

## VEGASOURCE 31

Version A (standard version)

Source holder for source capsules



### Application area

The VEGASOURCE 31 is used for the reception of a radionuclide which is used as radiation source for the radiation-based limit level, level and density measurements. The design of VEGASOURCE 31 offers an optimum shielding and protects the integrated gamma radiator reliably.

### Your benefit

- Reliable shielding allows use without control areas
- Reduced space requirement and simple mounting
- Operational reliability through pneumatic ON/OFF switching

### Function

The radioactive isotope inside the source holder VEGASOURCE 31 emits gamma rays. The VEGASOURCE 31 is mounted on the vessel or the pipeline, directly opposite the sensor. The source holder shields the environment against the gamma rays and protects the radioactive isotope against mechanical or chemical damage. In case of large measuring ranges, two or more source holders are used.

### Technical data

Shielding material	Lead
Attenuation factor	
– Cs-137	294
– Co-60	37
Number of the half-value layers	
– Cs-137	8.2 HWS
– Co-60	5.2 HWS
Max. permissible activity of the radioactive source	
– Cs-137	22.2 GBq (600 mCi)
– Co-60	740 MBq (20 mCi)
Exit angle	5°, 20° or 40°
Width of the exit channel	6° in all versions
Safety facility	Padlock, key lock or fixing pin (depending on instrument version)
Mounting flange	DN 100 PN 16 (ASME 4" 150 lbs)
Attenuation of the useful beam	approx. 0.3 half-value layers (attenuation factor = 1.2)
Ambient, storage and transport temperature	-40 ... +200 °C (-40 ... +392 °F)
Surface protection	PUR textured paint RAL 1003
Weight	approx. 42 kg

### Materials

The housing and the flange are made of steel or stainless steel, the internal parts and the source insert of stainless steel. Lead is used as shielding material.

You will find a complete overview of the available materials in the "configurator" on our homepage at [www.vega.com/configurator](http://www.vega.com/configurator).

### Versions

The source container VEGASOURCE 31 is available in different versions that meet the special safety requirements for source handling.

Depending on the version, the switch position ON or OFF can be secured with a cylinder lock, a padlock or a fixing pin. Versions with pneumatic actuation of the switching on and off position (remote control) are available. These versions have proximity switches for remote indication of the switching status.

The source container is also available as fire-proof version.

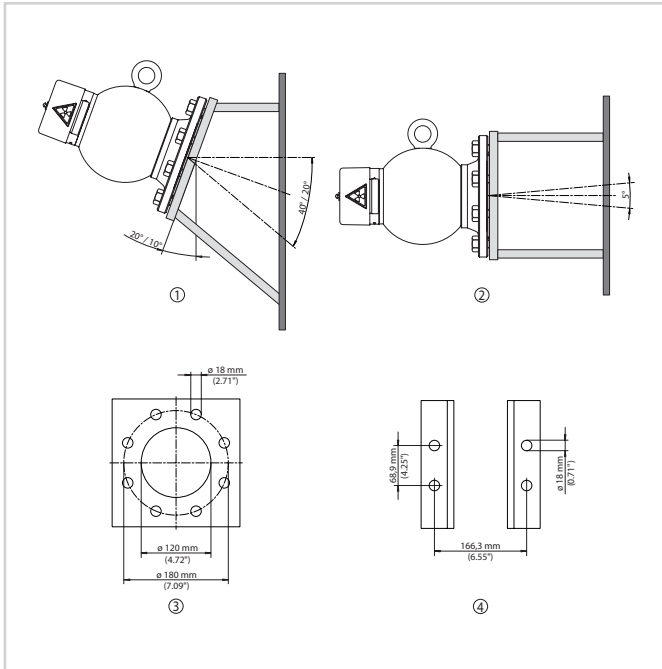
### Shipment

Radioactive sources can only be shipped when a handling permit or an import license is available. The transport is carried out in a type A packaging in accordance with the European Agreement concerning the International Carriage of Dangerous Goods (ADR and DGR/IATA). The source holder VEGASOURCE 31 is sufficient as type A packaging (IATA regulations) for the transport of the radioactive source. The source holder is shipped in switch position OFF. The position is secured by a lock.

### Adjustment

The radiation may only be switched on by qualified personnel. The radiation is switched on mechanically via a swivelling insert that is rotated clockwise by 180° or via a pneumatic switching mechanism. The switching status is clearly visible via distinct labelling. If it is used properly and the specified ambient and operating conditions are maintained, the source holder requires no maintenance or inspection.

### Mounting instructions

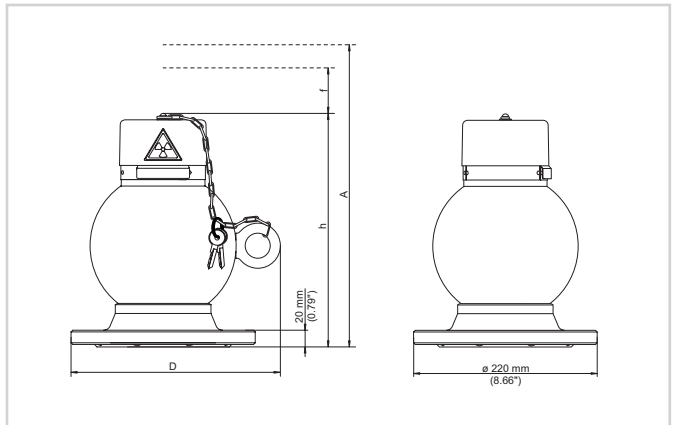


Mounting facility

- 1 Mounting, level measurement
- 2 Mounting level detection
- 3 Example of a mounting plate
- 4 Example for L-profile

The source container can be mounted with a socket directly on the vessel or tube (unpressurized and not in contact with the process). The mounting can be carried out, for example, on L-profiles or a mounting plate. Make sure there is a hole in the mounting plate for the radiation beam to pass through. The mounting flange of the source holder VEGASOURCE 31 is compatible with DN100 PN16 (ANSI 4" 150 lbs). The exit channel is on the same level as the transport lug of the source holder. For continuous level measurement, the source holder must be mounted slightly above or at the height of the max. level. The radiation must be exactly directed to the sensor on the opposite side.

### Dimensions



Dimensions VEGASOURCE 31

- D 251 mm
- h 279 mm
- f 75 mm (free height for removing the cover)
- A 479 mm (free height for source exchange)

### Information

You can find further information on the VEGA product line on our homepage [www.vega.com](http://www.vega.com).

In the download section under [www.vega.com](http://www.vega.com) you'll find free operating instructions, product information, brochures, approval documents, instrument drawings and much, much more.

### Instrument selection

With the "Finder" at [www.vega.com](http://www.vega.com) and "VEGA Tools" you can select the most suitable measuring principle for your application.

You can find detailed information on the instrument versions in the "Configurator" at [www.vega.com](http://www.vega.com) and "VEGA Tools".

### Contact

You can find the VEGA agency serving your area on our homepage [www.vega.com](http://www.vega.com).