Inline Sampling Valves SIV Series
for safe and representative sampling of corrosive, aggressive or even toxic media from pipelines, pressurized or at vacuum conditions – without process interruptions.

Modular Design
Sampling Valves SIV Series are available as DIN- or ANSI-valves, with handwheel as per standard. The valves are distinguished by its dead-space-free design as well as the extremely short outlet way for the representative sample.
The sturdy bodies are made of stainless steel casting 1.4408 (CF-8M) or optional with resistant linings and valve spindle encapsulations.

Main Features
• Dead-space-free design, conforming to TA-Luft
• Safe and simple operation by handwheel or with deadman lever (spring to close), lockable
• Installation in any given position
• Corrosion-resistant materials, linings and encapsulations made of PFA or PFA-AS (anti-static)
• Precision sampling for small sample volumes by valve spindle stroke adjustment
• Maintenance-free stuffing box or bellows seal
• Replaceable spindle gasket
• Variety by modular design
• Sizes DN15-150 PN16 resp. ½" up to 6"-150lbs
• Face to face according to EN 558-1, range 1

Conformity acc. to European Pressure Equipment Directive 97/23/EC (PED)

Actuator Versions
• Bodies with heating jacket
• Needle adapter for lab bottle with septum
• Bottle support, adjustable
• Safety cabinet with inspection windows
• Flange versions: groove, PN40, ANSI 300lbs, clamp or with buttwelding ends
• Handwheel spring to close FC
• Vertical adapter, sealing plug, activ. carbon filter
• Metal safety basket, sampling collector
• Pneum. linear stroke actuator, single-acting FC

Options / Accessories
Operating Conditions

- Temperature range from –40°C (-40°F) up to +200°C (392°F) (depending on selected materials)
- Line pressure from 0.1 mbar up to 16 bar (232 psi)

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, and spark testing at 35 kV to assure lining integrity. Marking of valves on body and stainless steel name plate acc. to EN 19.
- Material- resp. test certificate acc. to EN 10204-3.1

Construction of Valve

Body made of stainless steel casting 1.4408 (CF-8M) or with linings made of PFA or PFA-AS (anti-static), wall thickness min. 3 mm.
Flanges acc. to EN 1092 or ASME B16.5

Technical Data

<table>
<thead>
<tr>
<th>DN</th>
<th>B1 (DIN/ANSI)</th>
<th>B2 (DIN)</th>
<th>B2 (ANSI)</th>
<th>H1</th>
<th>H2</th>
<th>J</th>
<th>K</th>
<th>Kg Handwheel</th>
<th>Kg Lever</th>
<th>Kg Handwheel</th>
<th>Kg Lever</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/½&quot;</td>
<td>-</td>
<td>160</td>
<td>160</td>
<td>194</td>
<td>353</td>
<td>-</td>
<td>70</td>
<td>-</td>
<td>4.9</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>20/¾&quot;</td>
<td>-</td>
<td>160</td>
<td>160</td>
<td>194</td>
<td>353</td>
<td>-</td>
<td>70</td>
<td>-</td>
<td>4.9</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>25/1&quot;</td>
<td>62</td>
<td>160</td>
<td>165</td>
<td>188</td>
<td>347</td>
<td>121</td>
<td>76</td>
<td>4.1</td>
<td>5.9</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>40/1½&quot;</td>
<td>62</td>
<td>200</td>
<td>165</td>
<td>196</td>
<td>355</td>
<td>128</td>
<td>83</td>
<td>4.7</td>
<td>8.1</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>50/2&quot;</td>
<td>62</td>
<td>230</td>
<td>178</td>
<td>202</td>
<td>361</td>
<td>134</td>
<td>89</td>
<td>5.4</td>
<td>6.3</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>80/3&quot;</td>
<td>62</td>
<td>310</td>
<td>203</td>
<td>229</td>
<td>388</td>
<td>148</td>
<td>103</td>
<td>5.9</td>
<td>6.8</td>
<td>14.6</td>
<td></td>
</tr>
<tr>
<td>100/4&quot;</td>
<td>62</td>
<td>350</td>
<td>229</td>
<td>246</td>
<td>405</td>
<td>160</td>
<td>-</td>
<td>14.2</td>
<td>15.1</td>
<td>19.9</td>
<td></td>
</tr>
<tr>
<td>150/6&quot;</td>
<td>62</td>
<td>480</td>
<td>267</td>
<td>264</td>
<td>429</td>
<td>185</td>
<td>-</td>
<td>20.5</td>
<td>21.4</td>
<td>28.5</td>
<td></td>
</tr>
</tbody>
</table>

PFA-lined available

Wafer-style Valve

Flanged Valve

Face to face B acc. to DIN EN 558-1 range 1 resp. range 3 and ASME B16.10

G*: Standard threads for bottle GL 32 or Gl 45 acc. to DIN 168-1
Operating Conditions

- Temperature range from –40°C (-40°F) up to +200°C (392°F) (depending on selected materials)
- Line pressure from 0.1 mbar up to 16 bar (232 psi)

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, and spark testing at 35 kV to assure lining integrity. Marking of valves on body and stainless steel name plate acc. to EN 19.
- Material- resp. test certificate acc. to EN 10204-3.1

Flanged Valve – with Handwheel spring to close FC

Body compl. made of stainless steel casting 1.4408 (CF-8M) or with linings/encapsulations made of PFA or PFA-AS (conductive), with spring housing made of SS316L (1.4404) and handwheel of 1.4408. Flanges acc. to EN 1092 resp. ASME B16.5

Adapter made of PTFE glassfibre-reinforced, with vent connection made of PVDF

Technical Data  Dimensions in mm

<table>
<thead>
<tr>
<th>Size ND</th>
<th>B2 DN</th>
<th>B2 ANSI</th>
<th>H1</th>
<th>K</th>
<th>Kg DIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/½&quot;</td>
<td>160</td>
<td>160</td>
<td>253</td>
<td>70</td>
<td>6.8</td>
</tr>
<tr>
<td>20/¾&quot;</td>
<td>160</td>
<td>160</td>
<td>253</td>
<td>70</td>
<td>6.9</td>
</tr>
<tr>
<td>25/1&quot;</td>
<td>160</td>
<td>165</td>
<td>249</td>
<td>76</td>
<td>7.8</td>
</tr>
<tr>
<td>40/1½&quot;</td>
<td>200</td>
<td>165</td>
<td>255</td>
<td>83</td>
<td>10.8</td>
</tr>
<tr>
<td>50/2&quot;</td>
<td>230</td>
<td>178</td>
<td>261</td>
<td>89</td>
<td>11.8</td>
</tr>
<tr>
<td>80/3&quot;</td>
<td>310</td>
<td>203</td>
<td>288</td>
<td>103</td>
<td>16.8</td>
</tr>
<tr>
<td>100/4&quot;</td>
<td>350</td>
<td>229</td>
<td>307</td>
<td>116</td>
<td>22.3</td>
</tr>
<tr>
<td>150/6&quot;</td>
<td>480</td>
<td>267</td>
<td>325</td>
<td>134</td>
<td>30.9</td>
</tr>
</tbody>
</table>

Face to face B acc. to DIN EN 558-1 range 1 resp. range 3 and ASME B16.10
Standard threads for lab bottles GL32 / 45 acc. to DIN 168-1
Operating Principle SIV Series (Sampling under pressure, with bottle)

Manual Operation  with handwheel or deadman lever

The valve is installed into pipeline either horizontally or vertically.
Media flows through the valve body (1) around the valve spindle (2), equipped with a resistant gasket (3). By operating handwheel counter-clockwise (or lifting/pulling deadman lever), the valve spindle is lifted out of the tapered valve seat (4) and a representative sample will flow into the attached lab bottle. Trapped air inside the bottle escapes through the vent connection of the adapter (5), sealed by a FEP-encapsulated O-ring.

When the bottle contains the required sample volume, the handwheel is now operated clockwise, which in turn pushes the valve spindle back into the valve seat.
The valve is 100% dead-space-free again.

Valves with Sampling Collector
For critical and heavy duty applications, a sampling collector is used in place of the standard adapter with lab bottle.
The collectors are available with outlet nozzle/safety cap and with collector holder for easy draining in the lab.
Operating Conditions

- Temperature range from –40°C up to +200°C
- Operating pressure from 0.1 mbar up to 16 bar

Testing / Marking

- Pressure- and tightness testing acc. to EN 12266-1, leakage rate A, and spark testing at 35 kV to assure lining integrity. Marking of valves on body and stainless steel name plate acc. to EN 19.
- Material- resp. test certificate acc. to EN 10204-3.1

Construction: Valve with Collector

Wafer-style valve compl. made of stainless steel 1.4408/1.4404, with deadman lever, for horizontal or vertical installation between flanges acc. to EN 1092 or ASME B16.5

Collector compl. Made of stainless steel 1.4404, handwheel 1.4408, incl. SS needle valve and safety plug made of Polypropylene (Option), sampling volume standard approx. 100 ml

Technical Data Dimensions in mm

<table>
<thead>
<tr>
<th>DN</th>
<th>H2</th>
<th>L</th>
<th>M</th>
<th>kg Valve</th>
<th>kg Collector</th>
</tr>
</thead>
<tbody>
<tr>
<td>25/1&quot;</td>
<td>347</td>
<td>63</td>
<td>255</td>
<td>5.0</td>
<td>3.2</td>
</tr>
<tr>
<td>40/1½&quot;</td>
<td>355</td>
<td>71</td>
<td>263</td>
<td>5.6</td>
<td>3.2</td>
</tr>
<tr>
<td>50/2&quot;</td>
<td>361</td>
<td>77</td>
<td>269</td>
<td>6.3</td>
<td>3.2</td>
</tr>
<tr>
<td>80/3&quot;</td>
<td>388</td>
<td>91</td>
<td>283</td>
<td>6.8</td>
<td>3.2</td>
</tr>
<tr>
<td>100/4&quot;</td>
<td>405</td>
<td>103</td>
<td>295</td>
<td>15.1</td>
<td>3.2</td>
</tr>
<tr>
<td>150/6&quot;</td>
<td>429</td>
<td>127</td>
<td>319</td>
<td>21.4</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Special executions upon request
## Project-/Customer Data

<table>
<thead>
<tr>
<th>Company:</th>
<th>Contact Person:</th>
<th>Ref. Swissfluid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td>Function:</td>
<td>Phone:</td>
</tr>
<tr>
<td>ZIP/Place:</td>
<td>Department:</td>
<td>Fax:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project:</td>
<td>Phone direct:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Operating Conditions

### Media / Chemical Composition:

- [ ] liquid
- [ ] powdery
- [ ] crystallizing
- [ ] sticky
- [ ] gaseous
- [ ] Solids ___ %
- [ ] viscous
- [ ] Flow Velocity _____ m/s
- [ ] abrasive
- [ ] Particle ___ mm
- [ ] Visc. _______ cp
- [ ] Flow Rate ________ m³/hr

### Pressure

- max. ___ bar
- min. ___ bar
- ___ mbar abs.

### Temperature

- max. ___ °C
- min. ___ °C

### Mode

- [ ] On/Off
- [ ] Flow Control
- ___ cycles/___

### Installation / Environment

- [ ] horizontal
- [ ] vertical
- [ ] Room dry
- [ ] Room humid
- [ ] _________
- [ ] outdoor

## Remarks:

---

## Specification of a complete Inline Sampling Valve SIV Series

**SIV**

<table>
<thead>
<tr>
<th>W</th>
<th>Wafer</th>
<th>Size</th>
<th>Flange Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Body**

- **G14**: Stainl. steel casting 1.4404 (CF-3M)
- **G15**: Stainl. steel casting 1.4408 (CF-8M)

**Lining**

- **A85**: PFA
- **A86**: PFA-AS

**Spindle Seal**

- **Sb**: Stuffing box
- **Bs**: Bellows seal

**Actuator**

- **HW**: Handwheel
- **HS**: Handwheel spring to close
- **DL**: Deadmanlever (spring to close)

**Adapters / Options**

- **GL**: Standard adapter GL 45 or 32
- **HL**: Heating Jacket
- **BW**: Butwelding End
- **NA**: Needle Adapter GL __, ____ ml
- **VA**: Vertical Adapter
- **S1**: Shaft Extension 100 mm
- **0000**: Special Paint (RAL-Code)

**Accessories**

- **BS**: Bottle Support, adjustable
- **PL**: Safety Padlock
- **AF**: Activated Carbon Filter
- **BA**: Metal Safety Basket
- **SA**: Safety Cabinet