

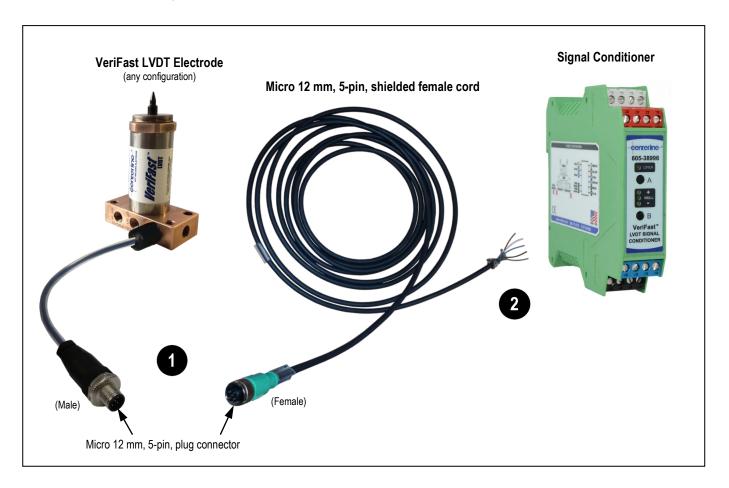
VeriFast[™] LVDT Signal Conditioner Data Sheet

www.cntrline.com

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A. Signal Conditioner to VeriFast LVDT Electrode Connection

Connect the connector of the Micro 12 mm, 5-pin, shielded female cord to the male plug connector of the VeriFast LVDT Electrode Assembly.



Connect the other end of the Micro 12 mm, 5-pin, shielded female cord to the white and red terminals of the Signal Conditioner, as indicated in the table below:

| Wiring between 5-pin Shielded Cable and Signal Conditioner | | | | | |
|--|---------------|-----------|------------------|--|--|
| Pin | Wire Color | Terminal | Description | | |
| 1 | Brown | 3 (White) | Primary coil 1 | | |
| 2 | White | 4 (White) | Primary coil 2 | | |
| 3 | Blue | 7 (Red) | Secondary coil 1 | | |
| 4 | Black | 8 (Red) | Secondary coil 2 | | |
| 5 | Grey + Shield | 5 (Red) | Shield | | |

B. Complete Signal Conditioner Electrical Connections

| Color | Terminal | Name | Function |
|-------|----------|------------------|--|
| White | 1 | SYNC I/O | Synchronization (Daisy chain for multiple units) |
| | 2 | ERROR DOUT* | Error Flag Output |
| | 3 | Primary Coil 1 | Primary Excitation to LVDT |
| | 4 | Primary Coil 2 | Primary Excitation to LVDT |
| Red | 5 | SHIELD** | Optional cable Shield connection |
| | 6 | NULL DOUT* | Remote Calibration Null Output |
| | 7 | Secondary Coil 1 | Secondary signal from LVDT |
| | 8 | Secondary Coil 2 | Secondary signal from LVDT |
| Blue | 9 | UP DOUT* | Remote Calibration UP Output |
| | 10 | DOWN DOUT* | Remote Calibration DOWN Output |
| | 11 | GND*, ** | VOUT Return |
| | 12 | VDC OUT | Output Voltage |
| Black | 13 | ZERO DIN* | Remote Calibration ZERO Input |
| | 14 | FULL DIN* | Remote Calibration FULL Input |
| | 15 | -VIN (GND)** | Supply Voltage Return (0 V DC) |
| | 16 | +VIN | Supply Voltage In (+24 V DC) |

* Used for remote calibration only.

** Terminals 5, 11 and 15 are internally connected.

C. Signal Conditioner Specifications

| Parameter | Value | | | |
|-----------------------------|---|--|--|--|
| Power: | | | | |
| Input Voltage / Current | 9 – 30 VDC, 90 mA max @ 24 VDC | | | |
| Signal Output: | | | | |
| Voltage Output | 0-10 VDC | | | |
| Frequency Response | 100 Hz Max | | | |
| Output Voltage Ripple | 1 mV _{RMS} max | | | |
| Output Non-Linearity | < ± 0.05% of FSO | | | |
| Digital I/O: | | | | |
| Input | Current Sink, High True (I = 3.0 mA Max., V = 30 VDC Max.) | | | |
| Output | Open Collector, Low True (I = 50 mA Max., V = 30 VDC Max.) | | | |
| Environmental: | | | | |
| Temperature Coefficient | < 0.02% FRO/°C | | | |
| Operating Temperature Range | -20°C to 75°C | | | |
| Enclosure | 4.5 x 3.9 x 0.9 in. | | | |
| Features: | | | | |
| Calibration | Via Front Panel Push Button or discrete digital I/O. Calibrated for use with 22 mm weld pin stroke. If 50 mm weld pin stroke is being used, please see the VeriFast LVDT User Manual, section "Re-Calibrating the Signal Conditioner". | | | |
| Synchronization Capability | Master/Slave Synchronization via single wire bus | | | |
| Null Position Detection | Via Front Panel LEDs or discrete digital I/O | | | |
| Error Detection | Primary or Secondary Wire Break Detect, indicated by blinking LEDs and Digital I/O | | | |

For more information about the Signal Conditioner and the VeriFast™ LVDT, please refer to the VeriFast™ LVDT User Manual and other supplementary documentation available at the link below: <u>https://www.cntrline.com/products/verifasttm-lvdt</u>

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