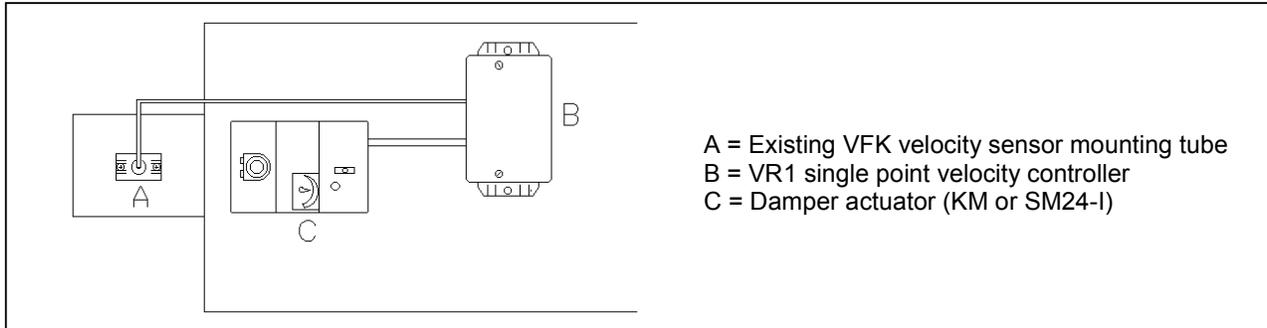
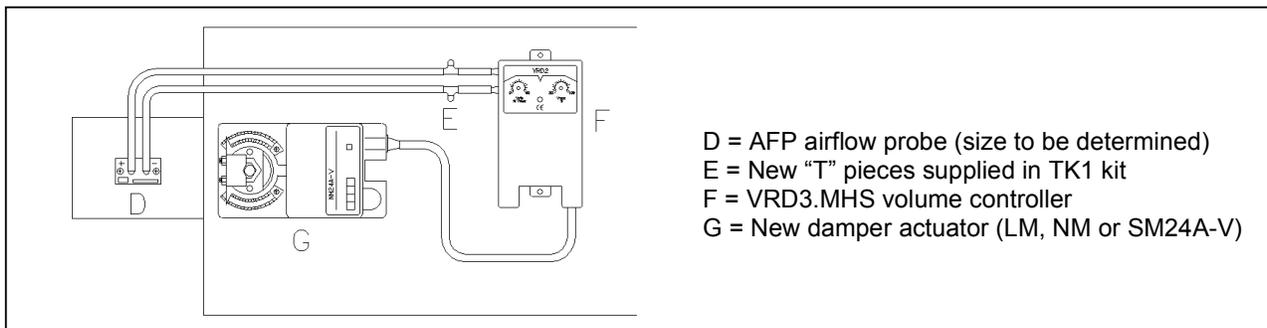


The Belimo range of VR1 single point velocity controllers has been discontinued. Where the existing VR1 velocity controller is found to be faulty it will be necessary to replace it with a new VRD3.MHS volume controller, new type damper actuator(-V), AFP air flow probe and TK1 tubing kit.

## Old unit – VR1



## New unit – VRD3.MHS



1. Isolate 24V power.
2. Disconnect existing VR1 velocity controller (**B**) (make a note of the connection details i.e.: -all cable colours/terminal numbers).
3. Disconnect the existing actuator cable from the VR1 volume controller.
4. Remove the volume sensor from the VFK sensor mounting tube (**A**).
5. Remove the VR1 velocity controller, the damper actuator and the VFK sensor mounting tube.
6. Measure the diameter of the primary inlet ductwork (at the position of the removed VFK sensor mounting tube) alternatively the box size may be printed on the manufactures legend plate.
7. Fit the appropriate AFP airflow probe (**D**) in to the same holes left by the old VFK sensor mounting tube, be sure to take note of the direction of airflow printed on the AFP sticker.
8. Fit the new VRD3.MHS volume controller (**F**), the screw holes from the old VR1 velocity controller can be used, (if the volume tube connections are obstructed in any way the unit may need to be remounted in a more suitable position).
9. Rewire the new VRD3.MHS volume controller (it is wired in exactly the same way as the old VR1 velocity controller).
10. The existing (KM or SM24-I) VAV damper actuator will need to be replaced as these actuators are not compatible with the new VRD3.MHS. The replacement actuators will be LM24A-V, NM24A-V or SM24A-V which are mounted in exactly the same way as the old actuators.
11. Plug in the new VAV damper actuator (**G**) connection cable directly into the VRD3.MHS.
12. Using the TK1 tubing kit (**E**) connect the VRD3.MHS to the AFP airflow probe. Make sure the tubes are connected correctly at both ends, the (+) connections should be made with the RED tube and the (-) connections should be made with the BLUE tube.
13. The new VRD3.MHS will now need to be airflow calibrated to ensure it operates correctly and provides the required volumes.

**NOTE:- You will require a new damper actuator, airflow probe and tubing kit with each new VRD2.MHS volume controller installed. If the existing temperature controls are manufactured by Staefa you will need to use the VRD3L.MHS volume controller which has a 0-20v phase cut input terminal.**