

RO-TB/JB/TJ TERMINAL AND JUNCTION BOXES

Datasheet RO-TB/JB/TJ



**Description**

Terminal boxes are used for projects that require the integration of cables from multiple instruments into one convenient location.

A terminal box consists of a fibreglass or diecast aluminium enclosure with a variety of size and switching options.

**Features**

- Terminates Vibrating Wire, thermistors and two- or four-wire type instruments
- Standard Junction/Terminal Boxes (switching and non-switching) cater for 12, 24 or 48 instruments
- Small Terminal Box (non-switching) connects up to 5 separate instruments

**Benefits**

- Ideal solution for terminating multiple cables
- Allows joining of several individual cables into a single multicore cable
- Provides convenient access for readings
- Provides protection from water ingress and corrosion resistance



Comprehensive information about this product and our full range is available at [www.soil.co.uk](http://www.soil.co.uk)  
If you would like to speak with someone directly please call +44 (0)1825 765044 or email [sales@soil.co.uk](mailto:sales@soil.co.uk)

## Operation

There are several options available:

- Switched boxes provide connection for the readout; instruments are accessed one at a time via the selector switch
- Non-switched boxes allow for direct connection to the sensor
- Junction boxes allow multiple cables to be incorporated into a single multicore cable

### Small Terminal Box – Non-switching

These small terminal boxes are used to take a reading of between one and five Vibrating Wire instruments (including their integral thermistor) using one of Soil Instruments VW Readouts. The instrument cable from each individual Vibrating Wire sensor enters the terminal box via a sealing cable gland and is connected to a terminal block. There is a pre-made connection between the terminal block and a circular connector for use with Soil Instruments readout.

### Terminal Box – Switching

Switched terminal box enclosures are made of fibreglass reinforced polyester. The enclosure comes complete with a hinged lid, cable entry glands and internal termination board. They are used to take manual readings of multiple instruments using a single readout connection point and a rotary switch. There is a standard allowance of 12, 24 or 48 instruments.

### Junction Boxes – Non-switching

These enclosures are made of fibreglass reinforced polyester. The enclosure comes complete with a hinged lid, cable entry glands and internal termination board. They are used to join or extend cables en route to a terminal box or datalogger; it is common to take multiple cables into one multicore cable. There is a standard allowance of 12, 24 or 48 instruments.

### Junction Boxes – Switching

Switched junction boxes allow multiple cables to be integrated into a single multicore cable, as well as offering the option to take manual readings. The manual readings are taken using a single readout connection point and a rotary switch. There is a standard allowance of 12, 24 or 48 instruments.

## Applications

Typical applications include:

- Dams
- Cuttings
- Earthwork contracts
- Structural instrumentation
- Landfill sites
- Slope stability



## Associated products

For details on:

Catalogue code:

Dataloggers

D1

VWnote

RO-1-VW-NOTE

Cables

CA

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### THE TECHNICAL RATING FOR THIS PRODUCT:

**BASIC**

As the correct installation of any monitoring sensor or system is vital to maximise performance and accuracy, Soil Instruments makes the following recommendations, for the skill level of the installation contractor.

#### ADDITIONAL SUPPORT

We offer installation and monitoring services to support this system. For more information please email : [sales@soil.co.uk](mailto:sales@soil.co.uk) or call : **+44 (0) 1825 765044**

**ADVANCED**

The installer is trained and experienced in the installation of this type of instrument or systems, and is ideally a specialist Instrumentation and Monitoring contractor.

**INTERMEDIATE**

The installer already has previous experience and/or training in the installation of this instrument or system.

**BASIC**

As a minimum the installer has read and fully comprehends the manual, and if possible has observed these instruments or systems being installed by others.

## Specifications

### Small Terminal Box – Non-switching

Number of instruments	1 - 2		3 - 5	
Instrument with thermistor			Yes	
Length	160mm		220mm	
Width			100mm	
Height			81mm	
Instrument cable range			5mm - 13.5mm	
Operating temperature			-20 to +80°C	

### Terminal Box – Switching, Junction Box and Terminal/Junction Box – Switching

Number of instruments	12		24		48	
Instrument with thermistor	No	Yes	No	Yes	No	
Length	360mm	540mm	540mm	720mm	720mm	
Width	270mm		270mm		360mm	
Height	180mm		180mm		230mm	
Instrument cable range			5mm - 13.5mm			
Multicore cable glands (Junction box)	1	1	1	2	2	
Multicore cable range			12mm - 18mm			
Operating temperature			-20 to +80°C			

## Ordering Information

### Small Terminal Box – Non-switching

For termination of VW instruments with or without thermistors in a IP66 , robust, diecast aluminium enclosure.  
Connects to logger or readout RO-1-VW with Terminal Box flylead. Accepts cable sizes 5mm–13.5mm diameter

RO-TB-1	160mm x 100mm x 81mm; for 1No. VW instrument with thermistor
RO-TB-2	160mm x 100mm x 81mm; for 2No. VW instruments with thermistors
RO-TB-3	220mm x 100mm x 81mm; for 3No. VW instruments with thermistors
RO-TB-4	220mm x 100mm x 81mm; for 4No. VW instruments with thermistors
RO-TB-5	220mm x 100mm x 81mm; for 5No. VW instruments with thermistors

### Terminal Box – Switching

For termination of VW instruments in a IP65, fibreglass reinforced polyester enclosure.  
Connects to logger or readout RO-1-VW with Terminal Box flylead

RO-TB-S-12	360mm x 270mm x 180mm; for 12No. VW instruments
RO-TB-S-12-T	540mm x 270mm x 180mm; for 12No. VW instruments with thermistors
RO-TB-S-24	540mm x 270mm x 180mm; for 24No. VW instruments
RO-TB-S-24-T	720mm x 360mm x 230mm; for 24No. VW instruments with thermistors
RO-TB-S-48	720mm x 360mm x 230mm; for 48No. VW instruments

### Junction Box – Non-switching

For connection of VW instruments to multicore cable CA-2.3 to datalogger, in a IP65, fibreglass reinforced polyester enclosure

RO-JB-12	360mm x 270mm x 180mm; for 12No. VW instruments
RO-JB-12-T	540mm x 270mm x 180mm; for 12No. VW instruments with thermistors
RO-JB-24	540mm x 270mm x 180mm; for 24No. VW instruments
RO-JB-24-T	720mm x 360mm x 230mm; for 24No. VW instruments with thermistors
RO-JB-48	720mm x 360mm x 230mm; for 48No. VW instruments

### Terminal/Junction Box – Switching

For connection of VW instruments to multicore cable CA-2.3 to datalogger, in a IP65, fibreglass reinforced polyester enclosure.  
Also connection for logger or readout RO-1-VW with Terminal Box flyleads

RO-TJ-S-12	360mm x 270mm x 180mm; for 12No. VW instruments
RO-TJ-S-12-T	540mm x 270mm x 180mm; for 12No. VW instruments with thermistors
RO-TJ-S-24	540mm x 270mm x 180mm; for 24No. VW instruments
RO-TJ-S-24-T	720mm x 360mm x 230mm; for 24No. VW instruments with thermistors
RO-TJ-S-48	720mm x 360mm x 230mm; for 48No. VW instruments

### Multicore Cable

CA-2.3-12-SC	12 core, multicore cable, 16/0.20, screened; priced per metre, PVC jacket
CA-2.3-25-SC	25 core, multicore cable, 16/0.20, screened; priced per metre, PVC jacket
CA-2.3-50-SC	50 core, multicore cable, 16/0.20, screened; priced per metre, PVC jacket

**soil**  
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