



Series 9000 Level Transmitter

USER MANUAL

Issue 4

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9k User Manual

Checks on unpacking the unit:

Check that the unit corresponds to the packing note and your requirements. Inspect for signs of damage. Check that power supply and output type matches your requirements.

Installation

Check that operating temperatures are within the range of the instrument.

Check that materials of construction are compatible with the product.

Install sensor to correct application & to the correct data sheet for the instrument type, ensuring no damage is made to the diaphragm or capsule.

Install transmitter enclosure to suitable wall or mounting plate, the enclosure uses 4 off M4 fixing holes.

Electrical Installation

Connect the special 6 core vented cable to the PCB ensuring that the cable is not cut or damaged. Care must also be taken to ensure that the vent tube is neither blocked nor kinked, as this will cause errors in measurement.

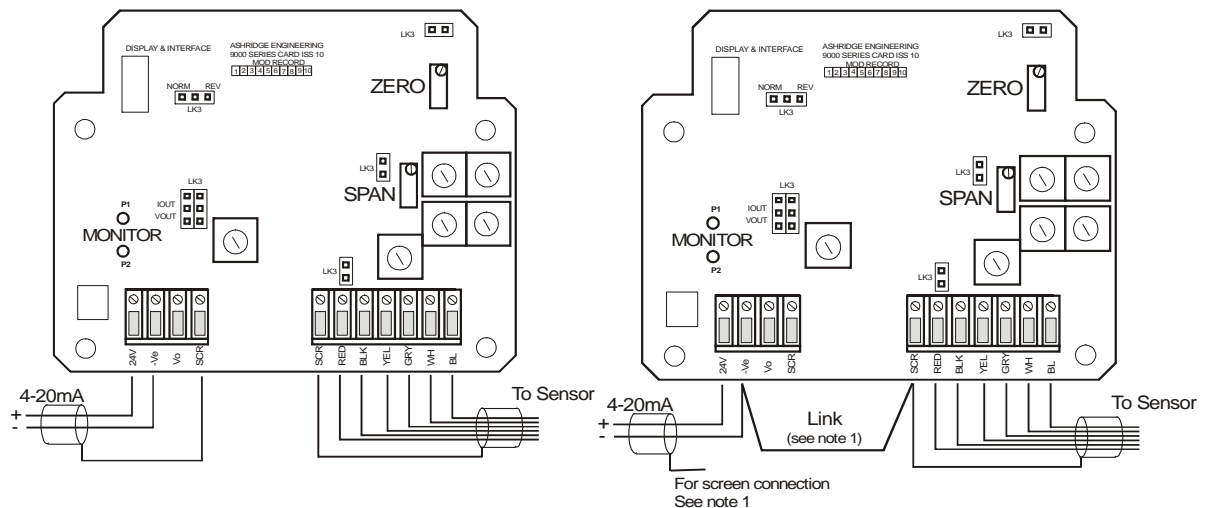
Connect dc voltage; ensuring the voltage is between 10 & 30Vdc and that polarity is correct, leave the transmitter some minutes to allow the system to settle before setting the 4mA.

With no input pressure use the ZERO pot to adjust the analogue output for 4.00mA using an accurate digital multimeter.

Changing output type

To **Reverse** the output (from 4mA for zero input pressure to 20mA for zero input pressure) remove the board from the enclosure and on the reverse side locate the 3 pin header. First cut the small track around the top of the outer pins then move the link to the inner two pins. For ease of calibration use the normal procedures above to calibrate the unit before reversing the output. With no input pressure adjust the 20mA using the zero pot and adjust the 4mA using the span pot.

IF IN DOUBT ASK



Normal connections

Connections for high levels of interference

Note 1: Where high levels of interference are experienced, remove the input screen earth and connect the link for sensor screen as shown above

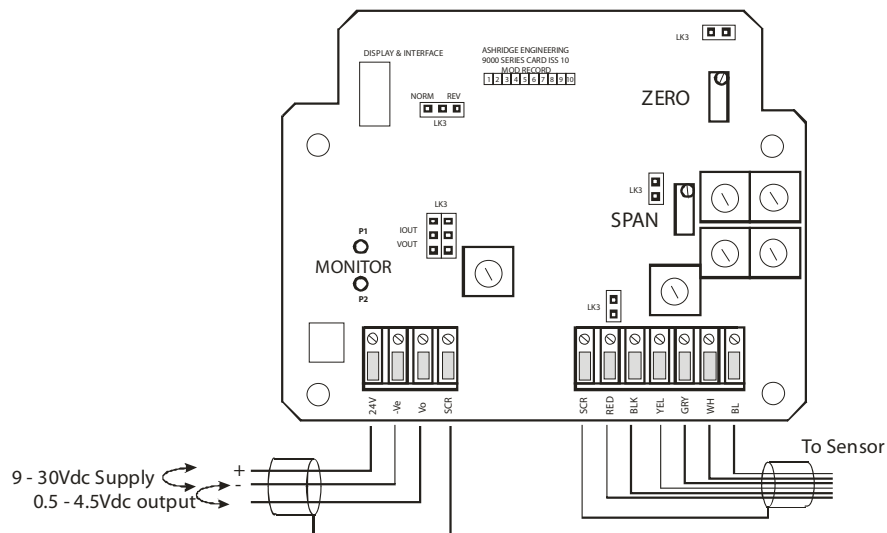
Connections for voltage output

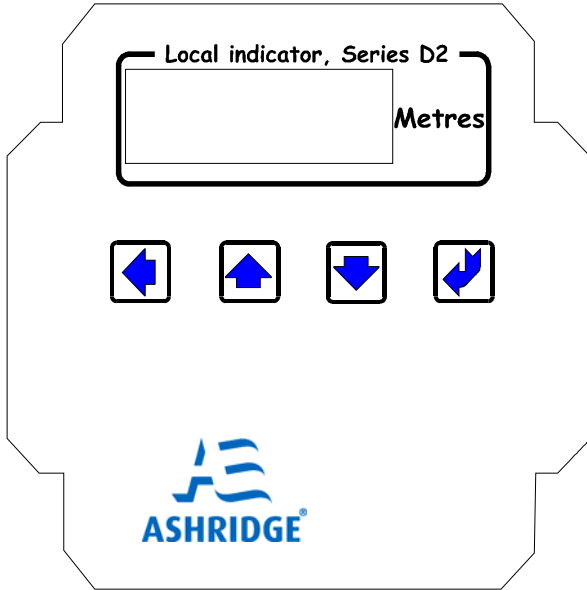
Voltage output range: 0.5 to 4.5Vdc

To change from milliamp output to Voltage output, remove PCB and locate LK3 and move the two jumpers to VOUT.

To change from Voltage output to milliamp output, remove PCB and locate LK3 and move the two jumpers to IOU.

All other aspects of calibration i.e., span and zero are unaffected.





Normal use

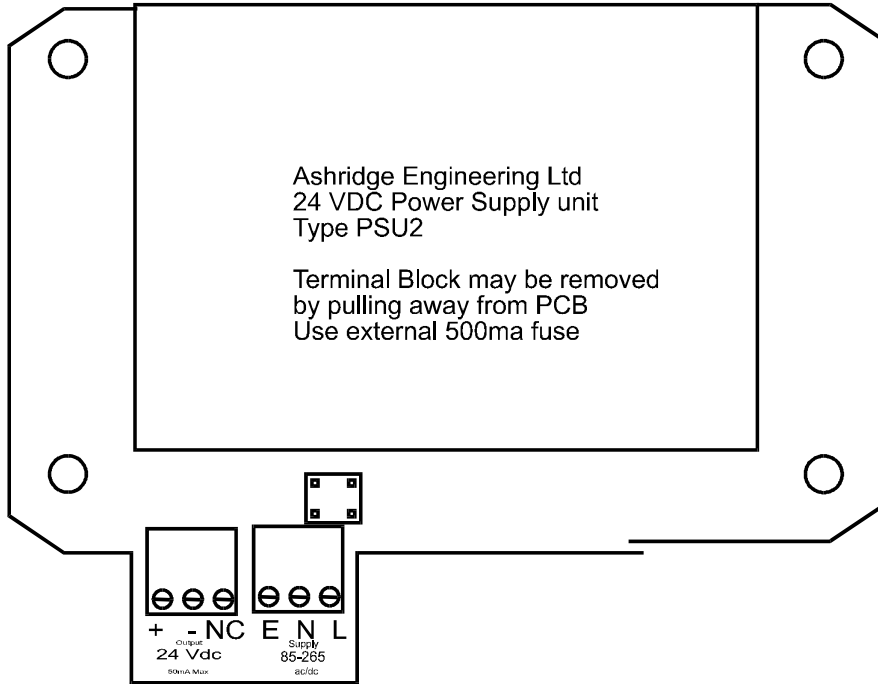
Under normal use the indicator will have been correctly set by the factory to the range required in the purchase order, in this case the keys should not be used.

Making changes to the settings

Hold down the left key, followed by the enter key (display shows password), release the keys and use the up key to enter password 5, now use the enter key to step through the parameters listed below, noting that only 4 are user adjustable, the remainder are 'read only'. **Note, holding down the enter key indicates the next parameter.**

To make adjustments, use the up/down key together with the right key until the edited value is correct. After making the adjustments, continue pressing the enter key until the "SAVE Y" is shown, then press the enter key again to save the changes. To abort changes press the down key to "n" followed by the enter key this allows the user to scroll through all of the parameters again. Abort at any time by pressing the down key followed by the enter key:

<u>Parameter</u>	<u>Value</u>	<u>Remarks</u>
VERS	Code version	Not adjustable
SERIAL	Instrument serial number	Not adjustable
MODE	Mode of operation	Not adjustable
START	Reading at 4mA	User setting between -30000 & 30000
END	Reading at 20mA	User setting between -30000 & 30000
FILTER Filter		User adjustment, leave at less than 5
DEC PL	Decimal places (3 is 9.999)	User adjustment
INTEG		Not adjustable
1ZERO		Not adjustable
1SPAN		Not adjustable
1 LIN		Not adjustable
0 ZERO		Not adjustable
0 SPAN		Not adjustable
BAUD		Not adjustable
ADRESS		Not adjustable
PERIO		Not adjustable
ONTIN		Not adjustable
SAVE	Y	



Integral Power Supply : 85 - 265V ac/dc.
Connect PSU +24V to +24V on 9K Transmitter PCB

4-20ma output is now -Ve of 9K Transmitter PCB and - of PSU2 terminal block

Diagram 2

