LED Displays

Datel's new DMS-30PC-4/20-BS is the first 4/20 mA process monitor flaunting a full-size, vibrant blue display. These new LED readouts exploit recent silicon-carbide developments to present eye-catching &quotreadability&quot unmatched by other display technologies. The large (0.56 inches/14.2 mm), brilliant blue digits are easily visible from as far as 20 feet, making them ideal for monitoring your most critical process parameters.

The long-distance, all-angle visibility of these new blue LED's is achieved without sacrificing package size or power consumption. DMS-30PC-4/20S-BS process monitors are housed in miniature, 2.17 inches&#215 0.92 inches (55 &#215 23 mm) packages whose total behind-the-panel depth is an inconsequential 1 inches (25.4 mm). Power consumption from a single +24 V supply (21.6-26.4 V range) is typically less than 900 mW, an important feature considering today's skyrocketing electricity costs.

DMS-30PC-4/20-BS process monitors feature a built-in DC/DC converter that provides full isolation (1000 Vdc) between the current-loop input circuitry and the +24 V supply. This isolation not only eliminates historically troublesome ground loops, it allows DMS-30PC-4/20-BS process monitors to be electrically installed anywhere in the series loop, a convenient attribute in today's complex, multi-device, 4-20 mA loop configurations.

The functionally-complete DMS-30PC-4/20-BS contains everything you need. On board, screw-type, terminal blocks make for extremely reliable power-supply and current-loop connections. The high-quality, gold-plated, 8-posistion DIP switch trivializes the task of configuring and of hundreds of different input-current/display-reading combinations. The &quotRange Settings Table&quot in the data sheet obviates the need for any user calculations. There are no cumbersome jumpers or solder gaps to contend with, and two, on-board, precision, 20-turn span and offset-adjust potentiometers facilitate fine tuning for the most demanding applications.

The DMS-30PC-4/20-BS consists of a loop-current conditioning board securely mounted to a rugged, epoxy-encapsulated, 31/2 digit voltmeter. The advanced circuit design achieves a low loop drop of only 2 Volts maximum (100 Ω loop burden). Two band-gap voltage references and multiple, precision, metal-film resistors ensure stable performance over a wide 0 to +60&#176C temperature range.

The entire assembly features 100% soldered connections avoiding the use of troublesome elastomeric &quotzebra&quot connections. Vibration-induced failures are virtually eliminated enabling the unit to withstand the harshest industrial environments. For maximum installed reliability, all I/O and power connections are made via reliable, screw-style terminal blocks, and no technical skills or special tools are required for installation.

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