

SCAC06

LVDT SIGNAL CONDITIONER

Features

- Push-button auto-calibration
- Analog voltage or current output
- Supports all standard LVDTs, RVDTs
- Master/slave excitation synchronization
- DIN35-rail mountable

User Selectable Features

- 0-5V DC, 0-10V DC, 0.5-4.5V DC, $\pm 5V$ DC, $\pm 10V$ DC or 4-20 mA output (switchable)
- 1.5Vrms or 3.0Vrms sensor excitation
- 2.5, 5, 7.5, or 10 kHz excitation frequency



The SCAC06 single-channel push-button calibrated signal conditioner from ABEK SENSORS, with a 9 - 30V DC supply, supports any standard LVDT, RVDT and half-bridge LVDT position sensor. Multiple voltage and current outputs are available simultaneously.

The SCAC06 is housed in a DIN rail-mounted plastic case with different colored terminals for differentiation and to prevent wiring errors. Two front panel calibration buttons allow calibration of the LVDT or RVDT position transducer for any range segment within the full travel range.

The SCAC06 also provides functions such as excitation voltage, excitation frequency selection, adjustment of different output bandwidths, and LVDT fault indication.

Advantages of a general-purpose LVDT/RVDT signal conditioner:

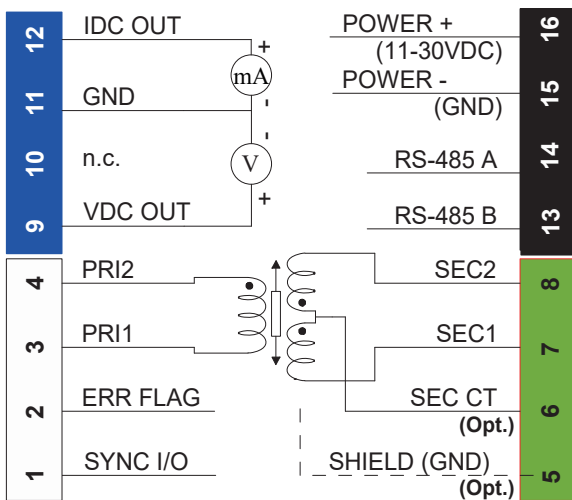
- Provides high-resolution, low-noise signal processing to ensure accurate measurement of linear displacement (LVDT) and angular displacement (RVDT).
- Supports frequency range (e.g. 2.5kHz, 5kHz, 7.5kHz, 10kHz), adapting to different excitation frequency requirements, suitable for different frequency requirements.
- Adapts to a variety of LVDT/RVDT sensors, supports sensor inputs with different ranges, sensitivities, and excitation voltages.
- Utilizes differential signal processing and electromagnetic shielding design to effectively suppress common-mode noise, making it suitable for industrial environments with electromagnetic interference (EMI).
- Offers variety of output types, e.g. 0-5V, 0-10V, $\pm 5V$, $\pm 10V$, and 4-20mA.
- The excitation voltage, frequency, filtering parameters can be adjusted by the DIP switch, providing flexible customization for diverse application requirements.

Specifications

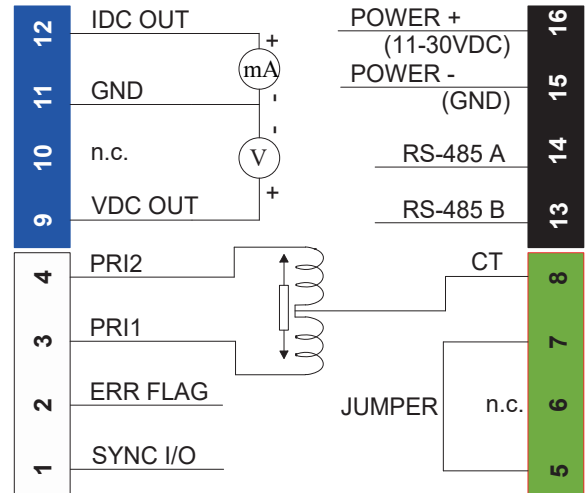
Parameter	Description
Input Voltage:	9-30V DC (24V (nominal), 90mA (max))
LVDT Excitation Voltage:	1.5 V, 3.0 V AC rms (selectable)
LVDT Excitation Frequencies	2.5kHz、5kHz、7.5kHz、10kHz(selectable)
LVDT AC Output Range:	50 mVrms to 5.5V rms at LVDT full scale position
Output:	0-5V、0-10V、±5V、±10V、4-20mA (selectable)
Output bandwidth (-3dB):	1Hz、10、100、500 Hz (selectable) , 500 Hz (Max)
Operating Temperature:	-20°C to +85°C
Noise and Ripple:	<1 mV rms (voltage output); 10 µA rms (current output)

Wiring

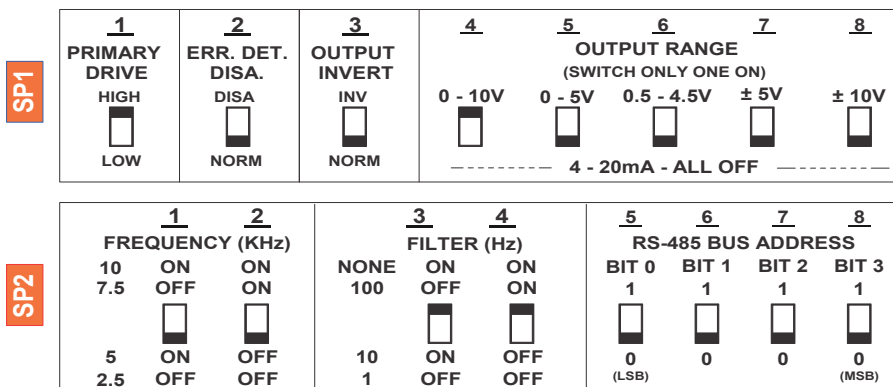
LVDT / RVDT Hookup:



LVRT Half Bridge Hookup:



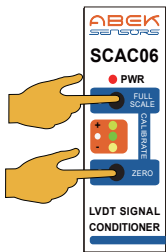
DIP SWITCH SETTINGS



Switches shown in factory default position.

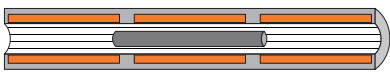
Calibration method

1. Press and hold both buttons for 3 seconds.
The red PWR LED will begin blinking.



Hold for 3 Seconds

2. Move the LVDT core to NULL position
by observing the + / N / - LEDs. T
When the Green N light illuminates, this is
the center of the LVDTs measuring range.

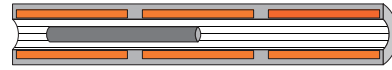


Core at the null position

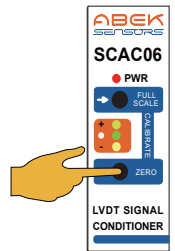
Green light illuminates



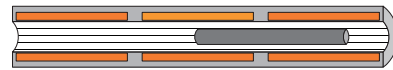
3. Attach the measured object to the core. For
best accuracy, the center of the object's range
of motion aligns with the NULL position.
4. Move measured object to its minimum
position and press the ZERO button
setting the point of lowest output.



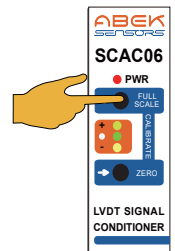
Core at desired ZERO position



5. Wait for + / N / - LEDs to stop blinking.
6. Move measured object to its maximum
position and press the FULL SCALE
button. The PWR LED will
remain lit. The unit is now
calibrated.



Core at desired FULL SCALE position



Dimensions

