



# Data Sheet

## RISH DPM

4½ Digit (DC Input)

Size: 96X96mm & 48X96mm



Measure



Control



Record



Analyze

## Applications

The digital panel meters **RISH** DPM96 x 96 & 48 x 96 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 96mm x 96mm & 48mm x 96mm.
- 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                | : 14 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 96 x 96 &amp; 48 x 96 4½ DIGIT A DC</b>   |
| DC Current Ranges Available<br>(Voltage drop < 600 mV ) | <b>0...20 mA</b> and<br><b>4...20 mA</b> (Range selection by input choice)  |
| <b>Model</b>  | <b>RISH DPM 96 x 96 &amp; 48 x 96 4½ DIGIT V DC</b>   |
| 1) DC mV Ranges Available<br>(Input current < 300uA)    | <b>0...60 mV, 0...75 mV, 0...150 mV</b> and<br><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 0...1000V</b> or Please specify any non - standard input Voltage range, available on request. |

## Description:

### RISH DPM 96 x 96 A/V DC :

|                     |   |
|---------------------|---|
| <b>96 x 96 A DC</b> | DC Current measurement , 2 ranges   |
| <b>96 x 96 V DC</b> | DC Voltage measurement<br>1) mV input, 4 ranges<br>2) Voltage input, 5 ranges |

## Applicable Regulations and Standards

|                           |                                 |
|---------------------------|---------------------------------|
| Protection Class Front    | IP 20 to IEC EN 60 529<br>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 96 x 96 &amp; 48x 96 4½<br/>DIGIT A DC</b> | Measuring Accuracy Current<br>(Voltage drop < 600 mV)<br>Temperature coefficient<br>Zero point drift<br>Range adjustment span | : < 0.1% of range + 1 digit.<br>: 300 ppm / °C.<br>: 200 ppm / °C.<br>: from 10% to 100% of range. |
|--|---|--|

**RISH DPM 96 x 96 & 48x 96 4½  
DIGIT V DC :**

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

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

|                        |   |  |
|------------------------|---|--|
| <b>Measuring input</b> | DC Current input<br>Display adjust<br>(with external calibrator)<br>Decimal point programming | : Terminal 1 (LO -) and 2, 3 (HI +).<br>: With zero and span pots.<br>: With short links at front side.. |
|------------------------|---|--|

|                     |   |   |
|---------------------|---|---|
| <b>Power supply</b> | 4 ranges for power supply<br>are available.<br>Direct voltage DC<br>Alternating voltage AC<br>Frequency | : 24 V DC (+/- 15%) 5.5W approx. (isolated).<br>: 110 V DC (+ 10% / -15%) 5.5W approx. (isolated).<br>: 110 V AC (+ 10% / -15%) 5.5W approx. (isolated).<br>: 230 V AC (+10 % / -15%) 5.5W approx. (isolated).<br>: 47 – 60 Hz. |
|---------------------|---|---|

|                                 |  |   |
|---------------------------------|--|---|
| <b>Environmental conditions</b> | Climatic class<br>Operating temperature<br>Storage temperature<br><br>Safety class<br>IP Protection<br><br>Device safety<br>High Voltage Test<br><br>EMC immunity<br>EMC radiated interference | : Class 2 to VDE / DIN 3540.<br>: 0 ... 55 °C.<br>: -25 °C ... +65 °C.<br><br>: II to IEC 348 / VDE 0411.<br>: IEC EN 60 529.<br>For Back : IP 20.<br>Front : IP 50 ( IP 54 on request )<br>: According to IEC EN 61 010.<br>: For AC Aux.: 2 kV AC, 50 Hz for 1 minute.<br>: For DC Aux. : 1 kV AC, 50 Hz for 1 minute.<br>: According to IEC / EN 61 000-4-1 up to 4.<br>: According to IEC / EN 61326 class B. |
|---------------------------------|--|---|

**RISH DPM 96 x 96 4½ DIGIT V DC / A DC :**

|                                   |  |  |
|-----------------------------------|--|--|
| <b>Dimensions and<br/>Weights</b> | Bezel size<br>Panel cut-out<br>Overall depth<br>Weight | : 96 mm x 96 mm DIN 43 718<br>: 92 + 0.8 mm x 92 + 0.8 mm<br>: 55 mm.<br>: 500 gm. Approx. |
|-----------------------------------|--|--|

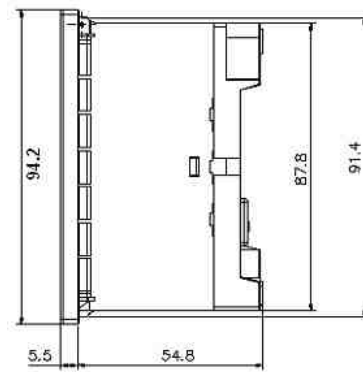
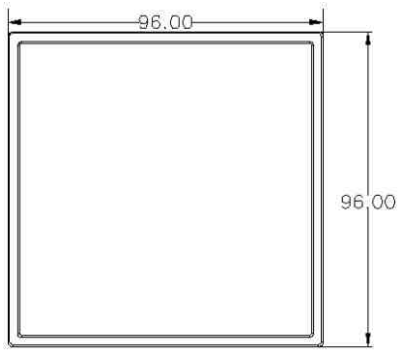
**RISH DPM 48x 96 4½ DIGIT V DC / A DC :**

|                                   |  |   |
|-----------------------------------|--|---|
| <b>Dimensions and<br/>Weights</b> | Bezel size<br>Panel cut-out<br>Overall depth<br>Weight | : 96 mm x 48 mm DIN 43 718<br>: 92 + 0.8 mm x 43.5 + 0.6 mm<br>: 138 mm.<br>: 500 gm. Approx. |
|-----------------------------------|--|---|

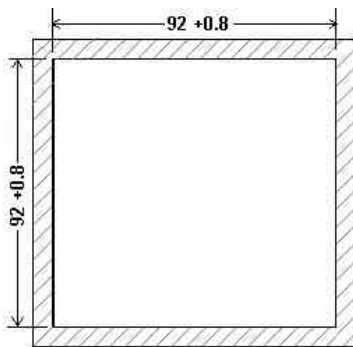
|                |             |                                  |
|----------------|-------------|----------------------------------|
| <b>Sundry:</b> | Connections | : Plug-in screw terminal blocks. |
|----------------|-------------|----------------------------------|

## Design & Installation

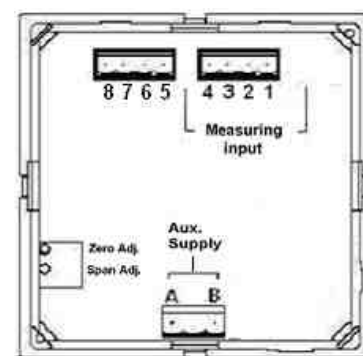
### RISH DPM 96 x 96 4½ Digit



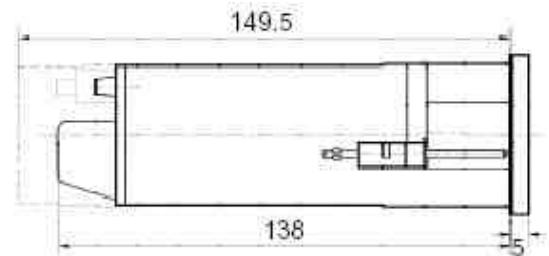
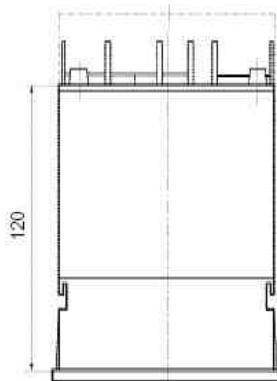
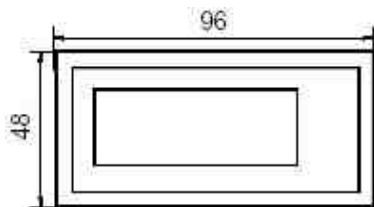
Installation cut-out



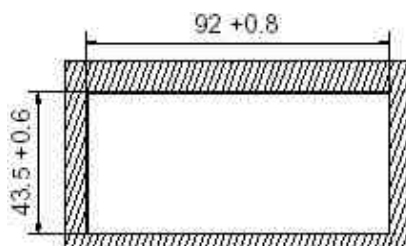
Connections



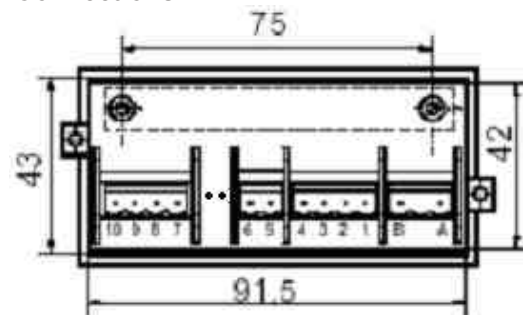
### RISH DPM 48 x 96 4½ Digit



Installation Cutout



Connections



## Connections

### RISH DPM 96 x 96 4½ Digit

#### CONNECTION FOR RISH DPM 96 x 96 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 96 x 96 V DC – milli Volts

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

#### CONNECTION FOR RISH DPM 96 x 96 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 3.

### RISH DPM 48 x 96 4½ Digit

#### CONNECTION FOR RISH DPM 48 x 96 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 48 x 96 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 48 x 96 V DC –Volts

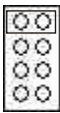
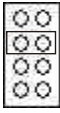
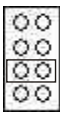
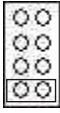
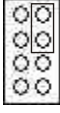
**Volts DC** : 0...2 V or  
0...20 V or  
0...200 V or  
0...500 V or  
0...1000 V

— : Terminals 1 and 4.

## Decimal point Adjustment :

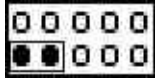
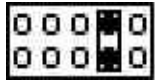
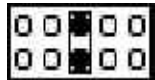
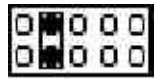
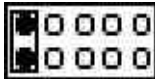
### RISH DPM 96 x 96 4½ Digit

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

| Short Link Position   | Decimal point position on Display |
|---|-----------------------------------|
|  | XX XXX                            |
|  | XX.XXX                            |
|  | XXXXX                             |
|  | XXXXX                             |
|  | XXXXX                             |

### RISH DPM 48 x 96 4½ Digit

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                            |

## Ordering Information :

### RISH DPM 96 x 96 4½ Digit V DC / A DC

| Order Details      | Example 1             | Example 2             |
|--------------------|-----------------------|-----------------------|
| Type               | RISH DPM 96 x 96 A DC | RISH DPM 96 x 96 V DC |
| Measuring Input    | 0 ... 20 mA           | 0...1000 V            |
| Display Full-Scale | 0 ... 19999           | 0...19999             |
| Display caption    | mA                    | mV                    |
| Aux. Supply        | 110V AC, 50HZ         | 230V AC, 50 Hz        |

### RISH DPM 48 x 96 4½ Digit V DC / A DC

| Order Details      | Example 1             | Example 2             |
|--------------------|-----------------------|-----------------------|
| Type               | RISH DPM 48 x 96 A DC | RISH DPM 48 x 96 V DC |
| Measuring Input    | 0 ... 20 mA           | 0...500 V             |
| Display Full-Scale | 0 ... 19999           | 0...19999             |
| Display caption    | mA                    | V                     |
| Aux. Supply        | 110V DC.              | 230V AC, 50 Hz        |



RISHABH

All specifications are subject to change without notice



Measure



Control



Record



Analyze

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