



- Vacuum to 600bar versions available
- Best accuracy 0.04% of full scale
- Pneumatic or hydraulic input connection
- Less than 70ppm/°C temperature stability
- 4.5 digit display
- Up to 9 selectable engineering units
- Loop current measure
- Min/max logging (pressure & current)
- EasyCal software compatible (RS-232)

DESCRIPTION

The 7038 is a precision multifunction indicator module that can be used for pressure or vacuum calibration. It also has the provision to measure process loop current. This allows pressure transmitters and converters to be calibrated directly (using external DC supply or accompanying module). The following versions are available; Vacuum, 0.2, 2, 5, 10, 20, 35, 70, 100, 200, 400, or 600bar.

The display is 4.5 digit LCD and pressure can be displayed in any of nine popular engineering units (Bar, PSI, kPa, MPa, inWg, cmWg, inHg, mmHg, Kg/cm², atm, specify 9 on ordering). Basic accuracy is 0.04% for pressure. Loop current is displayed in mA, or percentage of span (4-20mA). A leak rate function is also provided and displays leakage, either in pressure units per second, or per minute as selected in the 'User Set-Up'. Additionally maximum and minimum pressure (or loop current) can be displayed.

The module is fitted as standard with an RS-232 interface situated on the rear of the CalBench console. This enables communication and readback with EasyCal calibration software (supplied as standard with the 7051 multifunction calibrator/control centre module). With EasyCal the user can define pressure calibration procedures and create and print traceable calibration certificates.

For input pressure external pumps are available. The 7090 pneumatic (-950mbar to 40bar), 7095 hydraulic (0 to 700bar) hand pumps or the 7194 benchtop pneumatic pump (0.95bar vacuum to 120bar) are ideal for this purpose.

SPECIFICATIONS

Range (bar)	Vac	0.2	2	5	10	20	35	70	100	200	400	600
Accuracy (% of fs)	0.04	0.1	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.1	0.1	0.1
Resolution (bar)	.0001	0.01mb	.0001	0.001	0.001	0.001	0.01	0.01	0.01	0.01	0.1	0.1

Temperature Stability	Less than 70ppm per °C
Linearity	0.02% of full scale
Units	bar, PSI, kPa, MPa, inWg, cmWg, inHg, mmHg, Kg/cm ² , atm (9 units only, specify on order)
Maximum Pressure	2 x range, 1.5 x range for 20bar and above versions
Sensor	Piezo-resistive - stainless steel diaphragm
Over Pressure Warning	1.2 x range full scale - audio and visual (on LCD) warning
Fittings	Minimess (> 20 bar) and Quick Release (< 20 bar)
Loop Current Calibration	Range: +/- 200mA , or % of 4 - 20mA. Display: -199.99 to +199.99mA, or -25% to +200% Accuracy: 0.05% of rdg +/- 2dg (%4-20mA = 0.1%). Resolution: 10µA (200mA rng), (%4-20mA = 0.1%) Loop resistance: Less than 2 ohms. Protection: 250mA automatic reset Poly-Fuse Sockets: 4mm industry standard
Interface	RS-232 for readback (using EasyCal on 7051 if ordered)
Module Width	100mm (primary or secondary console fitting)

ORDERING INFORMATION

7038 **Multifunction Pressure Indicator Module** (+ pressure range code & 9 pressure units – shown below)

Range (bar)	Vac	0.2	2	5	10	20	35	70	100	200	400	600
Option Code	7111	7100	7101	7102	7103	7104	7105	7106	7107	7108	7109	7110
Select 9 Units	bar, PSI, kPa, MPa, inWg, cmWg, inHg, mmHg, Kg/cm ² , atm											

ECFLA	EasyCal Calibration Software. See separate data sheet for further information.
Pumps	7090 / 7095 / 7194: See separate data sheets for information
C172	Factory Calibration Certificate (NPL traceable)
C132	UKAS Calibration Certificate (ISO 17025)

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.