HOUSING            |                                                                           | 2 modules fit FE-PE2. 4 modules fit FE-PE4<br>8 modules fit FE-PE8. Up to 16 in FE-PE17(RK)<br>RK= Rack Mount                                                              |
| PRESENTATION       |                                                                           | Blue front panel 2.75" x 1".<br><br>* depending on I/P connector choice<br>**gain x100                                                                                     |