



## Applications

The digital panel meters **RISH DPM 72 x 144 4½ Digit** have been designed for industrial applications, which frequently require precise and on-site adjustment of the display range.

It can be used in industrial automation and for laboratory uses.

## Features:

- Available in Size 72mm x 144mm.
- DC Current ranges and DC Voltage ranges.
- 4 ½ Digit ultra bright Display.
- User defined caption
- Auxillary Power Supply :  
AC – 230V (+10% / -15%).  
AC – 110V (+10% / -15%).  
DC – 110V (+10% / -15%).  
DC – 24V (+/- 15%).

Highly adaptable DPMs suitable for a wide range of measuring applications.

Versions available for DC Current (mA) and DC voltage (mV & Volts) inputs.

The chosen input range is user adjustable, from 10% to 100% of the full-scale value for DC Current, mV DC and Voltage DC, for simple adaptation of the digital readout to the input value.

## Specifications :

### Display:

Display range	: 19999
Decimal point position	: Selectable by short links at the rear side of Display.
Negative display indication	: “- “
Digit height	: 26 mm / 7- segment digits.
Overload indication	: Last 4 digits blank. (1 )

### Measuring ranges:

[Max. Overload 120% of full-scale range value]

<b>Model</b>	<b>RISH DPM 72 x 144 4½ DIGIT A DC</b>
DC Current Ranges Available (Voltage drop < 600 mV )	<b>0...20 mA</b> and <b>4...20 mA</b> (Range selection by input choice)
<b>Model</b>	<b>RISH DPM 72 x 144 4½ DIGIT V DC</b>
1) DC mV Ranges Available (Input current < 300uA)	<b>0...60 mV, 0...75 mV,</b> <b>0...150 mV and</b> <b>0...200 mV</b> (Range selection by input choice)
2) DC Voltage Ranges Available	<b>0...2V or 0...20V or 0...200V or 0...500V or</b> <b>0...1000V</b> or Please specify any non-standard input Voltage range, available on request.

## Description:

### RISH DPM 72 x 144 A/V DC :

<b>72 x 144 A DC</b>	DC Current measurement, 2 ranges
<b>72 x 144 V DC</b>	DC Voltage measurement 1) mV input, 4 ranges 2) Voltage input, 5 range

## Applicable Regulations and Standards

Protection Class Front	IP 20 to IEC EN 60 529 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

## Accuracy :

<b>RISH DPM 72 x144 4½ DIGIT A DC:</b>	Measuring Accuracy Current (Voltage drop < 600 mV)	: < 0.1% of range + 1 digit.
	Temperature coefficient	: 300 ppm / °C.
	Zero point drift	: 200 ppm / °C.
	Range adjustment span	: from 10% to 100% of range.

## RISH DPM 72 x 144 4½ DIGIT V DC:

<b>1) milli Volt ranges:</b>	Measuring Accuracy milli volts (Input current < 300uA)	: < 0.1% of range + 1 digit.
	Temperature coefficient	: 300 ppm / °C.
	Zero point drift	: 200 ppm / °C.
	Range adjustment span	: from 10% to 100% of range.

<b>2) Volt ranges:</b>	Measuring Accuracy Volts (Input current < 300uA)	: < 0.1% of range + 1 digit.
	Temperature coefficient	: 300 ppm / °C.
	Zero point drift	: 200 ppm / °C.
	Range adjustment span	: from 10% to 100% of range.

## Power supply:

4 ranges for power supply are available.

Direct voltage DC	: 24 V DC (+/- 15%)	5.5W approx. (isolated).
	: 110 V DC (+ 10% / -15%)	5.5W approx. (isolated).
Alternating voltage AC	: 110 V AC (+ 10% / -15%)	5.5W approx. (isolated).
	: 230 V AC (+10 % / -15%)	5.5W 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.
	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.

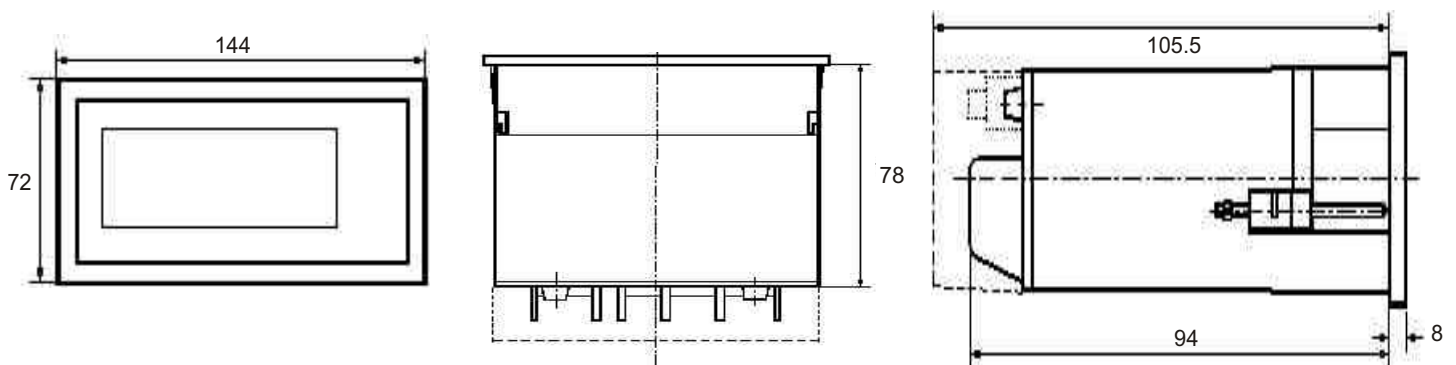
## Dimensions and Weights:

Bezel size	: 72 mm x 144 mm DIN 43 700
Panel cut-out	: 68 + 0.7 mm x 138 + 1.0 mm
Overall depth	: 94 mm.
Weight	: 500 gm. Approx.

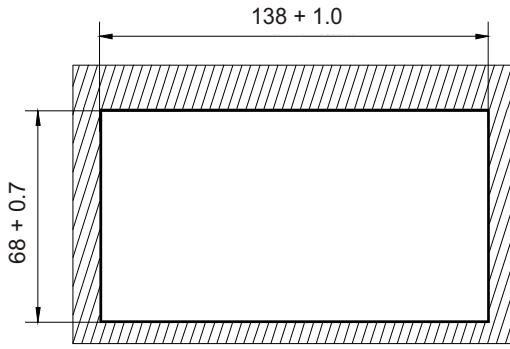
## Sundry:

Connections	: Plug-in screw terminal blocks.
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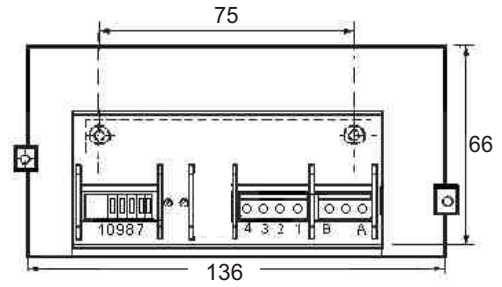
## Design & Installation



## Installation cut-out



## Connections



### Connections for RISH DPM 72 x 144 4½ Digit

#### CONNECTION FOR RISH DPM 72 x 144 A DC

**Current DC :** 0... 20 mA : Terminals 1 and 2 with terminals 5 and 6 open.

4... 20 mA : Terminals 1 and 3 plus jumper between terminals 5 and 6.

#### CONNECTION FOR RISH DPM 72 x 144 V DC – milli Volts

**Milli Volts DC :** 0... 60 mV / 0... 75 mV : Terminals 1 and 2.  
 0... 150 mV : Terminals 1 and 3.  
 0... 200 mV : Terminals 1 and 4.

#### CONNECTION FOR RISH DPM 72 x 144 V DC –Volts

**Volts DC :** 0... 2 V or  
 0... 20 V or  
 0... 200 V or  
 0... 500 V or  
 0... 1000 V

— : Terminals 1 and 4.

### Decimal point Adjustment :

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

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

### Order Details

Type  
 Measuring Input  
 Display Full-Scale  
 Display caption  
 Aux. Supply

### Example 1

RISH DPM 72 x 144 A DC  
 0 ... 20 mA  
 0 ... 19999  
 mA  
 24V DC.

### Example 2

RISH DPM 72 x 144 V DC  
 0... 1000 V  
 0... 19999  
 V  
 230V AC, 50 Hz



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