





The NTC-6000 **Quik-Cal**™ LVDT Signal Conditioner from NewTek Sensor Solutions provides an intuitive AC-LVDT setup process. Calibration is accomplished with front panel null indicators and pushbuttons to set Zero and Full Scale output positions. The NTC-6000 offers a choice of excitation frequencies, multiple analog output types, accepts a wide dynamic range of LVDT outputs, indicates LVDT connection failures, and incorporates a 2-wire RS-485 digital communications port. Along with color-coded plug-in screw terminal connectors and a 2 year warranty, these are just a few of the many advanced features that make NewTek Sensor Solutions NTC-6000 module an extremely versatile smart LVDT signal conditioner.

Features

- Quick and easy setup with front panel push buttons and LED indicators
- Selectable excitation frequency, analog outputs and bandwidth
- Automatic excitation synchronization for multiple unit systems
- Self-diagnostics for LVDT failure. disconnect or short circuit
- Digital communications via RS-485 2-wire multi-drop bus
- Hot swapability --- setup can be saved and reloaded via RS-485 port
- Cybersecurity lockout and tamper detect

Applications

- Factory automation
- Steam Valve Position Feedback
- Governor and Throttle Valves
- Materials testing
- Packaging equipment
- Turbine Control Systems
- Dimensional Gaging



Specifications

Power: Input Voltage 9-30 VDC, 90 mA max @ 24 VDC

Excitation: Primary Voltage 3 Vrms (nominal)

 $\begin{array}{ll} \mbox{Primary Current} & \mbox{30 mA max} \\ \mbox{Primary Impedance} & \mbox{90} \mbox{\Omega} \mbox{min} \end{array}$

Primary Frequency 3 kHz / 5 kHz / 7.5 KHz / 10 kHz (selectable)



NTC-6000 LVDT Signal Conditioner

Specifications (continued)

Signal Output: Voltage Output 0-10 VDC / 0-5 VDC / 0.5-4.5 VDC

/ ±5 VDC / ±10 VDC (selectable)

Current Output 4 - 20 mADCLoop resistance $1K\Omega \text{ Max}$

Frequency Response 500Hz Max (10KHz Exitation)

Low Pass Filter 1Hz / 10Hz / 100Hz / Full (selectable)

 $\begin{array}{ll} \text{Output Voltage Ripple} & 1 \text{ mV rms Max (no Filter)} \\ \text{Output Current Ripple} & 10 \,\mu\text{A rms max (no Filter)} \\ \text{Output Non-Linearity} & \pm 0.1\% \text{ of FSO (typical)} \end{array}$

Error Flag Output Open collector 50 mA, 30 V DC max.

Environmental: Coef. Of Thermal Sensitivity <0.02% FRO/°C

Operating Temperature Range -45°C to 85°C

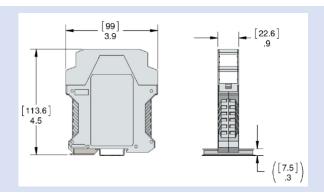
Enclosure 4.5 x 3.9 x 0.9 in. DIN Rail mountable EMC Compliance EN 61326-1: 2006, CISPR 11-A1: 2003 EN 61000-4-2: 2009, EN 61000-4-3: 2010, EN 61000-4-4: 2004,. EN 61000-4-5: 2009,

EN 61000-4-6:2009

Terminal Assignments:

1 2 3 4	SYNC I/O ERROR FLAG PRI-1 PRI-2	Synchronization Master/Slave Input/Output Error Flag Output Primary Excitation to LVDT Primary Excitation to LVDT
5 6 7 8	SHIELD SEC_CT SEC-1 SEC-2	Optional cable Shield connection (GND) Optional Secondary CT conn. (n.c.) Secondary signal from LVDT Secondary signal from LVDT
9 10 11 12	VDC OUT n.c. OUT RTN IDC OUT	Output Voltage No Connection VOUT / IOUT Return (GND) Output Current
13 14 15 16	RS-485 B RS-485 A -VIN +VIN	RS-485 Data + RS-485 Data - Supply Voltage Return (GND) Supply Voltage In

Dimensional Drawing:



PM Instrumentation | 59 rue Emile Deschanel | F-92400 Courbevoie | France +33(0)1 46 91 93 32 | contact@pm-instrumentation.com | www.pm-instrumentation.com