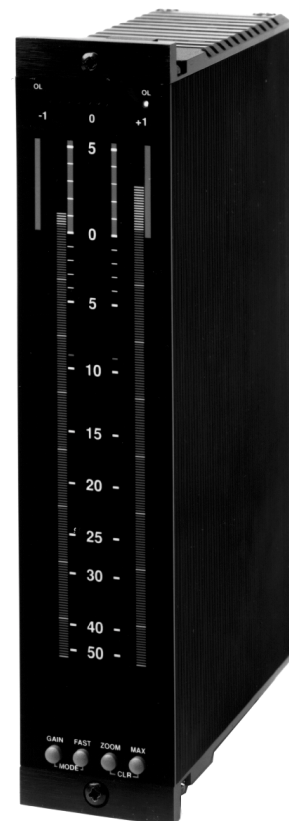
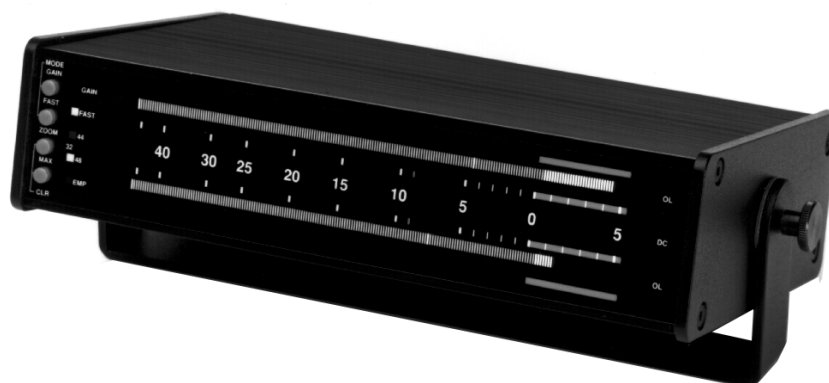


# Analogue Stereo Peak Programme Meter The 478-100 family



## Features:

- Peak Program Meter for Analogue Audio
- High resolution 200 segment orange bar-graph display
- Simultaneous reading of peak values with normal and fast ("zero") integration time
- Built-in 3 colour LED Compatibility Meter (optional)
- Instantaneous LED overload indication with adjustable threshold
- Zoom function for increased display resolution
- Easy selectable reference level
- Memory for maximum peak storage.
- Various display modes for improved readability
- Additional 20 dB gain for monitoring of "noise floor"
- Panel mounting or Table-Top with Mains net adaptor



## General Description.

The meter types 478-series of audio level measuring instruments is member of a family of instruments designed to take heritage of the previous series of the 477-series PPM's.

The prime function of the meter is to measure peak level of an analogue audio signal. The use of a high quality, 24 bit AD converter and digital signal processing assures uncompromising accuracy and stability.

Based upon one of today's most powerful DSP's it offers all of its predecessors appreciated qualities like a bright, high definition bargraph display with a multitude of display modes.

It facilitates both measurements with 10/5ms integration time in accordance with IEC 268-10 and measurements with "zero" integration time.

Additionally a spot indication may be superimposed on the normal reading, indicating the absolute level with reference to digital FS. This enables the sound engineer, working in a mixed analogue and digital environment, to make a direct comparison between signals. Numerous other display functions are available including peak hold, memory, zoom, and an optional compatibility / phase meter.

The instrument is housed in a ruggedized aluminium cabinet with a high contrast, non glare scale.

# Analogue Stereo Peak Programme Meter

## Technical Specifications:

Supply voltage .....20 - 32 V dc  
 Current consumption, @ 24V supply.....180 mA typ. (max. 250 mA)  
 Temperature range .....0 to 45°C ambient temperature.

### Signal input:

Frequency range, 0,5dB .....20Hz to 20kHz  
 High frequency roll-off .....≥12dB/oct. above 20kHz  
 Input impedance.....20kΩ ±10% balanced floating  
 Input CMRR.....>60dB at 15kHz  
 Reference input voltage.....-10dBu to +21dBu, selectable  
 Factory setting, DIN/NOR type .....1,55V rms sine(+6dBu)  
 Factory setting, BBC type .....1,94V rms sine(+8dBu)  
 Input overload level.....+21dBu  
 Dynamic measuring range.....>60 dB

**Measuring errors, PPM** .....at +10 to -10dB                      at -10 to 40dB  
 1kHz steady signal .....<±0,2dB                                      <±1dB  
 Within the frequency range .....<+0,5dB/-1dB                      <+0,5dB/-1dB  
 Polarity shift of unsymmetrical wave.....<±0,3dB                      <±1dB  
 Tracking between channels .....<±0,2dB                              <±0,5dB  
 10% change of supply voltage .....<±0,2dB                              <±0,2dB

### Integration Time

Normal integration time .....According to DIN45406 & IEC 268-10  
 Fast integration time....."zero"

### Fallback time

DIN type.....1,5sec from 0 to -20dB, "Zeit linear"  
 NOR type .....1,5sec/20dB  
 BBC type.....3 sec/24dB ("7" to "1")

### Additional gain

20dB additional gain error<±0,2dB (Nordic scale: 40dB additional gain error<±0,5dB)

### Overload Indicator

Overload threshold range (adjustable from the front) .....-10dB to +10dB  
 Response time .....same as fast integration time ("zero")  
 NB! The overload function is disabled when additional gain is active

### Phase indication

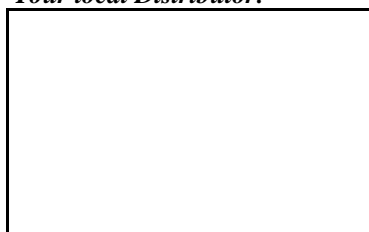
Input level range.....Approx -30dB to +10 dB  
 Phase range/resolution .....0 to 180°/18°

### Remote Control

All functions, accesible through push buttons on the front , can be controlled remotely. Rather than running individual wires to each remote switch only a single pair is used for all remote switches. The actual function of each switch is then being determined by the value of a resistor in series with the switch. If the required reference levels (PPM or Loudness) differ from factory setting, they can be controlled remotely in the same manner.

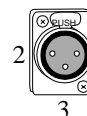
The 478 meter series of instruments is a highly modular design. Cabinets are available for panel mount or for table top use.

### Your local Distributor:



### Terminal connections (XLR connectors):

Connections are via two XLR A3F connectors



Chassis/screen 1  
 Input (a) 2  
 Input (b) 3

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