

# Compact laboratory tapping points

## EM15: for non-corrosive gases

## EE15: for corrosive gases

### Surface-mounted

Laboratory equipment with rear wall inlet and front outlet



**Type AW**

### Surface-mounted angle

Laboratory equipment with rear wall inlet and rear outlet



**Type AE**

### Panel-mounted

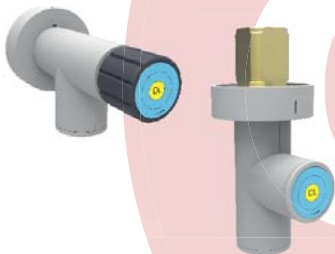
Laboratory equipment with rear wall inlet and rear outlet



**Type EP**

### Valves / wall outlets

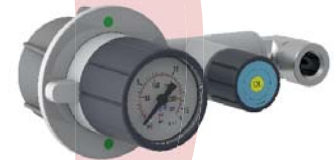
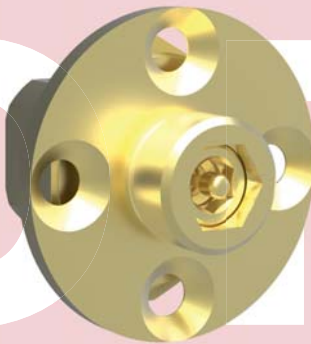
Laboratory equipment with rear wall inlet and front outlet



**Type AW / EP**

### Panel-mounted front

Laboratory equipment with rear wall inlet and front outlet



**Type EF**

### Wall-mounted

Laboratory equipment for wall mounting (surface-mounted pipework)



**Type ES**

### Column-mounted

Column-mounted laboratory equipment and front outlet



**Type SC**

### Ceiling-mounted

Laboratory equipment with top inlet and front outlet



**Type DC**

# Compact laboratory tapping points EM15 / EE15

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with control / shut-off valve



without valve (long)



without valve



blind without regulator

## Specifications

- The special laboratory tapping points incorporate the functions shut-off, pressure regulation and pressure indication in one compact, ergonomic unit.
- EM15: for non-corrosive gases up to quality 6.0
- EE15: for corrosive gases and gas mixtures with corrosive components up to quality 6.0
- The pressure regulator is diaphragm sensed for outlet pressures up to 10 bar and piston sensed for higher outlet pressure values.
- The acetone resistant pressure gauge is safely integrated into the adjusting hand wheel to create an extremely compact device.
- Integrated shut-off valve in the rear-wall connector allows the preparation of the tapping point without pressure regulator.
- Quick and easy mounting or disassembly of the regulating unit with filled gas piping.
- Diaphragm shut-off valve with position indicator
- Optional flow control / shut-off valve in the outlet
- All gas-wetted components have undergone the special SPECTROCLEAN® cleaning process and have been thoroughly baked out.
- For ECD-applications the devices can be treated in an extended cleaning process.
- All equipment has been 100%-helium-leak-tested using a mass-spectrometer.
- All components are plastic-covered resistant to acid and alkaline solutions.
- Acetylene version optional with flashback arrester.

## Technical data

### Materials

Body	M15:	brass
	E15:	SS 1.4404 (316L)
Diaphragms:		Hastelloy C276
other gas wetted surfaces:		brass or SS 1.4404 (316L)
Valve cone:		SS 1.4404 (316L)
Valve seat:		PTFE
Cover:		Polypropylene GB30

### Leak rate

(to atmosphere):  $10^{-8}$  mbar l/s He

### Filter

150  $\mu$ m

### Pressure ranges

Inlet $P_1$ ( $P_2$ up to 10 bar):	max. 40 bar
( $P_2 > 10$ bar):	max. 100 bar
max. outlet pressure $P_2$ :	1,0 / 1,5 / 2,5 / 5 / 10 / 16 / 25 / 65 bar

$P_2$  up to 10 bar: The pressure setting will be done at 10 bar inlet pressure. The limitation of the outlet pressure setting is approx.  $P_2 + 5\%$ .

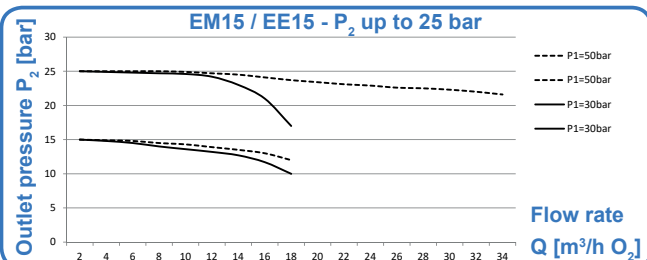
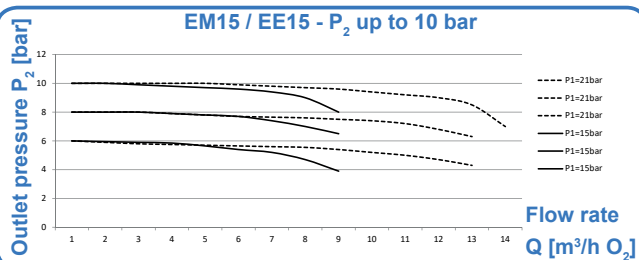
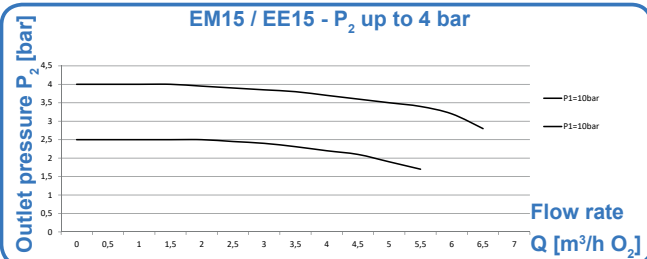
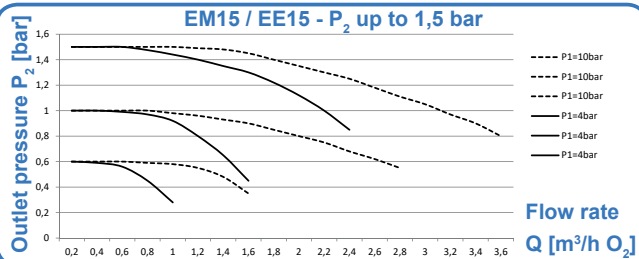
$P_2 > 10$  bar: The inlet pressure for the pressure setting will be done according to the customer's / user's specification.

### Flow rates

see flow curves

### with valve in the outlet

Connection to rear-wall connector G 3/8" RH

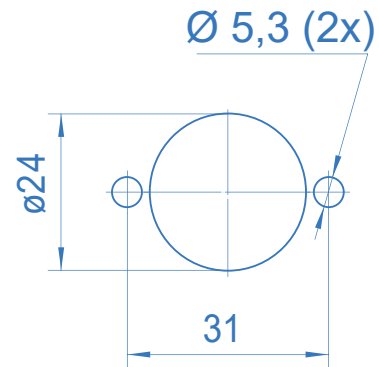


# EM15 / EE15 Surface-mounted Type AW

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Surface-mounted tapping point  
with flow control / shut-off valve



Bore template for installation

### Specifications

- The surface-mounted tapping point is used for installations into panels independent of the panel thickness.
- The surface-mounted version consists of a rear-wall connector made of brass or stainless steel respectively, a round faceplate and assembly accessories.

### Technical data

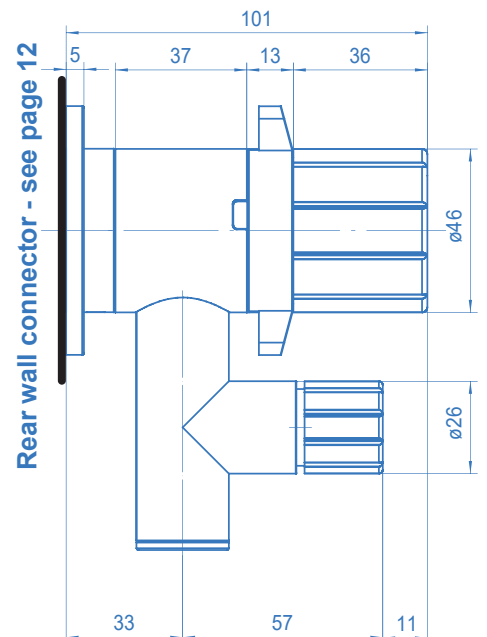
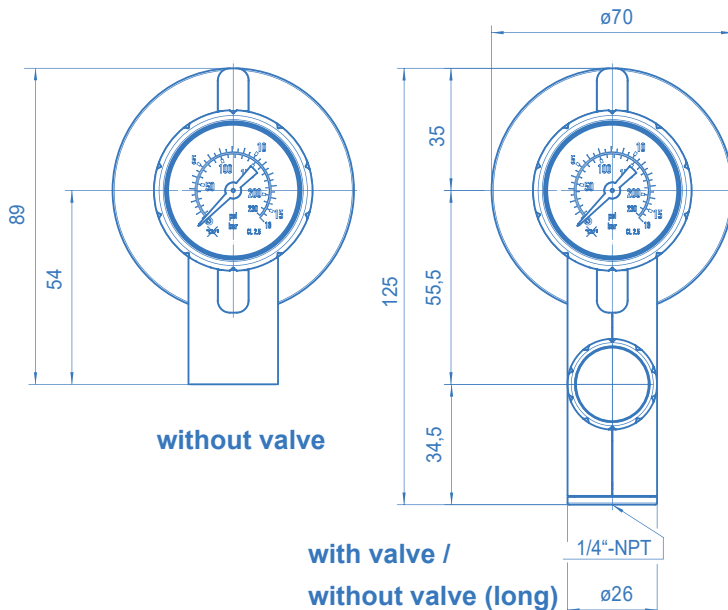
#### Materials

Rear-wall connector: brass or SS 1.4404 (316L)  
Covers: Polypropylene GB30

**Connections** inlet: see ordering info  
outlet: 1/4"-NPT female

**Weight** ca. 0.8 kg

### Surface-mounted type with valve in the outlet



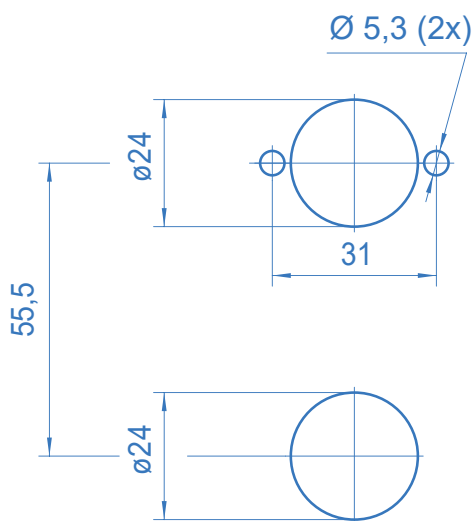
Rear wall connector - see page 12

# EM15 / EE15 Surface-mounted angle Type AE

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Surface-mounted angle tapping point  
with flow control / shut-off valve



Bore template for installation

## Specifications

- The surface-mounted tapping point is used for installations into panels independent of the panel thickness.
- The surface-mounted angle version consists of a rear-wall connector made of brass or stainless steel respectively, a round faceplate and assembly accessories.
- The rear outlet leads back into the panel.

## Technical data

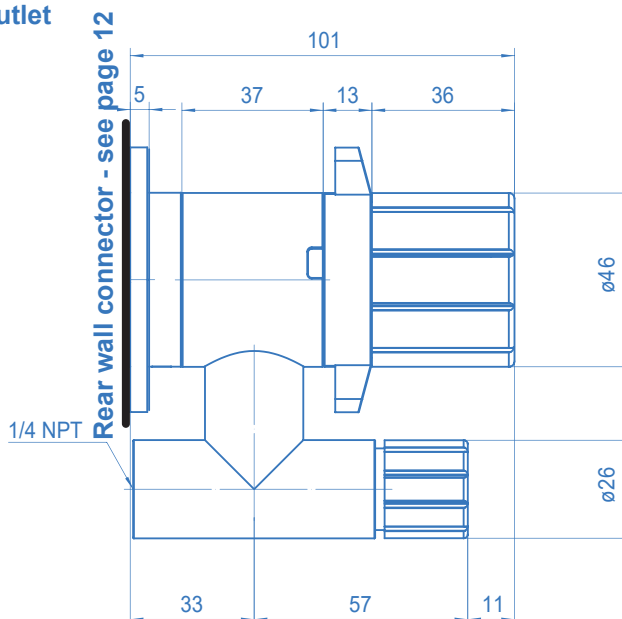
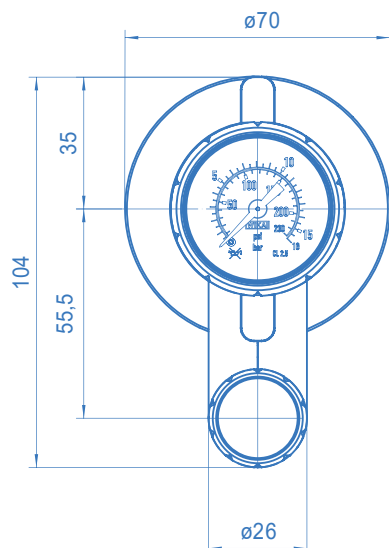
### Materials

Rear-wall connector: brass or SS 1.4404 (316L)  
Covers: Polypropylene GB30

**Connections** inlet: see ordering info  
outlet: 1/4"-NPT female

**Weight** ca. 0.8 kg

## Surface-mounted angle type with valve in the outlet

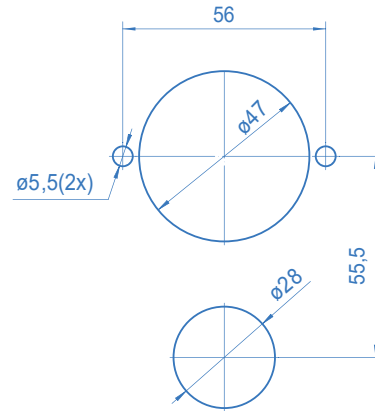


# EM15 / EE15 Panel-mounted Type EP

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Panel-mounted tapping point  
with flow control / shut-off valve



Bore template for installation

## Specifications

- The panel-mounted tapping point is used for installations into panels between 2 and 8 mm thick.
- The panel-mounted version consists of an inlet adaptor made of brass or stainless steel respectively with 1/4"-NPT female thread, a plastic holder, a round faceplate (2-5 mm panel) and assembly accessories.

## Technical data

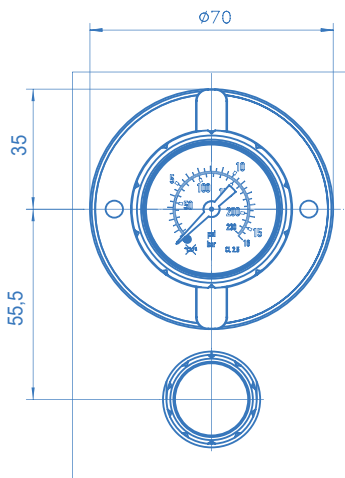
### Materials

Inlet adaptor:	brass or SS 1.4404 (316L)
Holder:	Polypropylene GB30
Covers:	Polypropylene GB30

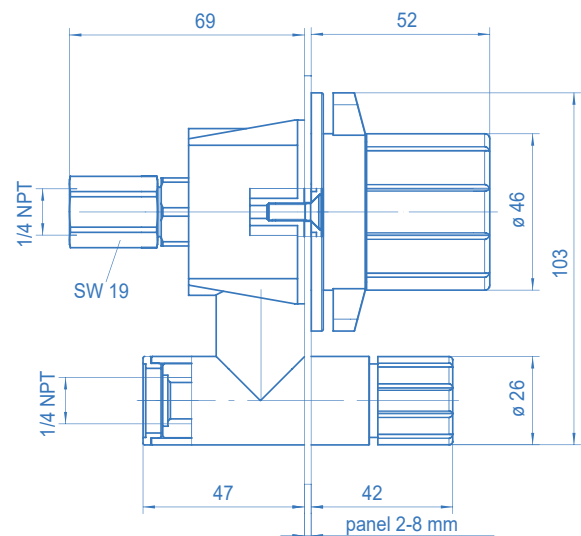
<b>Connections</b>	inlet:	1/4"-NPT female
	outlet:	1/4"-NPT female

<b>Weight</b>	ca. 0.8 kg
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## Panel-mounted type with valve in the outlet



Front view with recommended modular dimensions



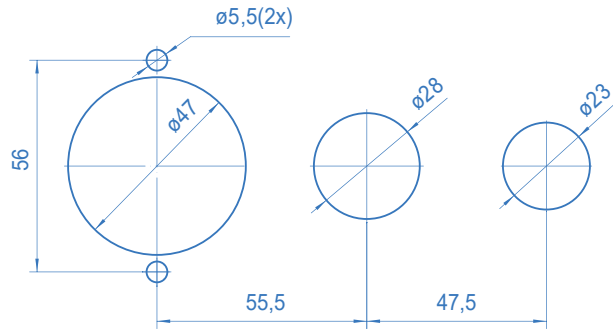
Side view with interface dimensions for a panel 2 mm thick

# EM15 / EE15 Panel-mounted front Type EF

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Panel-mounted front tapping point with flow control / shut-off valve



Bore template for installation

## Specifications

- The panel-mounted tapping point is used for installations into panels between 2 and 8 mm thick.
- The front version consists of an inlet adaptor made of brass or stainless steel respectively with 1/4"-NPT female thread, a plastic holder, a round faceplate (2-5 mm panel) and assembly accessories.
- The outlet is to the front.

## Technical data

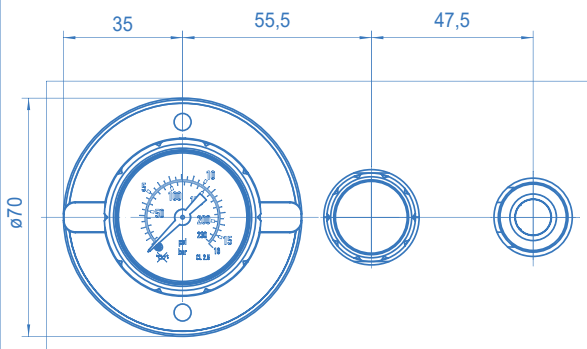
### Materials

Inlet adaptor:	brass or SS 1.4404 (316L)
Holder:	Polypropylene GB30
Covers:	Polypropylene GB30

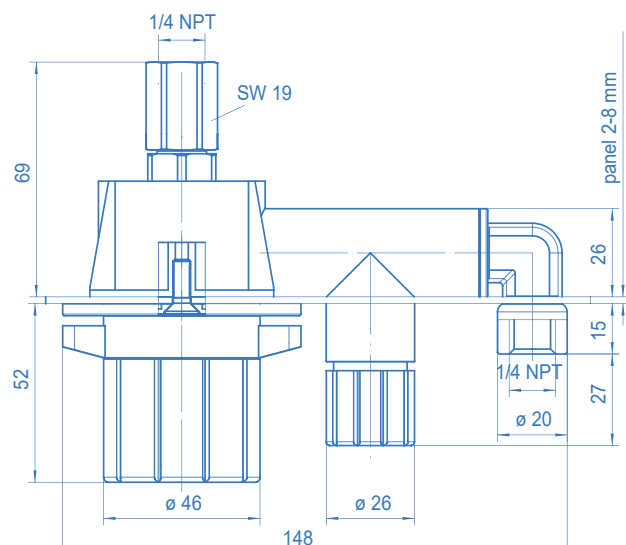
<b>Connections</b>	inlet:	1/4"-NPT female
	outlet:	1/4"-NPT female

<b>Weight</b>	ca. 0.8 kg
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## Panel-mounted front type with valve in the outlet



Front view with recommended modular dimensions



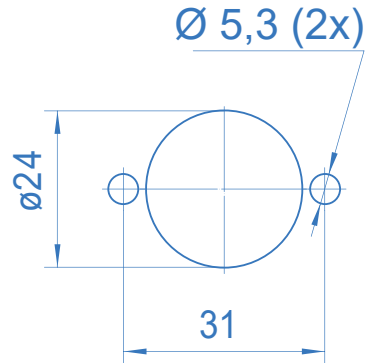
Top view with interface dimensions for a panel 2 mm thick

# EM15 / EE15 Ceiling-mounted Type DC

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Ceiling-mounted tapping point  
with flow control / shut-off valve



Bore template for installation

### Specifications

- The ceiling-mounted tapping point is used for installations at the ceiling.
- The ceiling-mounted version consists of a rear-wall connector made of brass or stainless steel respectively with an 1/4"-NPT female inlet, plastic covers, washer, a round faceplate and assembly accessories.

### Technical data

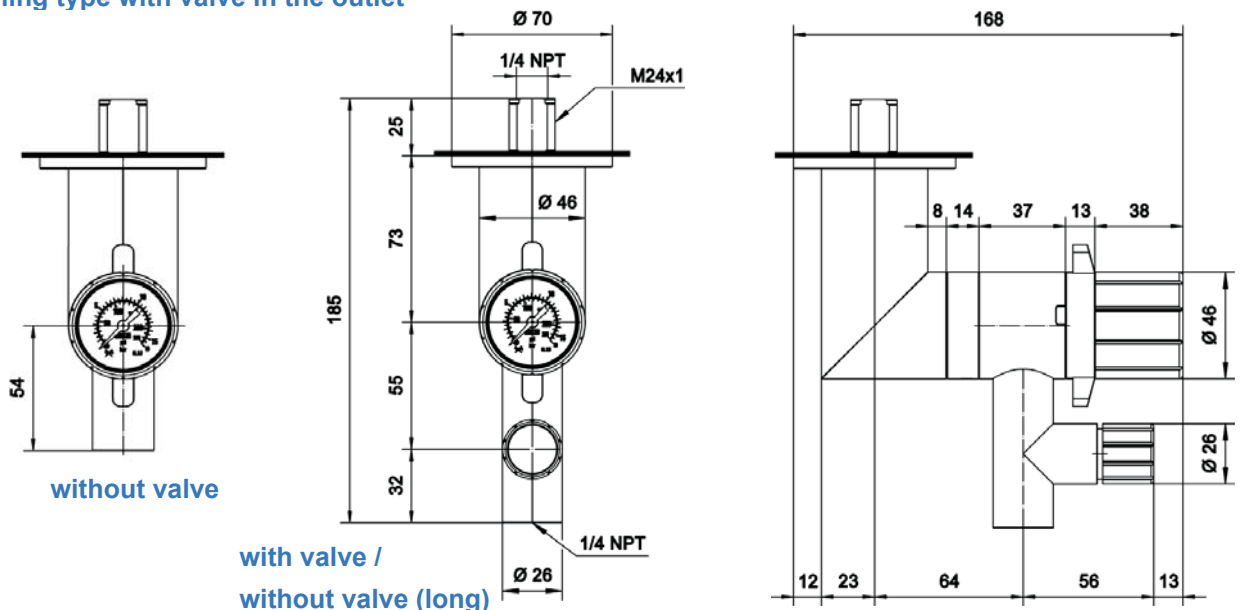
#### Materials

Rear-wall connector	Brass or SS
P <sub>1</sub> up to 40 bar	Brass or SS
P <sub>1</sub> > 40 bar	SS 1.4404 (316L)
Covers:	Polypropylene GB30
Washer:	Polypropylene GB30

<b>Connections</b>	inlet:	1/4"-NPT female
	outlet:	1/4"-NPT female

<b>Weight</b>	ca. 1.2 kg
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### Ceiling type with valve in the outlet



# EM15 / EE15 Column-mounted Type SC

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Column-mounted tapping point  
with flow control / shut-off valve

## Specifications

- The column-mounted tapping point is used for installations on laboratory benches up to approx. 90 mm thickness.
- The column-mounted version consists of a metal column body, a metal connector with a tube (6x1 mm or 8x2 mm), plastic washer, plastic covers, a round faceplate and assembly accessories.
- The plastic covers of the metal column are acid and alkaline solutions resistant.

## Technical data

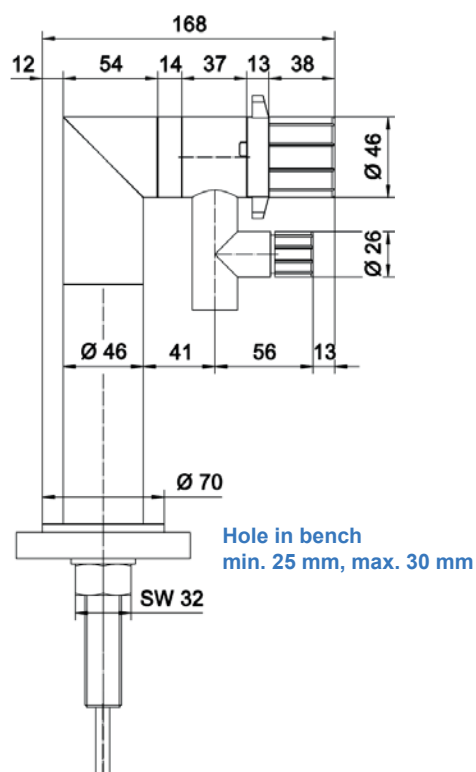
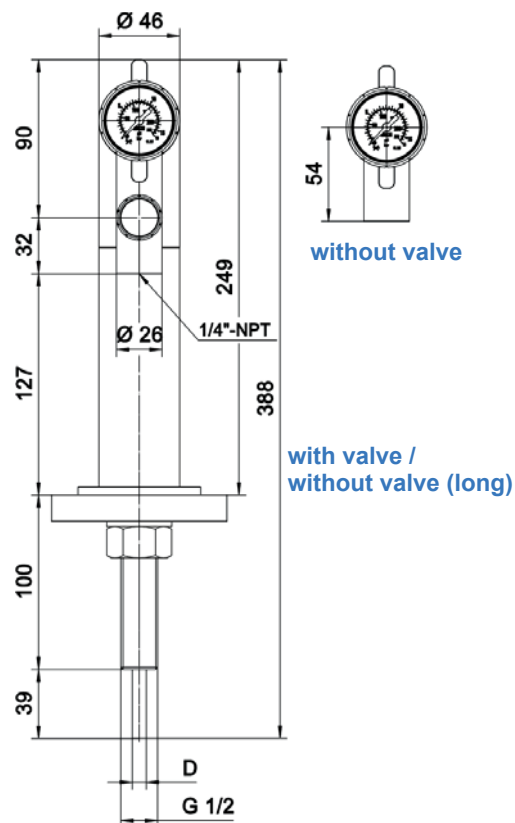
### Materials

Connector + tube	
$P_1$ up to 40 bar:	brass or SS
$P_1$ > 40 bar:	SS 1.4404 (316L)
Column body:	Aluminium
Washer:	Polypropylene GB30
Covers:	Polypropylene GB30

<b>Connections</b>	inlet	
	brass:	tube 8x2 mm
	SS:	tube 6x1 mm
	outlet:	1/4"-NPT female

<b>Weight</b>	ca. 1.8 kg
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## Column-mounted type with valve in the outlet





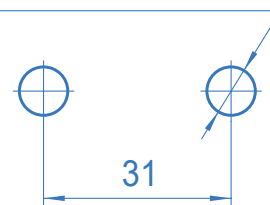
# EM15 / EE15 Wall-mounted Type ES

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Wall-mounted tapping point  
with flow control / shut-off valve

Ø 8 (2x) for plug Ø 8 mm



Bore template for installation

### Specifications

- The wall-mounted tapping point is used for installations with surface-mounted pipe work.
- The wall-mounted version consists of a metal wall connector to connect both the gas line and the tapping point, a round faceplate and plastic covers.

### Technical data

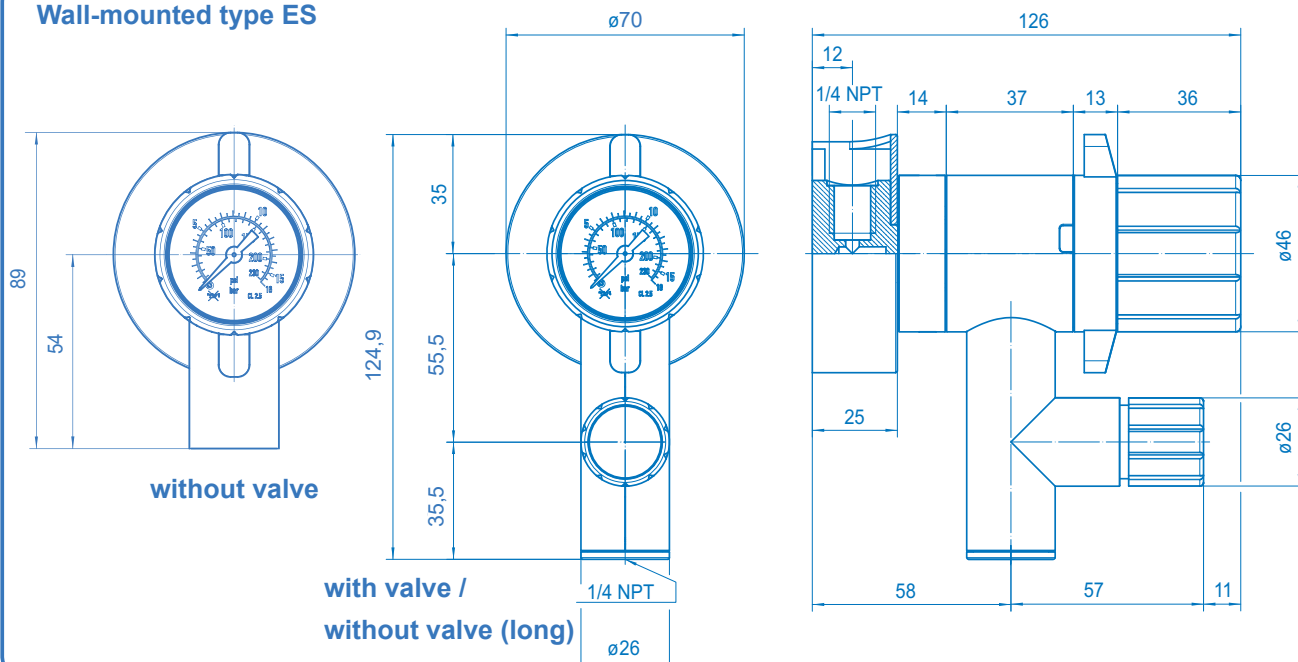
#### Materials

Wall connector: brass or SS 1.4404 (316L)  
Covers: Polypropylene GB30

**Connections** inlet: 1/4"-NPT female  
outlet: 1/4"-NPT female

**Weight** ca. 1.0 kg

### Wall-mounted type ES

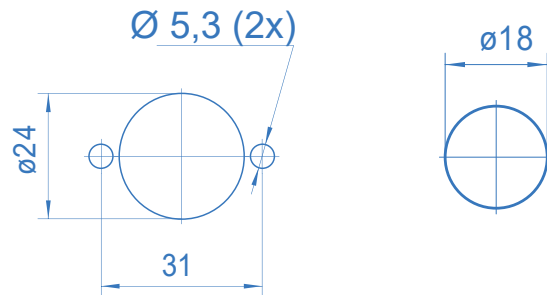


# VM15 / VE15 Flow control / shut-off valves

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Flow control / shut-off valve for surface mounting (angle) and panel mounting (globe version)



Bore template for surface mounting (left) and panel mounting (right)

## Specifications

- The flow control and shut-off valves are also available in addition to the laboratory tapping points.
- The valves come as surface- or panel-mounted type.
- There is a globe and an angle version in brass or stainless steel available.
- The valves are suitable for pressure ranges up to 100 bar

## Technical data

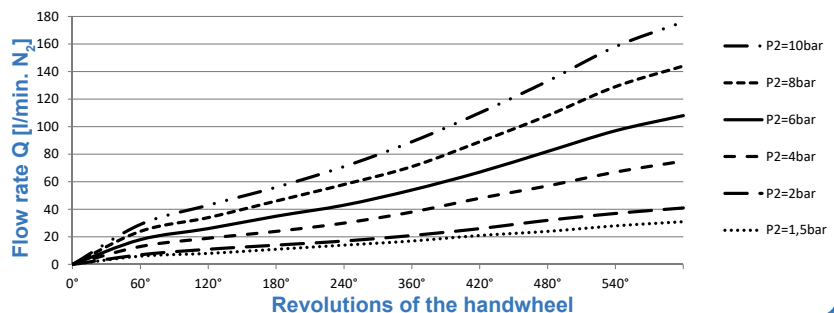
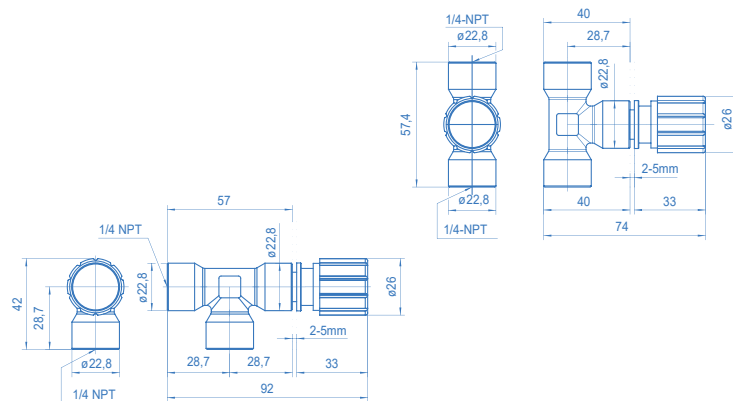
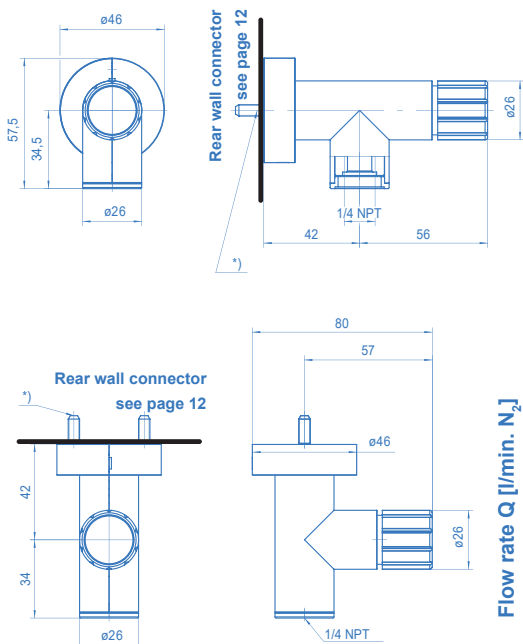
### Materials

Body, flow control spindle: brass or SS 1.4404 (316L)  
 Valve seat: PTFE  
 Diaphragm: Hastelloy C276  
 Covers: Polypropylene GB30  
 Spring: Stainless steel 1.4310

**Connections** inlet: see drawings below  
 outlet: 1/4"-NPT female

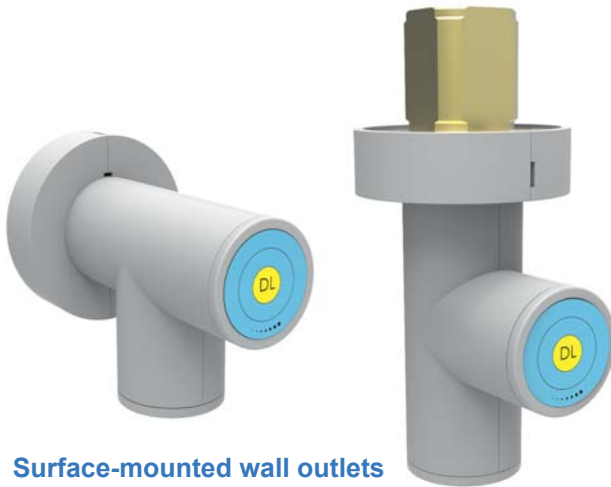
**Leak rate (to atmosphere)** 10<sup>-8</sup> mbar l/s He

## Valves for surface- and panel mounting

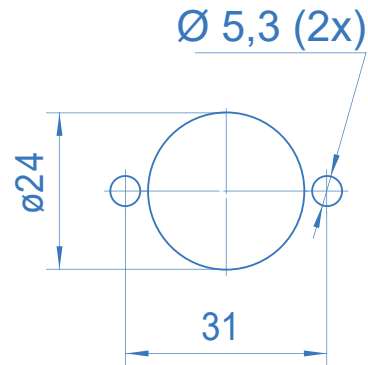


# AM15 / AE15 Wall outlets

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Surface-mounted wall outlets  
(angle and globe version)



Bore template for wall outlet (surface-mounted)

## Specifications

- The wall outlets are also available in addition to the laboratory tapping points.
- The outlets come as surface-mounted type.
- There is a globe and an angle version in brass or stainless steel available.

## Technical data

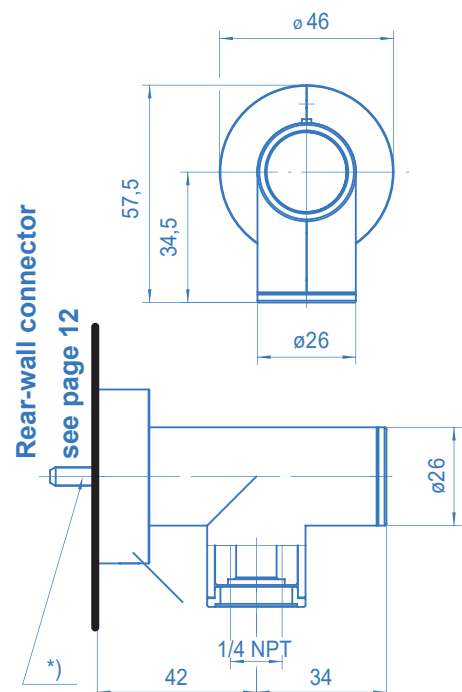
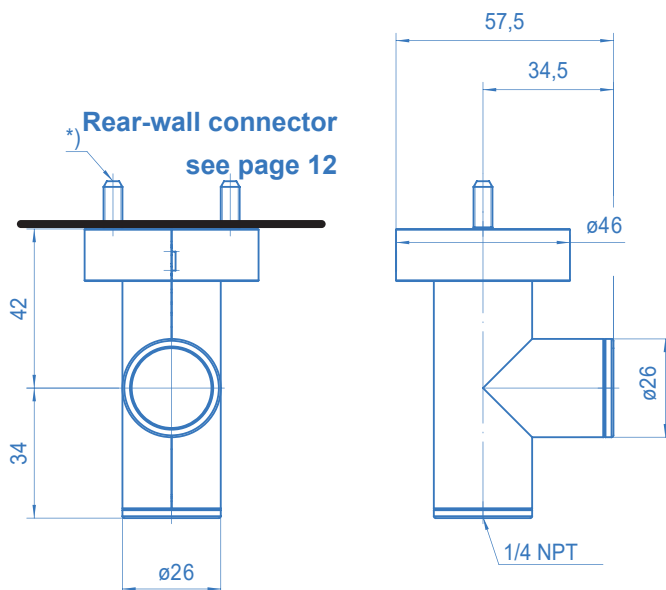
### Materials

Body:	brass or SS 1.4404 (316L)
Valve seat:	PTFE
Covers:	Polypropylene GB30
Spring:	SS 1.4310

<b>Connections</b>	inlet:	see drawings below
	outlet:	1/4"-NPT female

<b>Leak rate (to atmosphere)</b>	$10^{-8}$ mbar l/s He
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## Wall outlet (globe and angle version)



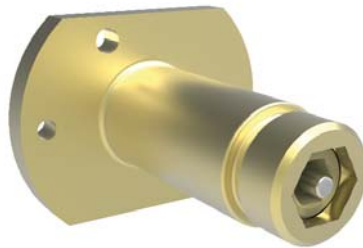
\*) for self-cutting screw ME-T-50-16-TX25-A2-DIN7500

# EM15 / EE15 Rear-wall connectors

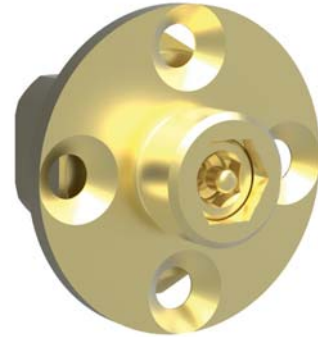
L7



L30



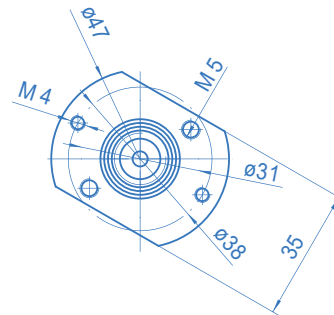
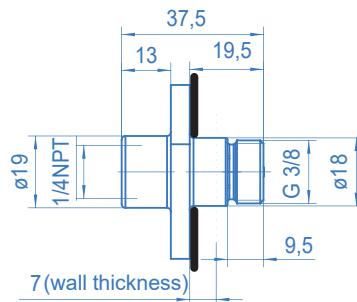
NPT



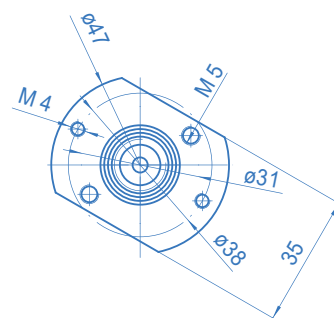
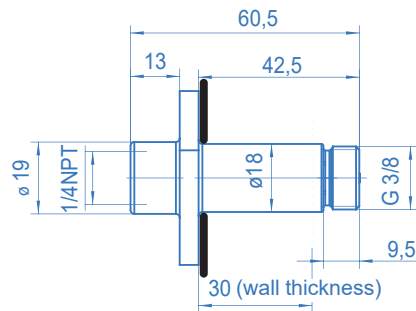
Rear-wall connectors (for surface-mounting AW and AE)  
with integrated shut-off valve

## Bore template and dimensions

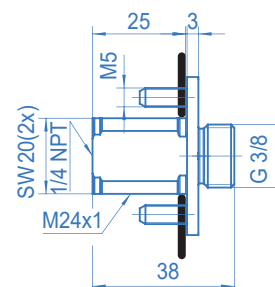
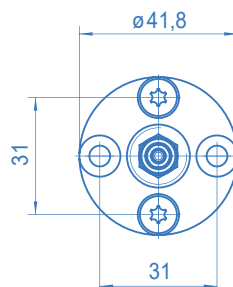
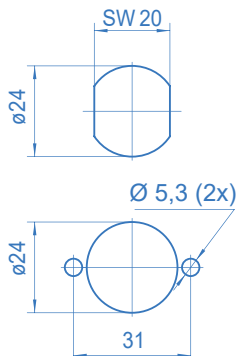
### 1/4"-NPT female / 7 mm wall thickness (rear installation)



### 1/4"-NPT female / 30 mm wall thickness (rear installation)



### 1/4"-NPT female + M24x1 male (front installation)



# EM15 / EE15 Ordering information

spectro lab

## Ordering information: Tapping points EM15 / EE15 series

**EM 15 - AW - 10 - 0 - V - Ar/H2**

### Material

<b>M</b>	Brass
<b>E</b>	Stainless steel

### Type

<b>AW</b>	Surface-mounted
<b>AE</b>	Surface-mounted angle version
<b>EP</b>	Panel-mounted
<b>EF</b>	Panel-mounted front
<b>DC</b>	Ceiling-mounted
<b>SC</b>	Column-mounted
<b>ES</b>	Wall-mounted
<b>GG</b>	Basic regulator w/o rear-wall conn. (G 3/8" RH)

### Pressure range

<b>1,0</b>	max. outlet pressure 1,0 bar
<b>1,5</b>	max. outlet pressure 1,5 bar
<b>2,5</b>	max. outlet pressure 2,5 bar
<b>5</b>	max. outlet pressure 5 bar
<b>10</b>	max. outlet pressure 10 bar
<b>16</b>	max. outlet pressure 16 bar (piston version up to $P_{1,max.} = 100$ bar)
<b>25</b>	max. outlet pressure 25 bar (piston version up to $P_{1,max.} = 100$ bar)
<b>65</b>	max. outlet pressure 65 bar (piston version up to $P_{1,max.} = 100$ bar)
<b>0</b>	Rear-wall connector incl. shut-off valve without pressure regulator

### Gas type

Please specify with order

### Outlet

<b>0</b>	1/4"-NPT female
<b>CM3/6/...</b>	Compression ring brass [DN]
<b>CE3/6/...</b>	Compression ring SS [DN]
<b>SM</b>	Hose connector brass
<b>SE</b>	Hose connector SS
<b>CSM(E)</b>	Compr. ring+hose connector
<b>FS</b>	Flashback arrestor

<b>L</b>	1/4"-NPT female ( <b>long</b> )
<b>LCM3/6/...</b>	Compression ring brass [DN]
<b>LCE3/6/...</b>	Compression ring SS [DN]
<b>LSM</b>	Hose connector brass
<b>LSE</b>	Hose connector SS
<b>LCSM(E)</b>	Compr. ring+hose connector

<b>V</b>	Valve (1/4"-NPT female)
<b>VCM(E)6</b>	Valve with compression ring
<b>VSM(E)</b>	Valve with hose connector
<b>VCSM(E)</b>	Valve + compression ring and hose connector
<b>B</b>	Blind w/o pressure regulator

### Inlet

<b>0</b>	<b>EP/EF:</b> 1/4"-NPT female
<b>0</b>	<b>DC/ES:</b> 1/4"-NPT female
<b>L7</b>	<b>AW/AE:</b> 1/4"-NPT f / 7 mm
<b>L30</b>	<b>AW/AE:</b> 1/4"-NPT f / 30 mm
<b>NPT</b>	<b>AW/AE:</b> 1/4"-NPT female + M24x1 male
<b>CM6/8/...</b>	Compression ring brass [DN]
<b>CE6/8/...</b>	Compression ring SS [DN]
<b>CM(E)6w</b>	angle compression ring [DN]
<b>RS</b>	SS-tube stub 6x1 mm
<b>X</b>	without rear-wall connection



## Ordering information: Valve / Wall outlet

**VM 15 - AW - 0 - EV - 0 - Ar/H2**

### Model

<b>V</b>	Valve
<b>A</b>	Wall outlet

### Material

<b>M</b>	brass
<b>E</b>	Stainless steel

### Type

see above

<b>GG</b>	Basic unit w/o rear-wall conn. (G 3/8" RH)
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### Gas type (see above)

### Outlet (see above)

### Version

<b>DV</b>	Globe version
<b>EV</b>	Angle version

### Inlet (see above)

