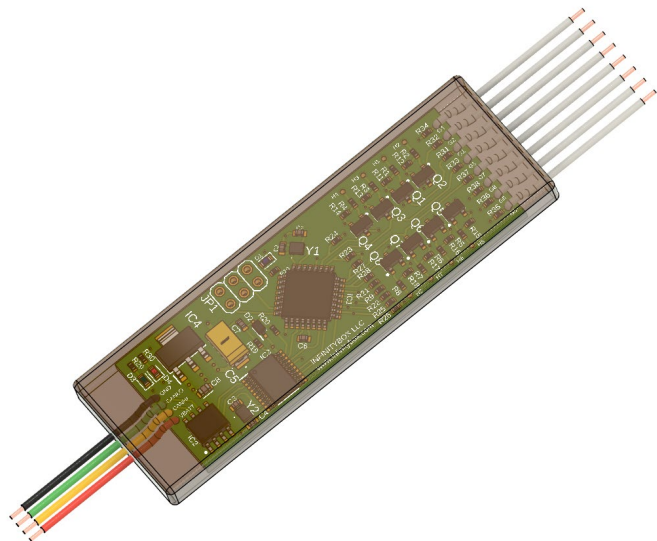


Infinitybox IOX NGX HSLS8



Product Description:

The IOX NGX HSLS8 is a compact J1939 CAN input expander module that seamlessly integrates switches and sensors into vehicle CAN networks. This field-configurable module converts up to 8 digital inputs into J1939 CAN messages, enabling simple switch control anywhere on a vehicle without complex wiring harnesses.

The NGX designates our next generation product with enhanced configurability and diagnostic capabilities. Each input can be programmed to send up to 8 ON messages and 2 OFF messages, with all configuration performed via J1939 CAN commands—no programming tools required. Available in multiple variants supporting ground-switched, high-side switched, or combination input types to match your application requirements.

The Infinitybox IOX NGX HSLS8 is ideal for adding switch control in first responder vehicles, service trucks, utility vehicles, construction & agricultural equipment, and maintenance of way applications.

Electrical Features:

- Input Voltage: 7 to 19 VDC (12V nominal)
- Inputs per IOX: 8
- Input Types: Ground-switched or High-side switched (model dependent)
- Debounce Time: 50ms with input coalescing
- Steady-State Current Draw: 25 mA nominal
- Operating Voltage Protection: Reverse polarity protected

Communication Specifications:

- Communications Protocol: J1939
- J1939 Data Rate Options: 250 / 500 and 1,000 kb/s (User selectable)
- Standard PGNs: User configurable via EEPROM
- Heartbeat Message: 1 Hz status broadcast with input bitmap
- Diagnostic Message: 5-second broadcast with error counters and uptime
- Configuration: Complete EEPROM read/write via J1939 messages
- Hot-Reload: Most settings take effect immediately without power cycle
- Message Modes: Edge-triggered or periodic rebroadcast

Connector Specifications

- Input Harness: 8 individual input wires (36" standard, custom lengths available)
- Power Harness: Red (+12V) and Black (Ground) leads
- CAN Harness: CAN HI & CAN LO twisted pair
- Custom Connector Options Available

Configurability Specifications

- Input Message Mapping: 8 ON cases + 2 OFF cases per input
- Cross-Input Aggregation: Messages with same PGN/SA are OR'd together
- CAN Bitrate: 250, 500, and 1,000 kb/s via EEPROM configuration
- Message PGNs: Fully user-definable for all message types
- Source Addresses: Configurable for all inbound and outbound messages
- Rebroadcast Mode: Edge-triggered or periodic (1 Hz)
- Non-Volatile Storage: All settings retained in EEPROM

Material Specifications

- 22-AWG TXL Wires
- Enclosure: Sealed potted module
- All Materials UL94V0

Environmental Specifications

- Operating Temperature Range: -40 C to 85 C
- Ingress Protection: IP67
- Vibration: Automotive grade
- All materials tested to meet automotive chemical exposure, salt spray and salt fog

IOX NHX HSL8 Part Number Options

Part Number		Input 1	Input 2	Input 3	Input 4	Input 5	Input 6	Input 7	Input 8
852-091-00	Switch Type	Ground	Ground	Ground	Ground	Ground	Ground	Ground	Ground
	Wire Color	White-Black	White-Red	White-Blue	White-Yellow	White-Green	Blue-Black	Blue-Red	Blue-Grey
852-091-FF	Switch Type	High-Side	High-Side	High-Side	High-Side	High-Side	High-Side	High-Side	High-Side
	Wire Color	Brown	Violet	Light Green	Light Blue	White	Yellow	Blue	Green
852-091-0F	Switch Type	Ground	Ground	Ground	Ground	High-Side	High-Side	High-Side	High-Side
	Wire Color	White-Black	White-Red	White-Blue	White-Yellow	White	Yellow	Blue	Green
852-091-3F	Switch Type	Ground	Ground	High-Side	High-Side	High-Side	High-Side	High-Side	High-Side
	Wire Color	White-Black	White-Red	Light Green	Light Blue	White	Yellow	Blue	Green
852-091-C0	Switch Type	High-Side	High-Side	Ground	Ground	Ground	Ground	Ground	Ground
	Wire Color	Brown	Violet	White-Blue	White-Yellow	White-Green	Blue-Black	Blue-Red	Blue-Grey

IOX NGX HSL8 Dimensions (In Millimeters)

