



World-Class Instrumentation for the Global Vehicle Marketplace

CAN I/O X

CAN I/O Expander Module

FEATURES

- 9 to 32 volt operation
- SAE J1939 CAN data bus communication
- Minimal footprint (18.7 sq. in.)
- Environmentally sealed against dust and moisture penetration
- Magnetic sensor input
- Speedometer or tachometer information
- Input voltage from 2 to 50 volts pk-pk, sine or square wave
- Input frequency from 0.0002 to 43690 Hz
- Two protected 0.5 amp switched to ground output
- Ten switched and analog inputs

CAPABILITIES

- Can broadcast diagnostics (DM1: FMI 0,1,3,4)
- Adjustable response filters
- Erratic pulse filtering eliminates noise
- Pulses per revolution programmable
- Programmable for PGN, SPN, and SA
- Programmable CAN broadcast interval
- Ability to change calibration through J1939 data bus
- Switched output can be activated on speed warning
- Switched output can be activated on diagnostic



AMETEK VIS' CAN I/O Expander Module (CAN I/O X) is part of the family of CAN Interface Modules used to enhance a complete vehicle instrumentation system.

CAN I/O X provides manual transmissions and mechanical engines a means to connect with electronic instrumentation by converting pulsed inputs to digital information. The module also provides switched and analog inputs that can be converted to digital data. The converted data is broadcast out on the J1939 CAN data bus at regular intervals.

The CAN I/O X module is sealed to IP67 specifications and can be mounted on the vehicle chassis. Designed to withstand harsh conditions typical of off-road environments, CAN I/O X meets all SAE J1455 and J1113 requirements for vehicular instrumentation.

APPLICATIONS

- Heavy trucks
- Buses, coaches and recreational vehicles
- Military vehicles
- Forklifts, wheel loaders and skid steers
- Cranes, road-building and construction equipment
- Earth-moving and mining vehicles
- Utility and emergency vehicles
- Farm and agricultural vehicles
- Stationary engine instrumentation
- Industrial applications



VEHICULAR INSTRUMENTATION SYSTEMS

287 27 Road, Grand Junction, CO 81503 U.S.A. • Phone: +1 970-242-8863 • Fax: +1 970-245-6267
Web: www.ametekvis.com • E-mail: info.vis@ametek.com

SPECIFICATIONS

Physical Characteristics

Housing material: black mineral-filled nylon plastic
 Connector: 18-pin sealed Deutsch

Environmental Characteristics

Temperature and humidity: meets or exceeds SAE #J1455-1994-08
 Shock and vibration: meets or exceeds SAE #J1455-1994-08
 Salt spray: meets or exceeds SAE #J1455-1994-08
 Operational temperature: -40°C to +85°C
 Sealing: IP67

Electrical Characteristics

Operating limits: 9 to 32 VDC, reverse polarity protected
 Jump-start protection:
 12-volt input: withstands 24 VDC for 10 minutes
 24-volt input: withstands 36 VDC for 10 minutes
 Transient protection: meets or exceeds SAE #J1455-1994-08

Electrical Inputs

Input voltage: 9 to 32 VDC from ignition switch
 Input current: 500 mA maximum at 13.8 VDC nominal
 Input signal: 2 to 50 volts peak to peak, sine or square wave
 0.0002 to 43,690 Hertz

Switched inputs

Switch to ground
 Switch to battery
 Resistive analog
 0-5V analog
 0-12V analog
 0-24V analog

Electrical Outputs

Data bus: SAE J1939 CAN
 Switched output: 0.5 amp grounding, internally protected

ELECTRICAL CONNECTIONS

Pin Out

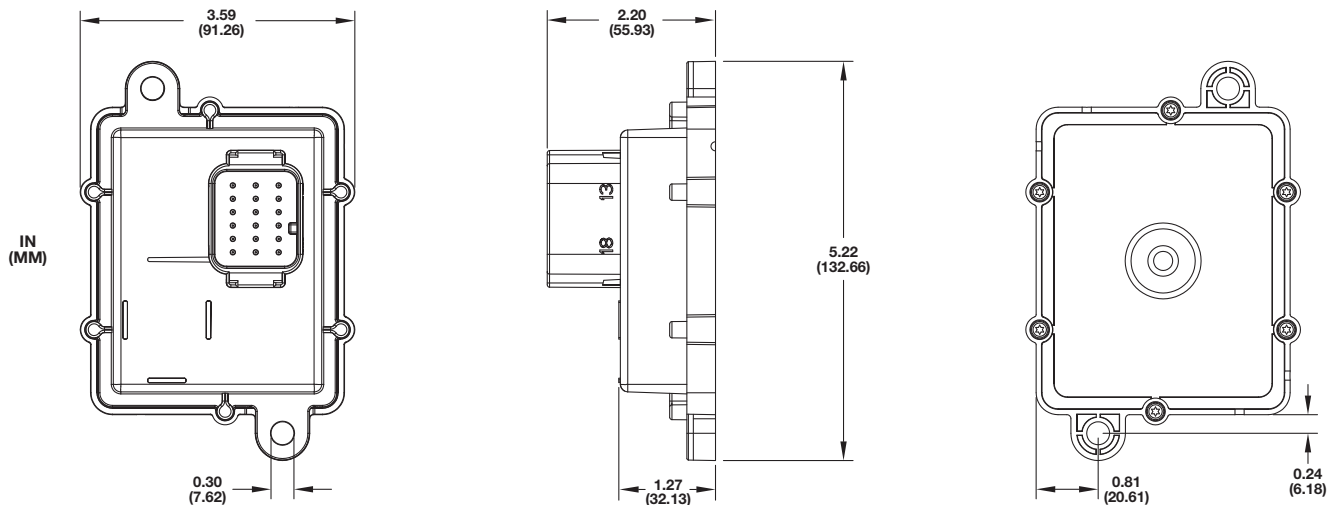
PIN	FUNCTION	NOTES
1	Battery	9 to 32 V
2	Ground	
3	J1939 (+)	
4	J1939 (-)	
5	Speed Sensor (+)	
6	Speed Sensor (-)	
7	Switch to Ground or Resistive Input*	
8	Switch to Ground or Resistive Input*	
9	Switch to Ground or Resistive Input*	
10	Switch to Ground or Resistive Input*	
11	Switch to Battery Input*	
12	Switch to Battery Input*	
13	Switch to Battery Input*	
14	Switch to Battery Input*	
15	Switch to Battery Input*	
16	Switch to Battery Input*	
17	Switch to Ground Output*	0.5 Amps max
18	Switch to Ground Output*	0.5 Amps max

* Standard configuration, contact factory for optional configuration

Mating Connector

PART	DESCRIPTION	PART #
Housing	Plug, "B" Keying	DTV06-18SB
Female Contact	16-20 Gauge, Nickel Plating	0462-201-16141
Wedge Lock		WV-185

DIMENSIONS



VEHICULAR INSTRUMENTATION SYSTEMS

287 27 Road, Grand Junction, CO 81503 U.S.A. • Phone: +1 970-242-8863 • Fax: +1 970-245-6267
 Web: www.ametekvis.com • E-mail: info.vis@ametek.com