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### 1865-07G-KDN



Actual product appearance may vary.

**1865 Series force/pressure transducer, compensated, 0 psi to 30 psi pressure range**

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#### Features

Silicon pressure/force interface diaphragm  
 Force measurement for infusion pump applications  
 Pressure measurement for liquid media  
 Medical-grade materials  
 8-pin DIP electrical connection  
 Laser trimmed  
 Choice of voltage or constant current excitation

#### Potential Applications

Infusion pumps  
 Anesthesia monitors  
 Non-corrosive, non-pressurized media-level sensors  
 Ventilation systems  
 Blood pressure equipment  
 Syringe pumps  
 Drug delivery systems

#### Description

The 1865 Series is a high-performance transducer specifically designed to address the needs of medical and specialized OEM applications. Offering laser-trimmed compensation, these products may be specified to operate with either a constant current or voltage supply.

These products employ a solid state piezoresistive pressure transducer mounted in a plastic package. For applications where force is applied by a flexible membrane to the sensor, such as found in infusion pumps, the precision height silicon diaphragm provides long life and is a reliable replacement for older force or load cell transducers. Using a silicon rubber diaphragm, this product is compatible with some liquid media applications.

The 1865 Series provides access to important safety features in critical care medical instrumentation, such as occlusion pressure or infiltration detection. The pressure data can provide medical personnel with useful diagnostic information regarding the condition of a patient's circulatory system. These force/pressure transducers can also be used with other medical dispensing devices, such as syringe pumps, to improve safety and accuracy.

#### Supporting Documentation

##### Dimensions

Product Specifications	
Sensitivity	Laser trimmed outputs: 38 mV min., 40 mV typ., 42 mV max.
Operating Force (O.F.)	30 psi
Supply Voltage	10.0 Vdc typ., 15.0 Vdc max.
Null Offset	0 m Vdc ± 2 m Vdc
Linearity	0.10 typ., 0.25 max. %FS, Best Fit Straight Line
Null Shift over Temperature	0.2mV max. over comp range, ref to 27 °C
Sensitivity Shift over Temperature	0.2 mV max. over comp range, ref to 27 °C
Input Resistance	8.0 kOhm min., 40 kOhm max.
Output Resistance	3.5 kOhm min., 6.0 kOhm max.
Overforce	60 psi
Compensated Temperature Range	-1 °C to 54 °C [30 °F to 129 °F]
Operating Temperature Range	-28 °C to 54 °C [30 °F to 129 °F]
Vibration	11 Hz to 2 kHz, 10 g, sine
Shock	100 g, 11 ms, half sine
Availability	Global
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Series Name	1865

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