

# Digital Panel Meters

## Autoranging Frequency Meter

### Type LDI3 F1K



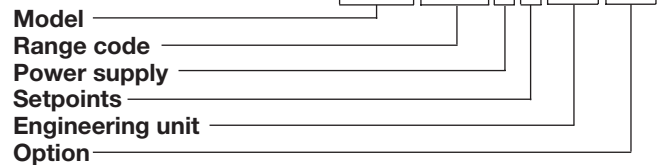
- 3-dgt  $\mu$ P-based frequency indicator
- 1.0 to 999 Hz
- Autoranging capability
- Degree of protection (front): IP 50 (IP 65 on request)

### Product Description

3-dgt  $\mu$ P-based meter for frequency measurements with autoranging capability. Ensures a degree of protection (front) of IP 50 (IP 65 on request).

### Ordering Key

**LDI3F1KD0XXXX**



### Type Selection

| Power supply                                         | Options                                             |
|------------------------------------------------------|-----------------------------------------------------|
| <b>A:</b> 24 VAC, -15% +10%, 50/60 Hz <sup>1)</sup>  | <b>XX:</b> None (standard)                          |
| <b>B:</b> 48 VAC, -15% +10%, 50/60 Hz <sup>1)</sup>  | <b>IX:</b> Degree of protection IP 65 <sup>1)</sup> |
| <b>C:</b> 115 VAC, -15% +10%, 50/60 Hz <sup>1)</sup> | <b>XT:</b> Tropicalization <sup>1)</sup>            |
| <b>D:</b> 230 VAC, -15% +10%, 50/60 Hz (standard)    | <sup>1)</sup> On request                            |

### Supply Specifications

|                          |                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------|
| <b>AC supply</b>         | 230 VAC, -15% +10%, 50/60 Hz (standard)<br>24 VAC, 48 VAC, 115 VAC, -15% +10%, 50/60 Hz (on request) |
| <b>Power consumption</b> | 3.2 VA                                                                                               |

### Input Specifications

|                                     |                                    |
|-------------------------------------|------------------------------------|
| <b>Rated input</b>                  | 500 VAC, 1 to 1000 Hz autoranging  |
| <b>Overload protection</b>          |                                    |
| Continuous                          | 1.2 x rated input                  |
| For 1s                              | 2 x rated input                    |
| <b>Accuracy</b>                     |                                    |
| (@ 25°C $\pm$ 5°C, R.H. $\leq$ 60%) | $\pm$ 0.1% f.s., $\pm$ 1 dgt       |
| <b>Temperature drift</b>            | $\pm$ 100 ppm/°C                   |
| <b>Display</b>                      | 7-segment LED, h 14.2 mm, 3 digits |
| <b>Sampling rate</b>                | 1 time/s                           |
| <b>Indication</b>                   |                                    |
| Max:                                | 999                                |
| Min:                                | 0.00                               |
| Over range:                         | EEE                                |
| <b>Input voltage</b>                | 9 to 500 VAC,                      |
| <b>Input impedance</b>              | 500 K $\Omega$                     |

### General Specifications

|                                     |                                                                           |
|-------------------------------------|---------------------------------------------------------------------------|
| <b>Operating temperature</b>        | 0 to 50°C (32 to 122°F)<br>(R.H. < 90% non-condensing)                    |
| <b>Storage temperature</b>          | -10 to 60°C (14 to 140°F)<br>(R.H. < 90% non-condensing)                  |
| <b>Insulation reference voltage</b> | 300 V <sub>rms</sub> to ground                                            |
| <b>Dielectric strength</b>          | 4000 V <sub>rms</sub> for 1 m inute                                       |
| <b>Noise rejection</b>              |                                                                           |
| CMRR                                | 100 dB, 40 Hz to 60 Hz.                                                   |
| <b>EMC</b>                          | IEC 60801-2, IEC 60801-3, IEC 60801-4 (level 2), EN 50 081-1, EN 50 082-1 |
| <b>Safety standards</b>             | EN 61 010-1, IEC 61010-1, VDE 0411                                        |
| <b>Connector</b>                    | Screw-type                                                                |
| <b>Housing</b>                      |                                                                           |
| Dimensions                          | 1/8 DIN, 48 x 96 x 83 mm                                                  |
| Material                            | ABS, self-extinguishing: UL 94 V-0                                        |
| <b>Degree of protection</b>         | Front: IP 50 (standard), IP 65 (on request)                               |
| <b>Weight</b>                       | Approx 250 g                                                              |
| <b>Approvals</b>                    | CSA, CE                                                                   |

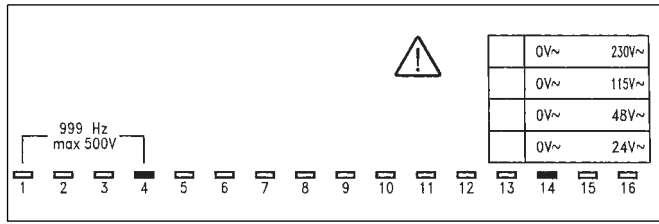


## Range Table

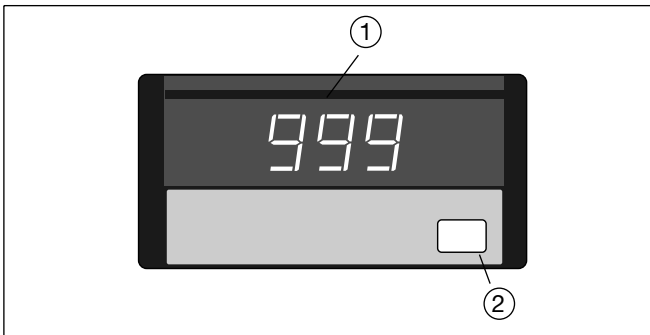
| Measurement     | Dec. point position | Resolution |
|-----------------|---------------------|------------|
| 1.00 to 9.99 Hz | 9.99                | 0.01 Hz    |
| 10.0 to 99.9 Hz | 99.9                | 0.1 Hz     |
| 100 to 999 Hz   | 999                 | 1 Hz       |

(Automatic selection)

## Terminal Board



## Front Panel Description



- Display**  
3-dgt (maximum read-out 999).

Alphanumeric indication by means of 7-segment display for:  
- Displaying of the measured value, over-range.

- Engineering unit**  
Screen for interchangeable unit label. The symbols in the shaded areas are those available on the set of engineering unit labels supplied with the LDI3 (engineering unit label to be inserted by customer).

|         |           |            |                          |                          |                     |
|---------|-----------|------------|--------------------------|--------------------------|---------------------|
|         | W = 08    | MΩ = 16    | % = 24                   | mm HG = 32               | cm = 40             |
| mV = 01 | kW = 09   | Hz = 17    | mbar = 25                | l/min = 33               | m = 41              |
| V = 02  | MW = 10   | kHz = 18   | bar = 26                 | l/h = 34                 | kg = 42             |
| kV = 03 | var = 11  | RPM = 19   | psi = 27                 | kg/min = 35              | ppm = 43            |
| μA = 04 | kvar = 12 | m/s = 20   | ata = 28                 | ton/h = 36               | kA = 44             |
| mA = 05 | Mvar = 13 | m/min = 21 | atm = 29                 | m <sup>3</sup> /min = 37 | cos φ = 45          |
| A = 06  | Ω = 14    | °C = 22    | kg/cm <sup>2</sup> = 30  | m <sup>3</sup> /h = 38   | m <sup>3</sup> = 46 |
| mW = 07 | kΩ = 15   | °F = 23    | mm H <sub>2</sub> O = 31 | mm = 39                  | μs = 47             |

## Dimensions

