

IND-2000 is a Universal input process indicator based on the latest single chip microcontroller technology. It accepts input from wide range of thermocouples, RTDs and various transmitter signals, converts and displays the process value on the display. The type of input is field selectable. Option is available for 2/3/4 relay outputs, Retransmission output, RS485/RS232C communication port with MODBUS protocol. Normal housing is the standard panel mounting type, while Ex-proof and weather proof housings can also be provided optionally.

**Differential Pressure Indicator**

Two pressure transmitter signals can be connected to 2 inputs and the differential pressure is displayed. Main application is the differential pressure measurement .

**Δ T Controller**

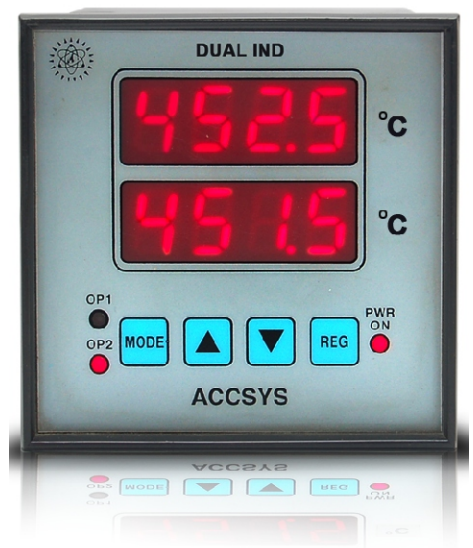
Two temperature inputs (TC or RTD) can be connected to the instrument. Two sets of display, one for displaying the reference and the other for temperature difference (Δ T) are available. Control of the differential temperature is achieved by relay output.



**DUAL IND**

This is a two channel indicator with 2 relay outputs, Display for both channels is provided on 2 banks of display. The input can be TC/RTD/4-20mA.

For these models retransmission output (isolated 4 - 20mA), relay outputs for control /alarm and Rs485 communication port can be provided optionally.



**AM-2000**

This is an Auto manual loader, which accepts two 4-20 mA inputs, one from the field device and another from a PLC. One retransmission output (isolated 4-20mA) is generated to control the field device. This output signal is proportional to the signal from PLC in AUTO mode. In Manual mode it is the value set through the keypad. The measured value from the field device is displayed on the PV display.

TECHNICAL SPEC	IND- 2000	DUAL IND	AM-2000
Type	Microcontroller based	Microcontroller based	Microcontroller based
Item	Universal Indicator	Dual Indicator	Auto Manual Loader
Input	Field selectable from T/C (R,S,J,K,T,E) RTD (PT-100,CU-53) 4-20mA / 0-20mA. Prefixed input type is available	TC/RTD/4-20mA	4-20 mA
No.of Input	Single	Two	Two input + One Digital Input
Display	0.56" 4 digit LED	0.56" 4 digit LED for CH-1 0.56" 4 digit LED for CH-2	0.56" 4 digit LED for PV 0.56" 4 digit LED for REF value
Measuring range	a) 4-20mA : Eng. units (Field Selectable) DP format-0/1/2 b) Thermocouples. 'R & S' Type : 0 to 1760°C 'J' Type : - 50 to 750°C 'K' Type : - 50 to 1350°C 'T' Type : - 50 to 400°C 'E' Type : - 50 to 1000°C c) RTD Pt100 : -50 to 400°C DP format for T/C & RTD - 0/1	a) 4-20mA : Eng. Units (Field Selectable ) DP format-0/1/2 b) Thermocouples. 'R & S' Type : 0 to 1760°C 'J' Type : - 50 to 750°C 'K' Type : - 50 to 1350°C 'T' Type : - 50 to 400°C 'E' Type : - 50 to 1000°C c) RTD Pt100 : -50 to 400°C DP format for T/C & RTD - 0/1	Programmable
Accuracy	T/C & RTD : ± 0.25% FS, ±1digit mA : ± 0.1% FS, ± 1digit	T/C & RTD : ±0.25% FS, ± 1digit mA : ± 0.1% FS, ± 1digit	±0.1% FS, ±1 digit
Transmitter power	+24V DC built-in (Max.30mA)	-	
Alarm Relays	2 Nos. with 1 C/O contact	2 Nos. with 1 C/O contact	2 Nos. with 1 C/O contact
Retransmission output(optional)	Isolated 4-20mA proportional to Input	Isolated 4-20mA proportional to either of the channel or difference	Isolated 4-20mA for controlling the field device
Power Supply	Universal SMPS : 90-270 V AC/DC; Optional 24V DC	Universal SMPS : 90-270 V AC/DC; Optional 24V DC	Universal SMPS : 90-270 V AC/DC; Optional 24V DC
Termination field	Through TBs provided at the rear.	Through TBs provided at the rear.	Through TBs provided at the rear.
Environmental condition	0-55 Deg. C, upto 95% Rh	0-55 Deg. C, upto 95% Rh	0-55 Deg. C, upto 95% Rh
Communication (optional)	RS232C/RS485 port	RS232C/RS485 port	RS232C/RS485 port
Communication protocol & Settings	Industry Standard MODBUS Station no., Baud Rate, Parity programmable	Industry Standard MODBUS Station no., Baud Rate, Parity programmable	Industry Standard MODBUS Station no., Baud Rate, Parity programmable
Dimension ( in mm)	Overall:96(L)x96 (H)x 150(D) -w/o retransmission output Overall:96(L)x96 (H)x 210(D) -with retransmission output Cutout : 92(L) x 92(H)	Overall:96(L)x96 (H)x 210(D) Cutout : 92(L) x 92(H)	Overall:96(L)x96 (H)x 210(D) Cutout : 92(L) x 92(H)
Enclosure	MS powder coated optional Ex-proof / IP65	MS powder coated optional Ex-proof / IP65	MS powder coated optional Ex-proof / IP65
Mounting	Panel Flush Wall mounting for Ex-proof/IP65	Panel Flush Wall mounting for Ex-proof/IP65	Panel Flush Wall mounting for Ex-proof/IP65

T1-06



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Information in this Catalogue is subject to change without notice

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