

6 DIGIT HIGH PRECISION UNIVERSAL PROCESS INDICATOR

MODEL : PI – 541A



Introduction

SANSEL offers PI 541A High precision universal process indicator are extremely versatile Indicators that can be used for a wide variety of applications in all type of process industries. These Universal indicator offer high precision 6 digit resolution & extreme reliability and low cost for Process measurement. PI 541A is a Microprocessor based instrumentation ensures accurate readings for all Linear Parameters, RTD, ohms, mV, Volts, mA & different type of Thermocouples. A number of programmable features including In-line calibration are standard.

PI541A can offer relay outputs for signals exceeding set points, optional Programmable 4 -20mA or 0 - 10V DC Isolated output and also Optional RS 485 (2 wire) MODBUS protocol output is provided.

Applications

Monitoring, recording, controlling in all type of process industries for the following applications,

- ☐ Temperature
- ☐ Humidity
- ☐ Pressure
- ☐ pH / ORP
- ☐ TDS / Conductivity
- ☐ Flow
- ☐ Level
- ☐ Voltage / Current / Power
- ☐ Resistance
- ☐ Load cell and more...,

Features

- ✓ 6 digit 7 segment RED LED display
- ✓ High accuracy
- ✓ Compact size
- ✓ 24 Bit ADC resolution
- ✓ Universal inputs RTD, Thermocouples, mA, mV, voltage, Ohms
- ✓ Wide scalable display range between -199999 to 199999 counts
- ✓ Easy field configurable with front key calibration
- ✓ No hardware selection for the input signals
- ✓ Optional opto isolated Re-transmission output
- ✓ Optional RS 485 (2 wire) MODBUS protocol
- ✓ 24V DC external sensor excitation supply
- ✓ Programmable decimal point & display noise filter
- ✓ Universal supply Voltage 90 to 270 AC / DC

Specifications

Model	PI – 541A
Display	5 ½ Digit 0.5 " 7 segment RED LED
Inputs	RTD - PT100, PT1000, Thermocouple - J, K, R, S, T, B, N, E, mA, mV, Volt, Ohms (selectable)

Input & Display Ranges for Temp. Inputs(scalable)	RTD - PT 100 - (-199.99 to 850.00°C / -327.8 to 1562.0°F) RTD - PT 1000 - (-50.0 to 400.0°C / -58.0 to 752.0°F) TC - J - (-200.0 to 1200.0°C / -328.0 to 2192.0°F) TC - K - (-200.0 to 1372.0°C / -327.8 to 2501.6°F) TC - R - (-40.0 to 1768.0°C / -40.0 to 3214.4°F) TC - S - (-40.0 to 1768.0°C / -40.0 to 3214.4°F) TC - T - (-200.0 to 400.0°C / -328.0 to 752.0°F) TC - B - (300.0 to 1820.0°C / 572.0 to 3308.0°F) TC - N - (-200.0 to 1300.0°C / -327.8 to 2372.0°F) TC - E - (-200.0 to 1000.0°C / -327.8 to 1832.0°F)
Cold junction Accuracy	± 0.3°C
Resolution	selectable 0.0001, 0.001, 0.01, 0.1, 1
Unit selection	°C / °F (for RTD & TC inputs)
linearization	Programmable custom Linearization provided (1 - 21 points)
Input signal filter	1 – 100% user configurable
Cold junction compensation	Automatic inbuilt 'CJC' is provided
Relay Output* (optional)	2 Relay (5A rated)
Alarm settings	Front key settable
Alarm indication	Two LED on front panel
Re Transmission* (optional)	Opto Isolated Analog Output 4 - 20 mA or 0 - 10V DC for process variable
PC communication* (optional)	RS 485 (2 wire) with MODBUS protocol
Sensor excitation Supply	24 V DC ±10% @ 100 mA
Display Range for Analog Inputs	-199999 to + 200000 (± 2 lakhs counts) (scalable)
Relay Set Point	High & Low Set point for each Relay (selectable)
Power supply	90 to 270 V AC / DC / 50/60 Hz
Front panel	IP 65 protection
Overall Dimension	48(H) X 96(W) X 110(D) mm
Cut out Dimension	92 x 44 (W x H) mm
Frequency	50/60Hz
Housing	Panel mountable ABS plastic
Operating environment	0 to 50°C / 5 to 95% RH non condensing
Enclosure	ABS Plastic
Weight (Approx.)	350 grams

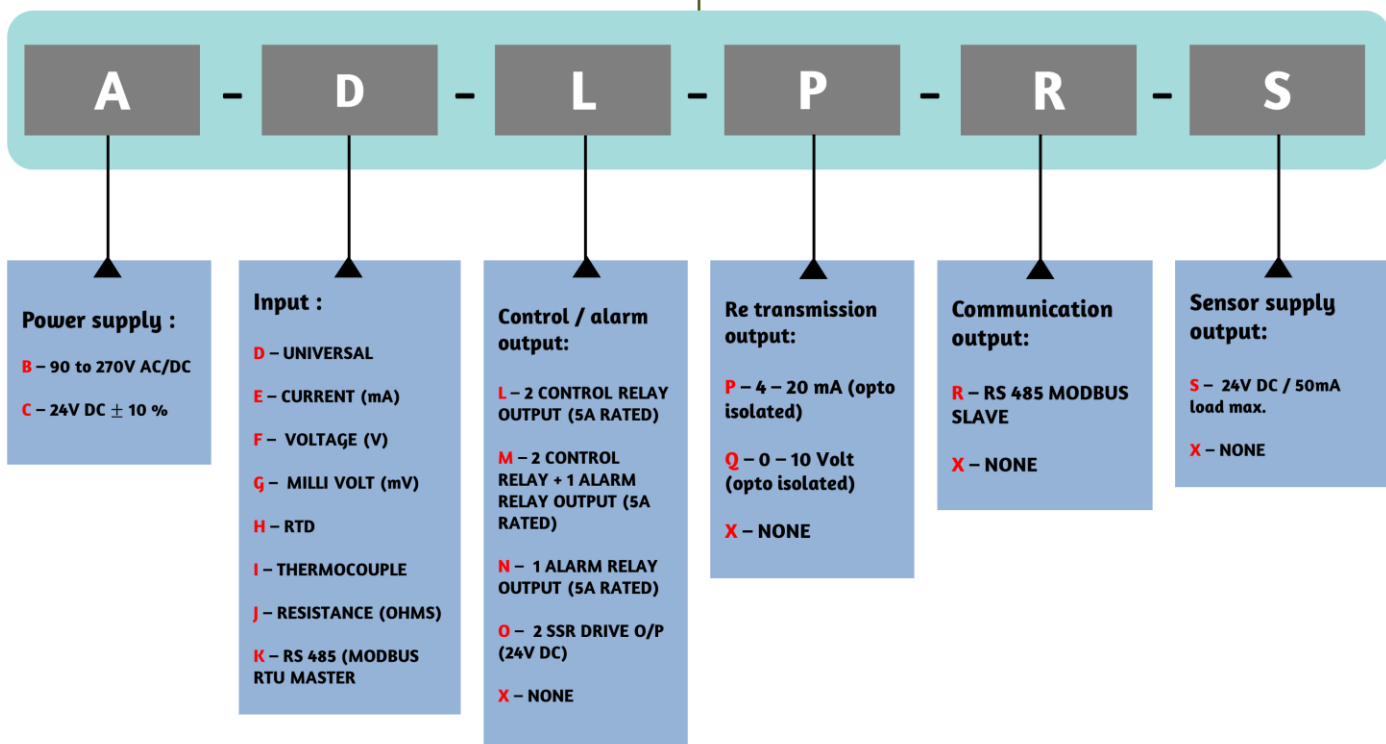
NOTE: Due to continuous improvement published specifications may change without notice

** Relay & Retransmission or PC communication any one was possible in one PI 542A

* Refer ordering information optional to select any one display size

ORDERING INFORMATION FOR 4 DIGIT PROCESS INDICATOR

MODEL : PI 541A - A - D - L - P - R - S



S.NO.	ordering code	power supply	Display	Input	Control / alarm output	Re transmission output	Communication output	Sensor supply output
1	PI 541A-B-D-L-P-R-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	2 CONTROL RELAY OUTPUT(5A RATED)	4 - 20 mA (opto isolated)	RS 485 MODBUS SLAVE	24V DC / 50mA load max.
2	PI 541A-B-D-L-X-X-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	2 CONTROL RELAY OUTPUT(5A RATED)	NONE	NONE	24V DC / 50mA load max.
3	PI 541A-B-D-L-P-X-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	2 CONTROL RELAY OUTPUT(5A RATED)	4 - 20 mA (opto isolated)	NONE	24V DC / 50mA load max.
4	PI 541A-B-D-X-P-R-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	NONE	4 - 20 mA (opto isolated)	RS 485 MODBUS SLAVE	24V DC / 50mA load max.
5	PI 541A-B-D-X-P-X-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	NONE	4 - 20 mA (opto isolated)	NONE	24V DC / 50mA load max.
6	PI 541A-B-D-X-X-R-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	NONE	NONE	RS 485 MODBUS SLAVE	24V DC / 50mA load max.
7	PI 541A-B-D-X-X-X-S	90 to 270V AC/DC	0.5" 5.5 DIGIT	UNIVERSAL	NONE	NONE	NONE	24V DC / 50mA load max.



SANSEL INSTRUMENTS AND CONTROLS SANSEL CALIBRATION LABORATORIES LLP

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879
(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

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