



## FEATURES

- 0.46" LCD display
- LCD, reflective or selectable red of green backlighting
- Fully scalable
- Field upgradeable
- Simple programming through front panel
- NEMA 4X/IP65 sealed front panel

# SERIES 1950

NOSHOK Series 1950 Compact Smart System Digital Indicator offers the features of a full size panel meter compressed into a small design for ease of installation in almost any application. The 5 digit display has a span range of -9999 to 99999 and is available in a reflective LCD or backlit versions.

The display can accept a variety of process signals for applications in pressure, flow, level, force and temperature. All programming can be done through the front of the meter with little difficulty. The display is fully expandable to accommodate applications requiring relays, dual sinking outputs, and serial communications by RS232 or RS485.

## SPECIFICATIONS

<b>Input signals</b>	Current, voltage or resistance
<b>Process display</b>	5 digit, 0.48 " high, (-9999 to 99999)
<b>Power requirement</b>	9 Vdc to 28 Vdc, unregulated (Optional power supply available for 85 Vac to 250 Vac excitation)
<b>Connections</b>	Terminal block in rear Recommended wire: 30-14 AWG copper
<b>Memory</b>	Nonvolatile E2PROM memory retains all programming parameters and max/min values when power is removed
<b>Accuracy</b>	0.1% of span
<b>Response time</b>	< 500 msec
<b>Temperature ranges</b>	Operating -35°C to 75°C Storage -35°C to 85°C
<b>Operating and Storage Humidity</b>	0 to 85% max. relative, non-condensing
<b>Vibration</b>	5 to 500 Hz, in X,Y,Z direction for 1.5 hours, 5 g's. According to IEC 68-2-6
<b>Shock</b>	Operational 30 g, 11 msec in 3 directions. According to IEC 68-2-27
<b>Electromagnetic rating</b>	Emissions and immunity to EN 61326
<b>Environmental protection</b>	NEMA 4X/IP65, sealed bezel only
<b>Weight</b>	3.2 oz (100 g)
<b>Relay option card</b>	Type: Single FORM-C relay Isolation To Sensor & User Input Commons: 1400 Vrms for 1 min. Working Voltage: 150 Vrms Contact Rating: 1 amp @ 30 Vdc resistive; 0.3 amp @ 125 Vac resistive Life Expectancy: 100,000 minimum operations Response Time: Turn On Time: 4 msec max. Turn Off Time: 4 msec max.
<b>Communications option card</b>	RS485 multi-point balanced interface (non-isolated) Baud Rate: 300 to 38.4k Data Format: 7/8 bits; odd, even, or no parity Bus Address: 0 to 99; max 32 meters per line Transmit Delay: Selectable RS232 half duplex (non-isolated) Baud Rate: 300 to 38.4k Data Format: 7/8 bits; odd, even, or no parity
<b>Dual sinking output option card</b>	Non-isolated switched DC, N Channel open drain MOSFET Current Rating: 100 mA max. VDS ON: 0.7 V @ 100 mA VDS MAX: 30 VDC Offstate Leakage Current: 0.5 mA max.

ORDERING INFORMATION			
<b>SERIES 1950</b>			
<b>INPUT SIGNAL</b>	<b>C</b> Current	<b>V</b> Voltage	<b>R</b> Resistance
<b>DISPALY</b>	<b>1</b> Reflective	<b>2</b> Backlight	
<b>OPTION CARDS</b>	<b>0</b> None <b>6</b> RS232 Comm	<b>1</b> Single Relay <b>7</b> RS485 Comm	<b>2</b> Dual Sinking Open Collector
<b>OPTIONAL POWER SUPPLIES</b>	<b>PS1</b> 115 Vac to 12 Vdc (400 mA) <b>PS3</b> 85 - 250 Vac to 12 Vdc (400 mA)	<b>PS2</b> 115 Vac to 24 Vdc (200 mA)	
<b>OPTIONAL ENCLOSURES</b>	<b>ENC1</b> Black Painted Steel	<b>ENC2</b> Off-White Fiberglass	

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

**EXAMPLE**

**1950 C - 1 - 1 - ENC1**

- Series .....1950
- Input Signal .....Current
- Display .....Reflective
- Option Cards .....Single relay
- Options .....Enclosure black painted steel

