



World's Most Advanced AC-LVDT Signal Conditioner

The Everight S1 DIN rail module ends the usual difficulties that accompany AC-LVDT set up with a built-in null indicator and simple front panel pushbuttons to set *zero* and *full scale*. Engineered to work with the widest range of AC-LVDTs and inductive half-bridges, the S1 module monitors LVDT operation and indicates any common failure. The S1 offers a choice of four excitation frequencies and eight analog DC outputs, as well as an RS-485 digital communications port. These features make the Everight S1 the world leader in AC-LVDT signal conditioning...

- **Smart setup with 2 front panel push buttons --- NO POTS**
- **Built-in null indicator: LEDs and separate DC null voltage output**
- **Choice of 1, 3, 5, or 10 kHz nominal excitation frequencies**
- **Use with 3-, 4-, 5-, or 6-wire LVDTs and inductive half-bridges including 3-wire GE LVDTs**
- **Choice of 6 DC voltage outputs and 2 current loop outputs**
- **40 dB range of FS outputs from LVDT: 50 mV rms to 5 Volts rms**
- **Master / slave synchronization to prevent beat frequencies**
- **13.5 - 32 Volts DC operating voltage, 80 mA max.**
- **Self-diagnostic for LVDT winding failures or cable disconnection**
- **Separate warning flag for all failures via open collector output**
- **Digital communications link via RS-485 multi-drop bus with up to 16 addresses**
- **Set up parameters can be saved and reloaded via RS-485 port**
- **Color coded plug-in connections to 22.5 mm wide DIN-rail module**
- **TWO (2) YEAR warranty instead of industry standard (1) year**



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Everight Sensors **S1** LVDT Signal Conditioner Specifications

Operating power:	13.5 to 32 V DC (24 V DC nominal), 60 mA max. at 24 V DC
Excitation voltage:	3.0 Vrms sine wave push-pull drive nominal (factory default) 4.5 Vrms sine wave push-pull drive via on-board jumper shift 1.5 Vrms single ended drive for low impedance (100 -150 Ω) primary
Excitation frequencies:	1 kHz, 3 kHz, 5 kHz, 10 kHz (nominal)
External synchronization:	Master output is capacitively coupled to up to seven slave inputs; if synchronization is lost, module reverts to local oscillator control.
LVDT AC Output Signal:	50 mVrms to 5000 mVrms at LVDT's full scale position
Analog DC Outputs:	0 - 5 V, 1 - 5 V, 0.5 - 4.5 V, 0 -10 V, 2 -10 V, 0.5 - 9.5 V, 0 -20 mA sourcing, 4 -20 mA sourcing
Loop resistance:	50 Ω min to 850 Ω max (current loop output mode, 24 V DC supply)
Output non-linearity:	$\leq 0.025\%$ of Full Span Output (FSO)
Frequency response:	-3 dB at 10% of excitation frequency (nominal) (standard: DS2-4 <i>off</i>) -3 dB at 10 Hz (nominal) (low noise setting: DS2-4 <i>on</i>)
Noise and ripple:	≤ 2 mVrms (voltage output), or ≤ 4 μ Arms (current loop output.)
Fault indication:	Loss of excitation, open primary or secondary, LVDT disconnected
Fault output:	LED indicators, open collector output, 50 mA, 26.5 V DC max.
Null detection:	Front panel LEDs, ± 30 mV threshold out of $\approx \pm 1.6$ V signal level
Null output:	LEDs, DC null voltage signal ($\approx \pm 3$ V DC = \pm FS)
Operating Temperature:	-20 $^{\circ}$ C to +75 $^{\circ}$ C
Zero set:	Front panel push button or RS-485 command
Full Scale set:	Front panel push button or RS-485 command
Digital interface:	RS-485 2-wire multi-drop network, 16 addresses

S1 Module Outline Dimensions

