

RLC measuring bridge 4.4.10-00



What you can learn about ...

- Wheatstone bridge
- Inductive and capacitive reactance
- Ohmic resistance
- Impedance
- Kirchhoff's laws

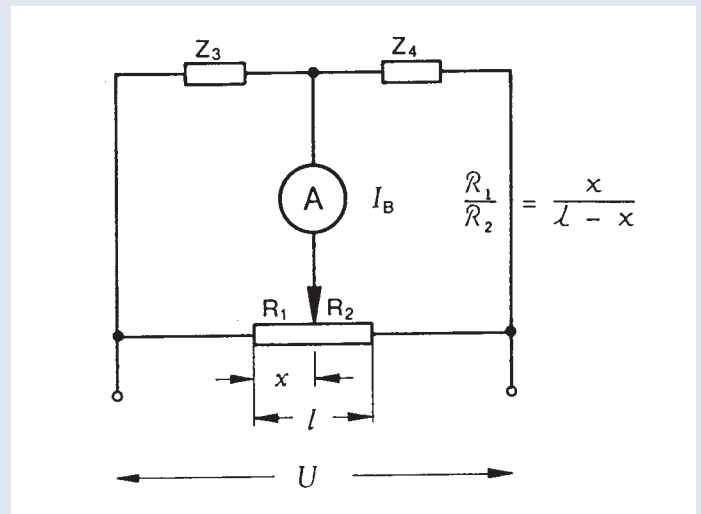
Principle:

Ohmic resistances, inductances and capacitances are determined in a Wheatstone bridge circuit operated on AC. Balancing is done aurally through headphones, using the high sensitivity of the human ear.

What you need:

Simple slide wire measuring bridge	07182.00	1
Head phones, stereo	65974.00	1
Function generator	13652.93	1
Coil, 6 turns	06510.00	1
Coil, 300 turns	06513.01	1
Coil, 600 turns	06514.01	1
Coil, 1200 turns	06515.01	1
Coil, 600 turns, short	06522.01	1
Induction coil, 300 turns, $d = 40$ mm	11006.01	1
Carbon resistor 330 Ω , 1W, G1	39104.13	1
Carbon resistor 470 Ω , 1W, G1	39104.15	1
Carbon resistor G1, 680 Ω , 1 W	39104.17	1
Carbon resistor 1 k Ω , 1W, G1	39104.19	1
Carbon resistor 1,5 k Ω , 1W, G1	39104.21	1
Carbon resistor 2,2 k Ω , 1W, G1	39104.23	1
Carbon resistor 3,3 k Ω , 1W, G1	39104.25	1
Potentiometer 100 Ω , 0,4W, G2	39103.01	1
Carbon resistor 1 k Ω , 1W, G1	39104.19	1
Capacitor 100 pF/100 V, G2	39105.04	1
Capacitor 470 pF/100 V, G1	39105.07	1
Capacitor 1 nF/ 100 V, G2	39105.10	1
Capacitor 10 nF/ 250 V, G1	39105.14	1
Capacitor 47 nF/ 250 V, G2	39105.17	1
Capacitor 100 nF/250 V, G1	39105.18	1
Connection box	06030.23	1
Connecting cable, 4 mm plug, 32 A, blue, $l = 25$ cm	07360.04	3
Connecting cable, 4 mm plug, 32 A, blue, $l = 50$ cm	07361.04	2
Connecting cable, 4 mm plug, 32 A, blue, $l = 75$ cm	07362.04	2
Headphone Adapter jack plug/2 x 4 mm plug	65974.01	1

Complete Equipment Set, Manual on CD-ROM included
 RLC measuring bridge P2441000



Wheatstone bridge.

Tasks:

- To determine
1. ohmic resistances
 2. inductances
 3. capacitances
- with the Wheatstone bridge, using bridge balancing.