

Isokinetic Sampling System for Two-Phase Liquids

DN 15 - 100 / PN 10 - 40 NPS 1/2" - 4" / class 150 -600



Design Features

Design Characteristics

- drawing of sample proportional to flow rate or in time intervals
- manual or automatic operation
- pressure free sampling
- defined sample quantity
- sampling container customized
- operation simple and safe

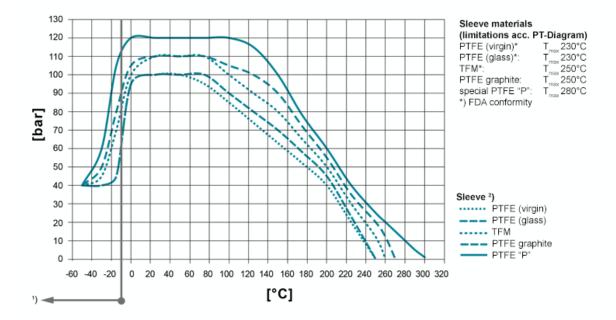
The isokinetic AZ sampling system type "SIC" consists of a multiple pipe for two-phase liquids. It applies to oil platforms and in plants e.g. for the production of petroleum.

Function:

The small pipes, which are arranged in the diameter of the main line, against the flow, lead a cross section of the main product stream isokinetic over a bypass to the sampling system. Thus develops a representative sample of the two-phase liquid. There is no need of an additional mixer or a centrifugal device! The sampling frequency can be directed by an optional control unit proportional to the flow rate or in time intervals.

PT-Diagram

General Pressure-Temperature-Diagram



Operating temperatures < -30°C and > 220 °C have to be checked and approved by AZ according to the operating conditions.

Besides the P/T value of the sleeve the limitations of the valve bodies also have to be considered. Please refer to the EN 12516-1 resp. ASME B16.34 in order to choose a proper pressure rating (PN/class). The shown values refer to austenitic stainless steel 1.4408 (A351 Gr. CF8M).

1) For operating temperatures below -10°C low temperature / austenitic steels are required.

2) Sleeve: There are different sleeve materials / compounds available.

Materials

Standard body materials

- Carbon Steel 1.0619, ASTM A216 WCB
- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8
- Unalloyed stainless steel casting (low Temp.) 1.1138, LCC/LCB/A352

Standard plug materials

- Stainless Steel 1.4408, ASTM A351 CF8M
- Stainless Steel 1.4308, ASTM A351 CF8

Special materials

Alloy

- Monel
- Nickel
- Zirconium
- Titan
- Tantal
- other materials on request

Sealing Systems

Standard sealing for all major applications; Tmax 230°C

Type STD

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Firesafe sealing (API 607) with graphite packing for additional stem sealing; Tmax 230°C

Type FS

read more [...]

Chemical sealing to prevent fugitive emission of aggressive and toxic media with PTFE packing for additional stem sealing; $T_{max} 230^{\circ}C$

Type CA read more [...] Firesafe safety sealing (API 607) for fluctuating temperatures with 3x graphite packing (adjustable) for additional stem sealing; Tmax 280°C

Type FSN

read more [...]

Firesafe safety sealing (API 607) for fluctuating temperatures with 3x graphite packing (live loaded disc springs) for additional

stem sealing; Tmax 280°C

Type FSN-SL

read more [...]

Chemical safety sealing for fluctuating temperatures with 3x PTFE packing (adjustment) for additional stem sealing;

Tmax 230°C

Type CASN

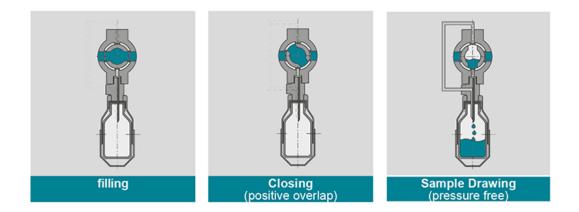
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Chemical safety sealing for fluctuation temperatures with 3x PTFE packing (live loaded disc springs) for additional stem sealing; Tmax 230°C

Type CASN-SL

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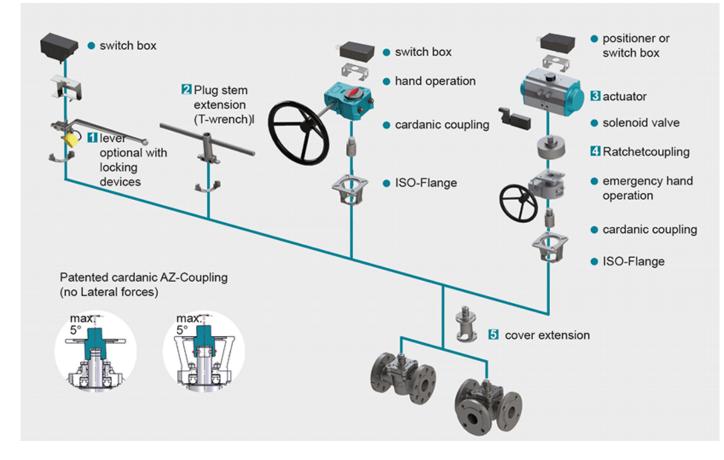
Port Forms



Dimensions

- dimension for installation customized
- horizontal or vertical installationty

Actuation



1 Locking Devices

Pilot valve combinations, pad lock eyelets, linear key conception, indexing plunger arrestor. read more [...]

2 Plug stem extension

Solid construction in stainless steel with T-wrench, Standard extension 100 mm or 150 mm, non standard lengths are available on request read more [...]

3 Actuators

Actuators for mounting-flange acc. to DIN ISO 5211 read more [...]

NEW: Pneumatic actuator AIR GEAR for plug valves with high torque \geq 150.000 Nm read more [...]

4 Ratched coupling

To usw on multiport valves with standard 90° actuator for bigger switchpositions than 90° read more [...]

5 Cover extension

Solid construction in stainless steel, Standard extension 100 mm or 150 mm high, non standard lengths are available on request . Hexagonal bolts on adjustment ring freely accessible. Note: Don't use with sealing FSN/FSN-SL and CASN/CASN-SL

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