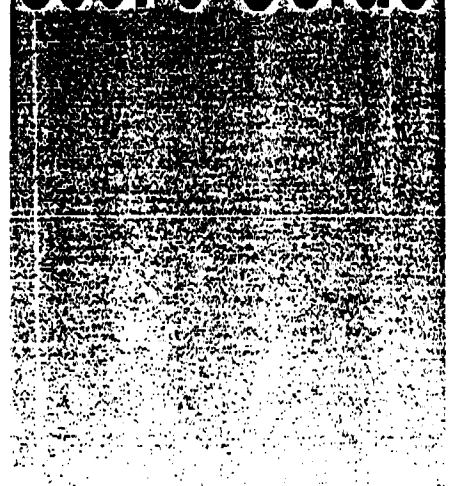
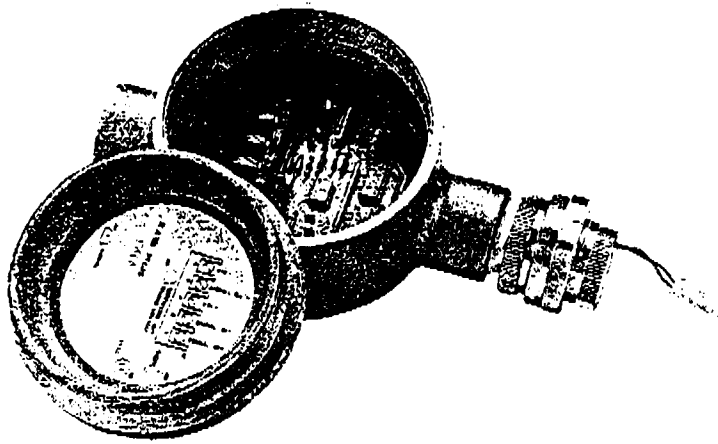


User's Guide



<http://www.omega.com>
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FLSC-64 Pulse Amplifier

FLSC-64 PULSE AMP SPECIFICATIONS

Temperature:	Operating -40° - 85°C Storage -65°C - 125°C
Input Voltage:	6 - 28 VDC 5 ma @ 24 VDC Protected against polarity reversal
Signal Input:	Frequency 0 - 10 KHz Amplitude 20mvp-p Minimum sine or squarewave Sensitivity field adjustable Impedance 10 K @ 10 KHz
Output:	6 - 28 VDC squarewave proportional to input voltage Minimum load @ 250 ohms Short circuit protection
Features:	Individual L.E.D. indicators for Power & Output Signal Built In Test oscillator that injects 4 Hz test signal when Test P/B depressed Mounts directly on flowmeter
Enclosure:	FM Approved, C.S.A. Certified Class I Groups B, C, D Class II Groups E, F, G Weight - 1.7 lbs.

The FLSC-64 amplifies and conditions low amplitude signals such as those developed by a magnetic pickup coil. The amplitude of the squarewave output equals the input supply voltage of the FLSC-64 Signal Amplification and Conditioning permits trouble free interfacing between low amplitude signal sources and electronic devices requiring pulse inputs.

The sensitivity adjustment permits the FLSC-64 to discriminate between an input signal and noise by increasing (CCW) or decreasing (CW) the input signal amplitude necessary to be processed as a valid signal. This, in conjunction with direct mounting, allows the FLSC-64 to operate effectively in noisy environments.

The FLSC-64 contains a built in test oscillator that enables the operator to verify the amplifiers operation without a signal source. The power LED illuminates when the input supply voltage is present.

BENCH TEST CALIBRATION PROCEDURE:

REQUIRED EQUIPMENT - Power Supply 6-28V, Frequency Generator, Oscilloscope

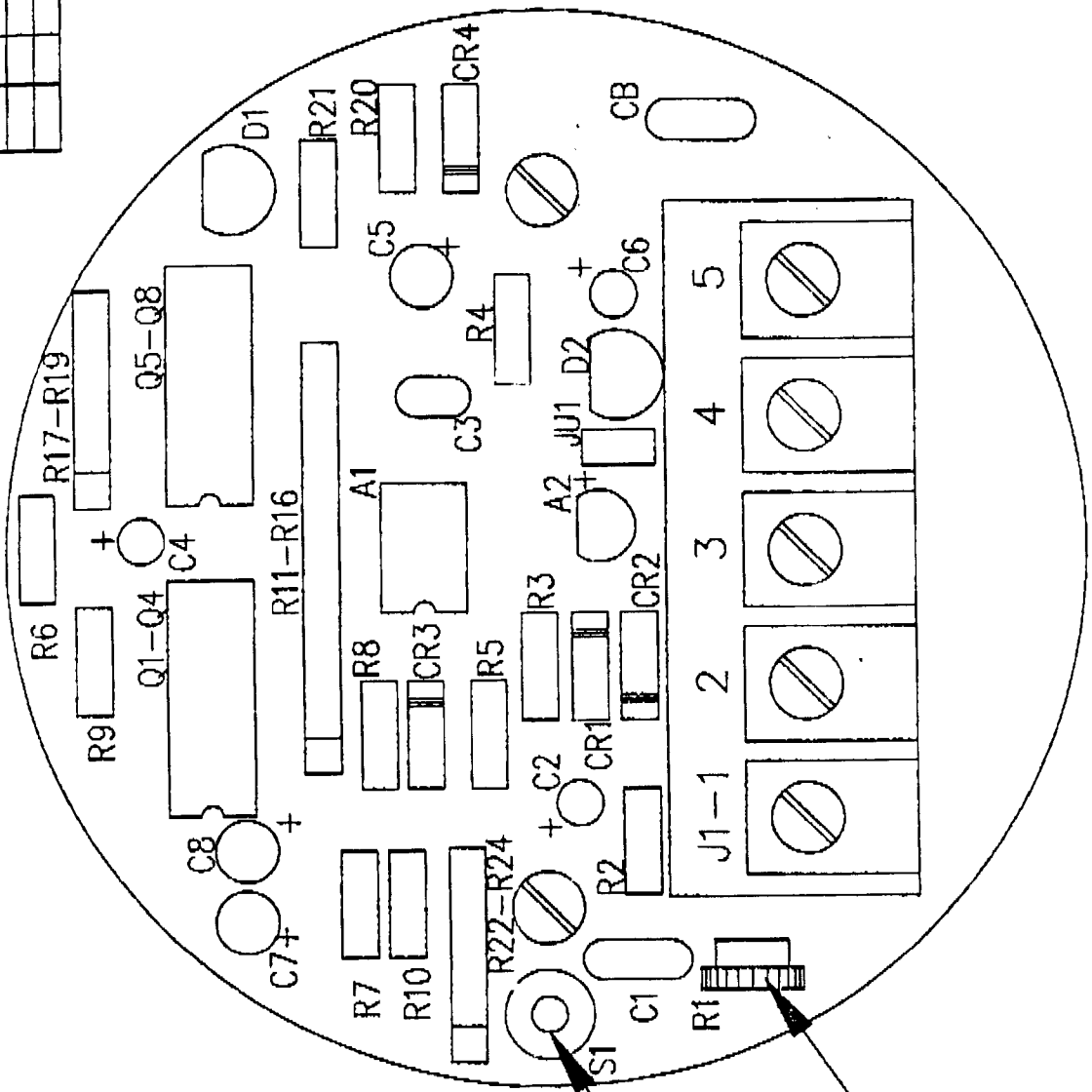
Test Procedure:

- A) Connect Power Supply Positive & Negative Leads to J1-3,5 Respectively
- B) Connect O'Scope Positive & Negative Leads to J1-4,5 Respectively
- C) Connect Frequency Generator Positive & Negative Leads to J1-1,2 Respectively, Set Function to Sinewave, Amplitude to Zero
- D) Install Jumper @ JU1, Set 'Sensitivity' Adjust (R1) Mid Range
- E) Turn Power Supply 'ON', Observe LED D₁ Illuminates & O'Scope Displays a .6v DC Level Maximum
- F) Depress S1, LED D₂ Flashes & the O'Scope will display a 4Hz Squarewave with a Positive Amplitude will be a .6v < Power Supply Positive Potential & the Negative Amplitude will be a .6v > Power Supply Negative Potential
- G) Release S1, Set 'Sensitivity' Adjust (R1) Fully Clockwise, on the Frequency Generator set the Amplitude to 20mv & the Frequency between 1Hz-10KHz
- H) O'Scope will display a Squarewave at the same Frequency selected in Step G. The Squarewave Amplitude will be the same as Step F.
- I) While observing the O'Scope Display, Momentarily Short Pins J1-4&5 Together- The O'Scope Display will be a slight Squarewave with an Amplitude .6v or Less. When the short is removed the O'Scope Display will return to the Normal Amplitude Squarewave

Field Test:

- A) Insure ALL Connections are Correct & Secure
- B) LED D1 should be Illuminated, if not check Supply Voltage @ J1-3,5 Note that J1-3 must be positive in respect to J1-5 to function
- C) Install Jumper JU1 if not already installed, set 'Sensitivity'; (R1) Mid Range
- D) Depress S1 & Observe LED D2 Flashes - No Go, Remove wire @ J1-1 Retest, No Go-Replace Pulse Amp
- E) Given Proper Flow Exists LED D2 should be Flashing (High Flow Rate will make D2 appear to be Illuminated Steadily. If D2 is 'OFF' Rotate 'Sensitivity' adjust (R1) CW until D2 Illuminates. If D2 Remains 'OFF' Check Pick-Up Coil & Flowmeter.

DATE	REV	REVISION RECORD	AUTH	DR



VIN -
 SIGNAL OUT
 VIN +
 SIGNAL IN -
 SIGNAL IN +

TEST

SENSITIVITY

OMEGA FILE: \OMEGA\FSC64-8.DWG DESCRIPTION	SCALE	DRAWN BY
	NONE	DATE 5-5
FSC-64 PULSE AMPLIFIER PCB CODE DRAWING NUMBER	REV. #	DATE
EM FSC-64-PCB-01	APPR. BY	DATE

Where Do I Find Everything I Need for Process Measurement and Control? OMEGA...Of Course!

TEMPERATURE

- Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- Wire: Thermocouple, RTD & Thermistor
- Calibrators & Ice Point References
- Recorders, Controllers & Process Monitors
- Infrared Pyrometers

PRESSURE, STRAIN AND FORCE

- Transducers & Strain Gauges
- Load Cells & Pressure Gauges
- Displacement Transducers
- Instrumentation & Accessories

FLOW/LEVEL

- Rotameters, Gas Mass Flowmeters & Flow Computers
- Air Velocity Indicators
- Turbine/Paddlewheel Systems
- Totalizers & Batch Controllers

pH/CONDUCTIVITY

- pH Electrodes, Testers & Accessories
- Benchtop/Laboratory Meters
- Controllers, Calibrators, Simulators & Pumps
- Industrial pH & Conductivity Equipment

DATA ACQUISITION

- Data Acquisition & Engineering Software
- Communications-Based Acquisition Systems
- Plug-in Cards for Apple, IBM & Compatibles
- Datalogging Systems
- Recorders, Printers & Plotters

HEATERS

- Heating Cable
- Cartridge & Strip Heaters
- Immersion & Band Heaters
- Flexible Heaters
- Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- Metering & Control Instrumentation
- Refractometers
- Pumps & Tubing
- Air, Soil & Water Monitors
- Industrial Water & Wastewater Treatment
- pH, Conductivity & Dissolved Oxygen Instruments