

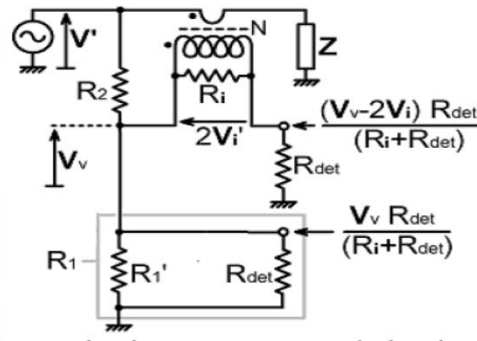
USE EXCEL SHEET: Phase Bridge F1FRV, to calculate transformers inductance, and know voltages present on R2 and Z2 resistors connected to input of bridges (High Voltage resistors to be used)

Nota. Ri value MUST be accurately measured with an Ohmmeter BEFORE calculation !!

RESISTANCE BRIDGE

Z	50 Ohms	Puissance	500 W
I	3,16 A	I @ Ri	0,452 A
V'	158,11 V	2Vi'	4,518 V
R2/R1'	70,285614		
N	7		
Ri	10,000 Ohms	P @ Ri	2,041 W
R2	100 000 Ohms	P @ R2	0,243 W
Rdet	100 000 Ohms	Vv	2,218 V
R1'	1 423 Ohms	P @ R1'	0,003 W

R1': Fixed value + Variable resistor VR R1' (low value 12 turns)

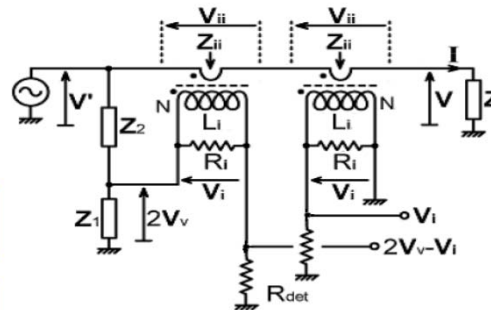


DC V	BAL V	MINIMUM R BAL k OHM
-2,92	0,11	25,2
2,80		

CONDUCTANCE BRIDGE WITH 2 SEPARATE TOROIDS

Z	50 Ohms	Puissance	500 W
I	3,16 A	I @ Ri	0,452 A
V'	158,11 V	Vi	4,518 V
N	7		
Ri	10,000 Ohms	P @ Ri	2,041 W
Z2	100 000 Ohms	P @ Z2	0,222 W
Rdet	100 000 Ohms	Vv	4,481 V
Z1	6 009 Ohms	P @ Z1	0,013 W

Z1: Fixed value + Variable resistor VR Z1 (low value 12 turns)

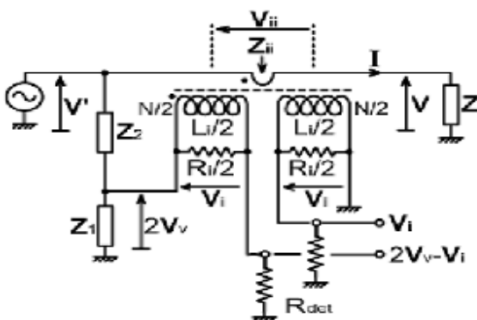


DC V	BAL V	MINIMUM R BAL k OHM
6,02	0,05	5,7
5,97		

CONDUCTANCE BRIDGE WITH 1 TOROID

Z	50 Ohms	Puissance	500 W
I	3,16 A	I @ Ri	0,632 A
V'	158,11 V	Vi	3,162 V
N/2	5		
Ri/2	5,000 Ohms	P @ Ri/2	2,000 W
Z2	100 000 Ohms	P @ Z2	0,236 W
Rdet	100 000 Ohms	Vv	3,144 V
Z1	2 893 Ohms	P @ Z1	0,007 W

Z1: Fixed value + Variable resistor VR Z1 (low value 12 turns)



DC V	BAL V	MINIMUM R BAL k OHM
4,13	0,03	4,1
4,10		