1. **General safety information**
   Please read Safety Information Sheet IM-GCM-10 as well as any National or regional regulations, before installing/using this product.

2. **General product information**
   The Spiratec R1 provides a remote test point for one Spiratec sensor. The R12 provides the same facility for up to twelve Spiratec sensors.

3. **Installation:**
   1. Decide on the most convenient cable entry. Remove the front cover by taking out the four securing screws and drill the required hole in the side or back of the test point. Fit a suitable waterproof cable entry (Figure 1).
      
      **Note:** The R1 cover will only fit one way round.

   2. Secure the test point to a flat surface using the four fixing holes outside the sealed enclosure.

   3. Connect the plug tail (PT2 or PT3) into the pipeline sensor. Extend the 1.25 m (4.1 ft) of cable provided by connecting a suitable length of twin core cable. The type of cable is not critical - standard equipment wire with 20 gauge conductors or 7/0.2 multi-strand wire is suitable. The connector type is not critical, but it should be made waterproof if exposed to moisture. The extension cable should be passed through the cable entry (Figure 2).
3. Installation (continued):

4. In the case of the R1, connect the extension to the terminals inside the cover.

5. In the case of the R12, connect the extensions from all red or green wires to the numbered terminals on the edge connector, noting the number of each sensor (refer to Figure 3). The test sheet provided can be used for this purpose. Extensions from all blue wires should be connected to the square earth bar in the base of the box. With screw heads facing outwards, push the edge connector into the printed circuit board.

6. Replace the front cover and the four securing screws.

4. Operation
Plug the Type 30 or Type 40 indicator cable into the socket provided and use the indicator in accordance with its instructions. In the case of the R12 the rotary switch should be used to select the sensor to be checked.

5. Maintenance
No specific maintenance is required.

6. Spare parts
No spares are available for the R1 and R12 test points. Spare PT2 and PT3 cable assemblies are available (1.25 m leads).