BIAR
sampling systems

TOP REACTOR SAMPLING SYSTEM

SWISS MADE SINCE 1983

Unit pH measuring

All products are Swiss made in our 4000 m² production facility.

BIAR – EXPERT IN SAMPLING SYSTEMS

DESCRIPTION

BIAR has designed and manufactured a safe and reliable sampling device to meet today's demands of the chemical and pharmaceutical industry.

The system is composed of a magnetically activated piston to take liquid samples from reactors, storage tanks, or vessels.

The reactor manhole is kept closed, eliminating harmful emissions to significantly increase operator safety.

CUSTOMER REFERENCES

BASF, Bayer, DSM, Evonik, Lonza, Merck, Syngenta, Roche...

INOVATIVE

Sample is provided by mechanically displacing the process liquid through a sample pipe loop. Pipe loop material can be alloy or PTFE lined and does not require the use of a pump or any other device which may cause variation of internal process conditions.

Additionally, the closed loop can be equipped with various sensor devices, including in-line pH measurement and temperature control.

SWISS QUALITY

Every reactor sampling device is produced at the headquarters in Switzerland and is thoroughly tested upon completion, including, amongst others a test at full load lasting several hours. This way, we can guarantee that every device satisfies the requirements regarding Swiss quality work.

CERTIFICATIONS

→ ISO 9001
→ CE
→ TR CU
→ ISO 3834-2
→ ATEX
→ TA-LUFT

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BIAR – ENGINEERED SOLUTIONS TO FIT YOUR NEEDS

MAIN FEATURES

→ Plug and play device

→ Magneto-pneumatic drive [no dynamic gaskets]

→ No pump, no electricity supply required

→ No suction, no process disruption

→ Works even under fully vacuum conditions

→ Easy and safe operation

→ No environmental exposure

→ No hold up and dead space free

→ Product not sampled will return to the reactor

→ The closed loop provides self-cleaning

→ Unit can be flushed and rinsed in place

→ Numerous varieties of sample receptacles devices

REAL ADVANTAGES FOR YOU

→ Fully representative samplings
→ Continuous pH monitoring option is available in 'real time'
→ Full operator & environment protection
→ Minimizing maintenance
→ No spillage, no product needed to be recycled

GENERAL APPLICATIONS

Sampling device for use in Chemical, Pharmaceutical, Petrochemical & Semiconductor industries to take a sample from reactors or vessels containing:

→ toxic medias

→ flammable medias

→ high value products

→ corrosive medias

→ environmentally unfriendly medias

→ liquids with some particles inside

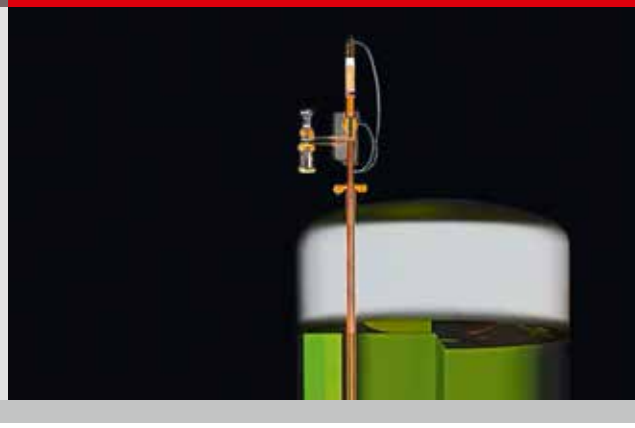
STANDARD TECHNICAL DATAS

Pressure range:
full vacuum to 232 psi [16 bar]

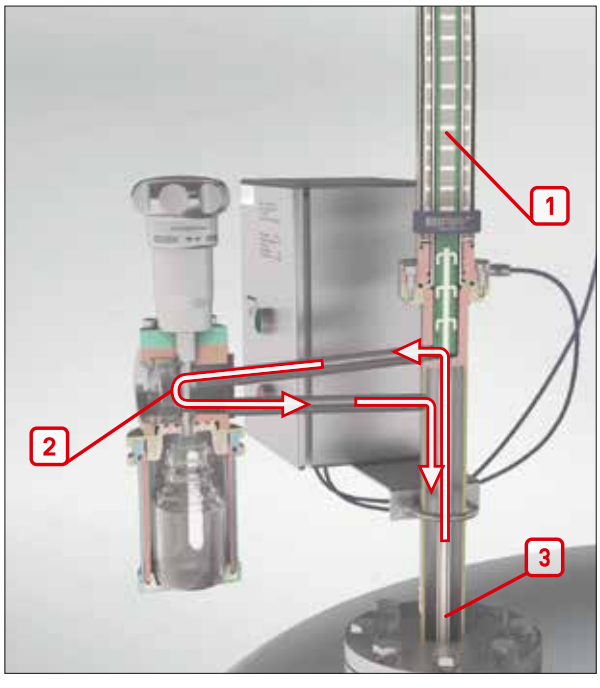
Temperature range:
-112°F [-80°C] to 392°F [200°C]

Viscosity of max:
2'000 cP [mPa·s]

Air supply:
min. 3 barg / max. 5 barg



BIAR – OUR KNOW-HOW AT YOUR SERVICE



HOW IT WORKS

To avoid dynamic seal and external contamination, a magnetic drive (1) is used to pull the piston (3) which pushes the liquid upward.

The liquid then flows back down through a sampling valve (2) and back to the reactor if not sampled.

Temperature and pH probe can be used for continuous measurement without process interruption.

Watch our video on YouTube
www.youtube.com/watch?v=YqjkJvWmXxY

PRODUCT COMPARISON

	OPTIFLOW	ACTIFLOW	DEEPFLOW
MATERIAL	SS 316L / 1.4404 Other on request	SS 316L / 1.4404 Other on request	PFA or PTFE lining Other on request
MIN. FLANGE CONNECTION	DN 50 / 2''	DN 100 / 4''	DN 50 / 2''
MAX. LENGTH	3 m	4 m	>> 4 m
PRESSURE RANGE	-1 / 16 bars	-1 / 16 bars	-1 / 16 bars
TEMPERATURE RANGE	-80° to +200°C	-80° to +200°C	+1° to +140°C
STREAM BAFFLE AVAILABLE	✕ (insert in a dip tube or attached to the tank)	✓ (with min. flange connection DN150/6'')	✕
HEAT / COOL JACKET	✕	✓	✓
PH measurement option available	✕	✓	✕
T° measurement option available	✕	✓ (with min. flange connection DN150/6'')	✕
RINSING CONNECTION	✓	✓	✓
COMPATIBLE WITH OUR ACCESSORIES	✓	✓	✓
WORKS WITH PRODUCT CONTAINING SMALL PARTICLES	✓	✓	✕

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