

Jewell DPM 72 x 144 - 1 Phase 4½ Digit (ACI/ACV)

Jewell
Instruments

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Application:

The Jewell DPM 72 x 144 1 PH, 4 ½ ACI/ACV have been designed for industrial applications, which frequently require precise and on-site adjustment of the display range. It can be used for both industrial automation and for laboratory uses.

Features:

- AC Current ranges and AC Voltage ranges available
- 4 ½ digit ultra bright display with 26mm digit height
- User defined caption
- Various auxiliary power supply ranges are available
- Maximum display count: 19999
- Resolution: 0.0001 to 1 count depending on the range
- Highly adaptable DPM's suitable for a wide range of measuring applications
- Instrument for DC Voltage measurement available in 4 ½ digit DPM
- The chosen input range is user adjustable from 10% to 100% of the full-scale value for AC Current and AC Voltage, for simple Voltage, for simple adaptation of the digital readout to the input value

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Technical Specifications:

Display:

Display Range	19999
Decimal Point Position	Selectable by short links at the rear side of the display
Digit Height	26mm / 7 - segment digits
Overload Indication	Last 4 digits blank (1)

Measuring Ranges:

Max. Overload 20% of full-scale range value

Model	Jewell DPM 72x144 1 PH. 4½ ACI
AC Current Ranges Available (Voltage drop < 600 mV/phase)	0...1A [45...65 Hz] or 0...1A [400 Hz] or 0...5A [45...65 Hz] or 0...5A [400 Hz]
Model	Jewell DPM 72x144 1 PH. 4½ ACV
Voltage Ranges Available (Input Current < 600 µA/Phase)	0...110 V [45...65 Hz] or 0...110 V [400 Hz] or 0...240 V [45...65 Hz] or 0...240 V [400 Hz] or 0...500 V [45...65 Hz] or 0...500 V [400 Hz] or

Accuracy:

Jewell DPM 72 x 144 1 PH. 4½ ACI:

Measuring Accuracy Current (Voltage drop < 600 mV)	<1% of range ± 1 digit (Optional 0.5% of range ± 1 digit)
Temperature Coefficient	300 ppm / °C
Zero Point Drift	200 ppm / °C
Range Adjustment Span	From 10% to 100% of range

Jewell DPM 72 x 144 1 PH. 4½ ACV:

Measuring Accuracy Volts (Input current < 600 µA)	<1% of range ± 1 digit (Optional 0.5% of range ± 1 digit)
Temperature Coefficient	300 ppm / °C
Zero Point Drift	200 ppm / °C
Range Adjustment Span	From 10% to 100% of range

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Technical Specifications Cont.:

Power Supply:

5 ranges for power supply are available.

Direct Voltage DC	24 V DC (±15%) / 110 V DC (+10%/-15%) / 220 V DC (+10% / -15%)
VA Burden	5.5W Approx. (Isolated)
Alternating Voltage	110 V AC (+10% / -15%) / 230 V AC (+10% / -15%)
VA Burden	5.5VA Approx. (Isolated)
Frequency	47-60 Hz

Environmental Conditions:

Climatic Class	Class 2 to VDE / DIN 3540
Operating Temperature	0....55°C
Storage Temperature	-25°C....+65°C
Safety Class	II to IEC 348 / VDE 0411
IP Protection	IEC EN 60 529 For back: IP 20 For front: IP 50 (IP 54 on request)
Device Safety	According to IEC EN 61 010
High Voltage Test	For AC Aux.: 2 kV ac, 50 Hz for 1 minute For DC Aux.: 1 kV ac, 50 Hz for 1 minute
EMC Immunity	According to IEC / EN 61 000-4-1 up to 4
EMC Radiated Interference	According to IEC / EN 61326 class B

Dimensions and Weights:

Bezel Size	72mm x 144mm DIN 43 700
Panel Cut-out	68 + 0.7mm x 138 + 1.0mm
Overall Depth	94 mm
Weight	500 gm Approx.

Sundry:

Connections	Plug-in screw terminal blocks
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Description:

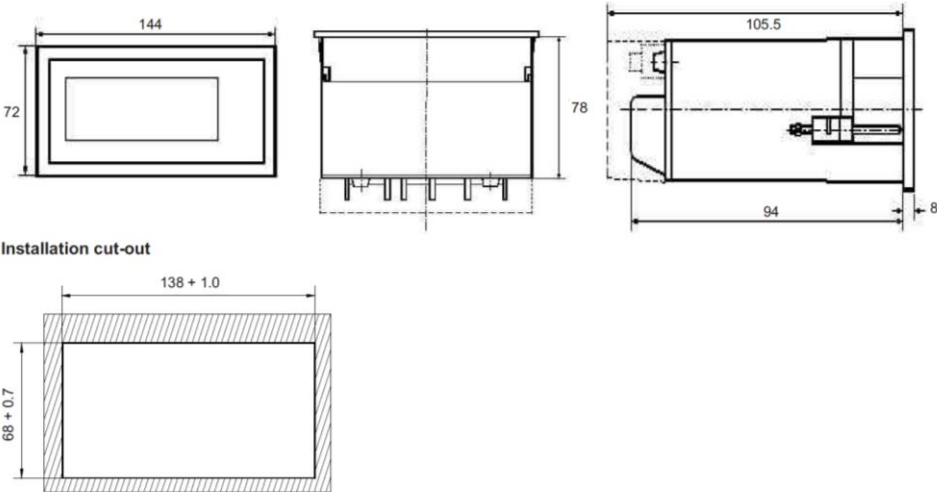
Jewell DPM 72 x 144 1PH. 4½ ACI/ACV:

DPM 72x144 4½ ACI	1 PH. AC Current measurement
DPM 72x144 4½ ACV	1 PH. AC Voltage measurement

Applicable Regulations & Standards:

Protection Class	IP 20 to IEC EN 60 529
Front	IP 50
Device Safety	IEC EN 61 010
EMC Immunity	IEC/EN 61 000-4-1 to 4
EMC Radiated Interference	IEC/EN 61326 Class B

Design & Installation:



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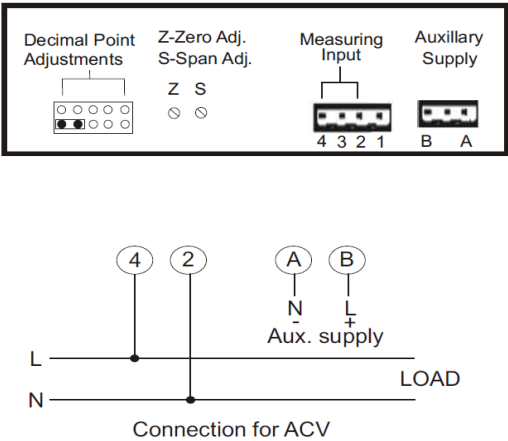
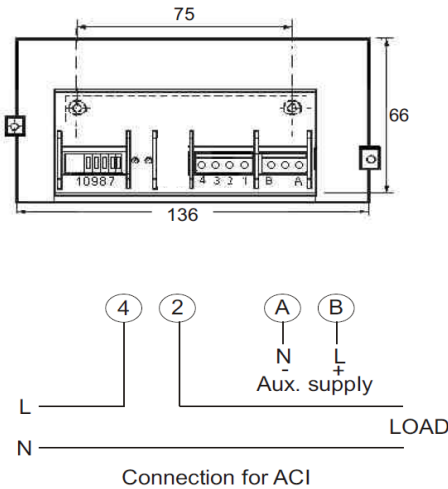
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Design & Installation Cont.:

Connections



Decimal Point Adjustment:

Decimal point position is selectable by short links at the rear side.

Short Link Position					
Decimal point position on display	XXXXXX	X.XXXXX	XX.XXX	XXX.XX	XXXX.X

Order Details:

	Example 1	Example 2
Type	Jewell DPM 72x144 1 PH. 4½ ACI	Jewell DPM 72x144 1 PH. 4½ ACV
Measuring Input	0....1 A [45-65 Hz]	0....110 V [45-65 Hz]
Display Full-Scale	0....19999	0....19999
Display Caption	A	V
Aux. Supply	24V DC	230V AC, 50 Hz

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