TVA Flowmeter for Saturated and Superheated Steam Service

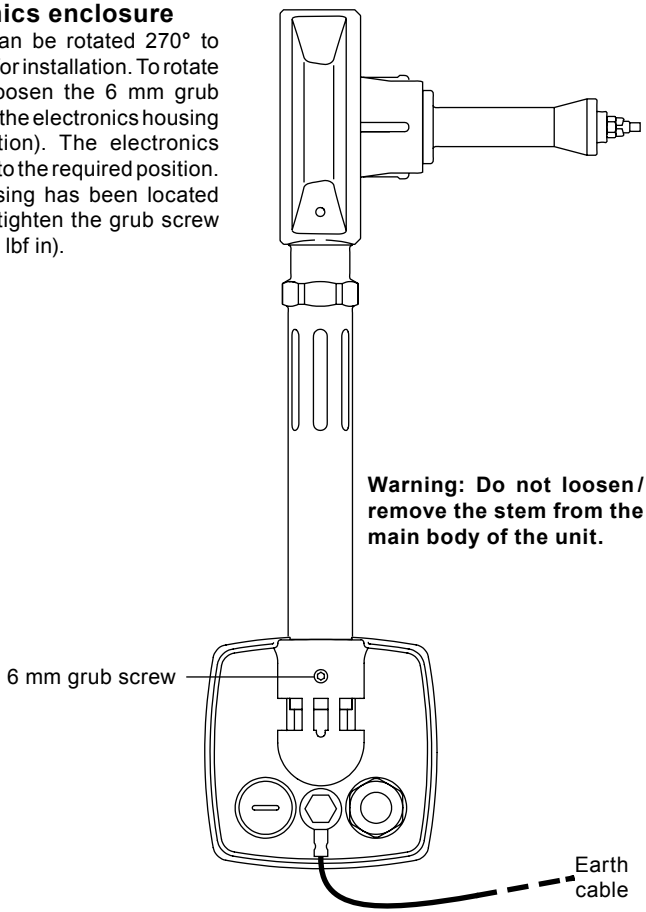
Essential Installation Guide

This guide must be read in conjunction with the Installation and Maintenance Instructions (IM-P192-02) supplied with product.

This guide highlights the minimum installation requirements to ensure that the product performs to user expectations.

Rotating the electronics enclosure

The electronics housing can be rotated 270° to enable sufficient clearance for installation. To rotate the electronics housing, loosen the 6 mm grub screw situated on the rear of the electronics housing (see the adjacent illustration). The electronics housing can now be rotated to the required position. When the electronics housing has been located into the correct position retighten the grub screw to a torque of 1.3 N m (11.5 lbf in).

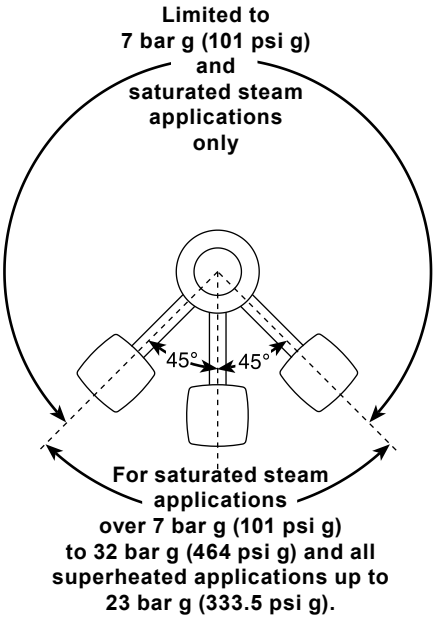


Printed in GB

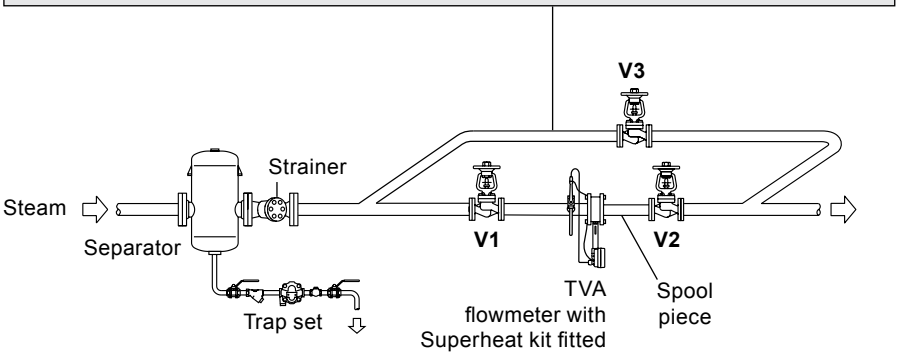
Horizontal installation

CAUTION:
If the electronic housing is mounted at an angle of more than 45° from the vertically downward position the PMO (maximum operating pressure) must be limited to 7 bar g (101 psi g) and saturated steam applications only.

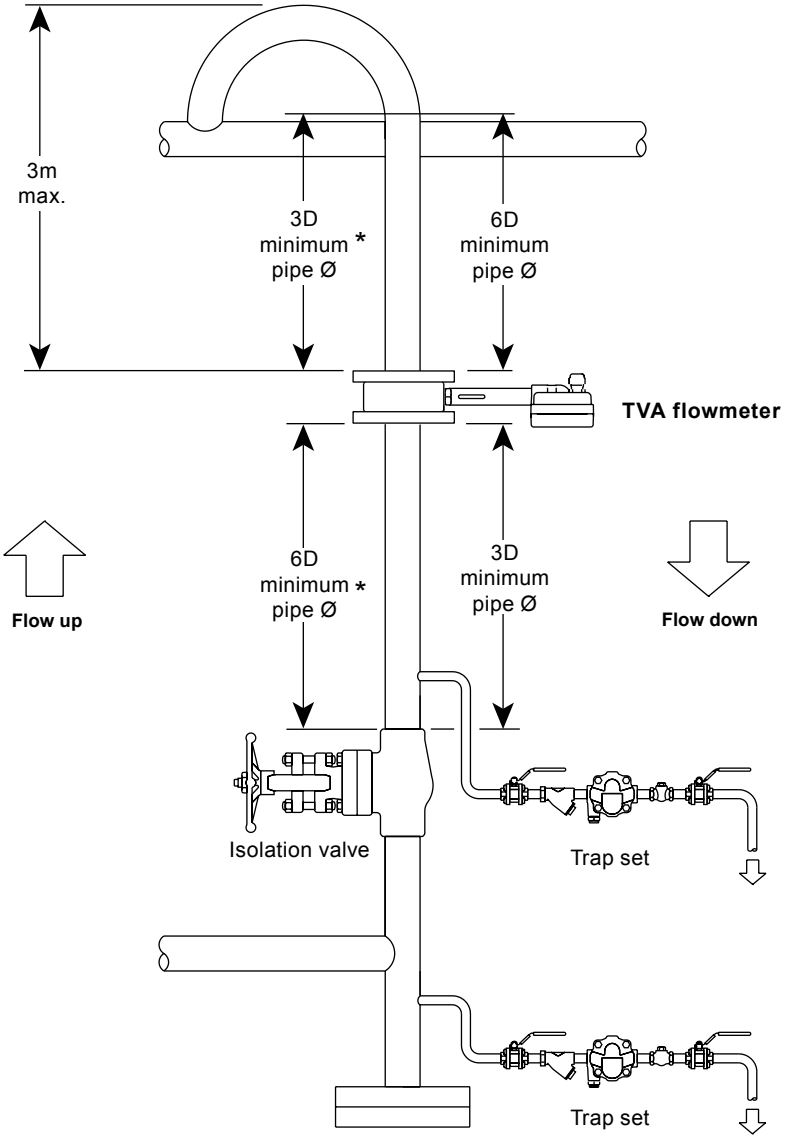
Fitting the TVA in this orientation when the RS485 board is fitted ensures that the display can be read easily.



A bypass line will enable safe removal of the TVA flowmeter for maintenance or calibration. Closing valves **V1** and **V2** and opening valve **V3** will allow the TVA flowmeter to be isolated for re-zeroing (temperature to be <20 °C).



Vertical installation

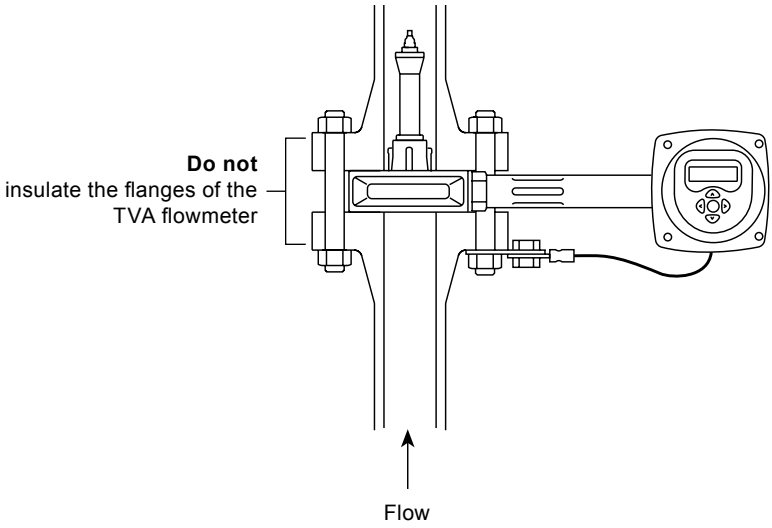


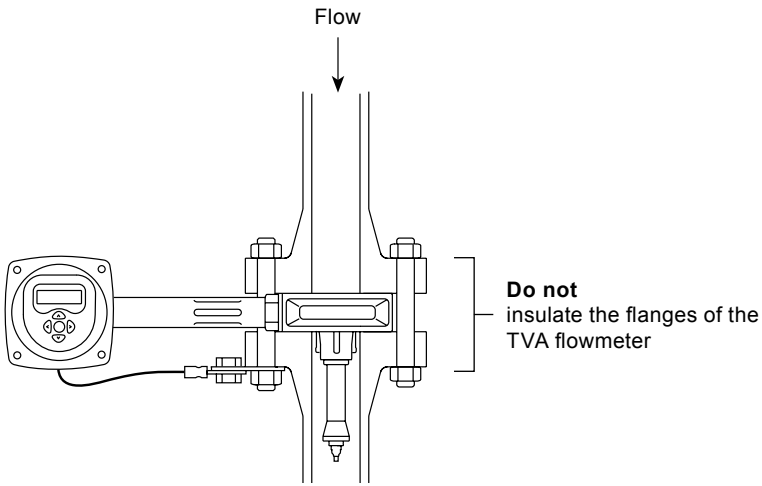
***** A spool piece may be fitted to the downstream side of the TVA flowmeter - see above.

Vertical installation

Limited to 7 bar g and saturated steam applications.

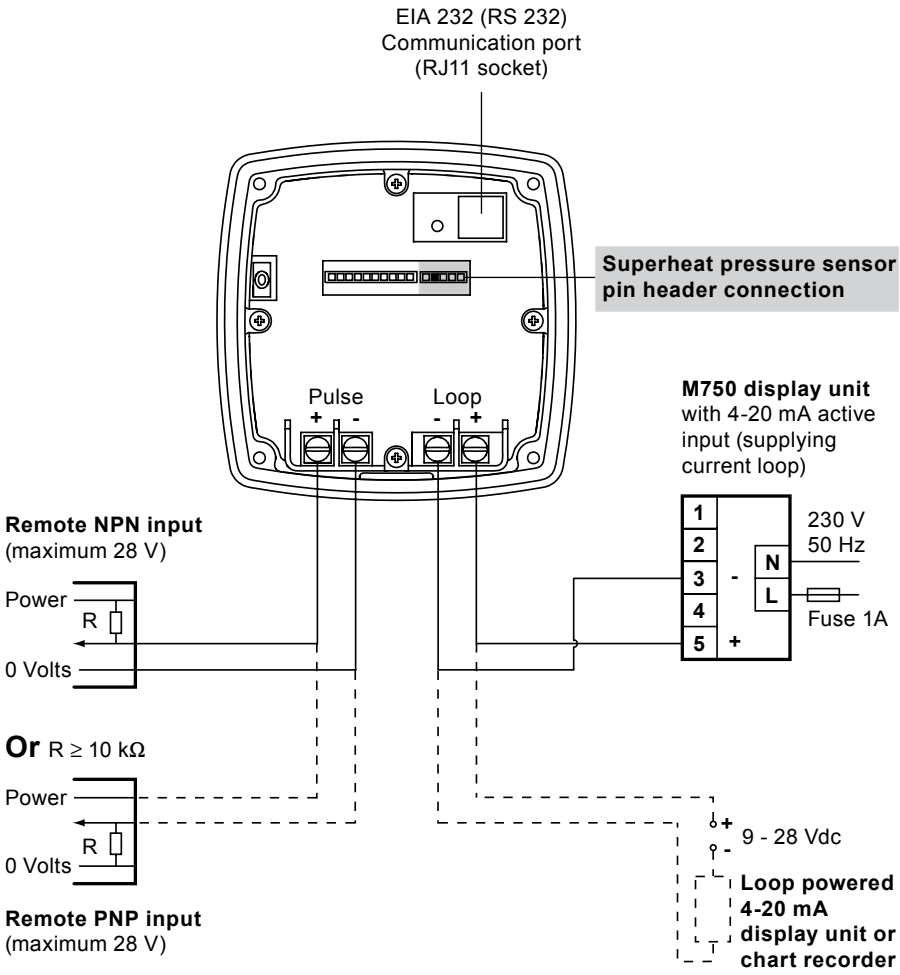
The flowmeter can only be used on superheated steam applications when fitted in a horizontal pipe.





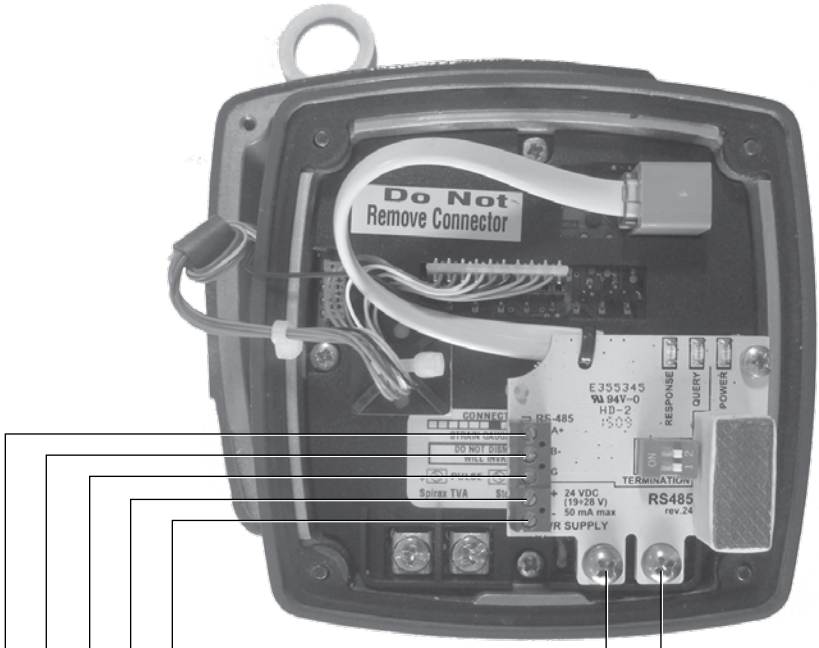
Electrical installations -
with standard EIA 232 (RS 232) communications.

See IM-P192-02, page 24 for further details



Cable size: 0.5 mm²
Maximum length: 300 m
Voltage: 9 - 28 Vdc

Electrical installations -
with EIA 485 (RS485) communications



Note: Do not reconnect loop power supply to these terminals when RS485 board fitted.

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Power supply 24 Vdc (19 - 28v) 50 mA maximum

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GND data

B - data

A + data