

Features

- ◆ DC current feed to a telephone line
- ◆ Ring generator with ring trip
- ◆ LED indicator for line current greater than 6 mA
- ◆ LED indicator for exchange power
- ◆ Reversing switch allows DC signalling
- ◆ E & M signalling with LED indicators

Transmission Testing



H HEUER INSTRUMENTS

FEEDBRIDGE FB41

FEEDBRIDGE FB41

200 Hz to 20 kHz

The Feedbridge FB41 is designed as an accessory to the Transmission Measuring Set TMS A41 allowing VOICELINK and other dedicated products to be tested. The Feedbridge FB41 is powered by the 50 V exchange supply. Active current sources provide the necessary high AC impedance for the line under test. The ring signal is not applied to the line if the line current is greater than 6 mA.

Telephone

Connect the telephone line to the 'DC Feed' connector. With the exchange supply connected, the telephone will now have its feed voltage applied. Lifting the handset will turn on the 'DC Feed' LED. It is illuminated whenever the line current exceeds 6 mA.

Ring Generator

Provided the telephone is on hook, that is no line current flows, the FB41 produces a ring signal when pressing the 'Ring' button. Once the handset is lifted a ring trip circuit will stop the ring generator.

DC Signalling

The reversing toggle switch can be used for DC signalling. Setting the switch to reverse will result in the opposite polarity.

E & M Signalling

The FB41 can be used to test E & M Lead Continuity. The reference earth is applied to the M terminal by setting the E & M switch towards the M LED, otherwise the terminal is O/C. A current limited -48 V supply (referenced to the Earth terminal) is connected to the E terminal.

To test an E & M lead, connect the 'M' end to the M terminal of the FB41 and the 'E' end to the E terminal of another FB41. Ensure that the ground reference used for the E&M leads is connected to the Earth terminal of each FB41 at both ends. By setting the switch towards the M LED on the FB41 at the M end, the loop is closed and current can flow. If the current exceeds 3 mA, both the M LED and E LED on each FB41 should illuminate.

Transmission Measuring Set TMS A41

The Level Meter LM41 can be connected to the Feedbridge FB41 using the supplied cable which plugs into the RJ connectors of both instruments. When using this connection, the LM41 is ac-coupled to the Feedbridge FB41. A relay disconnects the LM41 during ringing. The bridging loss of the Feedbridge is less than 0.1 dB. A Level Generator LG41 can also be connected to the LM41. The supplied cable to the LG41 plugs into a separate RJ connector of the LM41.

Technical Specifications (FB41)

DC Feed

DC Supply (-48 V)	-44 V to -57 V
DC Current (-50 V Supply)	
Load 4000 Ω	> 10 mA
1200 Ω	25 mA
0 Ω	< 50 mA
Noise with 600 Load	< -85 dBmp
Bridging Loss (200 Hz to 20 kHz)	< 0.1 dB
Balance Ratio (200 Hz to 20 kHz)	> 40 dB
Maximum Signal Level	+10 dBm

Ring Generator

Frequency	25 Hz
DC Voltage	-50 V
AC Voltage	63 Vrms
Cadence	On 0.4 s
	Off 0.2 s
	On 0.4 s
	Off 2.0 s
Ring Trip current	6 mA

E & M Signalling

E-LED turn-on current	3 mA \pm 0.5 mA
M-LED turn-on current	3 mA \pm 0.5 mA
E-Lead Current Limit	28 mA (1800 Ω)
M-Lead Current Limit	25 Ω PTC

Interface Connectors

Line Interface	3-pin 4 mm socket
E&M Interface	3-pin 4 mm socket
LM41 Interface	Modular 6P6C socket
Power Supply	2.1 mm DC Socket

Operating Temperature 0 °C to 50 °C

Dimensions

178 mm x 45 mm x 55 mm

Weight

0.4 kg



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