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Description

The VisConnect™ analog/digital communication module is intended to convert out signals from the ViSmart VS-2000 and VS-2500 series viscosity sensors into industry standard output formats and protocols including 4-20mA, 0-4V analog output and RS-232.

Features

- 2 channels of 4 – 20 mA output
- Each channel is loop powered and galvanically isolated
- Optional 2 channels analog voltage (0-4V) output
- Connect to any legacy DAQ system
- RS-232 Serial communication interface

Applications

- Printing:
 - Water Based Inks
 - Solvent Based Inks
- Industrial Lubricants

Performance Specifications

| Parameter | Value |
|---------------------------------------|---------|
| Electrical | |
| Power Supply Voltage (Vdc) | 9 to 24 |
| Power Supply Noise/Ripple (mVacpk_pk) | 100 max |
| Power Supply Current (mA) | <100 |
| Overvoltage Protection Circuit | Yes |
| Reverse Voltage Protection Circuit | Yes |
| Short Circuit Protection | Yes |
| Visible LED status information | Yes |

Performance Specifications cont.

| Parameter | Value |
|-----------------------------------|---|
| Output Option 1 | |
| Number of outputs | 2 |
| Signal names | CH1 (Viscosity), CH2 (Temperature) |
| Output Current Range (mA) | 4 to 20 (per channel) |
| Loop powered | External; 20 to 24; <u>Not included</u> |
| Load (Ohm) | 500, max |
| Output Option 2 | |
| Number of Outputs | 2 |
| Signal Names | CH1 (Viscosity), CH2 (Temperature) |
| Voltage Output Range (Vdc) | 0 to 4 (per channel) |
| Maximum Load Current (mA) | 5 (per channel) |
| Communications | |
| Digital interface to Sensor | Proprietary SPI |
| Serial communication to interface | RS232 |
| Communication protocol | ASCII |
| RS232 Data Rate (kBaud) | 9600 |
| Environmental | |
| Operating temperature range (°C) | 0 to 70 |
| Storage temperature range (°C) | -25 to 85 |

Related Products

The VisConnect™ VC-1000 series communication modules integrates to:

- The ViSmart VS-2010 viscosity sensor with permanently affixed cable.
- The ViSmart VS-2510 viscosity sensor with detachable cable.

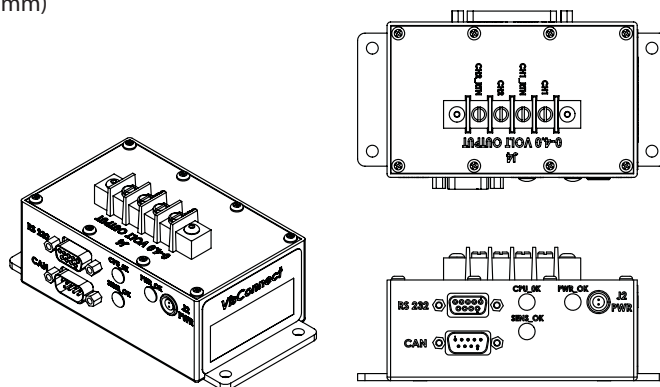
Model Number

Description

| | |
|---------|--|
| VC-1010 | VisConnect providing 4-20mA output, RS-232. Includes flying lead and power supply. |
| VC-1015 | VisConnect providing 4-20mA output, RS-232. |
| VC-1020 | VisConnect providing 0-4V analog output. Includes flying lead and power supply. |
| VC-1025 | VisConnect providing 0-4V analog output. |

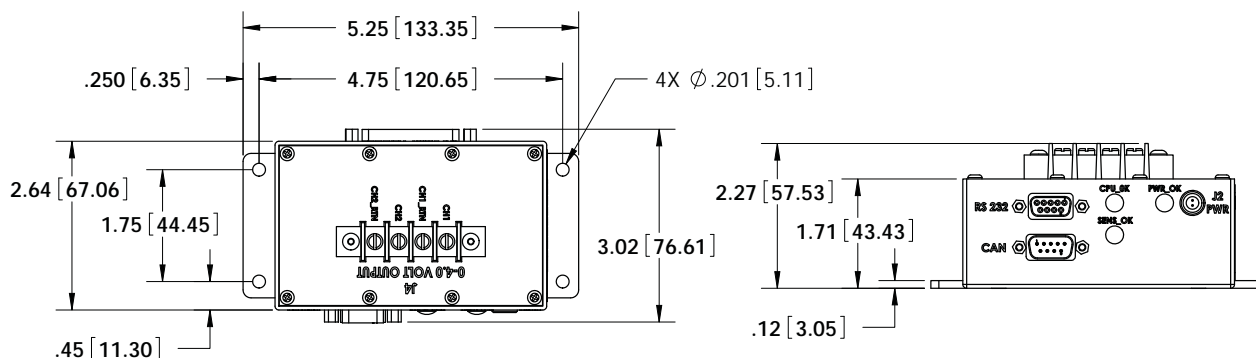
Mechanical Dimensions & Connections

5.25 x 2.64 inches (133.35 x 67.06 mm)



Physical Dimensions

Dimensions in inches (mm)



Pin Assignments

J1 SSI Connector: 25D connector - Female

| Pin# | Name | Description |
|------|------|-----------------------|
| 1 | GND | Supply Voltage Return |
| 2 | GND | Supply Voltage Return |
| 3 | GND | Supply Voltage Return |
| 4 | GND | Supply Voltage Return |
| 5 | GND | Supply Voltage Return |
| 6 | GND | Supply Voltage Return |
| 7 | GND | Supply Voltage Return |
| 8 | GND | Supply Voltage Return |
| 9 | GND | Supply Voltage Return |
| 10 | GND | Supply Voltage Return |
| 11 | GND | Supply Voltage Return |
| 12 | GND | Supply Voltage Return |
| 13 | GND | Supply Voltage Return |

| Pin# | Name | Description |
|------|-------|--------------------------------|
| 14 | V+ | 5 - 10Vdc Supply input voltage |
| 15 | CS0 | Chip select 0 |
| 16 | IRQ | Interrupt request |
| 17 | CS2 | Chip select 2 |
| 18 | NC | No connection |
| 19 | RST | Reset |
| 20 | CS1 | Chip select 1 |
| 21 | PWREN | Power enable |
| 22 | SCK | Serial clock |
| 23 | MOSI | Master Out/Slave In |
| 24 | CSMEM | Memory chip select |
| 25 | MISO | Master In/Slave Out |

J2 - Power Connector: Lemo EGG.0B.302.CLI two pins connector - Male Suitable cable mount plug Lemo FGG.0B.302.CLAD42

| Pin# | Name | Description |
|------|------|---|
| 1 | V+ | 9 - 24 Vdc supply voltage |
| 2 | GND | Supply voltage return |
| --- | SHLD | Cable shield connected to the connector housing |

Pin Assignments cont.

J3 RS232 Connector: 9D connector - Female

| Pin# | Name | Description |
|------|-----------|-----------------------|
| 1 | NC | No connection |
| 2 | RS232_TXS | Transmit data |
| 3 | RS232_RXS | Receive data |
| 4 | NC | No connection |
| 5 | GND | Supply Voltage Return |
| 6 | NC | No connection |
| 7 | NC | No connection |
| 8 | NC | No connection |
| 9 | NC | No connection |

Pin Assignments

J4 Analog 4-20mA transmitter connector: 4-pin Terminal Block

| Pin# | Name | Description |
|------|---------|--|
| 1 | CH1 | Channel 1 external supply voltage for the transmitter |
| 2 | CH1_RTN | Channel 1 external supply voltage return for the transmitter |
| 3 | CH2 | Channel 2 external supply voltage for the transmitter |
| 4 | CH2_RTN | Channel 2 external supply voltage return for the transmitter |

Optional J4 Analog voltage connector: 4-pin Terminal Block

| Pin# | Name | Description |
|------|---------|---------------------------------|
| 1 | CH1 | Channel 1 analog voltage output |
| 2 | CH1_RTN | Channel 1 return |
| 3 | CH2 | Channel 2 analog voltage output |
| 4 | CH2_RTN | Channel 2 return |

LED Indicators:

There are 3 LEDs for diagnostic purposes:

| | |
|------|------------------|
| LED1 | Power OK |
| LED2 | CPU OK |
| LED3 | Sensor Connected |

Weight: Approximate weight (oz) 10

Product status and specifications are subject to change.

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