



Key features

- ◆ Distinctive 'retro' styling with contemporary construction
- ◆ High performance at affordable price
- ◆ Illumination option

Audio Level Meter

Type AL20SQ

The AL20SQ Audio Level analogue panel meter complements the proven and popular Presentor series. The meter offers a performance not significantly different from full specification vu meters to meet today's specific audio market requirement for both quality and distinctive 'retro' styling at an affordable price.

Features and benefits

- ◆ Available in one popular size with front of panel mounting and secured by four fixing screws.
- ◆ Constructed with gloss black phenolic moulded front with glass window and high impact translucent rear body moulding.
- ◆ Taut band core magnet movement incorporated as standard. This rugged movement makes these meters equally suitable for portable or fixed audio applications. There is no calibration effect when mounted on a ferrous panel.

Specification

A low range ac voltmeter offering a performance close to that of a full specification vu meter. Please refer to back page for full details.

Pointers and dials

The combination of 'pear' shaped pointer and conventional arc scale on translucent buff coloured dial results in an easily read meter, even when monitoring a row on a large console.

A white dial can be specified if required. The standard scale is based on the vu 'A' scale as illustrated in the above photograph but the 'B' scale with the 'percent' reading at the top can be supplied to order at no extra cost.

Zero adjuster

Positioned on the rear as standard.

Certified drawings

Available on request.

Operating Temperature

-25°C to +55°C.

Illumination

This option is available. Please refer to back page for more information.

Terminals

Flying leads 125mm/5" long are standard but 6mm tabs are available. Please refer to back page for more information.

AL 20 SQ

Audio Level Meter

Specification

A low range ac voltmeter suitable for connecting across a 600 ohm line and self contained except for requiring an external 3.6k ohm resistor. Calibrated for use with a 3.6k ohm resistor 4vu above the scale marking so that the reference deflection (0vu) is produced by a signal 4vu above 1mW in 600 ohms (1.228v).

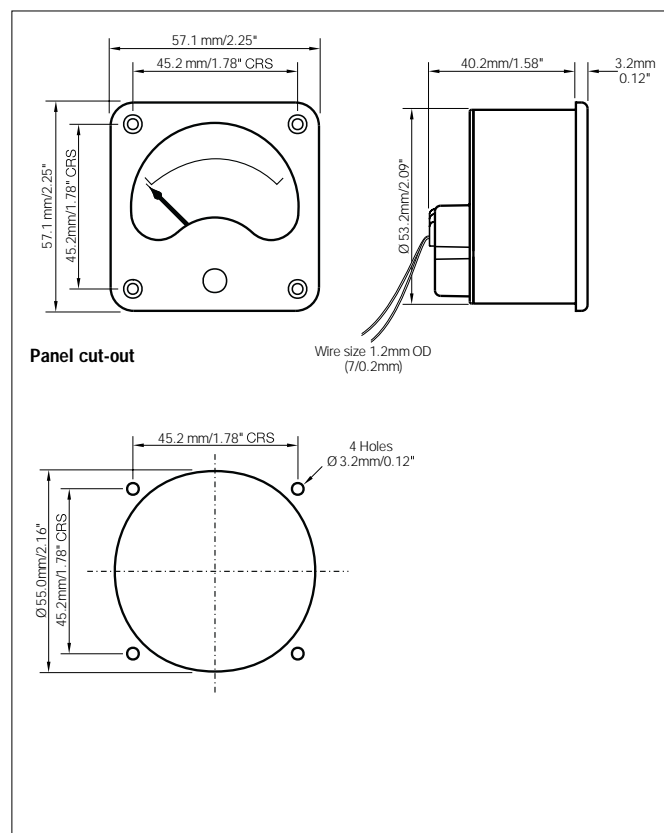
The performance of the meter is based upon the requirements of BS 6840: Part 17:1991, IEC 268 - 17: 1990. The dynamic characteristics quoted, which requires the response time to 99% of reference deflection (0vu) to be 0.3 seconds +/-10% with an overshoot of at least 1.0% but not more than 1.5% are not fully met.

The overshoot, because damping is not so tightly controlled but allowed to spread within normal design restraints, can vary between deadbeat to 5%. To specify the dynamic characteristics in terms of time to 99% of 0vu under such circumstances would give an unrepresentative measure of the speed of response. For this reason the time to reach -3vu with a steady reading of reference deflection (0vu) has been taken as a more realistic measure.

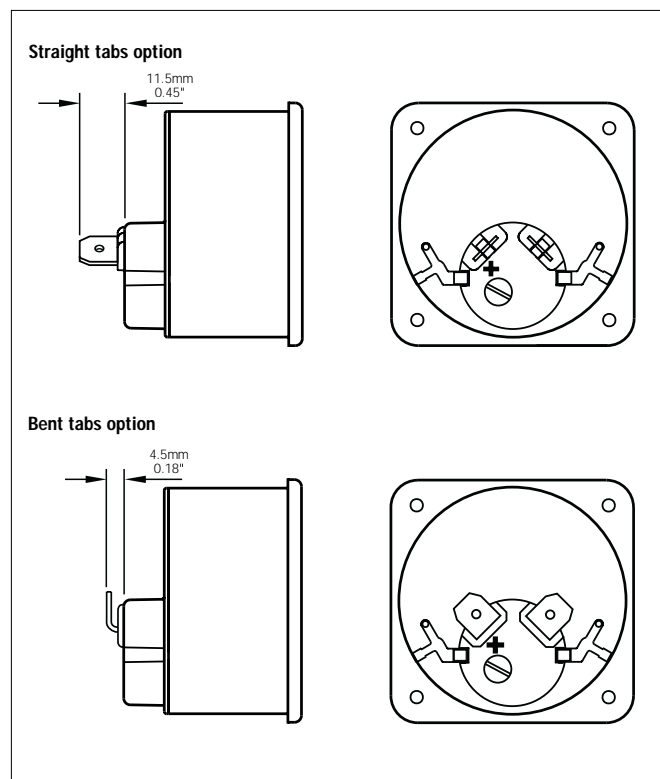
The following comparison can be made based on a rise time to -3vu with steady deflection of 0vu:

IEC 0.13 - 0.15 seconds
AL20 0.14 - 0.18 seconds

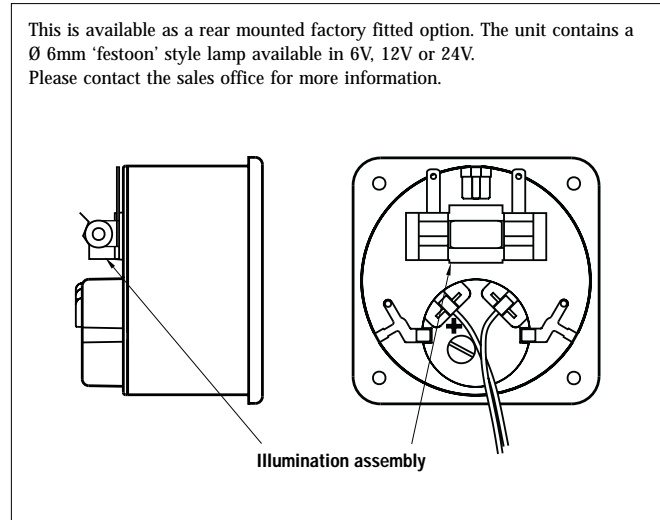
Dimensions



Terminals



Illumination



As part of our policy of continuous product improvement we reserve the right to change specifications at any time.



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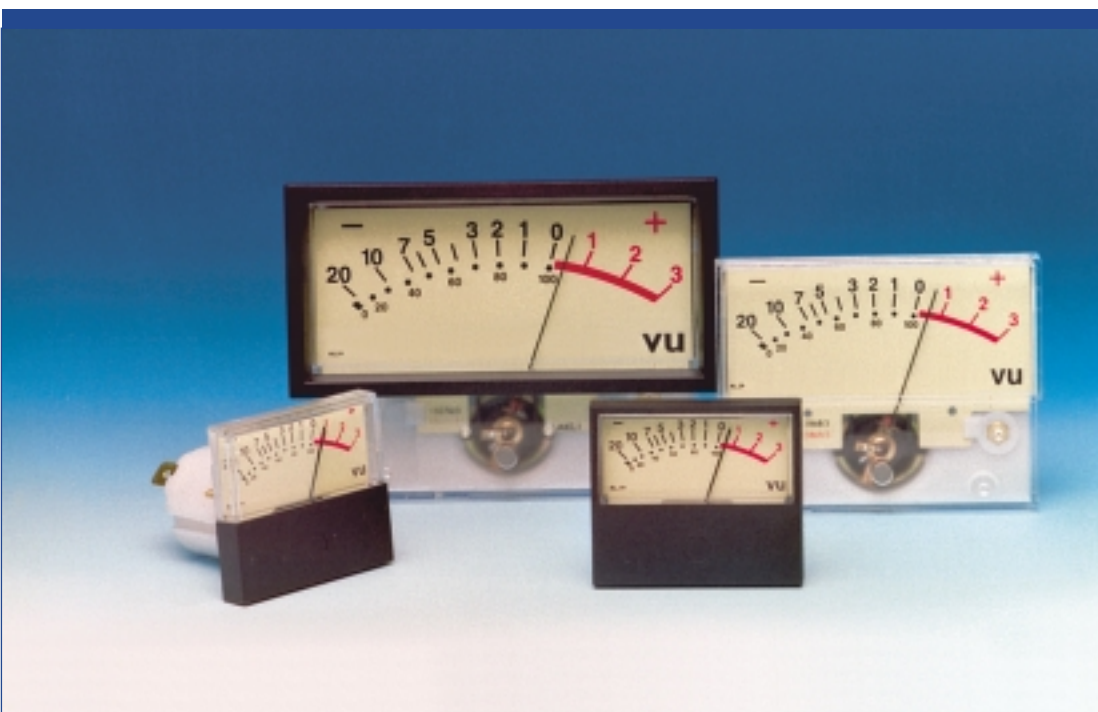
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Key features

- ◆ Flexible styling – 3 sizes each in four styles
- ◆ High performance at affordable prices
- ◆ Illumination options

Audio Level Presentor

Types AL19, AL29, AL39

The Presentor Audio Level range of analogue panel meters complements the proven and popular industrial series. The range is available in three sizes each in four styles and offers a performance not significantly different from full specification vu meters to meet today's audio market requirement for quality at affordable prices.

Features and benefits

- ◆ Choice of four styles available in each size
 - Simple back of panel mounting
 - Back of panel mounting with accompanying bezel
 - Front of panel mounting with lower mask
 - Front of panel mounting with full bezel
- ◆ Constructed with transparent acrylic front and high impact translucent rear body moulding. Masks and bezels are moulded in black ABS.
- ◆ Taut band core magnet movement incorporated as standard with compact 26mm diameter barrel. This rugged movement makes these meters equally suitable for portable or fixed audio applications. There is no calibration effect when mounted on a ferrous panel.

Specification

A low range ac voltmeter offering a performance close to that of a full specification vu meter. Please refer to back page for full details.

Pointers and dials

The combination of tube pointer and flattened arc scale on translucent buff coloured dial results in

an easily read meter, even when monitoring a row on a large console. A white dial can be specified if required. The standard scale is based on the vu 'A' scale as illustrated in the above photographs but the 'B' scale with the 'percent' reading at the top can be supplied to order at no extra cost.

Zero adjuster

Positioned on the rear as standard but can be offered on the front.

Certified drawings

Available on request.

Operating Temperature

-25°C to +55°C.

Illumination

Comprehensive options are available. Please refer to back page for more information.

Terminals

6mm tabs are supplied as standard but threaded studs or flying leads are available. Please refer to back page for more information.

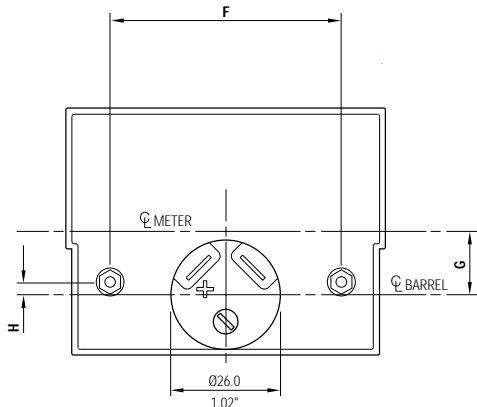
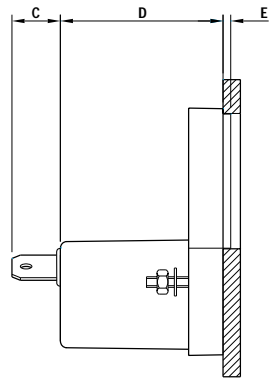
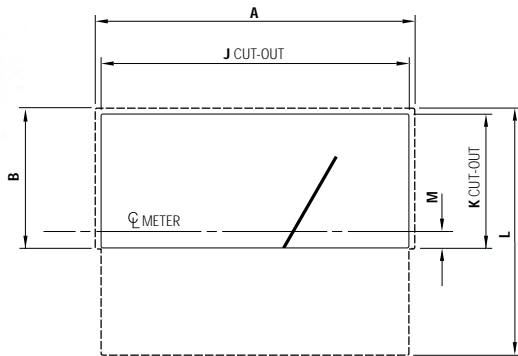
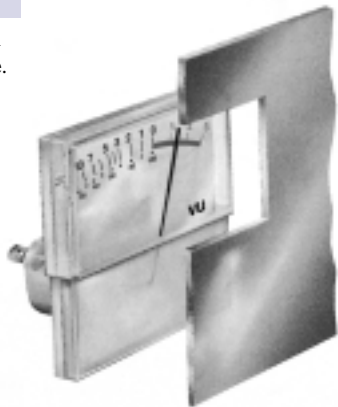
AL Presentor

Presenter Style W

For back of panel mounting with only the scale and pointer visible.

Types: AL19W, AL29W, AL39W

Meter barrel cut out 27.0mm/1.06"
Fixing studs M2.5x10.0mm/0.39"
(except type 19: M2)



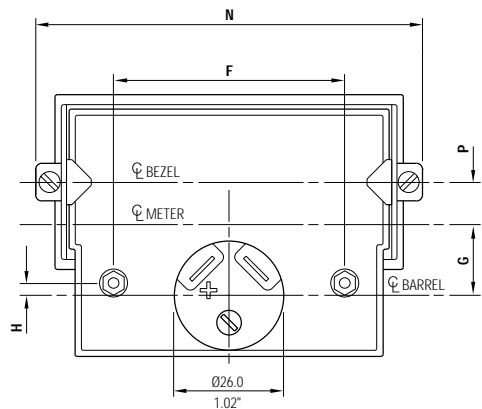
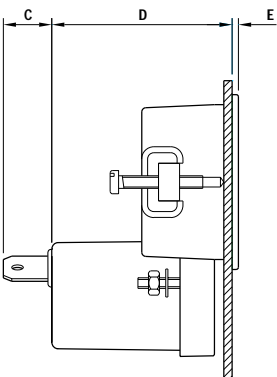
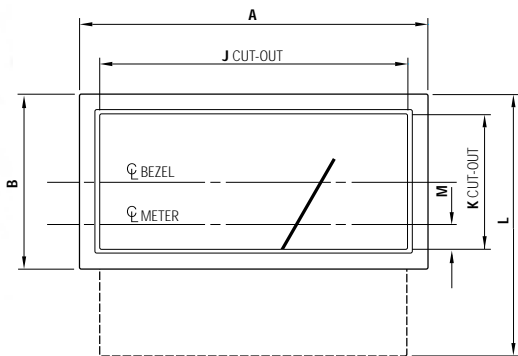
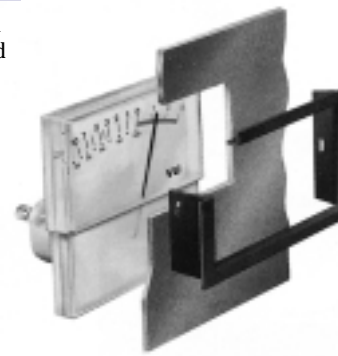
	AL19W		AL29W		AL39W	
	mm	inches	mm	inches	mm	inches
A	43.9	1.73	76.1	2.99	94.0	3.70
B	21.0	0.82	33.3	1.31	41.9	1.65
C	11.5	0.45	11.5	0.45	11.5	0.45
D	37.2	1.46	38.7	1.52	39.2	1.54
E	1.50	0.06	1.80	0.07	2.00	0.08
F	32.0	1.26	55.0	2.17	67.0	2.64
G	4.70	0.18	15.0	0.59	20.9	0.82
H	7.00	0.28	3.0	0.12	8.00	0.31
J	42.40	1.66	73.66	2.90	91.50	3.60
K	20.2	0.79	32.26	1.27	40.50	1.59
L	37.9	1.49	58.8	2.32	72.4	2.85
M	2.00	0.08	3.90	1.15	5.70	0.22

Presenter Style WF

For back of panel mounting with bezel and with only the scale and pointer visible.

Types: AL19WF, AL29WF, AL39WF

Max panel thickness 4.0mm/0.16"
(except type 19: 3.0mm/0.12")
Meter barrel cut out 27.0mm/1.06"
Fixing studs M2.5x10.0mm/0.39"
(except type 19: M2)



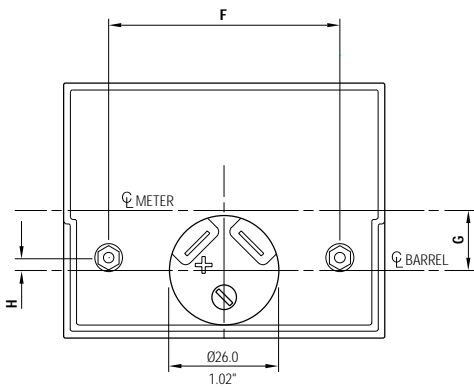
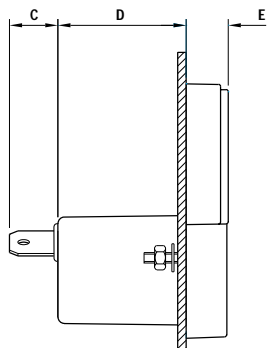
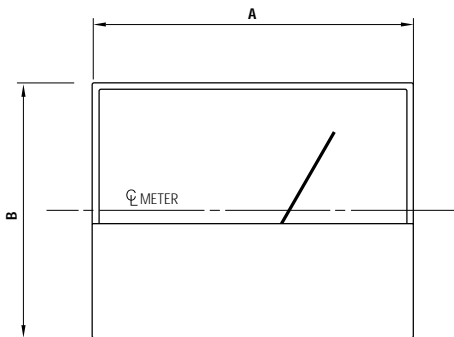
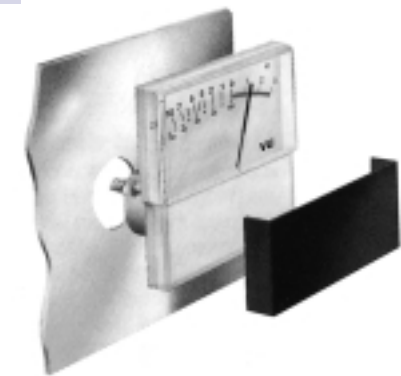
	AL19WF		AL29WF		AL39WF	
	mm	inches	mm	inches	mm	inches
A	49.2	1.94	82.8	3.26	101.0	3.98
B	27.0	1.06	41.6	1.64	50.5	1.99
C	11.5	0.45	11.5	0.45	11.5	0.45
D	40.8	1.61	42.9	1.69	43.4	1.71
E	1.50	0.06	1.50	0.06	1.60	0.06
F	32.0	1.26	55.0	2.17	67.0	2.64
G	6.10	0.24	16.7	0.66	22.7	0.89
H	7.00	0.28	3.00	0.12	8.00	0.31
J	47.0	1.85	80.0	3.15	98.0	3.86
K	24.0	0.94	37.0	1.46	46.0	1.81
L	40.6	1.60	62.2	2.45	76.1	2.99
M	5.20	0.20	8.10	0.32	10.2	0.40
N	58.5	2.30	90.6	3.57	108.6	4.28
P	6.80	0.27	10.3	0.41	12.8	0.50

Presenter Style M

For front of panel mounting with lower mask.

Types: AL19M, AL29M, AL39M

Max panel thickness 6.0mm/0.24"
Meter barrel cut out 27.0mm/1.06"
Fixing studs M2.5x10.0mm/0.39"
(except type 19: M2)



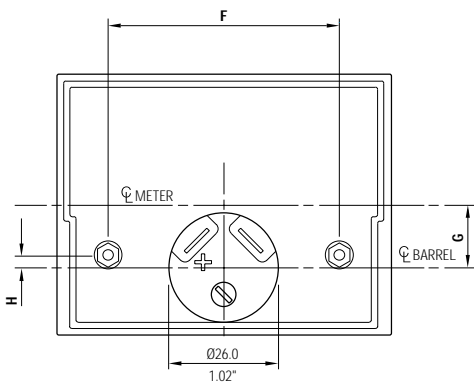
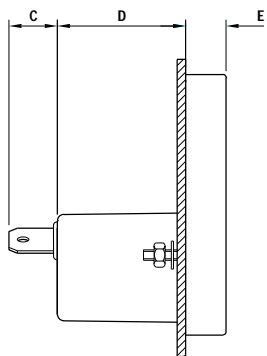
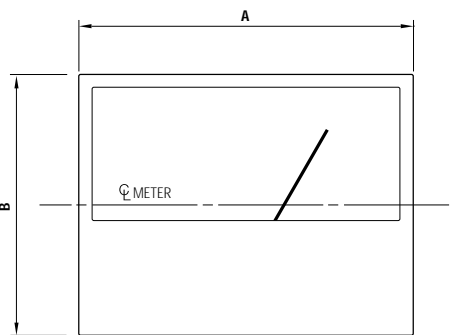
	AL19M		AL29M		AL39M	
	mm	inches	mm	inches	mm	inches
A	43.9	1.73	76.1	2.99	94.0	3.70
B	38.8	1.53	60.3	2.37	74.0	2.91
C	11.5	0.45	11.5	0.45	11.5	0.45
D	31.2	1.23	30.5	1.20	30.2	1.19
E	7.50	0.30	10.0	0.39	11.0	0.43
F	32.0	1.26	55.0	2.17	67.0	2.64
G	4.20	0.17	14.2	0.56	20.0	0.79
H	7.00	0.28	3.00	0.12	8.00	0.31

Presenter Style B

For front of panel mounting with full bezel

Types: AL19B, AL29B, AL39B

Max panel thickness 6.0mm/0.24"
Meter barrel cut out 27.0mm/1.06"
Fixing studs M2.5x10.0mm/0.39"
(except type 19: M2)



	AL19B		AL29B		AL39B	
	mm	inches	mm	inches	mm	inches
A	46.0	1.81	79.5	3.13	97.5	3.84
B	40.0	1.57	61.9	2.44	76.4	3.01
C	11.5	0.45	11.5	0.45	11.5	0.45
D	31.2	1.23	30.5	1.20	30.2	1.19
E	7.50	0.30	10.0	0.39	11.0	0.43
F	32.0	1.26	55.0	2.17	67.0	2.64
G	4.80	0.19	15.0	0.59	20.8	0.82
H	7.00	0.28	3.00	0.12	8.00	0.31

Audio Level Presenter

Specification

A low range ac voltmeter suitable for connecting across a 600 ohm line and self contained except for requiring an external 3.6k ohm resistor. Calibrated for use with a 3.6k ohm resistor 4vu above the scale marking so that the reference deflection (0vu) is produced by a signal 4vu above 1mW in 600 ohms (1.228v).

The performance of the meter is based upon the requirements of BS 6840: Part 17:1991, IEC 268 - 17: 1990. The dynamic characteristics quoted, which requires the response time to 99% of reference deflection (0vu) to be 0.3 seconds +/-10% with an overswing of at least 1.0% but not more than 1.5% are not fully met.

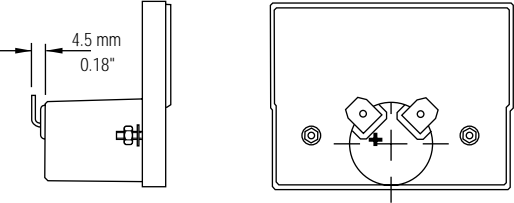
The overswing, because damping is not so tightly controlled but allowed to spread within normal design restraints, can vary between deadbeat to 5%. To specify the dynamic characteristics in terms of time to 99% of 0vu under such circumstances would give an unrepresentative measure of the speed of response. For this reason the time to reach -3vu with a steady reading of reference deflection (0vu) has been taken as a more realistic measure.

The following comparison can be made based on a rise time to -3vu with steady deflection of 0vu:

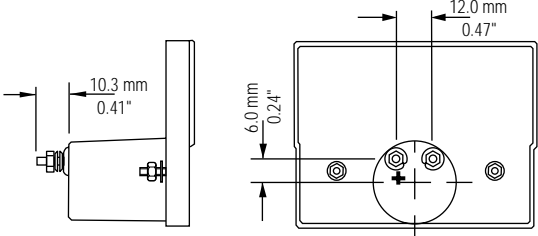
IEC	0.13 - 0.15 seconds
AL19	0.14 - 0.18 seconds
AL29	0.16 - 0.20 seconds
AL39	0.17 - 0.21 seconds

Terminals

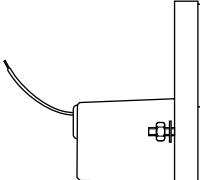
Bent tabs option



Screw terminals option
All types/styles M2.5 terminals



Flying leads option



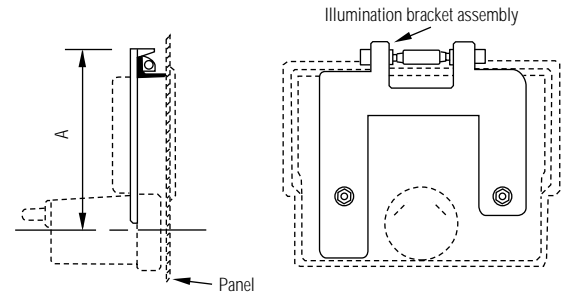
Also available with reduced barrel depth - special order only

Type	Barrel Depth
AL19	29.2mm/1.15"
AL29	28.5mm/1.12"
AL39	28.2mm/1.11"

Illumination

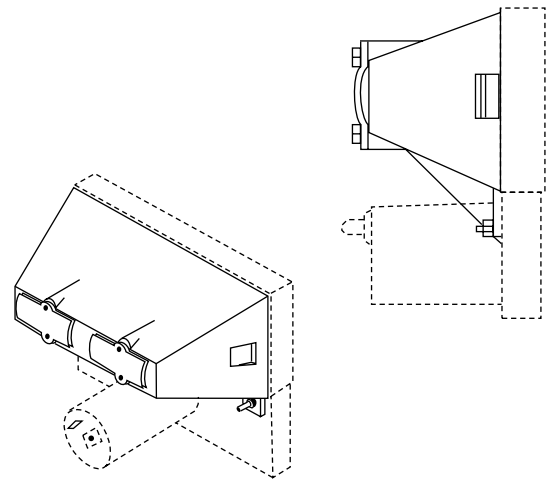
This is available in either of the two forms shown below. please contact the sales office for full information.

Overhead
Available for types 19W, 19WF, 29W, 29WF, 39W, 39WF.
Unit contains Ø6mm festoon style lamp available in 6V, 12V, or 24V.



Type	Dimension A
AL19	33.5mm/1.33"
AL29	55.5mm/2.19"
AL39	68.5mm/2.69"

Light box
Available for all styles for types 29, 39. Rectangular panel cut-outs are required for styles M, B. Drawings are available on request. Unit is available with either festoon style or T1 3/4 flanged lamps available in 6V, 12V, 24V. T1 3/4 flanged LEDs are also available in either 12V or 24V. (One lamp on type 29, two lamps on type 39).



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Key features

- ◆ Variety of styles and sizes
- ◆ Conform to international specifications
- ◆ Illumination options

vu Meters and PPM indicators

SIFAM offers a wide selection of vu meters and PPM indicators to the relevant international standards from the proven Clarity, Clarity Focus, Director and Monitor ranges.

vu Meters

The performance of these meters fully meet the requirements of BS 6840: Part 17: 1991 and IEC268 - 17:1990. These include dynamic characteristics, frequency response, harmonic distortion, input impedance and temperature range. The now obsolete ANS C16.5 - 1954 is also met.

Please refer to the back page for more information and details of meters available.

PPM indicators

These are used as the readout on peak programme meters and require to be used with a drive amplifier circuit.

The performance of these meters generally conforms to BS 6840:Part 10:1991 and IEC268 - 10: 1991.

Please refer to the back page for more information and details of meters available.

Type 74 dual movement meter

This has two meter movements, concentrically mounted, one in front of the other in a single case with integral matt black bezel and is illustrated in the centre of the above photograph.

It can be supplied as a dual vu meter or dual PPM indicator. There is also the option of a combined vu meter/PPM indicator. In each case the above relevant specifications are met as is British Broadcasting Corporation PPM specification ED 1542.

Please refer to the back page for dimensions.

Dimensions

These are detailed on the relevant general data sheets covering each range or alternatively certified drawings are available on request.

Illumination

Comprehensive options are available.

Please refer to the back page for more information.

Ordering information

To order, simply refer to the SIFAM Meter User Information Guide, or contact the sales office.

vu and PPM

vu Meters and PPM indicators

vu meters – additional information

These are low range ac voltmeters suitable for connecting across a 600 ohm line and self contained except for requiring an external 3.6k ohm external resistor. Calibrated for use with a 3.6k ohm resistor 4vu above the scale marking so that the reference deflection (0vu) is produced by a signal 4vu above 1mW in 600 ohms (1.228v).

The standard dial colour is dark buff Munsell 2.93Y with the vu 'A' scale as illustrated in the photographs. A white background can be supplied at no extra cost as can the vu 'B' scale with the 'percent' reading at the top.

Types and sizes available

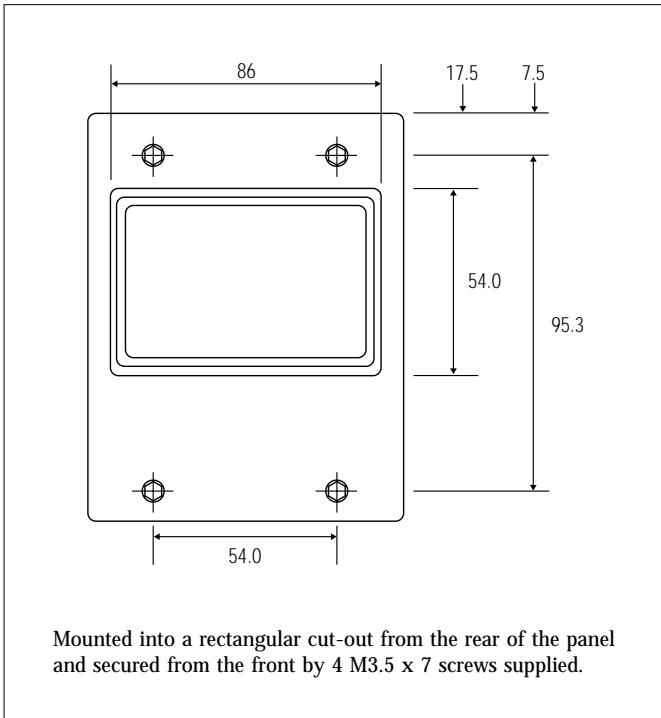
Clarity	R22A, R23A R32A, R42A
Clarity Focus	R22AF, R32AF, R42AF
Director	R14*, R24A, R34A, R44A
Monitor	R28, R38, R48

*R14 has an overswing at reference deflection of 1-3.5% instead of the specified 1 -1.5%.

PPM indicators – additional information

The standard dial colour is black with scale markings in accordance with the Type I I a version of the specifications, as illustrated in the above photographs. The type I I b scale marked -12 to +12 which conforms to the European Broadcasting Union standard can be supplied at no extra cost, as can custom scales.

Type 74 dimensions and mounting details



Types and sizes available

Clarity	22A*, 23A+, 32A, 42A+
Clarity Focus	22AF*, 32AF, 42AF+
Director	14+, 24A*, 34A, 44A+

*22A, 22AF, 24A meet all technical requirements except in respect of scale and pointer length.

+23A, 42A, 42AF, 14, 44A do not conform in every respect to the technical requirements.

Illumination

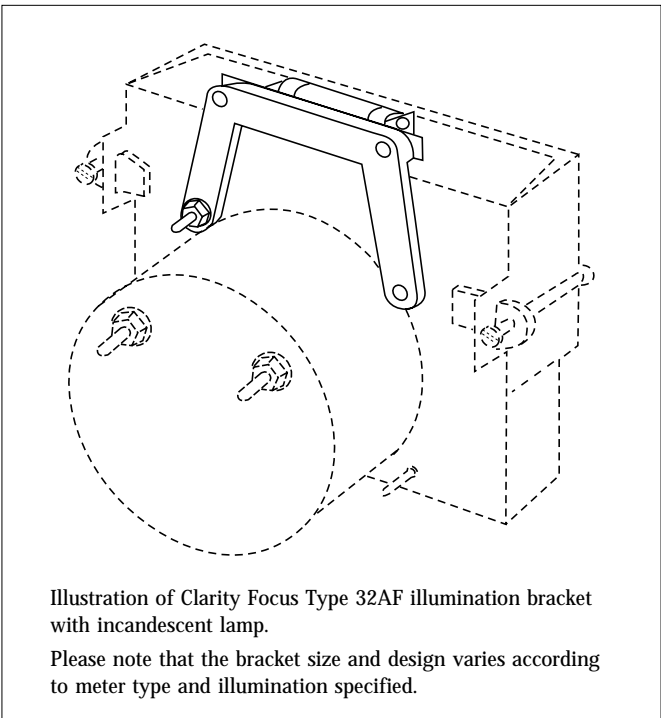
Please contact the sales office for full information.

Below are details of that available for the popular Clarity Focus range. Items with incandescent lamps are also available for the Director and Monitor range and also Type 74.

Clarity Focus range

This comprises a bracket which locates onto the rear of the meter containing either a festoon incandescent lamp or LED bar.

Type	Festoon lamp			LED	
	6v	12v	24v	12v	24v
22AF	0.50A	0.25A	0.125A	0.06A	0.04A
32AF	0.50A	0.25A	0.125A	0.08A	0.04A
42AF	0.50A	0.25A	0.125A	0.10A	0.04A



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