

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

<b>Power:</b>	Input Voltage	9-30 VDC, 90 mA max @ 24 VDC
<b>Excitation:</b>	Primary Voltage	3 Vrms (nominal)
	Primary Current	30 mA max
	Primary Impedance	90Ω min
	Primary Frequency	3 kHz / 5 kHz / 7.5 KHz / 10 kHz (selectable)

### Specifications (continued)

<b>Signal Output:</b>	Voltage Output	0-10 VDC / 0-5 VDC / 0.5-4.5 VDC / $\pm 5$ VDC / $\pm 10$ VDC (selectable)
	Current Output	4 - 20 mA DC
	Loop resistance	1K $\Omega$ Max
	Frequency Response	500Hz Max (10KHz Excitation)
	Low Pass Filter	1Hz / 10Hz / 100Hz / Full (selectable)
	Output Voltage Ripple	1 mV rms Max (no Filter)
	Output Current Ripple	10 $\mu$ A rms max (no Filter)
	Output Non-Linearity	$\pm 0.1\%$ of FSO (typical)
	Error Flag Output	Open collector 50 mA, 30 V DC max.

<b>Environmental:</b>	Coef. Of Thermal Sensitivity	<0.02% FRO/ $^{\circ}$ C
	Operating Temperature Range	-45 $^{\circ}$ C to 85 $^{\circ}$ 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	SYNC I/O	Synchronization Master/Slave Input/Output
2	ERROR FLAG	Error Flag Output
3	PRI-1	Primary Excitation to LVDT
4	PRI-2	Primary Excitation to LVDT
5	SHIELD	Optional cable Shield connection (GND)
6	SEC_CT	Optional Secondary CT conn. (n.c.)
7	SEC-1	Secondary signal from LVDT
8	SEC-2	Secondary signal from LVDT
9	VDC OUT	Output Voltage
10	n.c.	No Connection
11	OUT RTN	VOUT / IOUT Return (GND)
12	IDC OUT	Output Current
13	RS-485 B	RS-485 Data +
14	RS-485 A	RS-485 Data -
15	-VIN	Supply Voltage Return (GND)
16	+VIN	Supply Voltage In

#### Dimensional Drawing:

