

# SERIES 2000/2100

## FIELD UPGRADEABLE DIGITAL PROCESS INDICATORS SINGLE INPUT OR DUAL INPUT

The Series 2000/2100 Smart System Digital Indicator embodies many features and performance capabilities to suit a wide range of indication and control requirements. It can accept a variety of standard process signals and precisely scale them into any desired unit of measurement. The indicator employs advanced technology for stable, drift free readout, while incorporating features that provide flexibility now and in the future with plug-in option cards. The option cards afford the opportunity to easily configure the indicator for the needs of the present while providing an upward migration path as control and indication needs evolve.

A full complement of options include relays, analog output and serial communication. NOSHOK calibrates all of its indicators to your transducer requirements at no additional cost. Simply tell us how you want it set up, then plug it in and go; no muss, no fuss and no charge!



### FEATURES

- Field upgradeable with plug-in option cards
- 24 Vdc transmitter power supply
- 16 point scaling for non-linear processes
- Max. and min. value display
- Easy menu-driven programming
- NEMA 4X/IP65 sealed front bezel
- 4 set point alarms (with plug-in card)
- Analog output (with plug-in card)
- Serial communication (with plug-in card)
- PC software available for configuration
- AC or DC input power
- Signal totalizer for batch weighing or other timed input processes
- CE compliant
- Programmable signal response time
- Standard DIN panel cutout

### APPLICATIONS

- Process indication
- On/Off pump controls
- Compressor controls
- Safety or shutdown alarms
- Local indication with signal retransmission to computer control system

### SPECIFICATIONS

<b>Input signals</b>	Current, voltage or resistance
<b>Process display</b>	5 digit, 0.56" red LED, (-19999 to 99999)
<b>Keypad</b>	3 programmable function keys, 5 keys total
<b>Power requirement</b>	115/230 Vac or 11 Vdc to 36 Vdc (18 Vdc to 36 Vdc for 2100 Series)
<b>Internal power supply</b>	24 Vdc (18 Vdc for 2100 Series), unregulated
<b>Electrical connection</b>	Terminal blocks in rear
<b>Memory</b>	Non-volatile Eprom, will hold set up data for 10 years without power
<b>Accuracy</b>	±0.03 % of reading +3" A for 4 mA to 20 mA input; ±0.03 % of reading +3 mV for 0 Vdc to 5 Vdc and 0 Vdc to 10 Vdc inputs over the range of 18 °C to 28 °C
<b>Update rate</b>	Up to 20 times per second, adjustable (Up to 105 time per second, adjustable for 2100 Series)
<b>Temperature ranges</b>	Operating 32 °F to 122 °F (0 °C to 50 °C) Storage -40 °F to 140 °F (-40 °C to 60 °C)
<b>Electromagnetic rating</b>	CE compliant to EMC norm EN 61326:1997/A1:1998 RFI, EMI and ESD protection
<b>Environmental protection</b>	Nema 4X/IP65 sealed bezel only
<b>Linearization</b>	16 point scaling of non linear input
<b>Dual relay option card</b>	Two FORM-C relays. Rating: One relay energized; 5 amps @ 120/240 Vac/115/230 Vac or 28 Vdc (resistive load), 1/8 HP @ 120 Vac, inductive load. Total current not to exceed 5 amps with both relays energized
<b>Quad relay option card</b>	Four FORM-A relays. Rating: One relay energized; 3 amps @ 240 Vac or 30 Vdc (resistive load), 1/10 HP @ 120 Vac, inductive load. Total current not to exceed 4 amps with all four relays energized
<b>Analog output option card</b>	0 mA to 20 mA, 4 mA to 20 mA or 0 Vdc to 10 Vdc retransmitted signal
<b>Quad NPN-OC option card</b>	4 isolated open collector sinking transistors, 100 mA at maximum 30 Vdc
<b>Quad PNP-OC option card</b>	4 isolated open collector sourcing transistors, 24 Vdc with 30 mA total maximum
<b>Communication option cards</b>	RS232C or RS485

ORDERING INFORMATION					
SERIES 2000 (Single Input)	SERIES 2100 (Dual Input)				
Input signal	1 4 mA to 20 mA	2 0 Vdc to 5 Vdc	4 1 Vdc to 6 Vdc	5 0 Vdc to 10 Vdc	6 1 Vdc to 11 Vdc
Power requirements	1 115/230 Vac	3 11 Vdc to 36 Vdc			
Option cards	1 Dual relay option card	2 Quad relay option card	3 Quad NPN-OC option card		
	4 Quad PNP-OC option card	5 Analog output option card	6 RS 232-C serial communications option card		
	7 RS 485 serial communications option card	0 No option card			

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

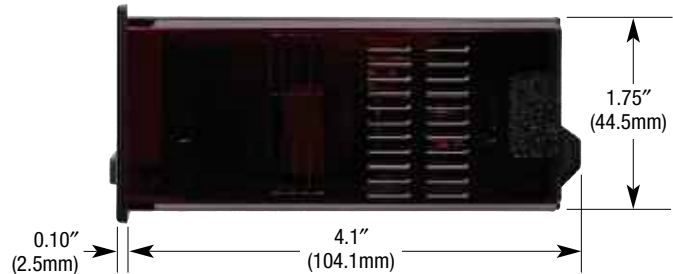
EXAMPLE

Series .....2000  
 Input signal .....4 mA to 20 mA  
 Power requirements .....115/230 Vac  
 Option cards .....Dual relay option card

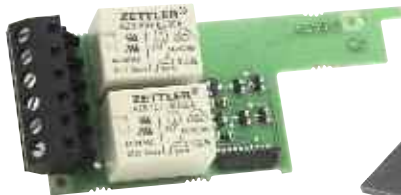
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**OPTIONAL ACCESSORIES**  
 RS232C Mating Connector  
 RS485 Mating Connector  
 2000-50000 NEMA 4 Enclosure

Outline Dimensions



Typical Plug-in option card with on board terminals



Available options are plug-in cards that provide alarm and setpoint relay outputs, analog and digital outputs, including RS 232-C and RS 485 functions.