

**New possibilities
with the DIMF 2.0**



Getting base density or concentration directly out of a 400 points table programmed into the DIMF-Electronics

The new 400 points calculation mode

New electronics generation of the DIMF Serie offers a quite interesting feature for the customer. It is now possible to download directly into the DIMF transmitter a table of up to 400 points giving for instance the concentration or base density as a function of process temperature and process density. From this table the DIMF will interpolate precisely the present value of the concentration or base density and put it on display and 4-20 mA output.

When should you use this mode

The 400 point calculation mode will be of greatest interest in the following cases :

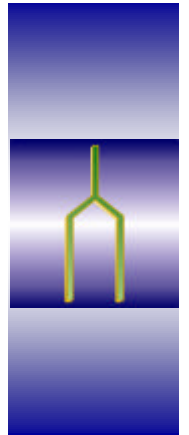
- customer data are confidential and can't be provided to Bopp & Reuther to make correct calculation and parametrisation of the DIMF electronics . The 400 points mode allows the customer to easily achieve this by himself.
- the application requires a broad concentration and temperature range that can not be mathematically properly covered by the standard second order polynomial approximation used in other DIMF modes . The generation of an application specific interpolation table will overcome this limitation in an efficient and ideal way.
- the application involves a product whose complicated characteristics (concentration a function of density and temperature) can not easily be represented with a simple second order polynomial approximation like in standard DIMF modes . The use of an interpolation table will allow to best fit to the special characteristics of this product. The space between the interpolation points (both in concentration and in temperature) can be adapted to the resolution needed within the table itself.

What you need to implement a 400 point table

- Density meter Type DIMF 1.3 or 2.0 TVS Software Rev. 3 in 400points mode.
- Accessories Configuration-Software SensorPort or PACTware installed on your PC or Notebook
HART-modem
Excel software sheet DIMF_400pt.xls
- Product data best would be at least the density values for 3 concentrations and 3 temperatures
(the quality of this values will decide of the quality of your future measurements)



Sensoren



How it works

Creating an interpolation and download it into the DIMF electronics will just take you a few seconds. Most of the time will probably be used for data transfer if you really need to download 400 points.

-First step: introduce your density values for 3 concentrations and 3 temperatures (9 points) in the Excel sheet DIMF_400pt.xls

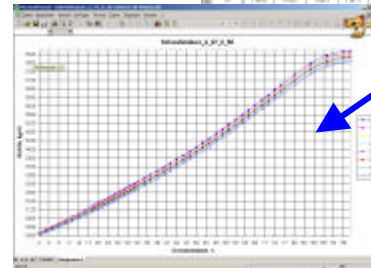
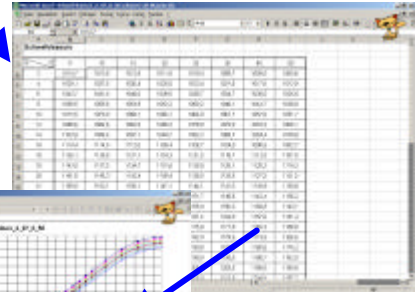
- Second step: decide of the temperature and density limits of the interpolation table to be generated as well as how many steps (max. 80) you want to have on temperature and density scale. As an option you may decide to split your interpolation table into 5 different ranges where these steps will get different values to best adapt to your application.

- Third step: confirm with OK for creating the interpolation table. You may now download it in the DIMF electronics, compare it automatically to a table already programmed in an other DIMF for instance, control graphically that the curves fulfil all your requirements or modify some specific values as required from your own application.

Now your DIMF is ready to work.

C(%) \ T (°C)	0,00	10,00	20,00
0,00	1200,00	1100,00	1000,00
10,00	1300,00	1200,00	1100,00
20,00	1400,00	1300,00	1200,00

click



click

click



Any questions left

Just ask our specialists, we will be pleased to demonstrate you the unsurpassed possibilities offered by new generation DIMF density meters from Bopp & Reuther in costs, technology and metrological performances.

technical modifications reserved