

DIGITAL MANOMETER

IN INSTALLATION HOUSING OR FOR DIRECT MOUNTING

KELLER has developed a new ASIC (Application Specific Integrated Circuit) especially for use in the dV-1 series manometers. The integration of analog and digital signals (Mixed Signal ASIC) has enabled the realisation of an extremely compact manometer with a digital display and very low power consumption. A resolution of 0,5 %FS (200 measuring points) and measuring interval of 250 ms makes it ideal for applications where a simple pressure value display is adequate.

The manometer can be supplied in bar or PSI units.

There are two versions: One has an ON/OFF button to activate the display, and the other version automatically activates the display when pressure is applied.

The dV-1 employs digital logic. This enables the module to make relative (ref. to barometric pressure) measurements, without the need for a reference pressure input on the transducer. Thus, the manometer can be used (as an OEM module in customers housing) in airtight and watertight housings. Examples of this type of dV-1 application are modern paint spray guns where the dV-1 display is integrated into the gun. These spray guns are totally immersed in solvent for cleaning purposes at the end of a working day.

Power consumption is so low that the relatively small Lithium battery (CR1632) lasts for 9 months, despite constant measuring and display.

The devices are available in the typical daVinci line oval housing or as a basic OEM module that can be integrated into the customer's system.

A minimised price and striking simplicity (max. 1 push button) make the dV-1 manometer ideal for high volume production. Customer requests regarding mechanical dimensions/changes (e.g. transducer connection, battery contacts, flexible display/transducer link, ...) can be taken into consideration, depending on batch sizes.



dV-1 in Installation Housing



OEM Module (Installation Element)



OEM Module with Rubber Protection



Display Versions

SPECIFICATIONS

Pressure Ranges bar (abs./rel.)	0...1,99 bar	0...9,95 bar	0...19,9 bar	0...99,5 bar *	0...199 bar *
Pressure Ranges PSI (abs./rel.)	0...99,5 PSI	0...199 PSI	0...995 PSI *		
Display-Resolution	200 points over pressure range				
Overpressure	1,5 x pressure range				
Linearity	1 %FS				
Temperature Range	0...40 °C				
Supply	3 V battery, type CR 1632 or CR2032 (depending on housing)				
Battery Life	≈ 9 months at continuous operation (CR1632)				
Pressure Connection	Cutting ring/clamping ring, Ø 6 mm				
Protection	IP 64 (in housing) / not available for OEM module				
Width x Height x Depth	OEM: 33 x 18 x 10 mm / Small housing: 50 x 34 x 20 mm / Big housing: 68 x 70 x 35 mm				
Weight	≈ 15 g (OEM module)				
Optional Accessories	- Protective rubber covering - Front display with customer logo				

* only for housing 68 x 70 x 35 mm