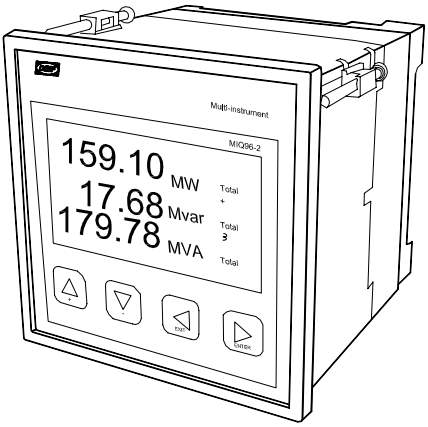
DEIF A/S

User's Manual (Appendix)

Multi-instrument type MIQ96-2

4189320013A



- *Limit switches*
- *2 impulse outputs for kWh import, kvarh import*
- *Customer specified display*

CE

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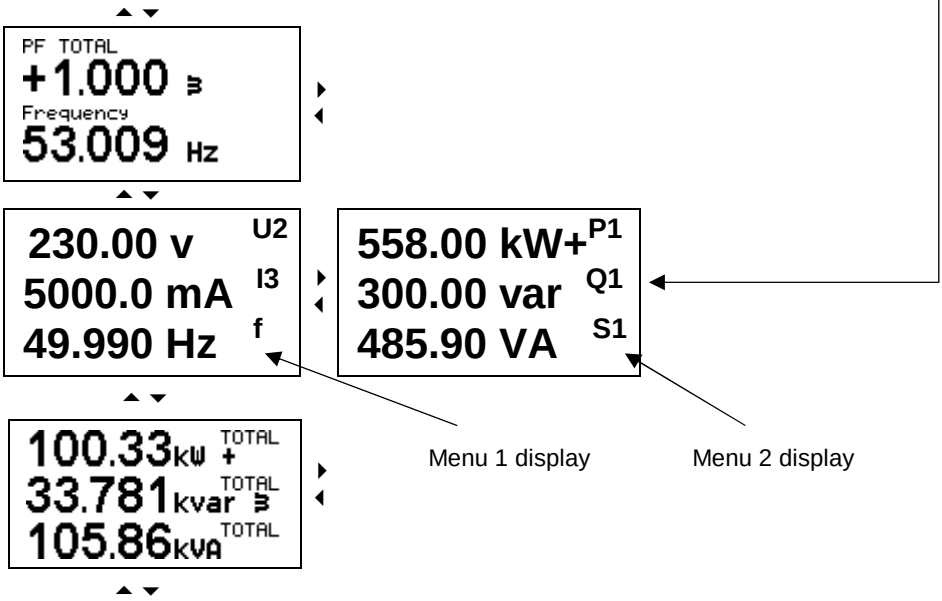
1 Customer display

A customer specified display is available from software version 2.70. The customer display is placed between the menus “PF total/Frequency” and “Total energy” - see below.

6 parameters (3 in each window), chosen by the customer, can be shown at a time.



1.1 How to set up the customer display

- Press arrow up or arrow down until the menu “Setting” appears. Press “Enter” once or press arrow right until the menu “Password” appears.
- Press arrow up or arrow down again until the menu “Display” appears, then press arrow right once, and the menu “Contrast” will appear.
- Press arrow down once, and the menu for changing of the “Customer display” will appear.

CUSTOM
1: U2 I3 f
2. P1 Q1 S1

CUSTOM
1: U2 I3 f
2. P1 Q1 S1
Set

- When the "Enter" button is pressed, the display will go in "Set" mode, and the actual parameter that can be changed will be underlined.
- Now arrow up or arrow down can be used to go to the wanted parameter. When the wanted parameter has been selected, press arrow right ("Enter"), and the next value can be changed.
- When the "Customer display" is OK, press arrow right until "Set" disappears.
- Now press arrow left ("Exit") until the main menu appears, then use arrow up or arrow down until "Customer display" is shown.

See abbreviation for each available parameter in the table below:

Pt	Total active power
P1	Phase 1 active power
P2	Phase 2 active power
P3	Phase 3 active power
Qt	Total reactive power
Q1	Phase 1 reactive power
Q2	Phase 2 reactive power
Q3	Phase 3 reactive power
It	Total I (the sum of I1+I2+I3)
I1	I1
I2	I2
I3	I3
UY	Average voltage (star)
U1	U1
U2	U2
U3	U3

St	Total apparent power
S1	Phase 1 apparent power
S2	Phase 2 apparent power
S3	Phase 3 apparent power
PFt	Total power factor
PF1	Power factor phase 1
PF2	Power factor phase 2
PF3	Power factor phase 3
f	Frequency
PAt	Total power angle (atan2 (Pt, Qt))
A1	Power angle phase 1
A2	Power angle phase 2
A3	Power angle phase 3
In	Neutral current
A12	Angle between phase 1-2
A23	Angle between phase 2-3
A31	Angle between phase 3-1
UΔ	Average uxy (delta)
U12	U between phase 12
U23	U between phase 23
U31	U between phase 31
MDP	Dynamic demand value 1 (Pt)
MDQ	Dynamic demand value 2 (Qt)
MDS	Dynamic demand value 3 (St)
MDI	Dynamic demand value 4 (It)
Tin	Internal temperature in the MIQ96-2

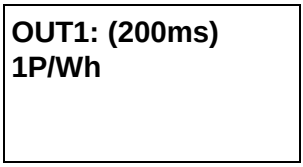
2 Pulse output for kWh and kvarh

The pulse duration of the kWh (counters 1 and 3) and kvarh counters (counters 2 and 4) can be set between 10ms and 300ms.

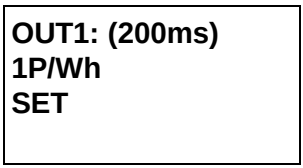
2.1 How to change the pulse duration

- Find the menu for “Outputs” under the menu “Setting” and press “Enter”.
- Press “Enter” again, and the settings for output 1 will appear. Use arrow up or arrow down to choose between output 1 and output 2.

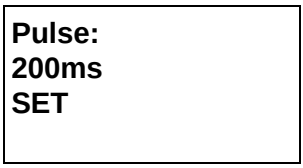
The example below shows setting of the pulse duration for output 1.



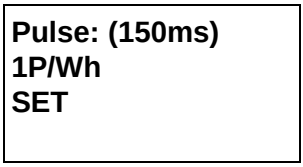
Press "Enter", and "SET" appears.



Press "Enter", and "SET" appears for pulse duration. Change the value with arrow up or arrow down. To shift from one digit to another, use arrow left or arrow right.



Press "Enter" until **OUT1: (150ms) 1P/Wh** appears again. Now choose number of pulses/Wh with arrow up or arrow down and press "Enter" to accept.



3 Limit switches

Relays 1 and 2 can also be used as limit switches for stated parameters in the table in section 2.

3.1 How to set up a limit switch

- Find the menu for “Outputs” under the menu “Setting” and press “Enter”.
- Use arrow up or arrow down to choose between output 1 and output 2.
- Press “Enter” again, and the settings for output 1 will appear. Use arrow up or arrow down to choose between pulse output function or limit switch function.

OUT1: (200ms)
1P/Wh
SET

LIMIT 1: 005s
ON : U1 < 190.00V
OFF: U1 > 210.00V
SET

- Press “Enter” for change of response/delay time - select with arrow up or arrow down.
- Press “Enter” for change of parameter - select with arrow up or arrow down.
- Press “Enter” for change of > or < - select with arrow up or arrow down.
- Press “Enter” for determination of limit value ON - select with arrow up or arrow down the percentage of nominal value.
- Press “Enter” for determination of limit value OFF - select with arrow up or arrow down the percentage of nominal value.
- When the limits have been set, the window below will be displayed.

LIMIT 1: 010s
ON : U1 < 200.00V
OFF: U1 > 230.00V

3.2 Function of limit set-up

Ex. 1

LIMIT 1: 010s
ON : U1 < 200.00V
OFF: U1 > 230.00V

Ex. 2

LIMIT 1: 010s
ON : U1 > 230.00V
OFF: U1 < 200.00V

Errors and changes excepted