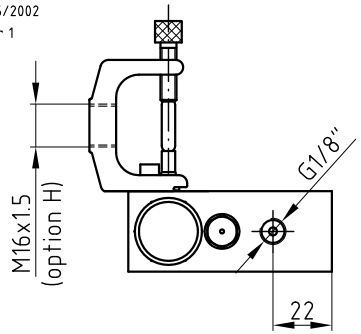
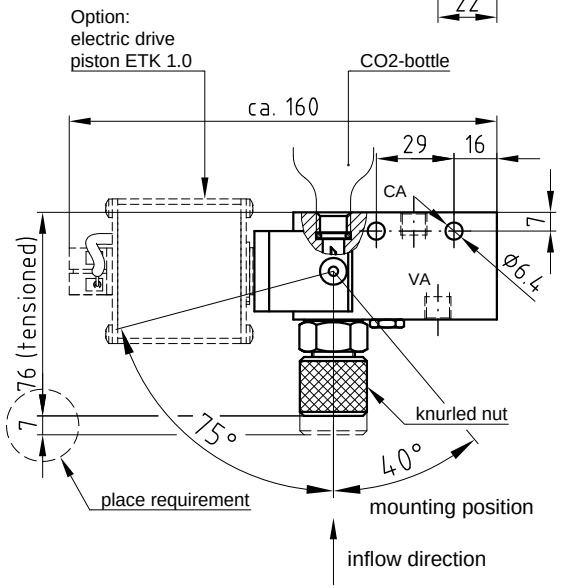
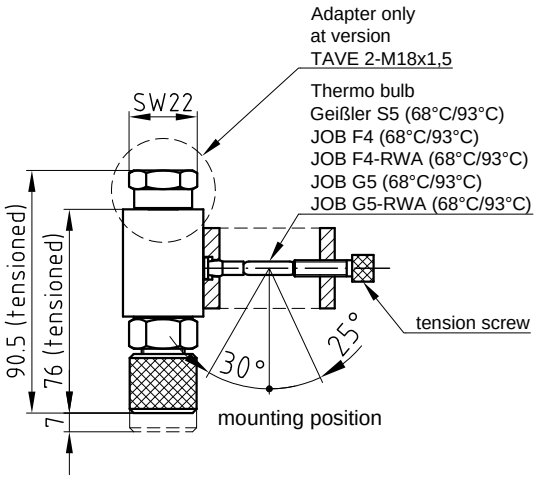
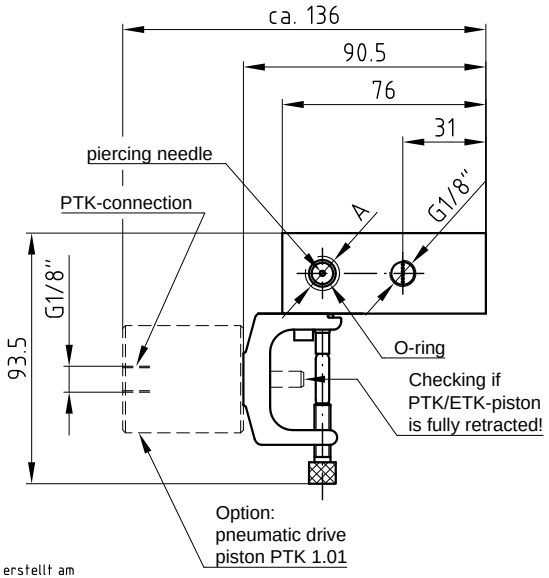
Dateiname: Qf0510B









Description of function:

The temperature valve TAVE is a release valve, which, on the bursting of a thermo bulb, taps a CO2-bottle and allows the CO2 to flow to the outlet CA.
The thermo bulb bursts at the specified rated temperature with a tolerance of -3°C / +8°C.
In the non-release position there is a connection between the input VA and the outlet CA e.g. to enable unhindered ventilation operation.

Releasing:

1) Thermal releasing via bursting of the thermo bulb
2) Option: Pneumatic releasing via pneumatic drive piston PTK 1.01 (must be specified with order)
3) Option: Electric releasing via electric drive piston ETK 1.0 (must be specified with order)

Mounting:

1) Join connections as follows:
   CA .....cylinder OPEN
   VA .....vent line or CO2 line OPEN
   PTK .....join PTK connection with external releasing device (option)
   ETK .....join electric connection with external releasing device (option)
2) When using a CO2 one-way bottle the TAVE must be installed as drawn adhering to the inflow direction (bottle screwed in from the top).
3) For our G1/8" connection threads we recommend to use screw connections with taper thread and to seal these in position using a liquid sealant (e.g. Loctite 243). It must be ensured that the liquid sealant is applied to the external thread.
4) We recommend using CO2 one-way bottles according to drawing No. 03.023.00.* and point out that the VdS-recognition is valid only with these bottles.

Commissioning:

1) Fully unscrew knurled nut.
2) If Option "Pneumatic/electric drive piston" is available, check if PTK/ETK tappet is fully retracted via spring resetting (PTK/ETK-connection must be pressureless/de-energized).
3) Insert thermo bulb so that the tip points in the direction of the tension screw.
4) Tighten knurled nut while at the end of the clamping travel (noticeable resistance) the knurled nut has to be turned in approximately 1/2 a turn in addition.
5) Fully tighten knurled nut.
6) Check if the piercing needle is positioned behind the piercing surface of the bottle screw-in thread.
7) Lightly grease the O-ring in the bottle screw-in thread.
8) Check if the reset button is in the correct position.
9) Screw in CO2-bottle
10) After releasing, repeat process

CAUTION:

- After thermo valve release, it is absolutely necessary, to unscrew the knurled nut first and CO2 bottle after.
- Check the compatibility of the thermo bulb and CO2 bottle.
- Dirt is built up by common use of the thermo valve. Therefore it must be cleaned free of deposits (dirt, fragments, etc.) in the thermo bulb holder and in the bottle thread.

Technical data:

max. static housing pressure	80 bar
max. dynamic operating pressure	80 bar
nominal width of valve	2 mm
nominal width of piercing needle	2 mm
ambient temperature range	-20°C - +110°C
releasing pressure PTK (Option)	10 bar
VdS approval no.	G 597018

Scope of supply:

Screw connections, thermo bulb and CO2-bottle are NOT included in the scope of supply.

Types:

Type	Bottle srew-in thread A	Identical number
TAVE 2	1/2" UNF (standard)	402000001010
TAVE 2-M	M18x1.5 (adapter)	402000011010
TAVE 2-F	W21.8x1/14"	402000021010
Option		
TAVE 2-PTK	1/2" UNF (standard)	40200000K010
TAVE 2-M-PTK	M18x1.5 (adapter)	40200001K010
TAVE 2-F-PTK	W21.8x1/14"	40200002K010

Diagram without PTK 1.01:

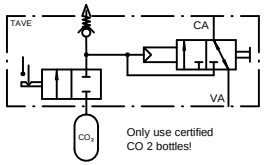
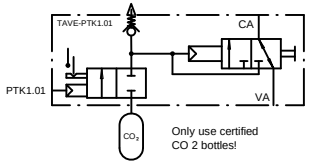


Diagram with PTK 1.01:



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastraße 1				Freimaßtoleranz nach DIN 7168:		Maßstab: 1:1 / Werkstoff: / ID - Nr.:
					Datum	Name
				Bear.	10.12.2008	Göschl
				Gepr.	24.08.2017	HA
				Norm		
02	Text, ETK	04.07.2017	SA	Type: TAVE 2		Zeichnung Nr.: 04.016.DAT.02.02-E / Blatt / BL.
01	Diverse Änderungen	16.02.2010	SA			
Zus.	Änderung	Datum	Name	(Urspr.)		(Ers.f.:) 04.016.DAT.02.01 (Ers.d.:)

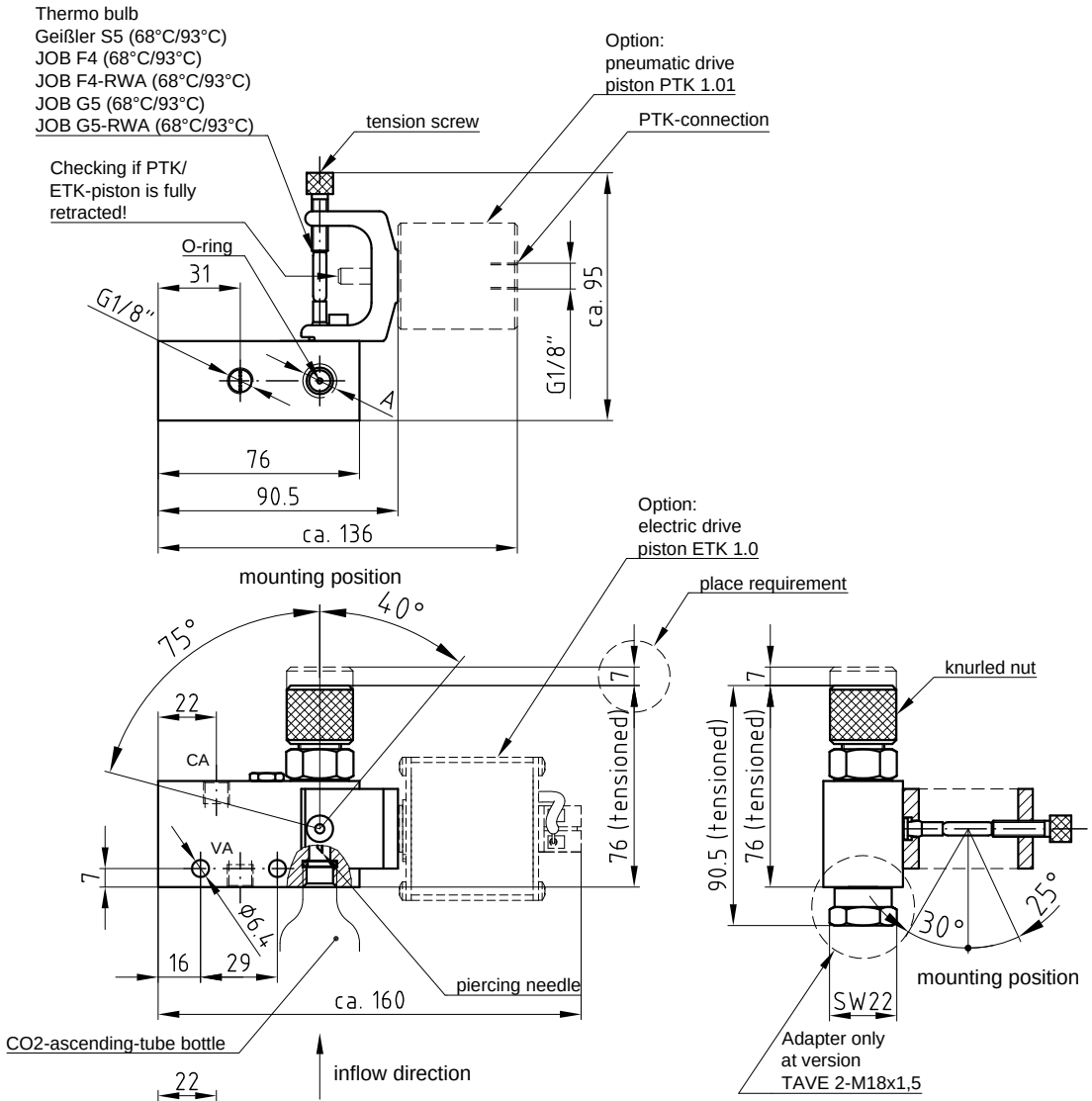
Bezeichnung:
Data sheet
Thermal release valve (single pipe)
TAVE 2

erstellt am
28.5.2002 ER

formell geprüft am
29.5.2002 KW

fachlich geprüft am
29.5.2002 KW

Dateiname: Qf0510B



Description of function:

The temperature valve TAVE is a releasing valve, which, on the bursting of a thermo bulb, taps a CO2-bottle and allows the CO2 to flow to outlet CA.
The thermo bulb bursts at the specified rated temperature with a tolerance of -3°C / +8°C.
In the non-release position there is a connection between the input VA and the outlet CA e.g. to enable unhindered ventilation operation.

Releasing:

1) Thermal releasing via bursting of the thermo bulb
2) Option: Pneumatic releasing via pneumatic drive piston PTK 1.01 (must be specified with order)
3) Option: Electric releasing via electric drive piston ETK 1.0 (must be specified with order)

Mounting:

1) Join connections as follows:
   CA ..... cylinder OPEN
   VA ..... vent line or CO2 line OPEN
   PTK ..... Join PTA connection with external releasing device (option)
   ETK ..... join electric connection with external releasing device (option)
2) When using a CO2-ascending-tube bottle the TAVE must be installed as drawn adhering to the inflow direction (bottle screwed in from the bottom)
3) For our G1/8" connection threads we recommend to use screw connections with taper thread and to seal these in position using a liquid sealant (e.g. Loctite 243). It must be ensured that the liquid sealant is applied to the external thread.

Commissioning:

1) Fully unscrew knurled nut.
2) If Option "Pneumatic/electric drive piston" is available, check if PTK /ETK tappet is fully retracted via spring resetting (PTK/ETK-connection must be pressureless/de-energized).
3) Insert thermo bulb so that the tip points in the direction of the tension screw.
4) Tighten knurled nut while at the end of the clamping travel (noticeable resistance) the knurled nut has to be turned in approximately 1/2 a turn in addition.
5) Fully tighten knurled nut.
6) Check if the piercing needle is positioned behind the piercing surface of the bottle screw-in thread.
7) Lightly grease the O-ring in the bottle screw-in thread.
8) Check if the reset button is in the correct position.
9) Screw in CO2-bottle
10) After releasing, repeat process

Caution:

- After thermo valve release, it is absolutely necessary, to unscrew the knurled nut first and CO2 bottle after.
- Check the compatibility of the thermo bulb and CO2 bottle.
- Dirt is built up by common use of the thermo valve. Therefore it must be cleaned free of deposits (dirt, fragments, etc.) in the thermo bulb holder and in the bottle thread.

Technical data:

max. static housing pressure	80 bar
max. dynamic operating pressure	80 bar
nominal width of valve	2 mm
nominal width of piercing needle	2 mm
ambient temperature range	-20°C - +110°C
releasing pressure PTK (Option)	10 bar
VdS approval no.	G 597018

Scope of supply:

Screw connections, thermo bulb and CO2-bottle are NOT included in the scope of supply.

Types:

Type	Bottle srew-in thread A	Identical number
TAVE 2	1/2" UNF (standard)	400000001010
TAVE 2-M	M18x1.5 (adapter)	400000011010
TAVE 2-F	W21.8x1/14"	400000021010
Option		
TAVE 2-PTK	1/2" UNF (standard)	40000000K010
TAVE 2-M-PTK	M18x1.5 (adapter)	40000001K010
TAVE 2-F-PTK	W21.8x1/14"	40000002K010

Diagram without PTK 1.01:

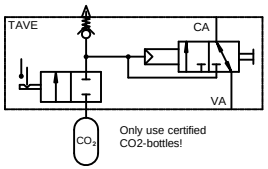
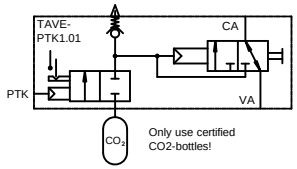


Diagram without PTK 1.01:



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastraße 1	Freimaßtoleranz nach DIN 7168:
Maßstab: 1:1	Werkstoff:
ID - Nr.:	

	Datum	Name
Bear.	10.12.2008	Göschl
Gepr.	24.08.2017	HA
Norm		

Bezeichnung:
Data sheet
Thermal release valve (single pipe)
TAVE 2 with ascending-tube bottle

Zus.	Änderung	Datum	Name
02	Text, ETK	04.07.2017	SA
01	Diverse Änderungen	16.02.2010	SA

Type: TAVE 2

Zeichnung Nr.: 04.016.DAT.03.02-E

Blatt: BL.

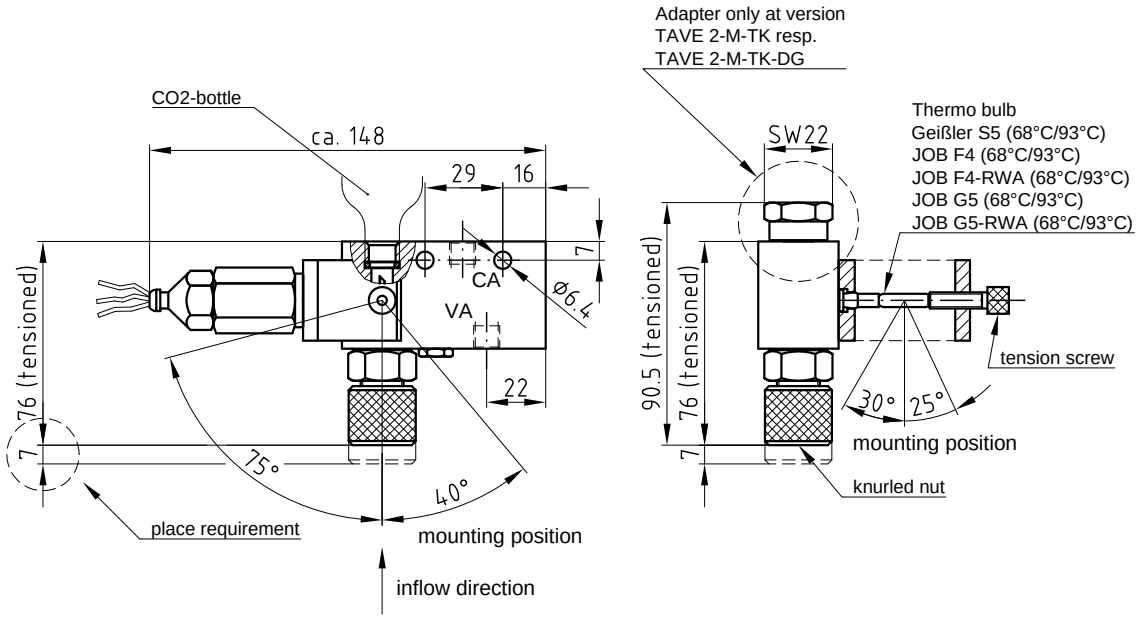
(Urspr.) (Ers.f.:) 04.016.DAT.03.01 (Ers.d.:)

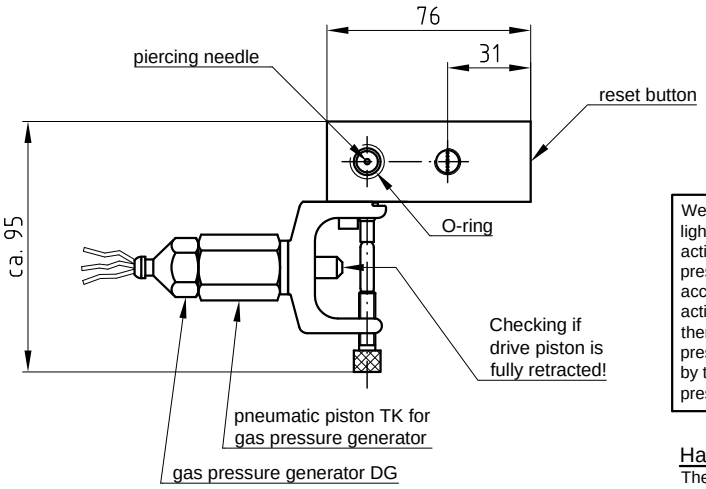
erstellt am
28.5.2002 ER

formell geprüft am
29.5.2002 KW

fachlich geprüft am
29.5.2002 KW

Dateiname: Qf0510B





We point out that due to EMV-influence, lightning, induction current, etc. of faulty activation (false alarms) of the gas pressure generator can occur. We accept no guarantee for such faulty activation. Further we point out that the thermal release valve TA with the gas pressure generator is NOT certificated by the VdS. Period of use of gas pressure generator: see label on DG.

Hazard note:

The use must be made by qualified personal. Only connect the gas pressure generator in the installed state with the lines of the voltage source.

Description of function:

The temperature valve TAVE 2 is a release valve, which, on the bursting of a thermo bulb, taps a CO2-bottle and allows the CO2 to flow to the outlet CA. The thermo bulb bursts at the specified rated temperature with a tolerance of -3°C / +8°C.
In the non-release position there is a connection between the input VA and the outlet CA e.g. to enable unhindered ventilation operation.

Releasing:

1) Thermal releasing via bursting of the thermo bulb
2) Electric releasing via pneumatic piston and gas pressure generator DG

Mounting:

1) Join connections as follows:
   CA ... cylinder OPEN
   VA ... vent line or CO2 line OPEN
   Join gas pressure generator connection with external releasing device (keep current in mind)
2) When using a CO2 one-way bottle the TAVE must be installed as drawn adhering to the inflow direction (bottle screwed in from the top).
3) For our G1/8" connection threads we recommend to use screw connections with taper thread and to seal these in position using a liquid sealant (e.g. Loctite 243). It must be ensured that the liquid sealant is applied to the external thread.
4) We recommend using CO2 one-way bottles according to drawing No. 03.023.00.* and point out that the VdS-recognition is valid only with these bottles.

Commisioning:

1) Fully unscrew knurled nut.
2) Check if pneumatic piston of the gas pressure generator is fully retracted.
3) Insert thermo bulb so that the tip points in the direction of the tension screw.
4) Tighten knurled nut while at the end of the clamping travel (noticeable resistance) the knurled nut has to be turned in approximately 1/2 a turn in addition.
5) Fully tighten knurled nut.
6) Check if the piercing needle is positioned behind the piercing surface of the bottle screw-in thread.
7) Lightly grease the O-ring in the bottle screw-in thread.
8) Check if the reset button is in the correct position.
9) Screw in CO2-bottle
10) After releasing, repeat process

Caution:

- After thermo valve release, it is absolutely necessary, to unscrew the knurled nut first and CO2 bottle after.
- Check the compatibility of the thermo bulb and CO2 bottle.
- Dirt is built up by common use of the thermo valve. Therefore it must be cleaned free of deposits (dirt, fragments, etc.) in the thermo bulb holder and in the bottle thread.

Technical data:

max. static housing pressure	80 bar
max. dynamic operating pressure	80 bar
nominal width of valve	2 mm
nominal width of piercing needle	2 mm
ambient temperature range	-20°C - +90°C
100%-ignition of gas pressure generator by	0,6A
operating voltage of gas pressure generator	12 - 24VDC (max. 60VDC)
no ignition	<0,2A
test current	0,02A
resistance	1,4 bis 2,0 Ohm

Scope of supply:

Screw connections, thermo bulb, CO2-bottle and gas pressure generator DG at version "TK" are NOT included in the scope of supply.

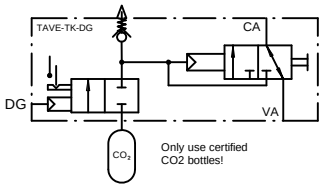
Types:

Type	Bottle srew-in thread A	Identical number
TAVZ 2-TK	1/2" UNF (standard)	402000001014
TAVZ 2-M-TK	M18x1.5 (adapter)	402000011014
TAVZ 2-F-TK	W21.8x1/14"	402000021014
TAVZ 2-TK-DG	1/2" UNF (standard)	402000001015
TAVZ 2-M-TK-DG	M18x1.5 (adapter)	402000011015
TAVZ 2-F-TK-DG	W21.8x1/14"	402000021015

Electrostatic safety:

current ..... <20KV
capacity ..... <1000pF

Circuit diagramm:



GRASL Pneumatic-Mechanik GmbH A-3454 Reidling Europastraße 1				Freimaßtoleranz nach DIN 7168:		
					Datum	Name
				Bear.	23.01.2009	Tiefenbacher
				Gepr.	24.08.2017	HA
				Norm		
02	Text	04.07.2017	SA	Type: TAVE 2		
01	Diverse Änderungen	16.02.2010	SA			
Zus.	Änderung	Datum	Name	(Urspr.)		

Maßstab: 1:1 | Werkstoff:
ID - Nr.:
Bezeichnung:
Data sheet
Thermal release valve (single pipe)
TAVE 2 with TK and DG
Zeichnung Nr.: 04.016.DAT.05.02-E | Blatt BL.
(Ers.f.:) 04.016.DAT.05.01 | (Ers.d.:)

erstellt am
28.5.2002 ER

formell geprüft am
29.5.2002 KW

fachlich geprüft am
29.5.2002 KW