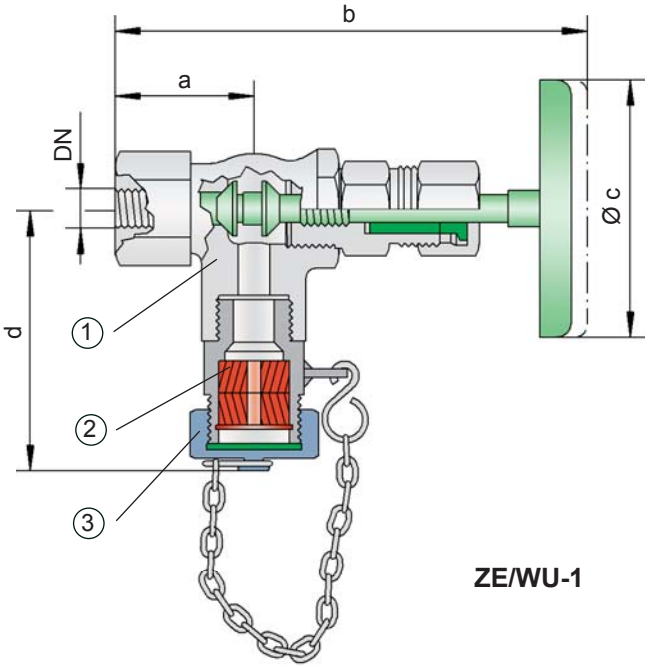
Sampling and Air Bleed Valve

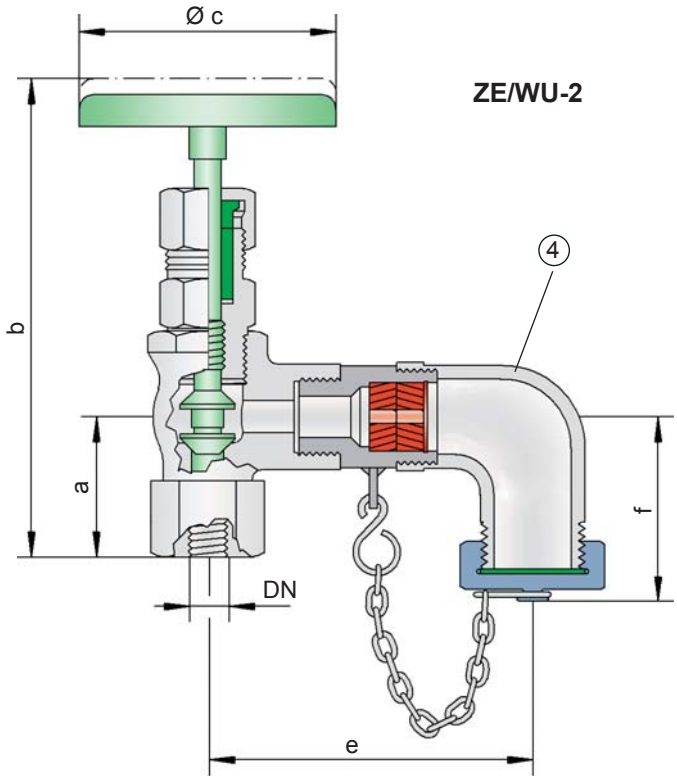
deflagration proof

PROTEGO® ZE/WU



ZE/WU-1

Standard design up to PN 25



ZE/WU-2

Function and Description

The PROTEGO® ZE/WU sampling and air bleed valve is used for flame transmission proof venting of pipelines and equipment that transports or processes flammable liquids, and for taking liquid samples. The valve incorporates an end-of-line deflagration flame arrester. Should the gas/air mixtures or product vapour/air mixtures ignite during venting, the valve prevents flash back into the system to be protected.

The sampling and air bleed valve PROTEGO® ZE/WU consists of the threaded angle valve in pressure stage PN25 (1) with hand wheel as standard design and female threaded connection (pipe thread G½“up to G1“) and the flame arrester (2) with cover (3).

As an optional elbow fitting (4) is available as outlet for sampling. The flame arrester (2) consists of the flame arrester cage with FLAMEFILTER®.

The valve opens manually with the hand wheel. For sampling, a suitable container is required.

The simple and sturdy design makes it suitable for nearly all flammable liquids. This device can be installed in any position.

Flame transmission protection is guaranteed against atmospheric deflagrations of gas/air mixtures or product vapour/air mixtures of explosion groups up to IIB (NEC group D to C) up to a service temperature of +60°C / 140°F and an absolute operating pressure up to 1.1 bar / 15.9 psi.

Type-approved in accordance with the current ATEX Directive and EN ISO 16852 as well as other international standards.

Designs and Specifications

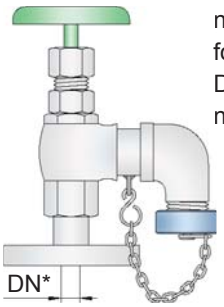
There are two designs available:

Sampling and air bleed valve, standard design **ZE/WU - 1**

Sampling and air bleed valve with elbow **ZE/WU - 2**

Special designs for higher pressures are available

Optionally available with flange connection (see figure)



* Position of drilling holes on flange connection as well as thickness upon request for size DN15 / ½“, DN20 / ¾“, DN25 / 1“, DN32 / 1¼“, DN40 / 1½“ and pressure nominal PN25/40 resp. PN100 available.

Table 1: Dimensions Dimensions in mm / inches

DN	a	b	Ø c	d	e	f
15 / G½"	40 / 1.57	140 / 5.51	70 / 2.76	80 / 3.15	96 / 3.78	67 / 2.64
20 / G¾"	50 / 1.97	165 / 6.50	85 / 3.35	80 / 3.15	89 / 3.50	67 / 2.64
25 / G1"	65 / 2.56	200 / 7.87	100 / 3.94	95 / 3.74	104 / 4.09	67 / 2.64

Table 2: Explosion group

MESG	Expl. Gr. (IEC/CEN)	Gas Group (NEC)
≥ 0,50 mm	IIB	B

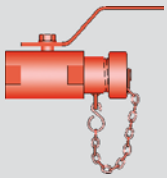
Table 3: Material

Design	A
Threaded angle valve	Stainless Steel
Elbow	Stainless Steel
Cover	Stainless Steel
FLAMEFILTER®	Stainless Steel

The valve must be sufficiently resistant to corrosion through the gas/air mixtures or product vapor/air mixtures. This applies mainly to the FLAMEFILTER®.

Table 4: Type of connection

Pipe thread DIN ISO 228 T1	DIN

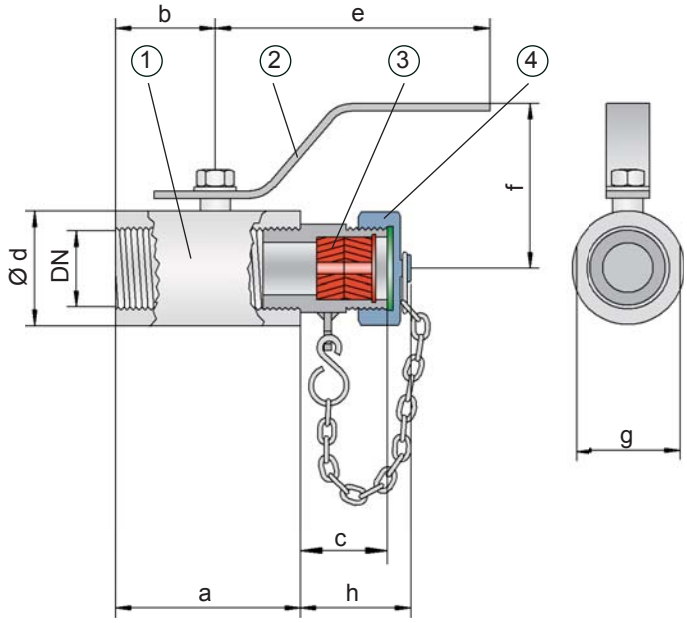


Condensate Drain Valve

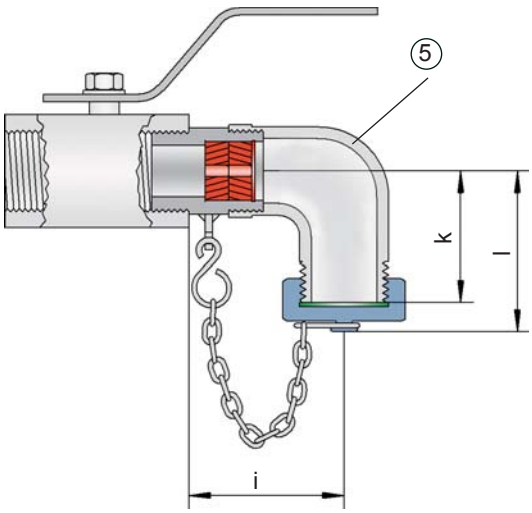
deflagration proof

PROTEGO® ZE/TK

ZE/TK-1



ZE/TK-2



Function and Description

The PROTEGO® ZE/TK condensate drain valve is used for flame transmission proof condensate drainage of devices or plant equipment (e.g. tanks, pipelines, etc.) where flammable liquids may condense and therefore flammable product vapour/air mixtures could develop. Furthermore the drain valves can be used for the venting of tanks, parts of plants and lines that transport or process flammable liquids. The drain valve incorporates an end-of-line deflagration flame arrester.

The condensate drain valve PROTEGO® ZE/TK consists of the ball valve (1) with hand lever (2) and female threaded connection (e.g. pipe thread G½" up to G1") and the flame arrester (3) with cover (4).

As an option a elbow fitting (5) is available as outlet.

The flame arrester (3) consists of flame arrester cage and FLAMEFILTER®.

The ball valve is opened with the hand lever. When draining condensate use a suitable container. When draining flammable and/or toxic products observe the appropriate safety provisions.

The simple and sturdy design it is suitable for nearly all flammable liquids, and can be installed in any position.

Flame transmission protection is guaranteed against atmospheric deflagrations of product vapour/air mixtures of explosion groups up to IIB (NEC groups D to C) up to a service temperature of +60°C / 140°F and an absolute operating pressure up to 1.1 bar / 15.9 psi.

Type-approved in accordance with the current ATEX Directive and EN ISO 16852 as well as other international standards.

Designs and Specifications

There are two designs available:

Condensate drain valve, standard design	**ZE/TK - 1**
Condensate drain valve with elbow	**ZE/TK - 2**

Special designs are available on request.

Table 1: Dimensions Dimensions in mm / inches

DN	a	b	c	Ø d	e	f	g	h	i	k	l
15 / G½"	60 / 2.36	30 / 1.18	33 / 1.30	32 / 1.26	110 / 4.33	55 / 2.17	27 / 1.06	45 / 1.77	54 / 2.13	38 / 1.50	67 / 2.64
20 / G¾"	65 / 2.56	35 / 1.38	33 / 1.30	38 / 1.50	110 / 4.33	60 / 2.36	34 / 1.34	45 / 1.77	54 / 2.13	38 / 1.50	67 / 2.64
25 / G1"	73 / 2.87	40 / 1.57	33 / 1.30	45 / 1.77	110 / 4.33	65 / 2.56	41 / 1.61	45 / 1.77	54 / 2.13	38 / 1.50	67 / 2.64

Table 2: Explosion group

MESG	Expl. Gr. (IEC/CEN)	Gas Group (NEC)
≥ 0,50 mm	IIB	B

Table 3: Material

Ball valve	Stainless Steel
Elbow	Stainless Steel
Cover	Stainless Steel
FLAMEFILTER®	Stainless Steel

The valves must be sufficiently resistant to corrosion through the gas/air mixtures or product vapour/air mixtures. This applies mainly to the FLAMEFILTER®. If necessary, designs in special stainless steel quality should be selected.

Table 4: Type of connection

Pipe thread DIN ISO 228 T1	DIN