Application range

way to go for...

mipromex® device type

Your requirements...

☑ *optimal cost/performance ratio with mipromex®*

☑ *secured capital cost*

☑ *a reliable supervision of the processes, guaranteed by the maintenance-free impedance measuring system*

☑ *a quick commissioning without programming effort in the PCS*

☑ *protected and secured parameters for reliable operation*

Everything under control

The **standardized menu-based guidance** of every equipment and the clear **commissioning procedures** assure a little expenditure of time for the basic settings. With the graphic display **navigating** is easily made.
Reading-overview: with the **different readings** for impulse, percent, unit to be chosen and mA value you have the full comprehension.
Choose **mipromex®** for safety and comfort.

The **probe technology will be customized to your needs.**
Interfacial tube probes are manufactured in various dimensions and of various materials specified to the installation.

Measuring principle

The electrode system surrounded by product changes the impedance in function of the dielectric and electrically conductive qualities of organic products and watery solutions.
The measured impedance sum signal is converted directly by the measuring electronic MTI into a normed signal.
The measured values in the standardized signal area are specific to the product and characteristic for different products such as they accrue e.g. at interfacial layer measuring of two immiscible liquids

Type: MIQ

Universal interfacial layer

- *batch separation*
- *automatic phases detection modus (dynamic)*
- *continuous interfacial layer measurment*
- *second measuring circle for filling level of the upper phase or separation behavior*
- *analog and digital outputs*
- *commissioning procedures*
- *storage*

Advantages at a glance

- Graphic display
- Menu-guided parameterization in E/F/G
- Device data and TAG number storage
- Protected and secured parameter input
- Up to 2 probe connections
- 1 analog (4–20 mA) and 1 digital output
- Simulation of mA and limit value output
- Maintenance-free
- Monitored measuring circuit
- Fault indication: time, date, type
- ATEX II(2)G [Ex ia] IIC II(2)D [Ex iaD]

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Automatic liquid/liquid layer separation for batch production

Our solution...

Dynamic interfacial detection with mipromex® MIQ

- *Ready to use from factory (plug & play)*
- *High separation accuracy*
- *Independent from phase inversion, product and temperature*

High reliability

- *Dynamic measured value processing*
- *Self-monitoring*
- *Fail Safe Management*

Saving of time

- *No commissioning necessary*
- *No test measurements in the installation*
- *Short holding times of the installation*

Cost savings

- *No additional manpower*
- *No product wasting*
- *Higher installation availability*

ISO 9001
EN 13980
SEV 09 ATEX 0133 X CE 0036/1254

aquasant Messtechnik AG

aquasant-mt SWITZERLAND — Dynamic batch separation

mipromex® type: MIQ

HOTSPOTS

- ***High definition impedance measuring from aquasant-mt***
- ***Separation starting by PCS***
- ***No limit settings***
- ***Works from the first separation***
- ***Insensible to organic pollution***
- ***Separation behavior monitoring with MIQ 8260***
- ***Interfacial detection and low-level indication with one probe***

Application

- ☑ You have a batch separation in a single or multi-purpose installation?
- ☑ And don't want to execute an extensive parameterization at product changing?
- ☑ The measured values of the two liquids are closed to each other?
- ☑ The emulsion layer should not be separated with the lower layer?
- ☑ The separation behavior has to be monitored and the separation shall be started automatically via PCS?

➲ Reliable separation independent of the measured value course!

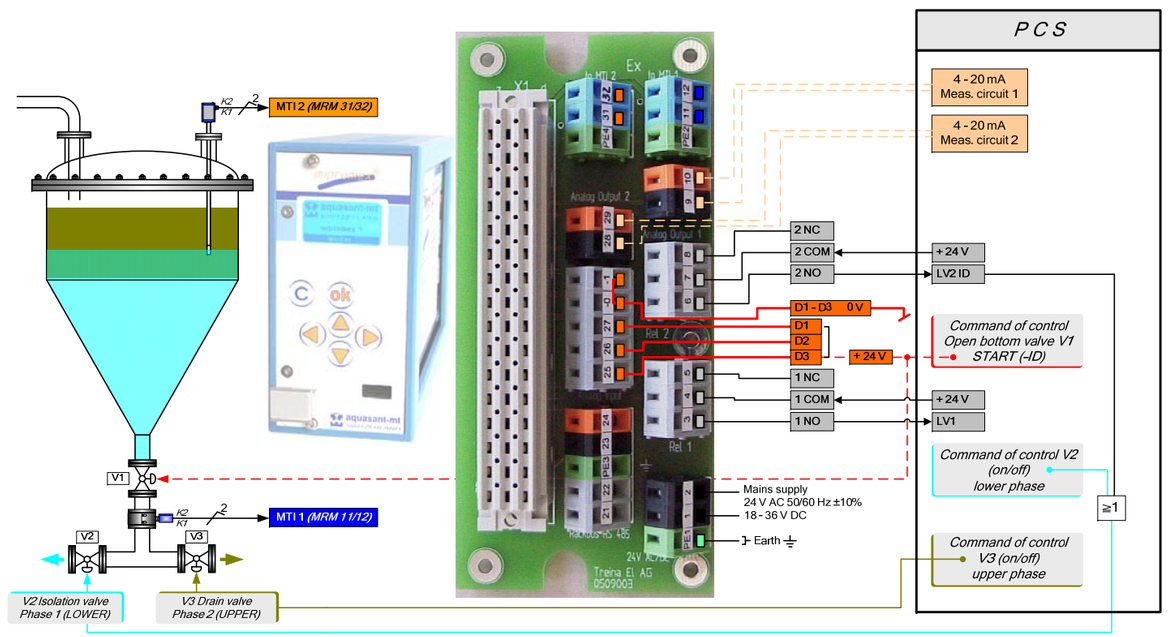
The solution:

mipromex® type: MIQ

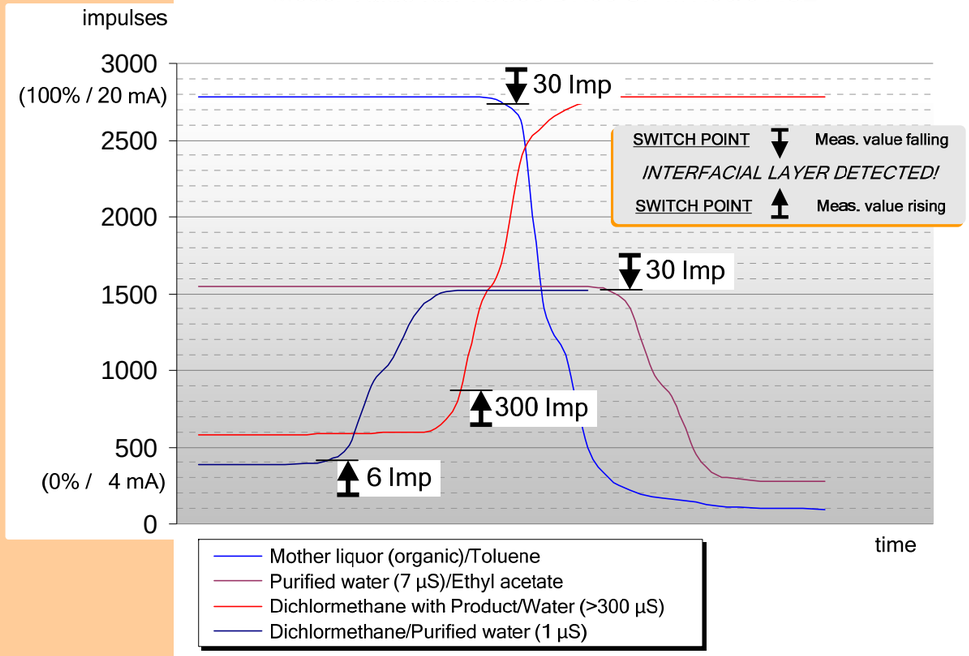
dynamic interface detection

Typical measured value course, when the interface of two non-miscible liquids flows through the tube probe.

Wiring diagram MRM: Process control system

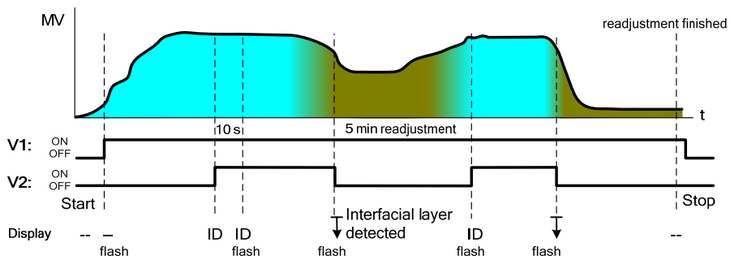


Meas. Value run TSS80 DN50 SF MTI50/0 AG2



Measured value 0 - max. 3700 impulses = 4 - 20 mA = 0 - 100%
Min. hysteresis 6 impulses up to max. 300 impulses

	Digital inputs			Description for Interfacial detection			
Sensitivity adjustment ID	**D1**	**D2**	**D3**	**MeV hysteresis**	**MeV variations ± /10 s ->**		
Stop ID	0	0	0	Measured value variation		Stop active	***Menu item***
1	1	0	0	6 Imp	< 2 Imp	Start; values adjustable, max. 300 Imp	***(3.1.19./20.)***
2	0	1	0	10 Imp	< 2 Imp	Start; highly sensitive	
3	1	1	0	16 Imp	< 3 Imp	Start; very sensitive	
4	0	0	**1**	**30 Imp**	**< 4 Imp**	Start; **sensitive (basic setting)**	
5	1	0	1	60 Imp	< 5 Imp	Start; non-sensitive	
6	0	1	1	120 Imp	< 5 Imp	Start; very non-sensitive	
7	1	1	1	200 Imp	< 5 Imp	Start	



Readjustment:
If the initial measured value of the lower phase is reached again within 5 minutes after the interfacial detection, the separation valve will be re-opened, the measurement remains active.

Start → when you open the **bottom valve V1** then switch the appropriate digital outputs (D1-D3) to 1 (+24V)
ID flashes → interfacial detection on; **↓ flashes →** interfacial layer detected; **V2 separation valve** (relay / OC 2)