

IEICOS DIGITAL PRESSURE INDICATORS AND PRESSURE **TRANSDUCERS**

IEICOS Digital Pressure Indicators are digital read out instruments designed to operate in conjunction with Low Level Millivolt Input Signals from pressure sensors, 4-20 mA or voltage input from pressure transmitters.

The Digital Indicator is factory calibrated to provide the read out in any engineering unitskg/cm², bar, psi, mm of Hg etc. or any other unit depending on the sensor/user.

These digital indicators exhibit exceptionally good linearity without errors of parallax, reading interpretation or tracking, inherent in analog devices.

IEICOS DIGITAL MICROCONTROLLER BASED PRESSURE INDICATOR – MODEL 355M

(with push button tare facility, Optional RS232 output)



IEICOS DIGITAL PRESSURE INDICATOR – MODEL 355

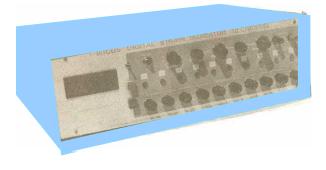
(with potentiometeric tare, calibration controls)



IEICOS DIGITAL PROGRAMMABLE MICROCONTROLLER BASED PRESSURE INDICATOR -MODEL 355DPM (with tare, Optional Set points, Software calibration, Optional RS232/485, Optional Analog output)



IEICOS 10 CHANNEL DIGITAL PRESSURE INDICATOR - MODEL 355-10C (with single display)

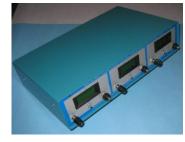


The Indicator incorporates an excitation supply. Tare Balance and Calibration Controls for operation of the pressure transducer.

Inbuilt signal conditioning instrumentation amplifiers are designed for high performance with minimum zero drift and high reliability.

IEICOS 3 CHANNEL DIGITAL PRESSURE INDICATOR - MODEL 355-3ID (with 3 independent display)

These indicators are available in Single, Two, Three, Four, Five, Ten and Multi-Channel Models with separate individual displays for each channel or with one single common display unit but with individual bridge balancing circuit. The indicators can be provided with special analog outputs such as 0 to 1V, 0 to 5V, 0 to 10V, -1V to 1V, -5V to 5V, -10V to 10V, 4 to 20mA etc., RS 232, RS 485 Digital outputs can also be provided for interfacing to computer and other process circuits.



IEICOS HANDHELD DIGITAL PRESSURE INDICATOR

- MODEL 355H

IEICOS 20 CHANNEL DIGITAL PRESSURE INDICATOR microcontroller based with auto scanning







Specifications:

Model - 355 Series

Channel - Single, Two, Three, Four, Five, Ten, Multichannel

Display - 3½ Digit/4½ Digit/6 Digit

Seven Segment LED/LCD display.

Range - 1999 counts for 3½ digit, 19999 counts for 4½ digit

199999 counts for 6 digit,

Linearity - +/- 0.1% of Full scale.

Polarity -+ and - (Depends on the type of force)
Decimal - Set according to range of transducer.

Stability - Within +/- 1 Count + 1 digit.

Input Options - Pressure Transducer input – mv/V, 4 to 20 mA, Voltage input

Load Cell Excitation - 10 V DC Nominal, 5V DC, 12V DC

Operating Temperature Range - 10 to 50°C

Analog Output Options - mV output, 0 to 1V, 0 to 5V, 0 to 10 V,

-1V to 1V, -5V to +5V, -10V to 10V,

4 to 20 mA

Digital Output Options - RS232, RS485

Setpoint - 2 setpoints, 4 setpoints Power Options - 230 V/110V, 50 Hz/60 Hz,

Battery Operated, Rechargeable Battery Operated.

Remote Display - Option available

IEICOS PRESSURE TRANSDUCER SIGNAL CONDITIONER SERIES - Model 355SC

IEICOS Pressure Transducer Signal Conditioners are also available with built-in instrumentation amplifiers and analog output options as mentioned above for use with PC Based systems, Process control equipments, research and laboratory applications. These signal conditioners have built-in excitation supply for the pressure sensors, operate on mains or battery supply and are available in single and multichannel configurations. These do not have any displays. The signal conditioners are available as desktop top type units, rack mountable units, VME, PCI size units.

IEICOS PRESSURE TRANSMITTERS - Model 355T

IEICOS Pressure Transmitters are available with built-in instrumentation amplifiers which provide standard 4 to 20 mA, 0 to 20 mA or 0 to 10V outputs for use in process industries. The pressure transducer Transmitters are available as small desktop units, miniature brick units with or without built-in excitation supply for the pressure transducers, operate on mains or battery supply. These are external transmitters which can be used to retrofit existing pressure transducers or to new pressure transducers.

IEICOS STRAIN GAUGE BONDED PRESSURE/VACCUM TRANSDUCERS – MODEL 350



Pressure/vacuum transducers are electronic transducers, which translate changes in pressure into changes in voltage. This change in voltage is signal conditioned to produce an indication in the Digital Readout Instrument or an amplified output, which is directly proportional to the pressure applied to the cell. IEICOS pressure/vacuum transducers contain very sensitive strain gauges effectively bonded to internal pressure sensing diaphragm of high quality stainless steel/aluminum machined to close tolerances and tested for it strength. The

Strain Gauges are electrically connected into a wheat stone bridge circuit which, when excited from an external power source, produces an output voltage proportional to the applied pressure.

IEICOS pressure/vaccum transducers are temperature compensated to minimize output variations over a wide range of operating temperatures.

IEICOS manufactures variety of pressure/vacuum tranducers as standard options and has in-house design team to design and manufacture custom pressure transducers for your application.

- 1) Standard Gauge Pressure Transducer
- 2) Differential Pressure Transducer
- 3) Flush mount Pressure Transducer

- 4) High Temperature Pressure Transducers
- 5) Low Pressure Transducer
- 6) Vacuum Transducer

Specifications:

Range:	Depends on pressure transducer		
Resolution:	< 1% of pressure range (higher resolution versions available)		
Safe Overload (%F.S)	150		
Ultimate Overload (%F.S)	200		
Accuracy(%F.S)	< 1% (higher accuracy versions available)		
Rated output(mv/v)	0.25 to 3 mv/V (depends on pressure sensor)		
Non-linearity(%F.S)	< 1%	Excitation Voltage(V)	Max 12V DC
Hysteresis(%F.S)	< 0.5 %	Compensated Temp Range	0~+40 °C
Repeatability(%F.S)	< 0.5 %	Use Temp. Range	-10~+65 °C
Creep(%F.S/30min)	< 0.5 %	Storage Temperature Range	-10∼+80 °C
Zero Balance(%F.S)	±1	Temp.Effect on Zero(%F.S/10°C)	0.03
Strain Gauge Resistance(O)	350 ohms	Temp.Effect on Span(%F.S/10°C)	0.02
Insulation Resistance(Mohms)	≥5 (100VDC)		
Protection	Strain Gauge pressure internally sealed from dust and moisture. Also		

Protection Strain Gauge pressure internally sealed from dust and moisture. Also available – Hermetic Potted Seal, Vacuum Sealing,

All above specifications are general nominal specifications; refer to individual pressure transducers for its specific information or contact us if you need a higher and better version of the pressure transducer.

Calibration: All IEICOS Pressure Transducer and Pressure Indicators are factory calibrated with our calibration facility. NABL traceability certificates can be provided at additional cost.



INDUSTRIAL ENGINEERING INSTRUMENTS

Manufacturers of Techno Electronic Aids Devices, Instruments and Systems, 203, 12th Main Road, 3rd Phase, Peenya Industrial Area, Peenya, Bangalore-560058. Karnataka, India.

Phone: 91-80-28394520 Fax: 91-80-28371386 **Email:** <u>info@ieicos.com</u> **Web Site:** <u>www.ieicos.com</u>

Due to continuous improvement, specifications, dimensions, look, color, feel and features subject to change without notice.