FEATURES

- Easy to read numbers
- On-board power supply
- Field calibration adjustments
- Ordering choice of LCD or LED Display
- Compact size

APPLICATIONS

- Temperature indication
- Humidity indication
- Percentage of operation display
- Differential pressure indication

DESCRIPTION

The DIM3 is a 3½ digit panel meter that can be ordered in either a LCD or LED version. The DIM3 will display 000 to 1999 with the decimal available in any of the four possible positions. The DIM3 has larger digits that are easy to read at a distance. It has an on-board power supply for stand alone sensor operation.

OPERATION

The displays used on the DIM3 are the Datel’s DMS-30 series digital panel meter. A sub-board is attached to the back of the meter that houses the power supply and input scaling circuitry. Stand alone sensors can be powered from the DIM3’s supply by indicating the sensor type when ordering. The meter is factory calibrated, however ZERO and SPAN potentiometers are available for field adjustments. Please see field calibration and adjustments for instructions.

WIRING CONFIGURATION

![Diagram of DIM3 wiring configuration]

SPECIFICATIONS

- SIZE: 2.17" W x 0.92" H x 1" D
- MOUNTING: Mount through 2.12" W x 0.88" H rectangular opening with a retaining clip or bezel option. (See Physical Configuration).
- POWER: +5V DC Standard
  +15V to 24V AC/DC optional
- INPUT SIGNALS: 0-5V DC, 0-10V DC, 0-15V DC, 4-20mA, non-isolated
  AD590 sensor
  RTD sensors (100, 1k, 2k, & 10kΩ)
  Staefa sensors (all)
- INPUT IMPEDANCE: >1 meg ohms sensor inputs
  200KΩ for voltage inputs
  250Ω for 4-20mA input
- LCD DISPLAY: Datel part # DMS-30LCD
  0.4" high 3½ digit LCD model.
- LED DISPLAY: Datel part # DMS-30PC
  0.56" high 3½ digit LED model.
- OUTPUT: 3½ digit display
  0.000 - 1.999 optional
  0.00 - 19.99 optional
  000.0 - 199.9 standard
  0000 - 1999 optional
- ADJUSTMENTS: ZERO & SPAN ± 20%
- ACCURACY: 0.1% with linear input signal.
- AMBIENT TEMP: 0-50°C
ORDERING INFORMATION

**DIM3-XXX/XX/XXX/XXX/XXX-XXX**

- **Display Range**
- **Decimal Position Option**
- **Input Option Code**
- **Power Supply Option Code**
- **Display Type Option Code**

**DISPLAY OPTION CODE**

- LCD - Liquid Crystal Display
- LED - Light Emitting Diode (RED)

**POWER SUPPLY OPTION CODES**

- 05 - 5V DC
- 06 - 6V DC
- 24 - 9-24V AC or DC

**INPUT OPTION CODES**

- 1-5V - 1-5V DC input signal
- 5V - 0-5V DC input signal
- 10V - 0-10V DC input signal
- 15V - 0-15V DC input signal
- mA-50 - 4-20mA input w/50Ω load
- mA-249 - 4-20mA input w/249Ω load
- AD590 - Analog Devices AD590 sensor
- RTD - RTD sensor
- SCS - Staefa sensors
- CUST - Custom sensor

○(specify RTD type, and temp. coefficientt when ordering).
□(specify Staefa sensor type when ordering).
★(specify custom sensor signal and range when ordering).

**DISPLAY OUTPUT RANGES**

- DP0 - 000 - 1999 no decimal point
- DP1 - 00.0 - 199.9 displays 10th’s
- DP2 - 0.00 - 19.99 displays 100th’s
- DP3 - .000 - 1.999 displays 1000th’s

**ORDERING CODE EXAMPLES**

- DIM3-LCD/ 05 / mA / DP1 / 000.0-100.0
- DIM3-LED/ 05 / 10VDC / DP2 / 00.00-19.99
- DIM3-LED/ 24 / RTD-1K / DP1 / 39 to 101°F
- DIM3-LED/ 24 / AD590 / DP1 / 39 to 101°F
- DIM3-LCD/ 05 / T-30X / DP1 / 39 to 101°F

Call for other calibration ranges and versions.

If you have a different application or need, please call 1-800-261-3602, and discuss your needs with our Sales Engineers.
APPLICATIONS AND INSTALLATION INSTRUCTIONS

APPLICATION - 1  AD590 TEMPERATURE INDICATION

The DIM3 can be factory configured for an AD590 temperature sensor. Both the AD590 and DIM3 are powered by a 15 or 24V DC supply. The AD590's current signal is converted to a voltage by a 10kΩ 1% internal dropping resistor on the DIM3.

APPLICATION - 2  RTD-1K TEMPERATURE INDICATION

The DIM3 can be factory configured for an RTD-1K temperature sensor, with an internal pull-up resistor referenced to the 5 volt supply for stand alone operation. The DIM3 can also be factory configured for 5V, 15V or 24V DC power supply operation.

APPLICATION - 3  VOLTAGE SIGNAL INDICATION

The DIM3 can be factory configured for a variety of voltage inputs. Standard input voltage signals are 1 to 5V DC, 0 to 5V DC and 0 to 10V DC.

APPLICATION - 4  4 to 20mA SIGNAL INDICATION

The DIM3 can be factory configured for 4 to 20mA input signals with 50V, 100V, or 250V load resistance. The DIM3 DDC controller are connected in series with transmitter.

APPLICATION - 5  MULTIPLE SIGNAL INDICATION WITH DIM 3 AND UNIVERSAL CHANNEL SELECTOR (UI8CH)

The DIM3 in conjunction with the UI8CH can display eight different temperature or voltage signals. The DIM3 is configured for the lowest and highest display value to be indicated. The UI8CH is customized for the various input signals to provide signal scaling, pull-up resistors for sensors, or load resistors for current signals. The UI8CH has ZERO and SPAN potentiometers for each channel for field calibration.

Call for other calibration ranges and versions.

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APPLICATIONS AND INSTALLATION INSTRUCTIONS

APPLICATION - 6  4 to 20mA SIGNAL INDICATION

The DIM3's input can be factory configured to accept the voltage drop from the WA 511 controller's 4 to 20mA input internal load resistor (24.9Ω). The DIM3 power supply is configured to accept 15V DC from the controller.

APPLICATION - 7  4 to 20mA SIGNAL INDICATION

The DIM3's input can be factory configured to accept the voltage drop from the WA 511 controller's 4 to 20mA input internal load resistor (24.9Ω). The DIM3 power supply is configured to accept the same 24V AC as the controller.

APPLICATION - 8  KLIMO T-40 SIGNAL INDICATION

The DIM3's input is factory configured to accept the voltage from the Klimo controller's T-40 sensor input. The DIM3 power supply is configured to accept 9-24V AC/DC. The Dim3 uses a half-wave rectifier and MUST be connected to the Klimo's + phase cut terminal (24V ripple voltage) for power. If connected to 24V AC terminals it will cause damage to the Klimo controller.

Call for other calibration ranges and versions.

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