

4 DIGIT PROCESS INDICATOR

MODEL : PI – 542A



INTRODUCTION

SANSEL offers PI 542A Model PROCESS INDICATORS are extremely versatile Indicators that can be used for a wide variety of applications in all type of process industries. These INSTRUMENT offer extreme reliability and low cost for Process measurement and logging. PI 542A is a Microprocessor based indicator ensures accurate readings for all Linear Parameters. A number of programmable features including In-line calibration are standard. All the parameters are saved in a non volatile EEPROM memory which doesn't needs any external battery. PI 542A can offer relay outputs for signals exceeding set points, Programmable current or voltage Re-Transmission output models are also available in addition to the industry standard 4 -20mA or 0 - 10V DC output. Optional RS 485 (2 wire) output also provided for PC communication with PC Interface software & also with MODBUS RTU protocol.

Applications

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

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

FEATURES

- ✓ 4 digit 7 segment RED LED display
- ✓ High accuracy
- ✓ Compact size
- ✓ 24 Bit ADC resolution
- ✓ Universal inputs RTD, Thermocouples, mA, mV, voltage, Ohms
- ✓ Wide selectable display range between -1999 to 9999 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) output for PC communication with MODBUS RTU protocol
- ✓ Optional PC software with monitoring, logging, report & graph
- ✓ 24V DC external sensor supply
- ✓ Programmable decimal point & display noise filter
- ✓ Universal supply voltage 90 to 270 AC / DC

Specifications

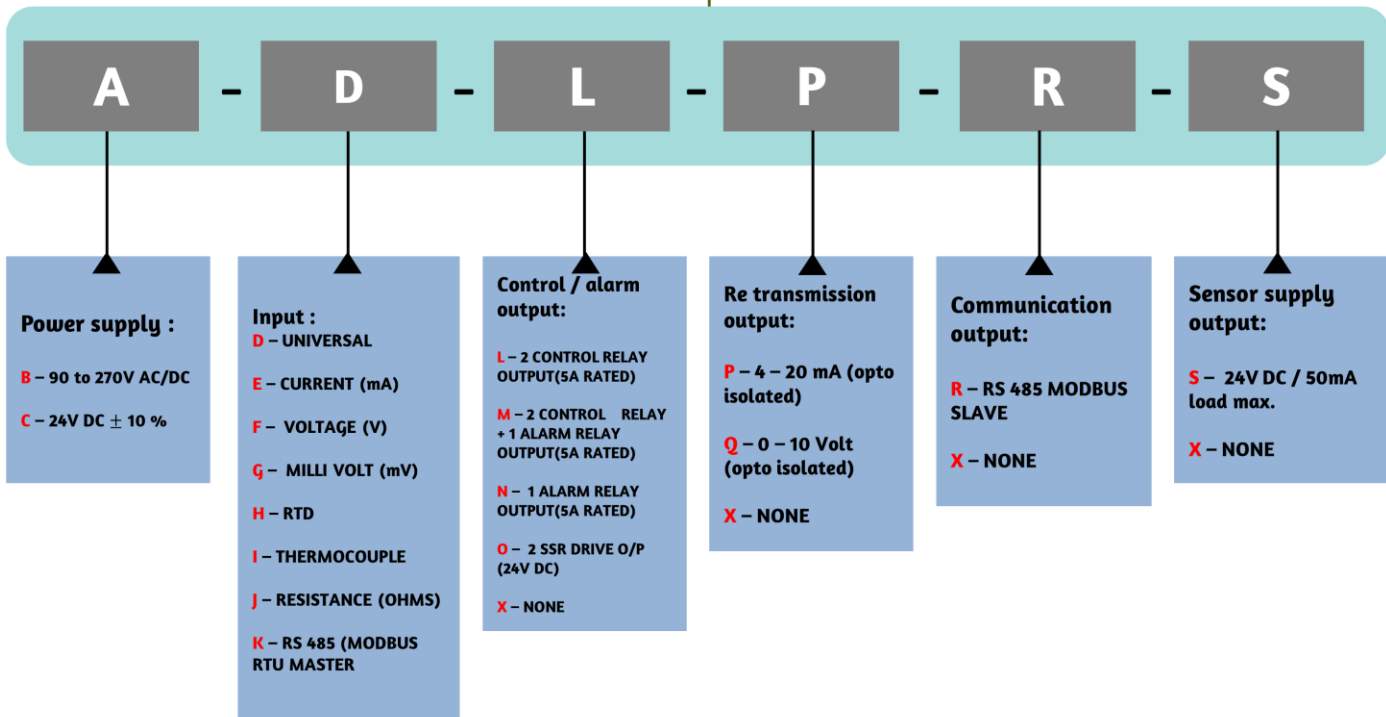
Model	PI – 542A
Display	4 Digit, 0.5" 7 segment RED LED
Analog inputs	0 - 20 mA, 0 to 70 mV, 0 - 10 V DC, 0.0 – 400.0 Ω (H & L Limit Programmable)
Temperature inputs	RTD - PT 100, Thermocouple - J, K, R, S, T, B, N, E
Display range	-1999 to 9999 counts (H & L Limit programmable)
Temperature range (H & L Limit programmable)	RTD - PT 100 (-199.9 to 800.0°C) TC - J (- 200 to 200°C) TC - K (- 200 to 1372°C) TC - R (0 to 1765°C) TC - S (0 to 1762°C) TC - T (- 199.9 to 400.0°C) TC - B (600 to 1800°C) TC - N (-200 to 1300°C) TC - E (-199.9 to 916.0°C)
Accuracy	0.05% FS \pm 1 counts (Except Thermocouple) 0.05% FS \pm 2 counts (only for Thermocouple)
Unit selection	°C / °F (for RTD & TC inputs)
Analog input resolution mV, mA & V	0.001 / 0.01 / 0.1 / 1 (Selectable)
Temperature resolution	0.01 (For RTD - PT 100 input (°C) only) / 0.1 / 1 °C / °F
Filter constant	1 – 100% (adjustable)
Relay Output* (optional)	2 Relay (5A rated) with 4 Relay Status Selection, Adjustable Hysteresis, Cyclic Delay
Re Transmission* (optional)	Opto Isolated Analog Output 4 - 20 mA or 0 - 10V DC
PC communication* (optional)	RS 485 (2 wire) MODBUS RTU protocol
PC Software* (optional)	Monitoring, Data logging, Report & graph
Sensor Supply (external)	24 V DC \pm 10% @ 100 mA
Operating environment	0 to 50°C / 5 to 95% RH non condensing
Power supply	90 to 270 V AC / DC / 50/60 Hz
Overall Dimension	48(H) X 96(W) X 110(D) mm
Cut out Dimension	44(H) x 90(W) mm
Housing	Panel mountable ABS plastic
Weight (Approx.)	300 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

ORDERING INFORMATION FOR 4 DIGIT PROCESS INDICATOR

MODEL : PI 542A- A - D - L - P - R - S



Power supply :

B - 90 to 270V AC/DC

C - 24V DC \pm 10 %

Input :

D - UNIVERSAL

E - CURRENT (mA)

F - VOLTAGE (V)

G - MILLI VOLT (mV)

H - RTD

I - THERMOCOUPLE

J - RESISTANCE (OHMS)

K - RS 485 (MODBUS RTU MASTER)

Control / alarm output:

L - 2 CONTROL RELAY OUTPUT(5A RATED)

M - 2 CONTROL RELAY + 1 ALARM RELAY OUTPUT(5A RATED)

N - 1 ALARM RELAY OUTPUT(5A RATED)

O - 2 SSR DRIVE O/P (24V DC)

X - NONE

Re transmission output:

P - 4 - 20 mA (opto isolated)

Q - 0 - 10 Volt (opto isolated)

X - NONE

Communication output:

R - RS 485 MODBUS SLAVE

X - NONE

Sensor supply output:

S - 24V DC / 50mA load max.

X - NONE

S.NO.	ERP Item code	ordering code	power supply	Display	Input	Control / alarm output	Re transmission output	Communication output	Sensor supply output
1	FIGD-00041	PI 542A-B-D-L-P-R-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	2 CONTROL RELAY OUTPUT(5A RATED)	4 - 20 mA (opto isolated)	RS 485 MODBUS SLAVE	24V DC / 50mA load max.
2	FIGD-00104	PI 542A-B-D-L-X-X-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	2 CONTROL RELAY OUTPUT(5A RATED)	NONE	NONE	24V DC / 50mA load max.
3	FIGD-00105	PI 542A-B-D-L-P-X-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	2 CONTROL RELAY OUTPUT(5A RATED)	4 - 20 mA (opto isolated)	NONE	24V DC / 50mA load max.
4	FIGD-00106	PI 542A-B-D-X-P-R-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	NONE	4 - 20 mA (opto isolated)	RS 485 MODBUS SLAVE	24V DC / 50mA load max.
5	FIGD-00107	PI 542A-B-D-X-P-X-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	NONE	4 - 20 mA (opto isolated)	NONE	24V DC / 50mA load max.
6	FIGD-00108	PI 542A-B-D-X-X-R-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	NONE	NONE	RS 485 MODBUS SLAVE	24V DC / 50mA load max.
7	FIGD-00109	PI 542A-B-D-X-X-X-S	90 to 270V AC/DC	0.5" 4 DIGIT	UNIVERSAL	NONE	NONE	NONE	24V DC / 50mA load max.

SANSEL INSTRUMENTS AND CONTROLS SANSEL CALIBRATION LABORATORIES

ISO/IEC 17025 Accredited Calibration Laboratory by NABL CC - 2879

(Thermal, Mechanical, Electro-Technical, Dimension Parameters)

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