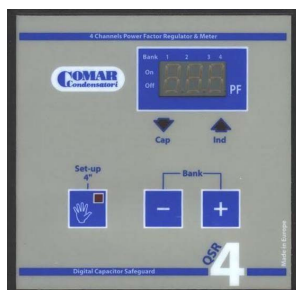
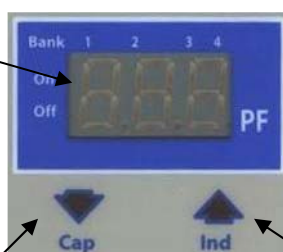


QSR4 400V



power factor



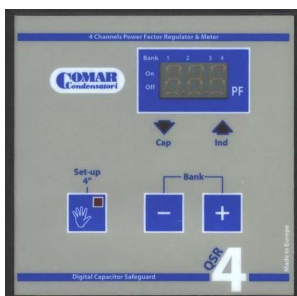
Capacitor bank is turned **off**

Capacitor bank is turned **on**


1. Functions

1.1 Start

When power is switched on, an internal self test routine is performed. The display shows the type of regulator and then displays the installed version.



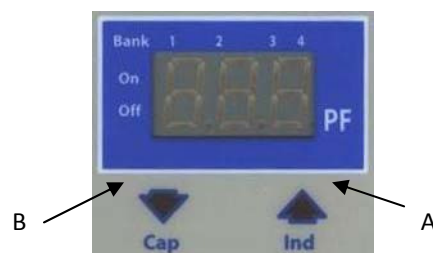
1.2 Button functions

By pressing short on , the regulator can switch from “automatic” to “manual” and vice versa. By pressing at least 4 sec, the set-up menu will be activated (see §2).

By pressing, in the position “manual” (the red light  is alluminated), **30 seconds** on  or , the capacitor banks are respectively switched off and on.



By pressing on these buttons in the position “automatic”, the memory of the alarm can be consulted and reset.

1.3 Automatic working



- A : The network is inductive (motors, transformers, ...).
IND is alluminated and the regulator switches on capacitors banks.
- B : The network is capacitive.
CAP is alluminated and the regulator switches off banks.


The preset power factor value is achieved when both IND and CAP are off.
The amount of switched capacitors remains now the same.

By pressing  and  simultaneously, one can check the number of steps switched on.
To leave this screen, repeat last action.



1.4 Alarms

Display indication	Cause
Display off	No voltage present
IND blinking	Low PF value (PF = IND for 15 min.)
LoU blinking	Low voltage ($U < 0,9 U_n$ per 10 sec)
HiU blinking	High voltage ($U > 1,1 U_n$ per 10 sec)
A=0 blinking	Current = 0 = no current from TI for 10 sec
LOA blinking	Low current from TI for 10 sec ($I < 350mA$)
HIA blinking	High current from TI for 10 sec ($I > 5,5 A$)
GA4 blinking	TI on the wrong phase !!

2. Settings

By pressing  for 4 secs, the setting mode will be entered.


2.1 C/K setting


The C/K value will illuminate and can be changed by using the buttons  and . The suggested value to set is given on the table below:

<i>kVar First bank power</i>	<i>2,5</i>	<i>5</i>	<i>6</i>	<i>10</i>	<i>12,5</i>	<i>20</i>	<i>25</i>	<i>40</i>	<i>50</i>
TI									
50/5	0,25	0,50	0,60	1,00-	-	-	-	-	-
60/5	0,21	0,42	0,50	0,83	1,00-	-	-	-	-
80/5	0,16	0,31	0,38	0,63	0,78-	-	-	-	-
100/5	0,13	0,25	0,30	0,50	0,63	1,00-	-	-	-
150/5	0,08	0,17	0,20	0,33	0,42	0,67	0,83-	-	-
200/5	0,06	0,13	0,15	0,25	0,31	0,50	0,63	1,00-	-
250/5	0,05	0,10	0,12	0,20	0,25	0,40	0,50	0,80	1,00
300/5	-	0,08	0,10	0,17	0,21	0,33	0,42	0,67	0,83
400/5	-	0,06	0,08	0,13	0,16	0,25	0,31	0,50	0,63
500/5	-	0,05	0,06	0,10	0,13	0,20	0,25	0,40	0,50
600/5	-	-	0,05	0,08	0,10	0,17	0,20	0,33	0,42
800/5	-	-	-	0,06	0,08	0,13	0,16	0,25	0,31
1000/5	-	-	-	0,05	0,06	0,10	0,13	0,20	0,25
1200/5	-	-	-	-	0,05	0,08	0,10	0,17	0,21
1500/5	-	-	-	-	-	0,06	0,08	0,13	0,17
2000/5	-	-	-	-	-	0,05	0,06	0,10	0,13

When using the regulator on 220/240 Vac networks the C/K values should be doubled.
 " - " means primary current of the TI is too small.

2.2 Power factor setting

Press  again for 4 secs to indicate the preset power factor. This value can be changed in the same way as the C/K value. A power factor of 0.95 is recommended.

By pressing the  button again, the values which have been selected will be saved. The regulator works in automatic condition.