

SERIES: SIN45

- UP TO 4000 VAC ISOLATION
- INPUT/OUTPUT POWERED BY THE CURRENT LOOP
- 7 SELECTABLE THERMOCOUPLE LINEARIZATION BLOCK
- DIN-RAIL VERSION OR IP65 PROTECTION BOX AVAILABLE



INTRODUCTION

Indumart SIN45 Series of Loop-powered Signal Isolators are compact two-wire current-to-current transmitters providing optical isolation between the input and output current loops. These signal isolators are entirely passive devices; they do not generate any supply voltages and do not need any additional supply for operating. The input part is powered by the input current loop (4...20 mA) and the output part is powered by the output current loop. The SIN45P model offers some special features that can be activated by the user through internal programming jumpers:

- Direct (4...20/4...20) or reversed (4...20/20...4) conversion;
- "Low" (3 mA) or "High" (22 mA) output status at input failure;
- Thermocouple non-linear conversions providing temperature linear output.

The isolation level is normally 3750 VAC for the non-programming version and 4000 VAC for the programming version (SIN45P).

The device is factory calibrated and does not require initial user calibration. Nevertheless, if the user intended to perform calibration, it can be done via the ZERO ('Z') and SPAN ('S') adjustment potentiometers, placed on the front panel of the isolator.

The *SIN45 Series* are designed especially for 35 mm rail mounting according to EN 50022. Optionally, they can be enclosed in an IP65 protection box with cable glands for mounting on a wall.

SPECIFICATIONS

Input Current	4...20 mA
Operating Range	3.5...21 mA
Maximum Input Current	50 mA
Input Loop Supply Voltage	3...36 VDC
Input Voltage Drop	less than 2.6 V
Total Measurement Error	0.35% of the span 0.1% of span (for SIN45P)
Temperature Drift	0.03% of the span for 1°C 0.01% of span/1°C (SIN45P)
Loop Supply Influence	Negligible
Output Current	2-wire, 4...20 mA (standard) 4...20 or 20...4 mA (SIN45P)
Output Operating Range	3...22 mA
Over Scale Limit	32 mA
Output Loop Supply Voltage	8...32 VDC
Maximum Line Load	620 Ω at 24V/20mA ($U_s - 8$) / 0.026 [Ω]
Output @ Input Failure⁽¹⁾	< 2 mA (at input brake) 3 or 22 mA (selectable for SIN45P)
Input / Output Isolation	3750 VAC, 1 min (standard) 4000 VAC (for SIN45P)
Non-linear Conversions⁽²⁾	7 selectable thermocouple Ranges: "J"(3), "K"(4)
Operating Conditions	-25 to 70°C; 0...95% RH
Storage Temperature	-35 to 85 °C
Case Material	Hard plastic (PC)
Wiring	Screw terminals
Mounting	DIN-Rail In Box
Protection Case/Terminal	IP20 IP65
Dimensions (mm)	18x90x53
Dimensions (mm) for DIS45P	18x75x55 80x80x60
Weight (g)	50 120

⁽¹⁾ Outside Operating Input Range

⁽²⁾ With SIN45P Only

ORDER CODE

Model: **SIN45**

Version

Non-programmable
Programmable

X
P

Mounting

DIN-rail
In IP65 Box (programmable only)

R
B

