

VSN200 Suppression Systems

Product Catalogue 2018 | EMEA





Version: 2018-01

Product Catalog

Gas-Based Suppression System

VSN 200 Fire Extinguishing Systems

Fight fires using the chemical extinguishant HFC-227ea

This product catalog is intended for sales purposes only. For planning, installation, commissioning and operation, please refer to the corresponding technical documentation, which are enclosed with the products.



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Extinguishing technology Halocarbon agents

VSN 200 Fire Extinguishing System

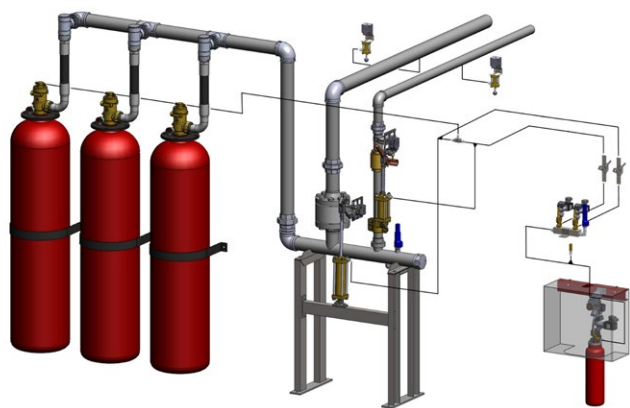
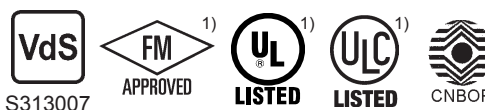


Figure: Multi-zone system

Approvals



¹⁾ VSN 200 multi-zone system is not FM, UL, ULC approved

Contact us for information about additional approvals and listings

System description

The VSN 200 fire extinguishing system with fire extinguishant HFC-227ea offers optimal fire protection and is particularly suitable for electrical and electronic risks. The system consists of one or more extinguishant cylinders, which are connected via a pipework with extinguishing nozzles.

The design of the system is adapted to the fire risk and the spatial conditions. Directly after a developing fire was recognised automatically by the fire detection system, the fire extinguishing system is triggered. After a short pre warning time the release of the extinguishant cylinders is carried out and the calculated fire extinguishant concentration is reached in the protected room after 10 seconds.

The residue-free operating extinguishant HFC-227ea has a high extinguishing effectiveness and environmental compatibility (Global Warming Potential GWP = 3500, Ozone Depletion potential ODP = 0). Further advantages are its high personal safety and the small storage volume.

Pressurisation with nitrogen

The extinguishant HFC-227ea does not have a sufficient vapour pressure, in order to assure a complete and effective flooding of a protected room.

In order to reach the desired system pressure, the extinguishant is therefore pressurised with nitrogen on the intended system pressure of 25, 42 or 50 bar.

The extinguishant HFC-227ea

The extinguishant HFC-227ea that is used in VSN 200 fire extinguishing systems is used for total flooding of clearly zoned areas and is suitable for fires of the classes A and B. The extinguishant has a gas pressure of 3.91 bar at 20 °C, that positively affects a fast evaporation at the nozzle and the fast distribution in the room. HFC-227ea is neither corrosive nor electrical conductive and causes no damage or residues at sensitive electronic components. It is colourless and almost odourless and a gas at ambient temperature. The molecules consist of carbon, fluorine and hydrogen.

While the extinguishing effect of inert gases is based on the displacement of oxygen, HFC-227ea absorbs the heat of the flame and interrupts thereby the combustion reaction.

So the extinguishing effect is caused for the most part physically and for a small part chemically.

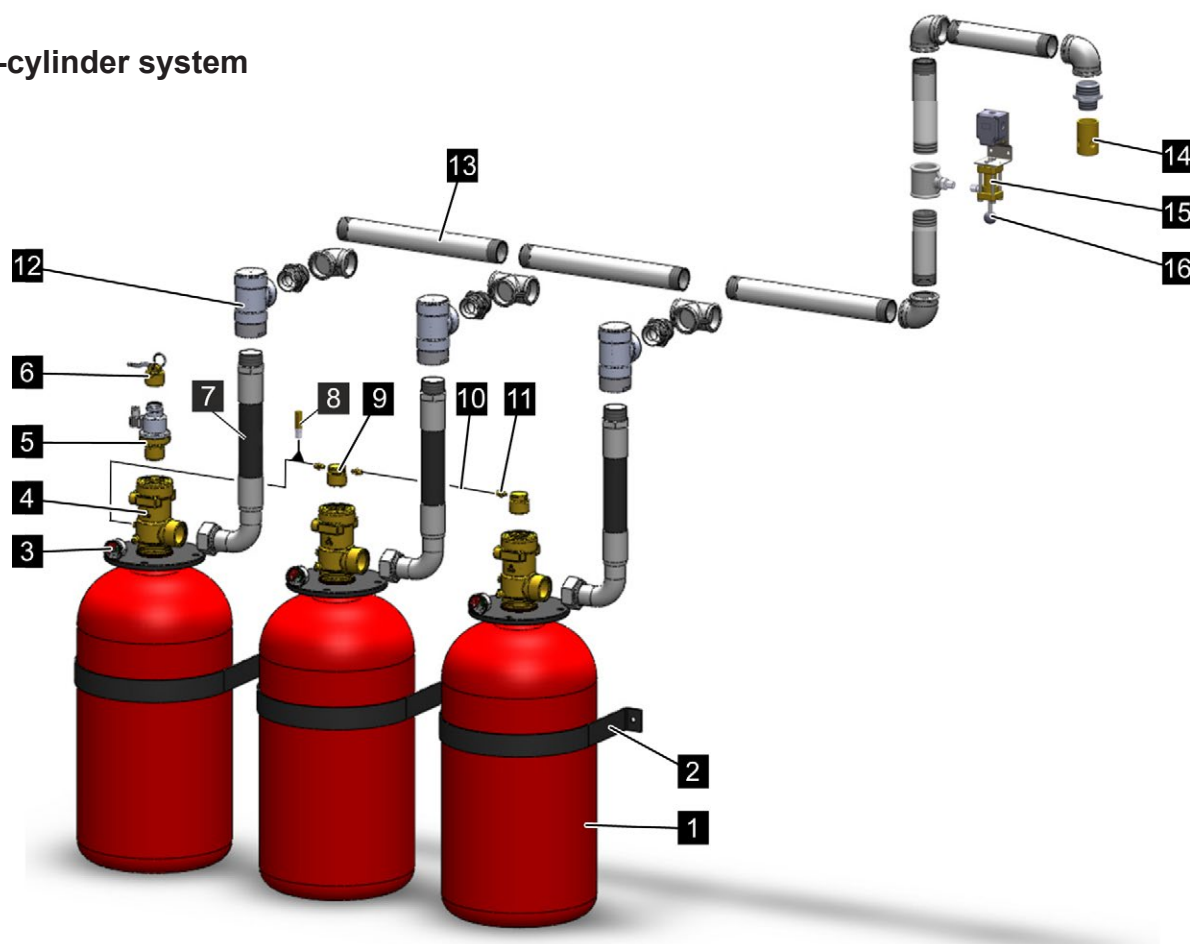


Extinguishing technology Halocarbon agents

VSN 200 Fire Extinguishing System

Functional diagram single-zone system

Multi-cylinder system



| Item | Designation | Product sheet | Item | Designation | Product sheet |
|------|---|-------------------------|------|--|---|
| 1 | Extinguishing agent cylinder | see cylinder assembled | 9 | Release device pneumatic | see ad-on part cylinder |
| 2 | Clamp for extinguishing agent cylinder | see cylinder rack | 10 | Hose DN4 (5/32") or Pilot pipe DN4 (5/32") | see ad-on part cylinder see pilot pipe |
| 3 | Contact pressure gauge | see monitoring device | 11 | Adapter M12x1,5 | see ad-on part cylinder |
| 4 | Valve | see cylinder valve | 12 | Check valve type MX-CR | see manifold |
| 5 | Release device electrical (also available with a mechanic blocking device) | see ad-on part cylinder | 13 | Pipework | see ad-on part cylinder |
| 6 | Release device manual or pneumatic/manual | see ad-on part cylinder | 14 | Discharge nozzle, nozzle type CD | see nozzle |
| 7 | Hose DN40 and DN50 (1.1/2" and 2") | see ad-on part cylinder | 15 | Pneumatically actuated limit switch | - |
| 8 | Safety device malfunction pressure SFD DN4 (Safeguard against slow gas leaks) | see control device | 16 | Manual release of the limit switch | - |

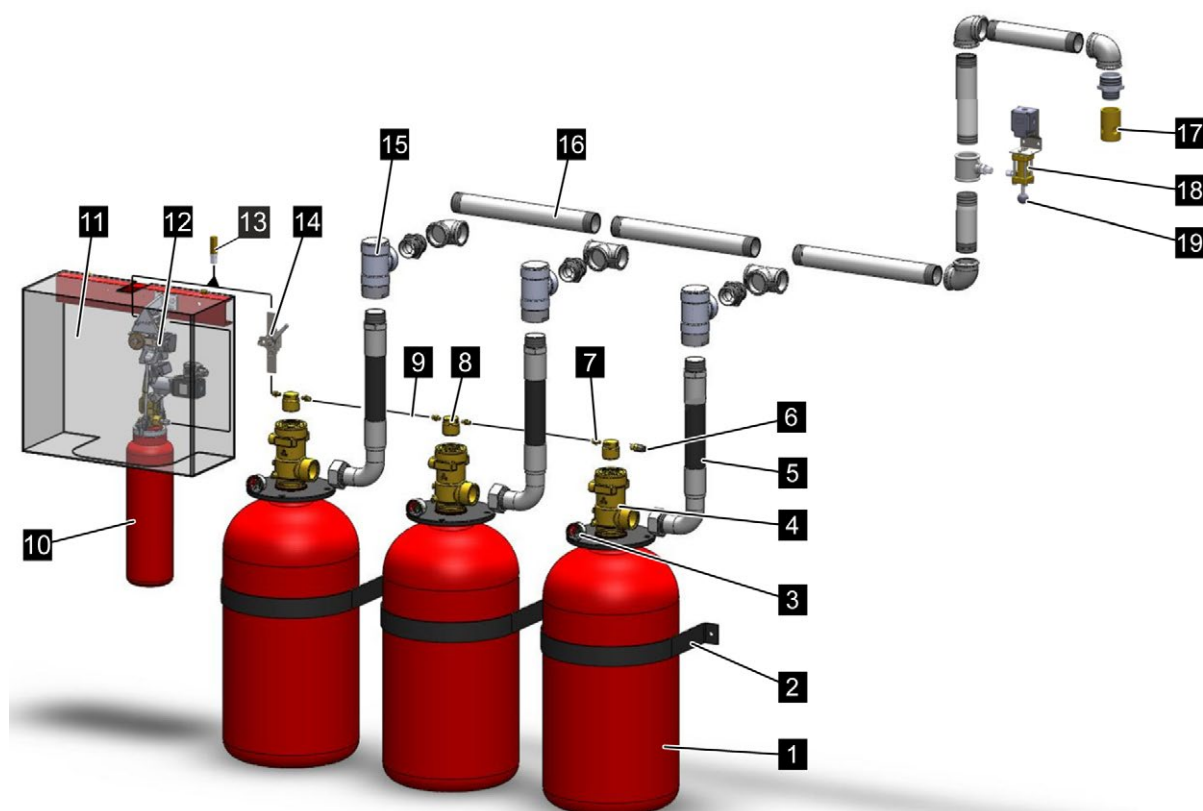


Extinguishing technology Halocarbon agents

VSN 200 Fire Extinguishing System

Functional diagram single-zone system

Multi-cylinder system with pneumatic release device (PAE)



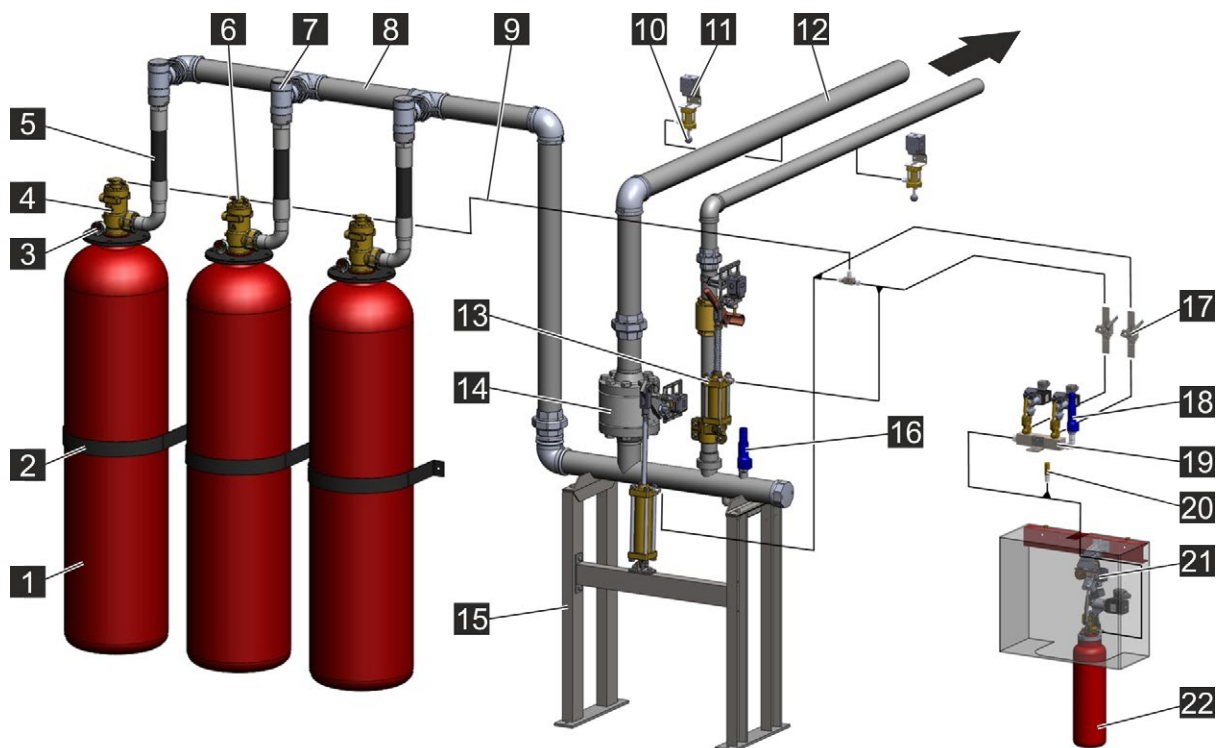
| Item | Designation | Product sheet | Item | Designation | Product sheet |
|------|---|---|------|---|-------------------------|
| 1 | Extinguishing agent cylinder | see cylinder assembled | 11 | Protective cover | see control device |
| 2 | Clamp for extinguishing agent cylinder | see cylinder rack | 12 | Pneumatic release device (PAE), complete including weighing device | see control device |
| 3 | Contact pressure gauge | see monitoring device | 13 | Safety device malfunction pressure SFD DN4 (Safeguard against slow gas leaks) | see control device |
| 4 | Valve | see cylinder valve | 14 | Blocking device | see control device |
| 5 | Hose DN40 and DN50 (1.1/2" and 2") | see ad-on part cylinder | 15 | Check valve type MX-CR | see manifold |
| 6 | Push-button selector valve (Manual pressure relief valve) | see selector valve accessories | 16 | Pipework | see ad-on part cylinder |
| 7 | Adapter M12x1,5 | see ad-on part cylinder | 17 | Discharge nozzle, nozzle type CD | see nozzle |
| 8 | Release device pneumatic | see ad-on part cylinder | 18 | Pneumatically actuated limit switch | - |
| 9 | Hose DN4 (5/32") or Pilot pipe DN4 (5/32") | see ad-on part cylinder see pilot pipe | 19 | Manual release of the limit switch | - |
| 10 | Extinguishing agent cylinder (Pilot cylinder) | see cylinder assembled | | | |



Extinguishing technology Halocarbon agents

VSN 200 Fire Extinguishing System

Functional diagram multi-zone system * not UL / not FM



| Item | Designation | Product sheet | Item | Designation | Product sheet |
|------|--|---|------|---|-----------------------------|
| 1 | Extinguishing agent cylinder | see cylinder assembled | 12 | Downstream piping | see ad-on part cylinder |
| 2 | Clamp for extinguishing agent cylinder | see cylinder rack | 13 | Selector valve DN25, DN40, DN50 (1", 1.1/2", 2") | see manifold selector valve |
| 3 | Contact pressure gauge | see monitoring device | 14 | Selector valve DN65 - 100 (2.1/2" - 4") pneumatic | see selector valve |
| 4 | Valve | see cylinder valve | 15 | Bracket | - |
| 5 | Hose DN40 and DN50 (1.1/2" and 2") | see ad-on part cylinder | 16 | Safety valve G1/2 - 66 bar (957 psi) | see safety valve |
| 6 | Release device pneumatic | see ad-on part cylinder | 17 | Blocking device | see control device |
| 7 | Check valve type MX-CR | see manifold | 18 | Safety valve G1/2 - 140 bar (2030 psi) | see safety valve |
| 8 | Manifold | see ad-on part cylinder | 19 | DN15 (1/2") pilot distributor (as shown) or with solenoid valve 2/2-ways complete | see control device |
| 9 | Hose DN4 (5/32") or Pilot pipe DN4 (5/32") | see ad-on part cylinder see pilot pipe | 20 | Safety device malfunction pressure SFD DN4 (Safeguard against slow gas leaks) | see control device |
| 10 | Manual release of the limit switch | - | 21 | Pneumatic release device (PAE), complete including weighing device | see control device |
| 11 | Pneumatically actuated limit switch | - | 22 | Extinguishing agent cylinder (Pilot cylinder) | see cylinder assembled |

Multi-zone systems safeguard several extinguishing zones. If the extinguishing zones are of different sizes, multi-zone systems will be equipped with several extinguishing agent cylinders. The extinguishing agent supply and, thus, the number of extinguishing agent cylinders always follow the largest extinguishing zone. When activated, the system will only flood one extinguishing zone.



Extinguishing technology Halocarbon agents

Cylinder Halocarbon agents assembled

**Extinguishing agent cyl. UL/FM/GL,
VSN 200 EU/GL/EAC/UN/DOT (drawn)**
22 l, 40 l, 80 l, 100 l, 140 l, 180 l



Approvals



- 1) Part of the system approval VSN 200
- 2) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230).
Extinguishing agent cylinders must only be filled by refilling companies which are listed in UL-file EX26532.
- 3) Valve type B and B25 without UL / ULC approval
- 4) Part of the system approval

SAP designation

e.g. part no. 888454: Extinguishing agent cyl. UL/FM/GL 22.0
25bar-VSN 200 EU/DOT/GOST-R

Maintenance

see product information valve B0481 DN49 / B0482 DN33
part no. 887866

| Pressure at 21 °C (70 °F) bar (psi) | Steel- cylinder ⁷⁾ | | | | | Nominal volume l (lbs) | Part no. Valve type ⁶⁾ | | Amount filled ⁵⁾ | | | | Empty weight approx. kg (lbs) |
|--|----------------------------------|----|-----|----|-----|----------------------------------|--------------------------------------|---------------------------|-----------------------------|---------------------------------|-----------------|--------------------------------------|--|
| | TPED | GL | EAC | UN | DOT | | A / A25 | B / B25 (not UL / ULC) | min. | | max. | | |
| | | | | | | | | | VdS / CE kg (lbs) | UL / ULC FM / GL kg (lbs) | VdS kg (lbs) | CE / GL / UL ULC / FM kg (lbs) | |
| 25 (360) | • | • | • | | | 22,0 (55) | 888454 | 888455 | 8,8 (19,5) | 11 (24,3) | 22,8 (50,4) | 25,0 (55,2) | 50 (110) |
| | • | • | • | | | 40,0 (100) | 888457 | 888458 | 16 (35,3) | 20 (44,1) | 41,6 (91,7) | 45,6 (100,5) | 59 (130) |
| | • | • | | | | 80,0 (200) ⁸⁾ | 888467 | 888469 | 32 (70,6) | 40 (88,2) | 83,2 (183,4) | 91,2 (201,0) | 104 (229) |
| | • | • | • | • | | 80,0 (200) ⁹⁾ | 888557 | 888558 | 32 (70,6) | 40 (88,2) | 83,2 (183,4) | 91,2 (201,0) | 99 (218) |
| | • | • | • | | | 100,0 (250) | 888471 | 888472 | 40 (88,2) | 50 (110,3) | 104 (229,2) | 114 (251,3) | 127 (280) |
| | • | • | • | • | | 140,0 (350) | 888561 | 888562 | 56 (123,5) | 70 (154,4) | 145,6 (320,9) | 159,6 (351,8) | 131 (289) |
| | • | • | • | | • | 180,0 (450) | 888563 | 888564 | 72 (158,8) | 90 (198,5) | 187,2 (412,7) | 205,2 (452,3) | 179 (395) |
| 42 (610) | • | • | • | | | 22,0 (55) | 888459 | 888460 | 8,8 (19,5) | 11 (24,3) | 22,8 (50,4) | 25,0 (55,2) | 50 (110) |
| | • | • | • | | | 40,0 (100) | 888461 | 888462 | 16 (35,3) | 20 (44,1) | 41,6 (91,7) | 45,6 (100,5) | 59 (130) |
| | • | • | | | | 80,0 (200) ⁸⁾ | 888475 | 888476 | 32 (70,6) | 40 (88,2) | 83,2 (183,4) | 91,2 (201,0) | 104 (229) |
| | • | • | • | • | | 80,0 (200) ⁹⁾ | 888565 | 888566 | 32 (70,6) | 40 (88,2) | 83,2 (183,4) | 91,2 (201,0) | 99 (218) |
| | • | • | • | | | 100,0 (250) | 888477 | 888478 | 40 (88,2) | 50 (110,3) | 104 (229,2) | 114 (251,3) | 127 (280) |
| | • | • | • | • | | 140,0 (350) | 888567 | 888568 | 56 (123,5) | 70 (154,4) | 145,6 (320,9) | 159,6 (351,8) | 131 (289) |
| | • | • | • | | • | 180,0 (450) | 888569 | 888570 | 72 (158,8) | 90 (198,5) | 187,2 (412,7) | 205,2 (452,3) | 179 (395) |
| 50 (725) | • | • | • | | | 22,0 (55) | 888463 | 888464 | 8,8 (19,5) | 11 (24,3) | 18,7 (41,2) | 23,1 (50,9) | 50 (110) |
| | • | • | • | | | 40,0 (100) | 888465 | 888466 | 16 (35,3) | 20 (44,1) | 34 (74,9) | 42 (92,5) | 59 (130) |
| | • | • | | | | 80,0 (200) ⁸⁾ | 888482 | 888483 | 32 (70,6) | 40 (88,2) | 68 (149,9) | 84 (185,1) | 104 (229) |
| | • | • | • | • | | 80,0 (200) ⁹⁾ | 888571 | 888573 | 32 (70,6) | 40 (88,2) | 68 (149,9) | 84 (185,1) | 99 (218) |
| | • | • | • | | | 100,0 (250) | 888484 | 888485 | 40 (88,2) | 50 (110,3) | 85 (187,3) | 105 (231,4) | 127 (280) |
| | • | • | • | • | | 140,0 (350) | 888574 | 888575 | 56 (123,5) | 70 (154,4) | 119 (262,3) | 147 (324) | 131 (289) |
| | • | • | • | | • | 180,0 (450) | 888576 | 888577 | 72 (158,8) | 90 (198,5) | 153 (337,3) | 189 (416,6) | 179 (395) |

⁵⁾ Order informations

The order has to be specified with the filling quantity.

The extinguishing agent VSN 200 (HFC-227ea) part no. 889298 must be ordered additionally.

6) - 9) **Footnotes see on page 2**



Extinguishing technology Halocarbon agents

Cylinder Halocarbon agents assembled

Extinguishing agent cyl. UL/FM/GL, VSN 200 EU/GL/EAC/UN/DOT (drawn) 22 l, 40 l, 80 l, 100 l, 140 l, 180 l

6) Valve type A / A25 (25 bar):

Valve B0482-A DN33 / B0481-A DN49

Valve B0482-A25 DN33 / B0481-A25 DN49 (for 25 bar)

Valve type B / B25 (25 bar):

(Valves with integrated electrical release)

Valve B0482-B DN33 / B0481-B DN49

Valve B0482-B25 DN33 / B0481-B25 DN49 (for 25 bar)

7) Approval with collective certificate by:

- TPED, notified body according to European directive 2010/35/EU
- GL (Germanischer Lloyd) according to directive MED 96/98/EC
- EAC, notified body according to techn. regulations TP TC 032/2013
- UN, notified body as UN Pressure Receptacles for use and transport in the USA and Canada
- DOT (US Department of Transportation)

8) 80.0 l - Exting. agent cylinder with $\varnothing D = 267 \text{ mm}$ (10.51")

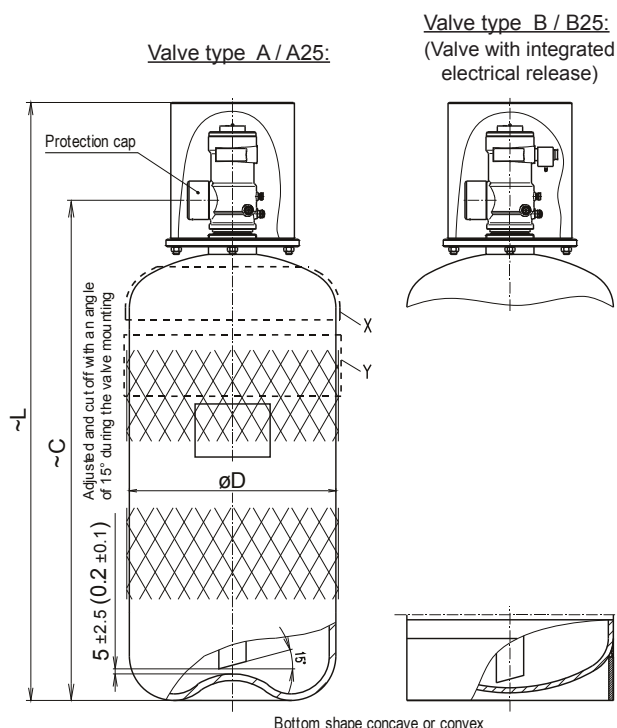
9) 80.0 l - Exting. agent cylinder with $\varnothing D = 406 \text{ mm}$ (15.98")

Marking

- Marking no. according to GGVs/ADR: UN 1058 in the area X
- Part no. marked in the area Y

Dimension drawing

Dimensions in mm (inch)



Technical data

Extinguishing agent VSN 200 (HFC-227ea)

Min. fill ratio:

- VdS / CE 0.4 kg/l (25.0 lbs/ft³)

- UL / ULC / FM / GL 0.5 kg/l (31.1 lbs/ft³)

Max. fill ratio, 25 bar / 42 bar (360 psi / 610 psi):

- VdS 1.04 kg/l (64.9 lbs/ft³)

- CE / GL / UL / ULC / FM 1.14 kg/l (71.1 lbs/ft³)

Max. fill ratio, 50 bar (725 psi):

- VdS 0.85 kg/l (53.0 lbs/ft³)

- CE / GL / UL / ULC / FM 1.05 kg/l (65.5 lbs/ft³)

Operating temperature range:

..... -20 °C to +50 °C (-4 °F to 122 °F)

UL / ULC / FM -18 °C to +50 °C (0 °F to 122 °F)

Cylinder filled by a qualified filling centre

Filling report with order no. and cylinder no.

Transport see safety data sheet

Valves see cylinder valve

Technical data steel cylinder (blank):

Steel cylinder seamless (drawn)

Working pressure max. 60 bar / 60 °C (870 psi / 140 °F)

Finish RAL3000 - flame red

..... other colour upon customer request

(Note: colour, colour type are part of the UL / ULC approval)

7) Marking and stamping according to:

- TPED / GL acc. to directive 2010/35/EU, directive 2008/68/EC, ISO 13769
- EAC ... Eurasian Economic Union and regulations TP TC 032/2013
- UN UN Pressure Receptacles for use and transport in the USA and Canada
- DOT DOT regulations (DOT-3AA-910)

Additional marking:

- Owner marking, **Minimax Feuerschutz** MF
- Owner no. (acc. to order) xxxxxxxx
- Tare weight xxxxxxxx

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200 ..887644, see ad-on part cylinder

Contact pressure gauge VSN 1230/200 see monitoring device

Clamp for extinguishing agent cyl. VSN 1230/200 see cylinder rack

Release devices for valve type A / A25 and B / B25:

Pneumatic, Pneumatic/Manual, Manual,

Tackle pneumatic/manual - marine see ad-on part cylinder

Release devices for valve type A / A25 only:

Electrical and

Electrical with mech. blocking device see ad-on part cylinder

| Nominal volume | ~L | ~C | øD ±3 (±0.12) | Nominal diameter valve |
|-------------------|--------------|--------------|---------------|------------------------|
| 22.0 l (55 lbs) | 970 (38.19) | 749 (29.49) | 229 (9.00) | DN33 |
| 40.0 l (100 lbs) | 1450 (57.09) | 1229 (48.39) | 229 (9.00) | |
| 80.0 l (200 lbs) | 1960 (77.17) | 1757 (69.17) | 267 (10.51) | |
| 80.0 l (200 lbs) | 1090 (42.91) | 887 (34.92) | 406 (15.98) | DN49 |
| 100.0 l (250 lbs) | 1800 (70.87) | 1597 (62.87) | 316 (12.44) | |
| 140.0 l (350 lbs) | 1570 (61.81) | 1367 (53.82) | 406 (15.98) | |
| 180.0 l (450 lbs) | 1910 (75.20) | 1707 (67.20) | 406 (15.98) | |



Extinguishing technology Halocarbon agents

Cylinder Halocarbon agents assembled

**Extinguishing agent cylinder UL/FM,
VSN 200 type 25, (welded)
22 l, 52 l, 106 l, 147 l, 180 l**



Approvals



- 1) Part of the system approval VSN 200.
Exception: Cylinder with liquid level indicator.
- 2) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230).
Extinguishing agent cylinders must only be filled by refilling companies which are listed in UL-file EX26532.
- 3) Valve type B25 without UL / ULC approval
- 4) Part of the system approval

SAP designation

e.g. part no. 914146: Ext.agent cyl. UL/FM 22l-A-25bar-VSN200
DOT/TC

Maintenance

see product information valve B0481 DN49 / B0482 DN33
part no. 887866

| Pressure at 21 °C (70 °F) | Nominal volume | Part no. Valve type ⁶⁾ | | Steel cylinder ⁷⁾ | Amount filled ⁵⁾ | | | | Empty weight |
|--|-------------------|--------------------------------------|-----------------------|---------------------------------|-----------------------------|----------------------------|-----------------|---------------------------------|-----------------|
| | | A25 | B25 (not UL / ULC) | | min. | | max. | | approx. |
| | | | | | VdS / CE kg (lbs) | UL / ULC FM kg (lbs) | VdS kg (lbs) | CE / UL ULC / FM kg (lbs) | |
| bar (psi) | l (lbs) | | | | | | | | kg (lbs) |
| UL / FM - extinguishing agent cylinder | | | | | | | | | |
| 25 (360) | 22.0 (60) | 914146 | 914721 | DOT / TC ⁸⁾ | 8.8 (19.4) | 11 (24.3) | 22.8 (50.4) | 25.0 (55.2) | 40 (88) |
| | 52.0 (130) | 889098 | 889099 | | 20.8 (45.9) | 26 (57.4) | 54.0 (119.2) | 59.2 (130.6) | 49 (108) |
| | 106.0 (270) | 889100 | 889101 | | 42.4 (93.5) | 53 (116.9) | 110.2 (243.0) | 120.8 (266.4) | 86 (190) |
| | 147.0 (370) | 889103 | 889104 | | 58.8 (129.7) | 73.5 (162.1) | 152.8 (337.0) | 167.5 (369.4) | 104 (229) |
| | 180.0 (450) | 910508 | 910509 | | 72.0 (158.8) | 90 (198.5) | 187.2 (412.7) | 205.2 (452.3) | 142 (313) |
| UL / FM - extinguishing agent cylinder with liquid level indicator (not part of the VdS system approval) | | | | | | | | | |
| 25 (360) | 106.0 (270) | 914148 | - | DOT / TC ⁸⁾ | 42.4 (93.5) | 53 (116.9) | 110.2 (243.0) | 120.8 (266.4) | 95 (210) |
| | 147.0 (370) | 914149 | - | | 58.8 (129.7) | 73.5 (162.1) | 152.8 (337.0) | 167.5 (369.4) | 114 (251) |
| | 180.0 (450) | 914150 | - | | 72.0 (158.8) | 90 (198.5) | 187.2 (412.7) | 205.2 (452.3) | 130 (286) |

⁵⁾ Order informations

The order has to be specified with the filling quantity.
The extinguishing agent HFC-227ea part no. 889298 must be ordered additionally.

- ⁶⁾ A25 = Valve B0482-A25 DN33 (for 22.0 l / 52.0 l)
Valve B0481-A25 DN49 (for 106.0 l / 147.0 l / 180.0 l)
B25 = Valve B0482-B25 DN33 (for 22.0 l / 52.0 l)
Valve B0481-B25 DN49 (for 106.0 l / 147.0 l / 180.0 l)
(Valves with integrated electrical release)

- ⁷⁾ Approval with collective certificate by:
- DOT (US Department of Transportation)
- TC (Transport Canada)

- ⁸⁾ **Caution**
It is not allowed to transport filled steel cylinder (DOT / TC)
in Europe



Extinguishing technology Halocarbon agents

Cylinder Halocarbon agents assembled

Extinguishing agent cylinder UL/FM, VSN 200 type 25, (welded) 22 l, 52 l, 106 l, 147 l, 180 l

Technical data

Extinguishing agentHFC-227ea

Fill ratio:

- Min. VdS / CE0.4 kg/l (25.0 lbs/ft³)
- UL / ULC / FM0.5 kg/l (31.1 lbs/ft³)
- Max. VdS1.04 kg/l (64.9 lbs/ft³)
- CE / UL / ULC / FM1.14 kg/l (71.1 lbs/ft³)

Operating temperature range:

--20 °C to +50 °C (-4 °F to 122 °F)
- UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)

Cylinder filledby a qualified filling centre

Filling reportwith order no. and cylinder no.

Transportsee safety data sheet

Valvessee cylinder valve

Technical data steel cylinder (blank):

steel cylinder (welded)according to DOT and TC regulations

Working pressuremax. 35 bar / 50 °C (507 psi / 122 °F)

FinishFederal Red P20750

.....other colour upon customer request

(Note: colour, colour type are part of the UL / ULC approval)

Markingaccording to DOT and TC regulations

Additional marking:

- Owner marking, **Minimax** FeuerschutzMF
- Owner no. (acc. to order)xxxxxxx
- Tare weightTARExxx
- DOT specificationDOT-4BW500
- TC specificationTC-4BWM34

Marking

Part no. marked in the area Y

Not included in delivery

Type labelsee cylinder accessories

Adapter M12x1.5 - G1/8 MX 1230/200887644, see ad-on part cylinder

Contact pressure gauge MX 1230/200see monitoring device

Clamp for extinguishing agent cyl. MX 1230/200see cylinder rack

Release devices for valve type A25 and B25:

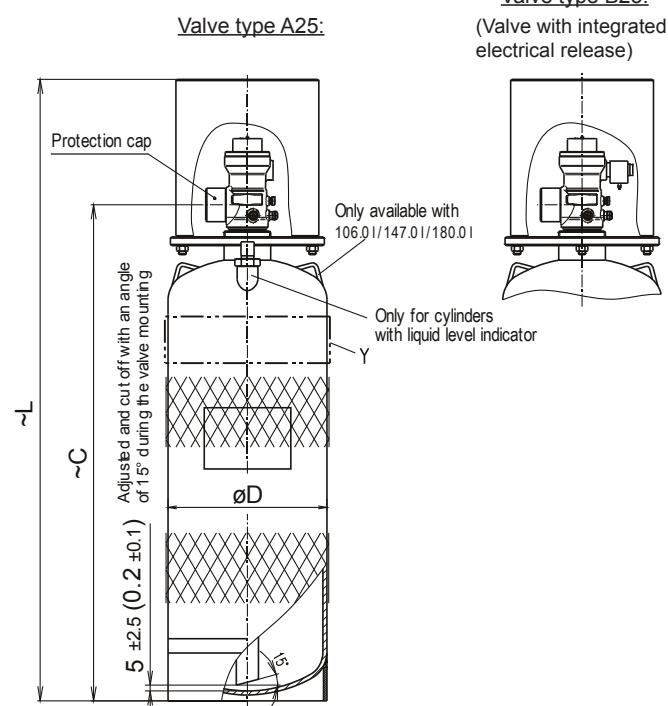
Pneumatic, pneumatic/manual, manual,
tackle pneumatic/manual - marinesee ad-on part cylinder

Release devices for valve type A25 only:

Electrical and
Electrical with mech. blocking devicesee ad-on part cylinder

Dimension drawing

Dimensions in mm (inch)



| Nominal volume | L ±10 (±0.39) | C ±10 (±0.39) | øD |
|-------------------|------------------|------------------|------------|
| 22.0 l (55 lbs) | 809 (31.85) | 588 (23.15) | 254 (10) |
| 52.0 l (130 lbs) | 1434 (56.46) | 1213 (47.76) | 254 (10) |
| 106.0 l (270 lbs) | 1241 (48.86) | 1038 (40.87) | 406.6 (16) |
| 147.0 l (370 lbs) | 1575 (62.01) | 1372 (54.02) | 406.6 (16) |
| 180.0 l (450 lbs) | 1854 (72.99) | 1651 (65.00) | 406.6 (16) |



Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0482-A25 and B0482-A DN33, VSN 1230/200



Approvals / CE marking



G307011



1)



1)



2)



1134-CPR-1007

1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 887964: Valve B0482-A25 DN33

Maintenance

see product information valve B0481 DN49 / B0482 DN33
part no. 887866

Spare parts

- Bursting disk 63.5 bar for B0482-A25, part no. 915518
- Bursting disk 89 bar for B0482-A, part no. 888026

| Designation | | Part no. | Working pressure at 21 °C (69.8 °F) | Weight approx. |
|-------------|----------------|----------|--|-------------------|
| Valve | B0482-A25 DN33 | 88 7964 | 25 bar (360 psi) | 4.4 kg (9.7 lbs) |
| | B0482-A DN33 | 88 7662 | 50 bar (725 psi) | |

Technical data

Extinguish. agentFK-5-1-12, HFC-227ea
 Nominal diameterDN33 (1.1/2")
 (free cross-sectional area
 at minimum flow path: 697 mm² (1.08 square inch))
 Operating temperature range:
-20 °C to +50 °C (-4 °F to 122 °F)
 UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 Working pressure at 50 °C (122 °F):
 - Ventil B0482-A25 DN33max. 35 bar (508 psi)
 - Ventil B0482-A DN33max. 60 bar (870 psi)
 To be used for steel cylinderfrom 22.0 l to 50.0 l
(60 lbs to 140 lbs)
 Valve typetype 2 acc. to EN 12094-4
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Material / Finish

Housing, Adapter, Screwsbrass
 Spindles, Seal retainerbrass
 O-ring / Seal of seatNBR
 Bursting disknickel
 Springsteel
 DampingPA 6.6

Marking

Approvalπ0029 - CE1134 - VdS
 Part no. (VSN / manufacturer)887964 / B04820021,
887662 / B04820023
 Manufacturing dateWW/YY
 Manufacture's sign3 stars
 Working pressure25 bar / 50 bar at 21 °C
 Nominal diameterø33

Included in delivery

Valve type B0482-A25/A DN33
 Prod. information valve B0481 DN49 / B0482 DN33 part no. 887866

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200887644, see ad-on part cylinder
 Contact pressure gauge VSN 1230/200see monitoring device
 Dip tube VSN 1230/200 for valve DN33887657
 (dip tubes are to be shortened as necessary in acc. to specified
 dimension given of the extinguishing agent cylinder)
 Release devices VSN 1230/200:
 - Electricalsee ad-on part cylinder
 - Electrical with mech. blocking devicesee ad-on part cylinder
 - Pneumaticsee ad-on part cylinder
 - Pneumatic/Manualsee ad-on part cylinder
 - Manualsee ad-on part cylinder
 - Tackle pneumatic/manual - marinesee ad-on part cylinder



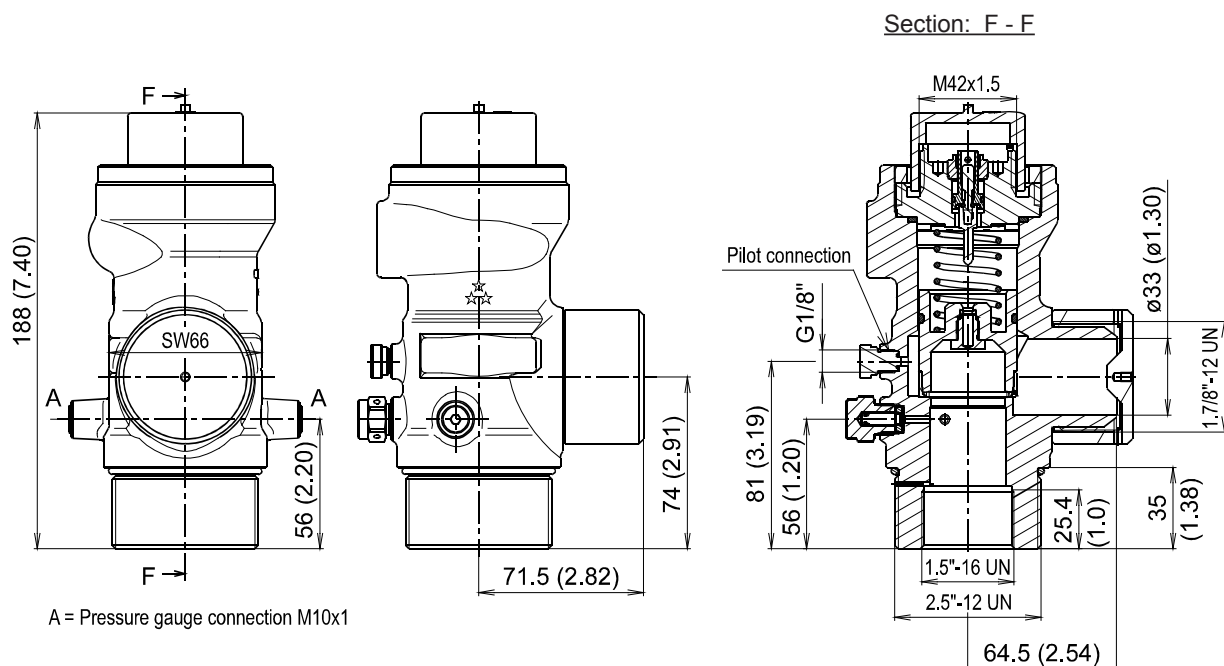
Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0482-A25 and B0482-A
DN33, VSN 1230/200

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0482-B25 and B0482-B DN33 with integrated electrical release VSN 1230/200



Approvals / CE marking



G307011



APPROVED



1134-CPR-1007

¹⁾ Part of the system approval

SAP designation

e.g. part no. 887965: Valve B0482-B25 DN33 with integrated electrical release

Maintenance

see product information valve B0481 DN49 / B0482 DN33
part no. 887866

Spare parts

- Bursting disk 63.5 bar for B0482-B25, part no. 915518
- Bursting disk 89 bar for B0482-B, part no. 888026

| Designation | | Part no. | Working pressure at 21 °C (69.8 °F) | Weight approx. |
|---|----------------|----------|--|-------------------|
| Valve with integrated electrical release | B0482-B25 DN33 | 887965 | 25 bar (360 psi) | 4.7 kg (10.4 lbs) |
| | B0482-B DN33 | 887663 | 50 bar (725 psi) | |

Technical data

Extinguish. agentFK-5-1-12, HFC-227ea)
Nominal diameterDN33 (1.1/2")
(free cross-sectional area
at minimum flow path: 697 mm² (1.08 square inch))
Operating temperature range:
.....-20 °C to +50 °C (-4 °F to 122 °F)
FM-18 °C to +50 °C (0 °F to 122 °F)
Working pressure at 50 °C (122 °F):
- Valve B0482-B25 DN3335 bar (508 psi)
- Valve B0482-B DN3360 bar (870 psi)
To be used for steel cylinderfrom 22.0 l to 50.0 l
.....(60 lbs to 140 lbs)
Valve typetype 2 acc. to EN 12094-4
CE conformityacc. to Construction Products Regulation (EU)
.....No. 305/2011
Integrated electrical release:
- Voltage24 V DC
- Current intensity0.25 A ±10 %
- Output6 W
- Protection categoryIP 54
- Duty cycle100 %

Material / Finish

Housing, Adapter, Screwsbrass
Spindles, Seal retainerbrass
O-ring / Seal of seatNBR
Bursting disknickel
Springsteel
DampingPA 6.6

Marking

Approvalπ0029 - CE1134 - VdS
Part no. (VSN / manufacturer)887965 / B04820022,
.....887663 / B04820024
Manufacturing dateWW/YY
Manufacture's sign3 stars
Working pressure25 bar / 50 bar at 21 °C
Nominal diameterø33

Included in delivery

Valve type B0482-B25/B DN33 with integrated electrical release
Prod. information valve B0481 DN49 / B0482 DN33 part no. 887866

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200887644, see ad-on part cylinder
Contact pressure gauge MX 1230/200see monitoring device
Dip tube MX 1230/200 for valve DN33887657
(dip tubes are to be shortened as necessary in acc. to specified
dimension given of the extinguishing agent cylinder)
Release devices MX 1230/200:
- Pneumaticsee ad-on part cylinder
- Pneumatic/Manualsee ad-on part cylinder
- Manualsee ad-on part cylinder
- Tackle pneumatic/manual, marinesee ad-on part cylinder



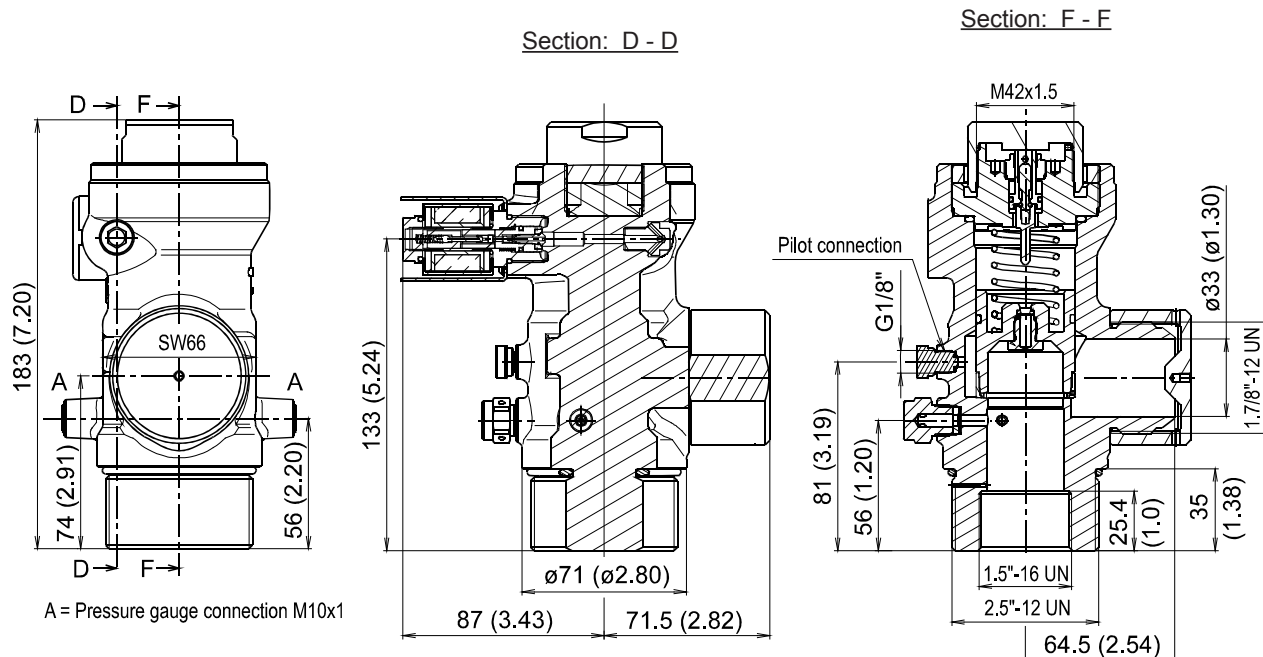
Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0482-B25 and B0482-B
DN33 with integrated electrical release
VSN 1230/200

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0481-A25 and B0481-A DN49, VSN 1230/200



Approvals / CE marking



G307011



1)



1)



2)



1134-CPR-1007

1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 887966: Valve B0481-A25 DN49

Maintenance

see product information valve B0481 DN49 / B0482 DN33
part no. 887866

Spare parts

- Bursting disk 63 bar for B0481-A25, part no. 915517
- Bursting disk 88 bar for B0481-A, part no. 889295

| Designation | | Part no. | Working pressure at 21 °C (69.8 °F) | Weight approx. |
|-------------|----------------|----------|--|-------------------|
| Valve | B0481-A25 DN49 | 887966 | 25 bar (360 psi) | 8.9 kg (19.6 lbs) |
| | B0481-A DN49 | 887664 | 50 bar (725 psi) | |

Technical data

Extinguish. agentFK-5-1-12, HFC-227ea
 Nominal diameterDN49 (2")
 (free cross-sectional area
 at minimum flow path:1515 mm² (2.348 square inch))
 Operating temperature range:
 - VdS-20 °C to +50 °C (-4 °F to 122 °F)
 - UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 - GL-20 °C to +56 °C (-4 °F to 132 °F)
 Working pressure at 50 °C (122 °F):
 - Valve B0481-A25 DN4935 bar (508 psi)
 - Valve B0481-A DN4960 bar (870 psi)
 To be used for steel cylinderfrom 80.0 l to 180.0 l
(220 lbs to 500 lbs)
 Valve typetype 2 acc. to EN 12094-4
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Material / Finish

Housing, Adapter, Screwsbrass
 Spindles, Seal retainerbrass
 O-ring / Seal of seatNBR
 Bursting disknickel
 Springsteel
 DampingPA 6.6

Marking

Approvalπ0029 - CE1134 - VdS
 Part no. (VSN / manufacturer)887966 / B04810020,
887664 / B04810022
 Manufacturing dateWW/YY
 Manufacture's sign3 stars
 Working pressure25 bar / 50 bar at 21 °C
 Nominal diameterø49

Included in delivery

Valve type B0481-A25/A DN49
 Prod. information valve B0481 DN49 / B0482 DN33 part no. 887866

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200887644, see ad-on part cylinder
 Contact pressure gauge VSN 1230/200see monitoring device
 Dip tube VSN 1230/200 for valve DN49887659
 (dip tubes are to be shortened as necessary in acc. to specified
 dimension given of the extinguishing agent cylinder)

Release devices VSN 1230/200:

- Electricalsee ad-on part cylinder
- Electrical with mech. blocking devicesee ad-on part cylinder
- Pneumaticsee ad-on part cylinder
- Pneumatic/Manualsee ad-on part cylinder
- Manualsee ad-on part cylinder
- Tackle pneumatic/manual - marinesee ad-on part cylinder



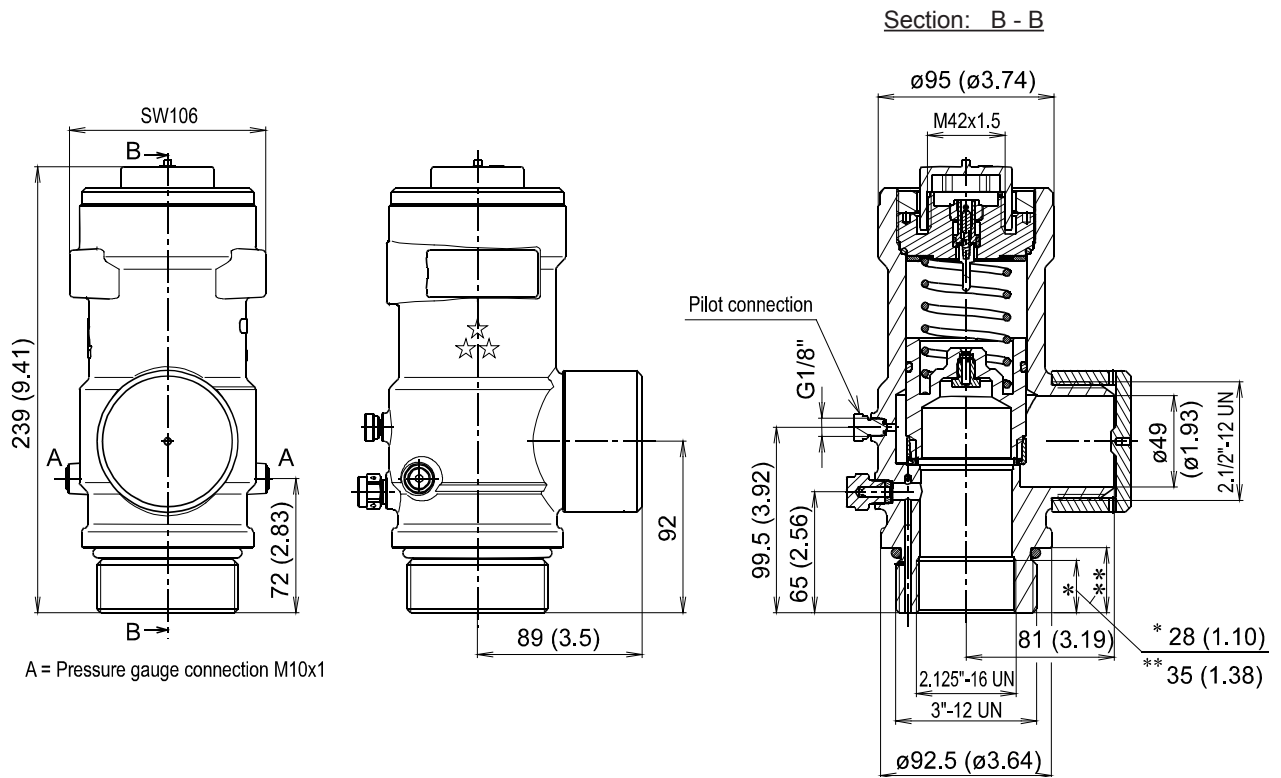
Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0481-A25 and B0481-A
DN49, VSN 1230/200

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0481-B25 und B0481-B DN49 with integrated electrical release VSN 1230/200



Approvals / CE marking



G307011



APPROVED



1134-CPR-1007

1) Part of the system approval

SAP designation

e.g. part no. 887967: Valve B0481-B25 DN49 with integrated electrical release

Maintenance

see product information valve B0481 DN49 / B0482 DN33
part no. 887866

Spare parts

- Bursting disk 63 bar for B0481-B25, part no. 915517
- Bursting disk 88 bar for B0481-B, part no. 889295

| Designation | | Part no. | Working pressure at 21 °C (69.8 °F) | Weight approx. |
|---|----------------|----------|--|-------------------|
| Valve with integrated electrical release | B0481-B25 DN49 | 887967 | 25 bar (360 psi) | 9.3 kg (20.5 lbs) |
| | B0481-B DN49 | 887665 | 50 bar (725 psi) | |

Technical data

Extinguish. agentFK-5-1-12, HFC-227ea
Nominal diameterDN49 (2")
(free cross-sectional area
at minimum flow path:1515 mm² (2.348 square inch))
Operating temperature range:
.....-20 °C to +50 °C (-4 °F to 122 °F)
FM-18 °C to +50 °C (0 °F to 122 °F)
Working pressure at 50 °C (122 °F):
- Valve B0481-B25 DN4935 bar (508 psi)
- Valve B0481-B DN4960 bar (870 psi)
To be used for steel cylinderfrom 80.0 l to 180.0 l
.....(220 lbs to 500 lbs)
Valve typetype 2 acc. to EN 12094-4
CE conformityacc. to Construction Products Regulation (EU)
.....No. 305/2011
Integrated electrical release:
- Voltage24 V DC
- Current intensity0.25 A ± 10 %
- Output6 W
- Protection categoryIP 54
- Duty cycle100 %

Material / Finish

Housing, Adapter, Screwsbrass
Spindles, Seal retainerbrass
O-ring / Seal of seatNBR
Bursting disknickel
Springsteel
DampingPA 6.6

Marking

Approvalπ0029 - CE1134 - VdS
Part no. (VSN / manufacturer)887967 / B04810020,
.....887665 / B04810023
Manufacturing dateWW/YY
Manufacture's sign3 stars
Working pressure25 bar / 50 bar at 21 °C
Nominal diameterø49

Included in delivery

Valve type B0481-B25/B DN49 with integrated electrical release
Product informat. valve B0481 DN49 / B0482 DN33 part no. 887866

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200887644, see ad-on part cylinder
Contact pressure gauge VSN 1230/200see monitoring device
Dip tube VSN 1230/200 for valve DN49887659
(dip tubes are to be shortened as necessary in acc. to specified
dimension given of the extinguishing agent cylinder)
Release devices VSN 1230/200:
- Pneumaticsee ad-on part cylinder
- Pneumatic/Manualsee ad-on part cylinder
- Manualsee ad-on part cylinder
- Tackle pneumatic/manual - marinesee ad-on part cylinder



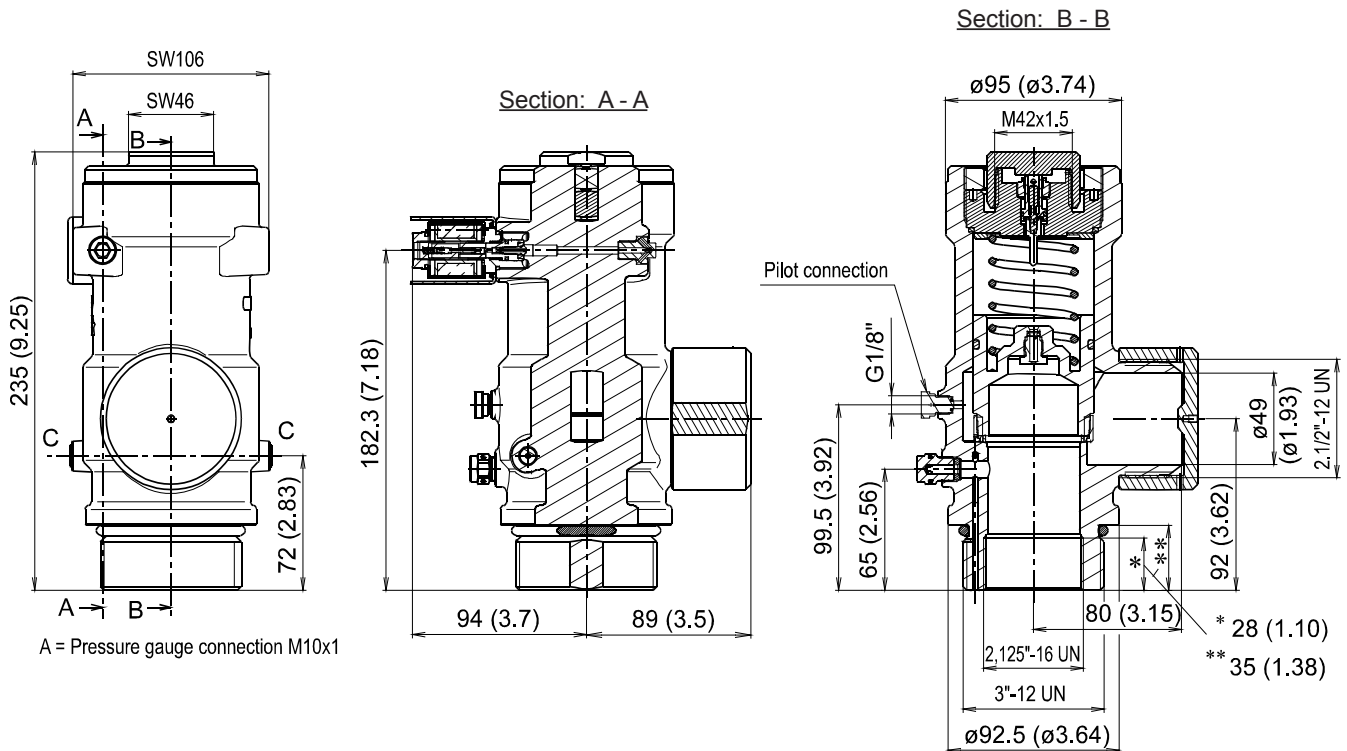
Extinguishing technology Halocarbon agents

Halocarbon agents cylinder valve

Valve B0481-B25 und B0481-B
DN49 with integrated electrical release
VSN 1230/200

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Halocarbon agents cylinder accessories

Type label extinguishing agent cylinder VSN 200

Approvals



1) Type label (de and en) Listed system covered by UL-file EX26532,
Material and technical conditions of supply:
UL listed Marking and Labeling System

2) Part of the system approval

SAP designation

e. g. part no. 887897: Type label extinguishing agent cylinder
VSN 200

Maintenance maintenance-free

| Designation | Language | Part no. | Weight |
|---|--------------|----------------------|-------------------------|
| Type label extinguishing agent cylinder VSN 200 | German (de) | 887897 ³⁾ | 0.025 kg (0.055 lbs) |
| | English (en) | 887881 | |
| | Spanish (es) | 910908 ³⁾ | |

³⁾ with UL/ULC/FM installation only additionally to the English type label

Technical data

Type label (de), (en):

Material and technical conditions of supply:
UL listed Marking and Labeling System

Type label (es):

Material PVC foil self adhesive 0.2 mm thickness

Dimensions (width x height)297 x 250 (11,69" x 9,84")
Script RAL9003 - white
GroundRAL9004 - black
Gluepermanent, sticking firmly
Storage of glue layermin. 3 years
For glass surfaces, plastic surfaces, structured cast metal
surfaces, and powdered/varnished surfaces.



Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Release device VSN 1230/200 pneumatic



Approvals / CE marking



1) Only in conjunction with valve B0481 / B0482 (G307011) or with valve B0480 (G302023)

2) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

3) Part of the system approval

SAP designation

part no. 887669: Release device pneumatic VSN200

Maintenance

see product information release device pn part no. 887862

| Designation | Part no. | Weight |
|---------------------------------------|----------|-------------------|
| Release device VSN 1230/200 pneumatic | 887669 | 0.48 kg (1.1 lbs) |

Technical data

Type / part no. manufacturerB04420066

Response pressure min.21 bar (305 psi)
max.360 bar (5221 psi)

Operating temperature range:

- VdS-20 °C to +50 °C (-4 °F to 122 °F)

- UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)

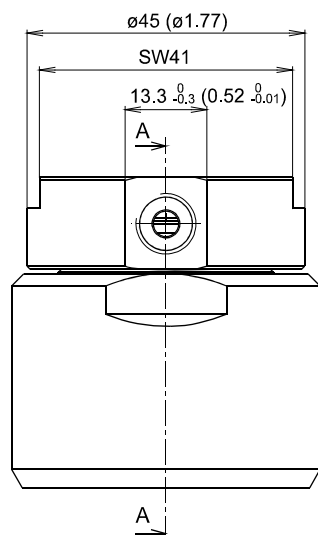
- GL-20 °C to +56 °C (-4 °F to 132 °F)

Note

The actuating pressure must be applied for at least 5 seconds.
The release device is equipped with two connections for pilot pipes to allow the control gas to be passed on to additional release devices.

Dimension drawing

Dimensions in mm (inch)



Application

Pneumatic actuation of extinguishing agent cylinder valves of type B0481 / B0482 (see cylinder valve, Halocarbon), type B0482 (see cylinder valve, inert gas extinguishing technology). One extinguishing agent cylinder valve each can be opened pneumatically.

Included in delivery

Release device VSN 1230/200 pneumatic

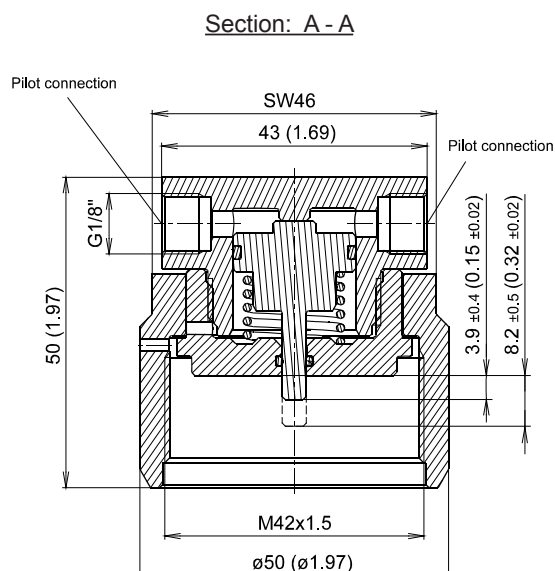
Product information release device pn part no. 887862

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200 ...887644, see ad-on part cylinder
Plug for pilot connection G1/8 VSN888032

Additional possible use also with:

Release device electricalsee ad-on part cylinder





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Release device VSN 1230/200 electrical



Approvals / CE marking



1) Only in conjunction with valve B0481 / B0482 (G307011) or with valve B0480 (G302023)

2) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

3) Part of the system approval

SAP designation

e.g. part no. 887667: Release device electrical VSN200

Maintenance

see product information release device el. part no. 887863

for use in accordance with UL system approval:

see product information electrical release

VSN 1230/200 part no. 889299

| Designation | | Part no. | Weight |
|--|--------------------------|----------|-------------------|
| Release device VSN 1230/200 electrical | with diode ⁴⁾ | 887667 | 2.49 kg (5.5 lbs) |
| | without diode | 889323 | |

Technical data

Type / part no. manufacturer with diodeB04425114
without diodeB04425130

Nominal voltage24 V / DC $\pm 15\%$

Nominal current0.5 A $\pm 10\%$

IP codeIP65

Electrical connectionPG9

Max. permitted test current20 mA

Operating temperature range:

- VdS-20 °C to +50 °C (-4 °F to 122 °F)
- UL / ULC-18 °C to +27,5 °C (0 °F to 81,5 °F)
- FM-18 °C to +50 °C (0 °F to 122 °F)
- GL-20 °C to +56 °C (-4 °F to 132 °F)

Duration of connection100 % duty ratio

Actuation force at the contact with the plunger ≥ 500 N

Holding force in resting state100 N to 250 N

Marking

part no. manufacturer, manufacturing no., manufacturing date, nominal voltage, nominal current, torque

⁴⁾ The electrical connection of the release device is fitted with a diode which allows for the electric circuit and the polarity to be tested afterwards using a test current.

Application

Electrical actuation of extinguishing agent cylinder valves of type B0481 / B0482 (see cylinder valve, Halocarbon), type B0482 (see cylinder valve, inert gas extinguishing technology). One extinguishing agent cylinder valve each can be opened electrically by applying of the nominal voltage.

Note

The electrical actuation signal must be present for at least 5 seconds.

Included in delivery

Release device VSN 1230/200 electrical
Product information release device el. part no. 887863

Not included in delivery

Screw reset tool VSN 1230/200887645

Module for monitoring MVA LÖ (optional):

- Card MVA LÖ782239
- Product information card MVA LÖ904653
- Connector plug GDME 3013 with gasket761094

Additionally further release devices can be installed:

- Pneumaticsee ad-on part cylinder
- Pneumatic/Manualsee ad-on part cylinder
- Manualsee ad-on part cylinder
- Tackle pneumatic/manual - marinesee ad-on part cylinder



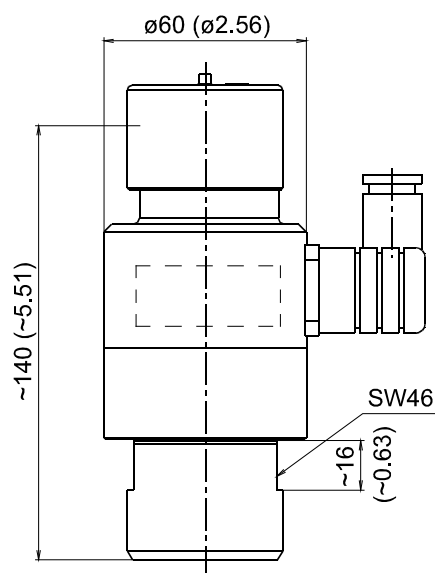
Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

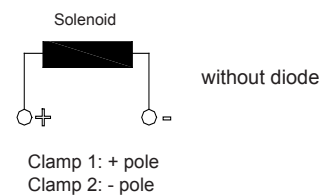
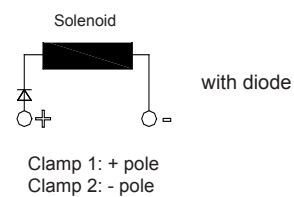
Release device VSN 1230/200 electrical

Dimension drawing

Dimensions in mm (inch)



Terminal connection





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Release device VSN 1230/200 electrical with mech. blocking device



Approvals / CE marking



1134-CPR-1007

1) Only in conjunction with valve B0481 / B0482 (G307011) or with valve B0480 (G302023)

2) Part of the system approval

SAP designation

e.g. part no. 887666: Release device electr. with mech. blocking device VSN200

Maintenance

see product information release device el. part no. 887863

Spare parts

Pre-fabricated connection cable:

- Cable release device with plug part no. 912427
- Cable release device with socket part no. 912426

| Designation | | Part no. | Weight |
|--|--------------------------|----------|-------------------|
| Release device electrical with mech. blocking device | with diode ³⁾ | 887666 | 2,7 kg (5,95 lbs) |
| | without diode | 889322 | |

Technical data

Type / part no. manufacturer with diodeB04425109
without diodeB04425129

Nominal voltage24 V / DC $\pm 15\%$

Nominal current0.5 A $\pm 10\%$

IP codeIP65

Electrical connectionPG9 ³⁾

Max. permitted test current20 mA

Operating temperature range:
.....-20 °C to +50 °C (-4 °F to 122 °F)

FM-18 °C to +50 °C (0 °F to 122 °F)

Duration of connection100 % duty ratio

Actuation force at the contact with the plunger ≥ 500 N

Holding force in resting state100 N to 250 N

Micro switches:

- Voltage48 V DC
- Currentmax. 1 A
- IP codeIP6K7
- Change-over contactpotential-free

³⁾ The electrical connection of the release device is fitted with a diode which allows for the electric circuit and the polarity to be tested afterwards using a test current.

Application

Electrical actuation of extinguishing agent cylinder valves of type B0481 / B0482 (see cylinder valve, Halocarbon), type B0482 (see cylinder valve, inert gas extinguishing technology). One extinguishing agent cylinder valve each can be opened electrically by applying of the nominal voltage.

Note

The electrical actuation signal must be present for at least 5 seconds.

Marking

part no. manufacturer, manufacturing no., nominal voltage, nominal current, torque

Included in delivery

Release device VSN 1230/200 electrical with mech. blocking device compl. with pre-fabricated connection cable
Product information release device el. part no. 887863

Not included in delivery

Screw reset tool VSN 1230/200887645

Module for monitoring MVA LÖ (optional):

- Card MVA LÖ782239
- Product information card MVA LÖ904653
- Connector plug GDME 3013 with gasket761094

Additionally further release device can be installed:

- Manualsee ad-on part cylinder



Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Release device VSN 1230/200 pneumatic/manual



Approvals / CE marking



1) Only in conjunction with valve B0481 / B0482 (G307011) or with valve B0480 (G302023)

2) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

3) Part of the system approval

SAP designation

part no. 887670: Release device pneumatic/manual VSN200

Maintenance

see product information release device pn/ma part no. 887864

| Designation | Part no. | Weight |
|--|----------|--------------------|
| Release device VSN 1230/200 pneumatic/manual | 887670 | 0.57 kg (1.26 lbs) |

Technical data

Type / part no. manufacturerB04420065

Response pressure min.21 bar (305 psi)
max.360 bar (5221 psi)

Manual actuationrelease force < 150 N

Operating temperature range:

- VdS-20 °C to +50 °C (-4 °F to 122 °F)

- UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)

- GL-20 °C to +56 °C (-4 °F to 132 °F)

Note

The actuating pressure must be applied for at least 5 seconds.
The release device is equipped with two connections for pilot pipes to allow the control gas to be passed on to additional release devices.

Application

Pneumatic or manual actuation of extinguishing agent cylinder valves of type B0481 / B0482 (see cylinder valve, Halocarbon), type B0482 (see cylinder valve, inert gas extinguishing technology). One extinguishing agent cylinder valve each can be opened either manually or pneumatically.

Included in delivery

Release device VSN 1230/200 pneumatic/manual

Product information release device pn/ma part no. 887864

Not included in delivery

Adapter M12x1.5 - G1/8 VSN 1230/200 ...887644, see ad-on part cylinder

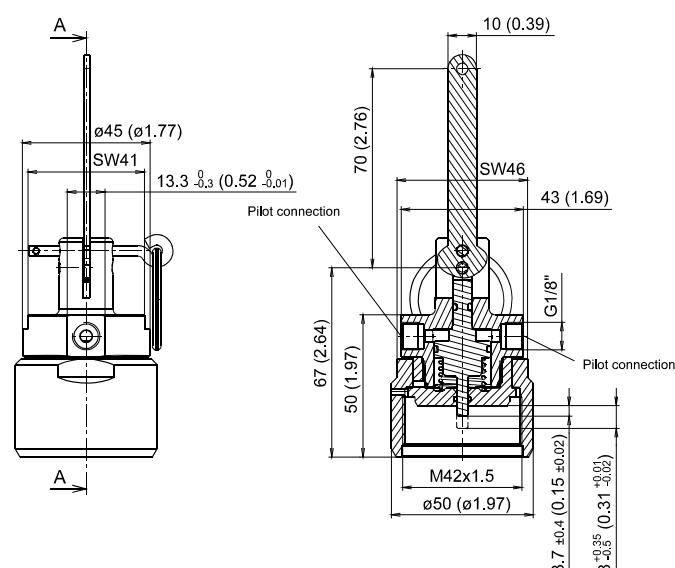
Plug for pilot connection G1/8 VSN888032

Additional possible use also with:

Release device electricalsee ad-on part cylinder

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Release device VSN 1230/200 manual



Approvals



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

part no. 887668: Release device manual VSN200

Maintenance

see product information release device ma part no. 887989

| Designation | Part no. | Weight |
|------------------------------------|----------|--------------------|
| Release device VSN 1230/200 manual | 887668 | 0.41 kg (0.90 lbs) |

Technical data

Type / part no. manufacturerB04420100

Operating temperature range:

- VdS-20 °C to +50 °C (-4 °F to 122 °F)

- UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)

- GL-20 °C to +56 °C (-4 °F to 132 °F)

Note

The manual actuation must take place at least 5 seconds.

Included in delivery

Release device VSN 1230/200 manual

Product information release device ma part no. 887989

Application

Manual actuation of extinguishing agent cylinder valves of type B0481 / B0482 (see cylinder valve, Halocarbon), type B0482 (see cylinder valve, inert gas extinguishing technology). One extinguishing agent cylinder valve each can be openend manual.

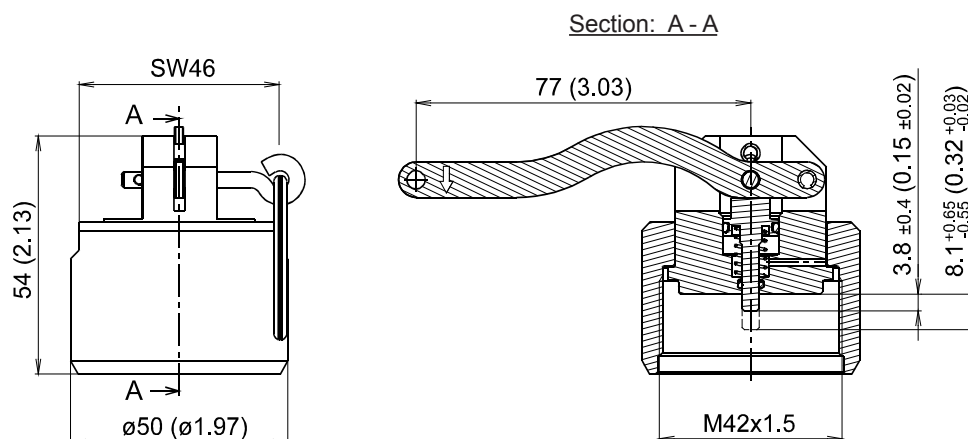
Not included in delivery

Additional possible use also with release device:

- Electricalsee ad-on part cylinder
- Electrical with mech. blocking devicesee ad-on part cylinder

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Release device VSN 1230/200 tackle pneum./manual - marine



Approvals

without approval

SAP designation

Part no. 888410: Release device tackle pneum./manual VSN
200 / 1230

Maintenance

Sichtkontrolle und Funktionskontrolle im Rahmen der anlagenspezifischen Funktionsprobe.

| Designation | Part no. | Weight |
|--|----------|--------------------|
| Release device VSN 1230/200 tackle pneum./manual - marine | 888410 | 1.25 kg (2.76 lbs) |

Technical data

Type / part no. manufacturerB04420123
Ansteuerdruck ...min. 21 bar (305 psi), max. 360 bar (5221 psi)
manuelle BetätigungAuslösekraft < 120 N
Operating temperature-20 °C to +56 °C (-4 °F to 132 °F)

Application

Tackle release for marine application.

Pneumatic or manual actuation of extinguishing agent cylinder valves of type B0481 (see cylinder valve) and type B0482 (see cylinder valve) with a max. operating pressure of 60 bar.

One extinguishing agent cylinder valve each can be opened either manually (hand-released at the valve or via tackle) or pneumatically.

Note

The actuating pressure must be applied for at least 5 seconds.
The release device is equipped with two connections for pilot pipes to allow the control gas to be passed on to additional release devices.

Not included in delivery

Ropes and accessoriessee control device
Wire rope pulley A and Bsee control device
Seal354170
Seal wire DIN1367-0,5-galvanized175567
Adapter M12x1.5 - G1/8 VSN 1230/200 ...887644, see ad-on part cylinder
Plug for pilot connection G1/8 VSN888032

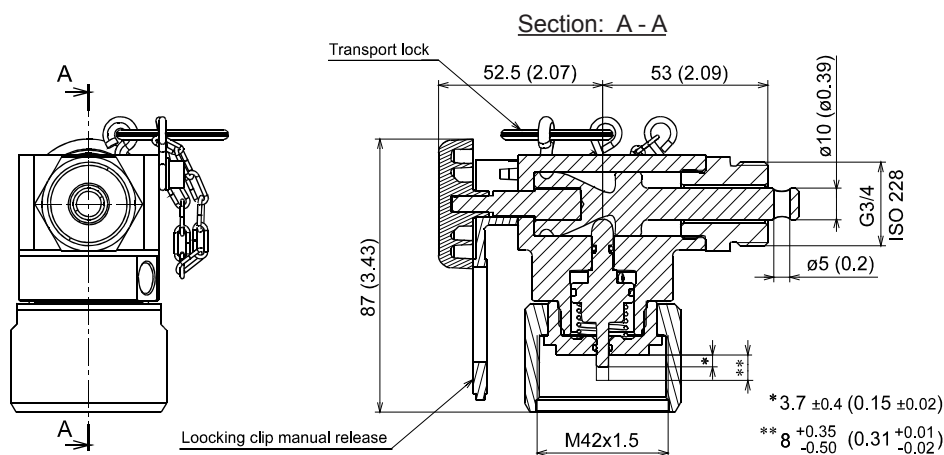
Additional possible use also with release device:

- Electricalsee ad-on part cylinder
- Electrical with mech. blocking devicesee ad-on part cylinder

Caution: The tackle release device must only be actuated manually if used with the electrical release device with mech. blocking device. The pneumatic actuation is not permitted in this case.

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Hose DN4 - VSN 1230/200



Approvals / CE marking



G307008



1)



1)



2)



0786-CPD-30067

1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 887834: Hose DN4x 600 - VSN 200/1230

Maintenance

see product information hose DN4 part no. 887973

| Designation | | Part no. | L mm (in) | Weight kg (lbs) |
|---------------------|------------|----------|--------------|--------------------|
| Hose - VSN 1230/200 | DN4 x 600 | 887834 | 600 (23.62) | 0.2 (0.44) |
| | DN4 x 1000 | 887835 | 1000 (39.37) | 0.3 (0.66) |
| | DN4 x 1500 | 887836 | 1500 (59.06) | 0.4 (0.88) |

Technical data

TypeDN 4 x 600/1000/1500 - MX 200/1230
 Operating mediumFK-5-1-12, HFC-227ea, nitrogen, CO₂
 Nominal diameterDN4 (0.16")
 Minimum bending radius90 mm (3.54")
 Operating temperature range:
-40 °C to +60 °C (-40 °F to 140 °F)
 UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 Working pressure160 bar (2321 psi)
 Test pressure240 bar (3481 psi)
 Burst pressure480 bar (6962 psi)
 FerrulePN 04 AOL conical nipple 24° with O-ring
metric (DKOL) steel galvanized yellow chrome dulled
 Hose connector type 3complies with EN 12094-8
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Marking

Manufacturer sign, Type (MX200/1230), Batch number,
 Working pressure (160 bar), Approval (VdS, CE),
 Date of manufacture (month/year)

Application

To connect:

- The master extinguishing agent cylinder and the pneum. release devices of other extinguishing agent cylinder
- Two pneumatical release devices
- The pneumatical release device and the pilot pipe of multi zone systems

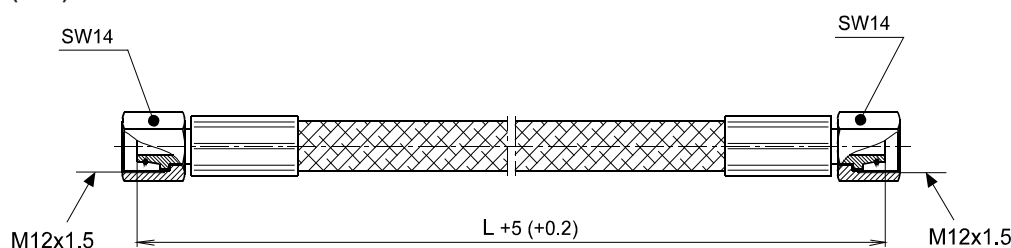
Included in delivery

Hose DN4 VSN 1230/200

Product information hose DN4 part no. 887973

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Adapter M12x1,5 - G1/8 VSN 1230/200



Approvals

(VdS approval is not required!)



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 887644: Adapter M12x1.5 - G1/8 VSN200

Maintenance

maintenance-free

| Designation | Part no. | Weight |
|-------------------------------------|----------|---------------------|
| Adapter M12x1,5 - G1/8 VSN 1230/200 | 887644 | 0.018 kg (0.04 lbs) |

Technical data

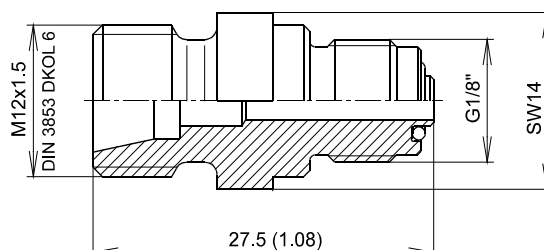
Operating mediumFK-5-1-12, HFC-227ea,
argon, nitrogen, CO₂, IG55, IG541
 Operating temperature range:
-20 °C to +56 °C (-4 °F to 132 °F)
 UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 Working pressure360 bar (5221 psi)
 Materialbrass

Application

To the connection of the hose DN4 / pilot pipe with:
 - Valves type B0481, valves type B0482
 - Valves type B0480, BAS
 - Release device VSN 1230/200 pneumatic/manual
 - Release device VSN 1230/200 pneumatic

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Hose DN40 and DN50 VSN 1230/200



Approvals / CE marking



G307009

¹⁾¹⁾²⁾

0786-CPD-30066

¹⁾ Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

²⁾ Part of the system approval

SAP designation

e.g. part no. 887647: Hose DN40 VSN 200/1230

Maintenance

see product information hose VSN 1230/200 part no. 887849

| Designation | | Part no. | Weight kg (lbs) |
|---------------------|--------------|----------|--------------------|
| Hose - VSN 1230/200 | DN40 | 887647 | 3.1 (6.83) |
| | DN40 NPT | 914140 | |
| | DN40 90° | 887648 | |
| | DN40 90° NPT | 912075 | |
| | DN50 | 887649 | 5.5 (12.13) |
| | DN50 NPT | 914141 | |
| | DN50 90° | 887650 | 5.7 (12.66) |
| | DN50 90° NPT | 912076 | |

Technical data

Type DN 40 / DN50DN 40 / DN50 MX 1230/200
 DN 40 90° / DN50 90° ..DN 40 / DN50 MX 1230/200 90
 Operating mediumFK-5-1-12, HFC-227ea, Nitrogen
 Nominal diameterDN40 / DN50 (1.1/2" / 2")
 Minimum bending radius DN40500 mm (19.69")
 DN50630 mm (24.80")
 Operating temperature range:
-40 °C to +60 °C (-40 °F to 140 °F)
 UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 Working pressure80 bar (1160 psi)
 Test pressure120 bar (1740 psi)
 Burst pressure240 bar (3481 psi)
 Hose connector type 1complies with EN 12094-8
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Material / Finish

Unionsteel, galvanized
 Ferrulesteel, galvanized
 Flexible hose linewith fabric-inserted steel
 Hexagon nipplesteel, galvanized

Application

To connect the valve of the extinguishing agent cylinder to the nozzle pipe, the manifold, or the check valve.

Marking

Manufacturer sign, Type (DN.. MX200/1230), Batch number, Working pressure (80 bar), Approval (VdS, CE), Date of manufacture (month/year)

Included in delivery

Hose DN40/DN50 VSN 1230/200
 Product information hose VSN 1230/200 part no. 887849



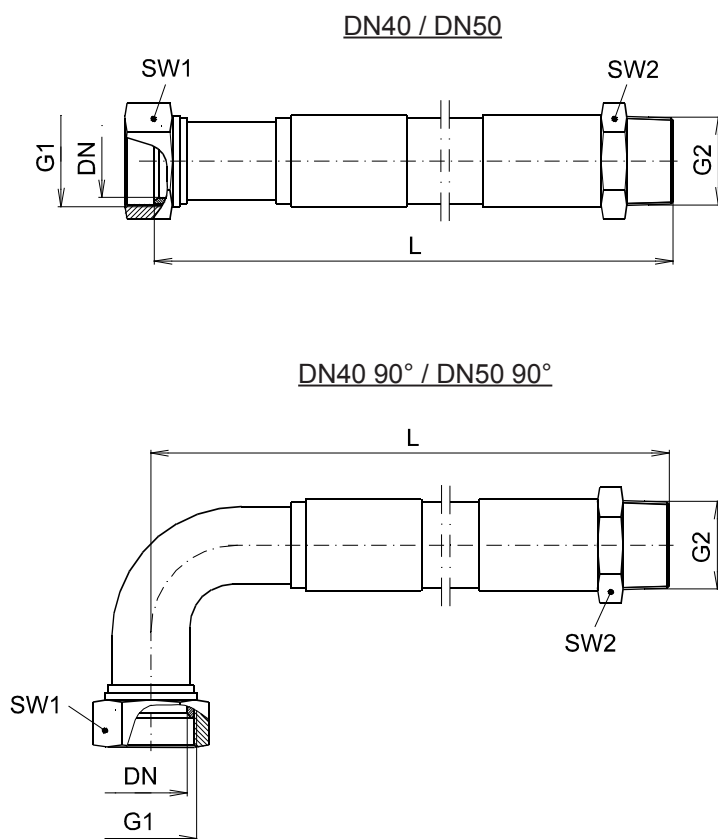
Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Hose DN40 and DN50 VSN 1230/200

Dimension drawing

Dimensions in mm (inch)



| Hose | L | G1 | G2 | SW1 | SW2 |
|--------------|--------------|----------------------|-------------------|---------------------|-----|
| DN40 | 825 (32.48) | 1.7/8"-12 UNF (B1.1) | R1.1/2" ISO 7 | 60 | 50 |
| DN40 NPT | | | 1.1/2" - 11.5 NPT | | |
| DN40 90° | 450 (17.72) | | R1.1/2" ISO 7 | | |
| DN40 90° NPT | | | 1.1/2" - 11.5 NPT | | |
| DN50 | 1000 (39.37) | 2.1/2"-12 UNF (B1.1) | R2" ISO 7 | 70/75 ³⁾ | 65 |
| DN50 NPT | | | 2" - 11.5 NPT | | |
| DN50 90° | 520 (20.47) | | R2" ISO 7 | | |
| DN50 90° NPT | | | 2" - 11.5 NPT | | |

³⁾ at the manufacture's option



Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Connection piece DN40 and DN50



Approvals

(VdS / CE is not required!) ¹⁾



¹⁾ Observe application, see below

²⁾ Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

³⁾ Part of the system approval

SAP designation

e.g. part no. 888052: Connection piece DN40 VSN 200 / 1230

Maintenance

maintenance-free

| Designation | | Part no. | Weight kg (lbs) |
|-------------------------------|----------|----------|--------------------|
| Connection piece VSN 1230/200 | DN40 | 888052 | 0.64 (1.44) |
| | DN40 NPT | 914154 | |
| | DN50 | 888053 | 1.26 (2.77) |
| | DN50 NPT | 914155 | |

Technical data

External threadtapered, thread seal
 Internal threadUN-nut thread, 74° conical hole
 Working pressure60 bar (870 psi)
 Materialsteel, galvanized coated

¹⁾ Application

VdS / CE

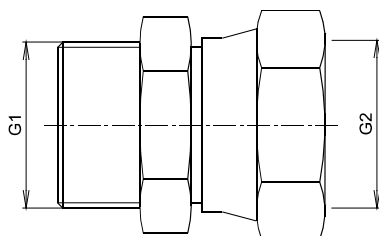
Rigid connection between the valve of the extinguishing agent cylinder and the downstream piping.

UL / FM

Rigid connection between the valve of the extinguishing agent cylinder and the downstream piping and/or the manifold.

Dimension drawing

Dimensions in mm (inch)



| Connection piece | G1 | G2 |
|------------------|-------------------|--------------|
| DN40 | R 1.1/2" | 1.7/8"-12 UN |
| DN40 NPT | 1.1/2" - 11.5 NPT | |
| DN50 | R 2" | 2.1/2"-12 UN |
| DN50 NPT | 2" - 11.5 NPT | |



Extinguishing technology Halocarbon agents

Cylinder add-on parts Halocarbon agents

Adapter check valve DN50 NPT - ISO



Approvals

(VdS approval is not required!)



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

Part no. 887443: Adapter check valve DN50 NPT-ISO
for extinguishing agent container 52-180 litre

Maintenance

maintenance-free

| Designation | Part no. | Weight |
|----------------------------------|----------|--------------------|
| Adapter check valve DN50 NPT-ISO | 887443 | 0.47 kg (1.04 lbs) |

Technical data

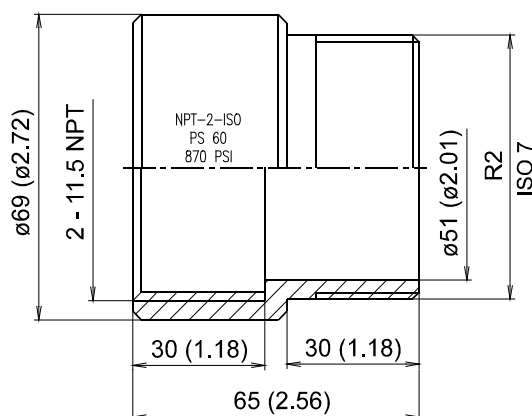
Working pressuremax. 60 bar (870 psi)
Thread NPTacc. to ANSI / ASME B1.20.1-NPT
ISOacc. to EN 10226
Materialsteel, galvanized acc. to EN 12329 - Fe/Zn12

Application

For connecting of ISO threads with NPT pipes in VSN 1230/200 systems.

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Manifold Halocarbon agents

Check valve DN50 CR and CR NPT



Approvals / CE marking



G307012



1)



1)



2)



0786-CPD-30068

1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 887870: Check valve DN50 CR

Maintenance

see product information check valve part no. 887871

| Designation | | Part no. | Weight |
|------------------|--------|----------|---------------------|
| Check valve DN50 | CR | 887870 | 5.15 kg (11.35 lbs) |
| | CR NPT | 912071 | |

Technical data

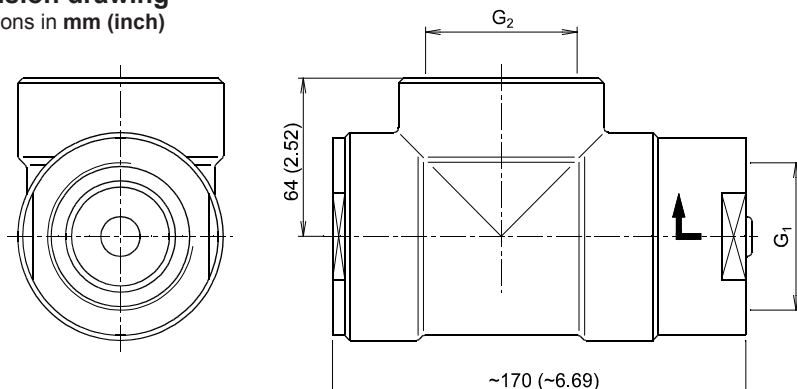
TypeMX-CR, MX-CR NPT
 Medium.....FK-5-1-12, HFC-227ea, nitrogen
 Nominal diameterDN50
 Working pressure60 bar (870 psi)
 Test pressure90 bar (1305 psi)
 Opening pressure≤ 3 bar (43.05 psi)
 Leakage rate at 20 bar (290 psi)≤ 20 bubbles / 1 min
 Operating temperature range:
-20 °C to +50 °C (-4 °F to 122 °F)
 UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 Check valvecomplies with EN 12094-13
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Material / Surface

Housingsteel, galvanized
 Internal componentsstainless steel
 Springstainless steel
 SealNBR

Dimension drawing

Dimensions in mm (inch)



| Check valve | G ₁ | G ₂ |
|-------------|--------------------|-----------------|
| CR | Rp 2 (EN 10226) | Rc 2 (ISO 7) |
| CR NPT | 2-11.5-NPT | 2-11.5-NPT |



Extinguishing technology Halocarbon agents

Cylinder rack Halocarbon agents

Clamp extinguishing agent cylinder VSN 1230/200



Approvals

(VdS approval is not required!)



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 888014: Clamp ext. agent cylinder D=229mm

Maintenance

maintenance-free

| Clamp extinguishing agent cylinder | Part no. | Clamp for steel cylinder | | Weight kg (lbs) |
|------------------------------------|----------|--------------------------------|---------------------------------|--------------------|
| | | drawn | welded | |
| D=229mm | 888014 | 221 / 401 (ø229 mm / ø9") | - | 1.26 (2.8) |
| D=254mm | 923157 | - | 221 / 521 (ø254 mm / ø10") | 1.39 (3.1) |
| D=267mm | 887628 | 801 (ø267 mm / ø10.51") | - | 1.46 (3.2) |
| D=316mm | 887988 | 1001 (ø316 mm / ø12.44") | - | 1.69 (3.7) |
| D=406mm | 887639 | 801/1401/1801 (ø406 mm / ø16") | 1061/1471/1801 (ø406 mm / ø16") | 2.08 (4.6) |

Technical data

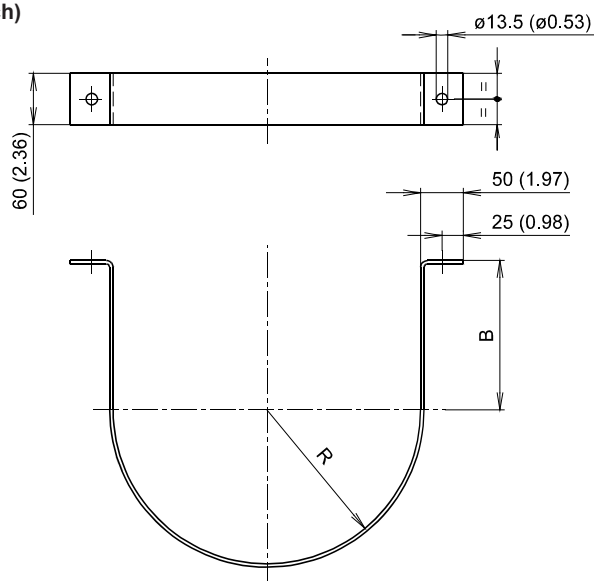
Materialstrip EN 10048 - 4,0 x 60
steel EN 10025-2-S235JR
 Finishmatt-finished or powder-coated
RAL 9011 graphite black

Not included in delivery

Fastening material

Dimension drawing

Dimensions in mm (inch)



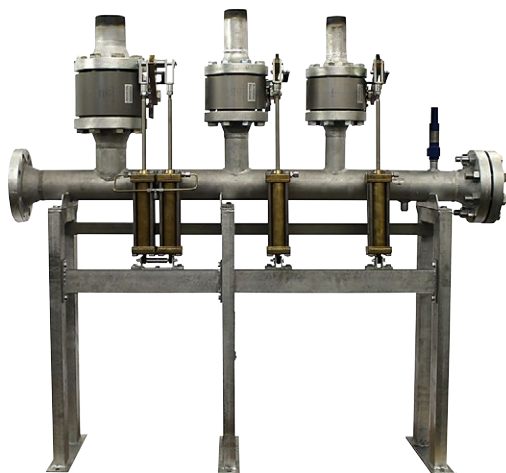
| Clamp | R | B |
|---------|------------|------------|
| D=229mm | 117 (4.60) | 111 (4.37) |
| D=254mm | 129 (5.08) | 124 (4.88) |
| D=267mm | 136 (5.35) | 130 (5.12) |
| D=316mm | 160 (6.30) | 155 (6.10) |
| D=406mm | 205 (8.07) | 200 (7.87) |



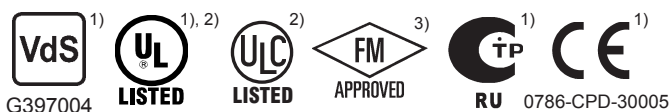
Extinguishing technology CO₂ HP

CO₂ Manifold

Manifold selector valve DN65/80/100 complete pneumatic, CO₂ / inert gas (CF) / VSN 1230/200



Approvals / CE marking



¹⁾ Approvals and CE for selector valve only

²⁾ Listed system covered by UL-File EX6388 (CO₂) and covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

³⁾ Part of the system approval (VSN 200 and VSN 1230)

Maintenance

see operating instruction selector valve BV, part no. 886269

Spare parts

Manual release lever, 600 mm (23.62") long part no. 823976

Ordering hints

Manifolds selector valve DN65/80/100 pneumatic are manufactured individually for each contract. Use form C10.40.80 (see documentation special extinguishing systems) for ordering.

Primer coated or powder coated manifolds are to be ordered via order number 40 0015. Galvanized manifolds are to be ordered via order number 40 0016.

Technical data

| | |
|--|---|
| Operating medium | CO ₂ , argon (IG-01), nitrogen (IG-100) |
| Working pressure / test pressure: | IG-55, IG-541, FK-5-1-12, HFC-227ea |
| - Manifold, selector valves | 140 bar / 210 bar (2030 psi / 3045 psi) |
| - Pneumatic release device | 20 to 140 bar / 210 bar (290 to 2030 psi / 3045 psi) |
| Flow characteristics (high pressure selector valve): | |
| - DN65 | equivalent length 0.43 m (16.93") |
| - DN80 | equivalent length 0.55 m (21.65") |
| - DN100 | equivalent length 0.67 m (26.38") |
| Temperature range | -20 °C to +50 °C (-4 °F to 122 °F) |
| Actuation | by 24 V DC |

Application

The manifold selector valve BV DN65/80/100 pneumatic is used in accordance with "documentation of special extinguishing systems" in:

- fixed CO₂- high pressure fire extinguishing systems
- argon-, nitrogen, IG-55-, IG-541 extinguishing systems with Constant Flow (CF)
- VSN 1230/200 fire extinguishing systems, maximum number of selector valves: 15.

In case of fire the selector valve DN65/80/100 is used for flooding selected extinguishing zones.

Functional description

After a fire has been detected in one of the extinguishing zones of a multi- zone system, the appropriate selector valve opens and the extinguishing agent flows into the relevant downstream pipe work of the extinguishing zone. For recommissioning the selector valve has to be closed manually by using the reset lever. The right position of selector valve may monitored by one or two limit switches.

Main components

| | |
|--|--------------------------------|
| Ball valves DN65 - 100 | see selector valve accessories |
| Release cylinder section valve | see selector valve accessories |
| Safety valve, depending from operating medium: | |
| - Valve G1/2 - 140 bar (CO ₂) | see safety valve |
| - Valve G1/2 - 66 bar (inert gas / MX 1230/200) | see safety valve |
| Limit switch type US 432y and US 434y | see monitoring device |
| Manifold rack - left | 817728 |
| Manifold rack - right | 822583 |

Included in delivery

Manifold selector valve complete, pneumatic
Operating instruction selector valve BV part no. 886269



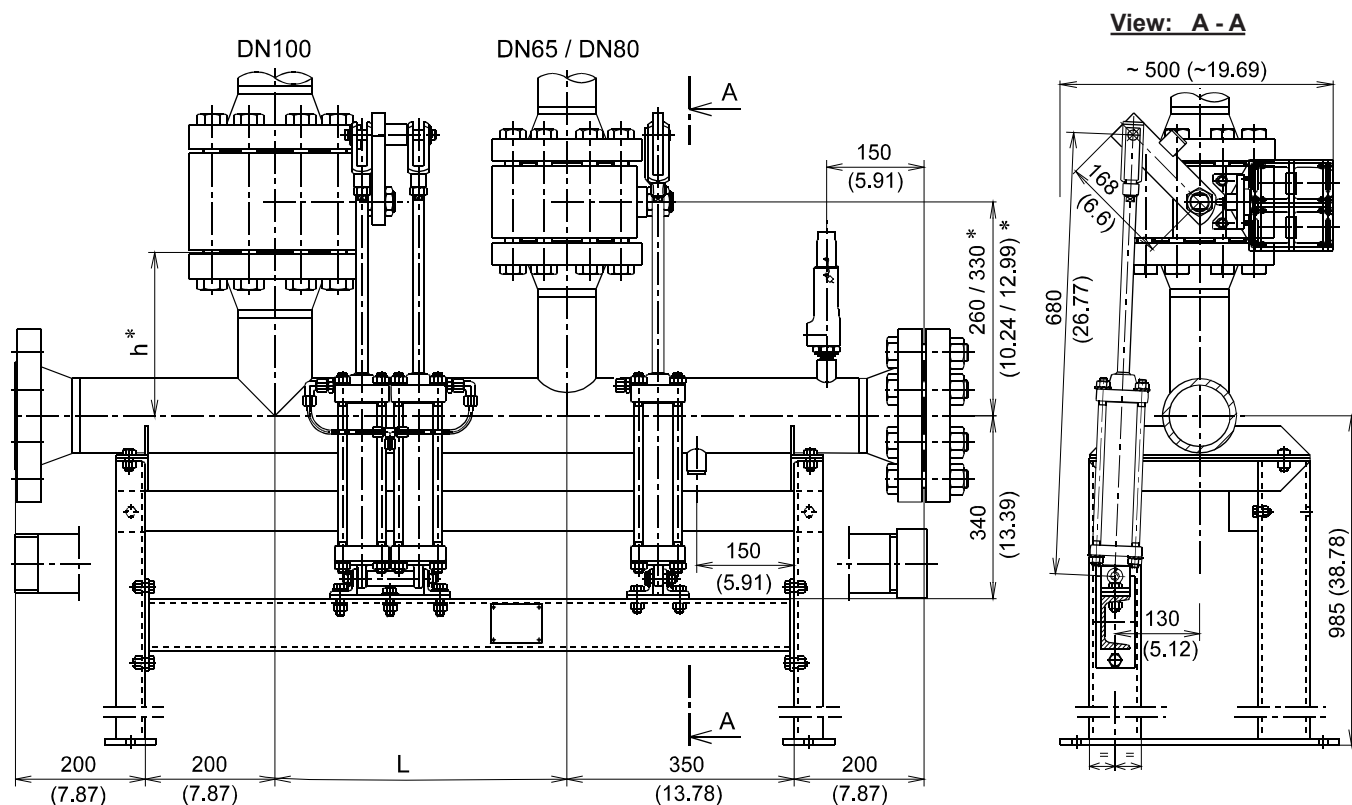
Extinguishing technology CO₂ HP

CO₂ Manifold

Manifold selector valve DN65/80/100 complete
pneumatic, CO₂ / inert gas (CF) / VSN 1230/200

Dimension drawing

Dimensions in mm (inch)



| DN | L | h * |
|-----|-------------|--------------------------|
| 65 | 350 (13.78) | 203 / 270 (7.99 / 10.63) |
| 80 | 350 (13.78) | 200 / 267 (7.87 / 10.51) |
| 100 | 450 (17.72) | 250 (9.84) |

* The longer dimensions are valid for manifolds with min. one selector valve DN100.



Inert gas extinguishing technology

Selector valve

Selector valve MX-BV DN25 - 50 PB235, CO₂ / IG / VSN 1230/200



Approvals / CE marking



¹⁾ Listed system covered by UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

²⁾ Part of the system approval (VSN 200 and VSN 1230)

SAP designation

e.g. part no. 885189: Selector valve BV 25 PB235

Maintenance

see operating instruction selector valve BV DN25/40/50
part no. 886333

| Designation | | Part no. | Weight kg (lbs) |
|-------------------|------------|----------|--------------------|
| Selector valve BV | DN25 | 885189 | 17.0 (37.5) |
| | DN40 | 885191 | 20.5 (45.2) |
| | DN50 | 885192 | 24.8 (54.7) |
| | DN25 - NPT | 912052 | 17.0 (37.5) |
| | DN40 - NPT | 912053 | 20.5 (45.2) |
| | DN50 -NPT | 912054 | 24.8 (54.7) |

Technical data

TypeMX-BV
 Operating mediumCO₂, argon (IG-01), nitrogen (IG-100),
IG-55, IG-541, HFC-227ea, FK-5-1-12
 Temperature range-20 °C to +50 °C (-4 °F to +122 °F)
 Working pressure:
 - manifold, selector valves235 bar (3408 psi)
 - pneumatic release device20 to 140 bar (290 to 2030 psi)
 Test pressure:
 - manifold, selector valves353 bar (5120 psi)
 - pneumatic release device210 bar (3045 psi)
 Flow characteristics (selector valve):
 - DN25equivalent length 0.18 m (0.59 ft)
 - DN40equivalent length 0.27 m (0.89 ft)
 - DN50equivalent length 0.37 m (1.21 ft)
 Test certificatein acc. with EN 10204 - 3.1 (pressure test)
 Selector valvecomplies with EN 12094-5
 CE conformityacc. to Construction Products Regulation (EU)
No 305/2011

Product sheets also applying

Cylinder D55-H106see selector valve accessories
 Ball valves BV DN25, DN40 and DN50 ...see selector valve accessories

Marking

Type (MX-BV ..), VdS no. (G393001), MX test no.
 additional marking for selector valve with NPT thread:
 thread (NPT)

Application

The selector valve BV DN 25/40/50 is used in accordance with the "documentation of special extinguishing systems" in fixed CO₂, argon, nitrogen, IG-55 and IG-541 high pressure fire extinguishing systems or VSN 1230/200 fire systems respectively.
 In case of fire the selector valve DN 25/40/50 is used for flooding selected extinguishing zones.

Functional description

After a fire has been detected in one of the extinguishing zones of a multi- zone system, the appropriate selector valve opens. The extinguishing agent, CO₂, argon, nitrogen, IG-55, IG-541 or VSN 1230/200, flows into the relevant downstream pipe work of the extinguishing zone.

A safety valve is mounted on the manifold in order to release any excessive pressure.

For recommissioning, the selector valve has to be closed manually by using the reset hand lever. The right position of selector valve may be monitored by one or two limit switches.

Not included in delivery

Limit switch US 432y, 2 contacts724420, see monitoring device
 Manual release lever BV <DN65, 497 mm long860346



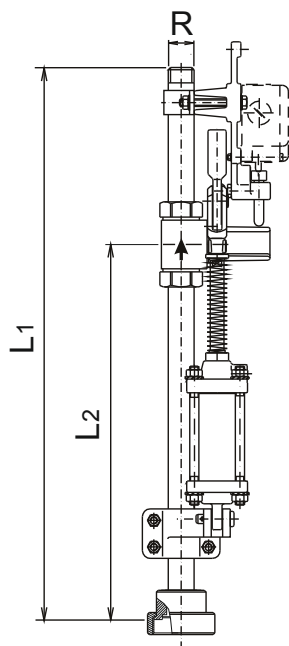
Inert gas extinguishing technology

Selector valve

Selector valve BV DN25 - 50
CO₂ / IG / VSN 1230/200

Dimension drawing

Dimensions in mm (inch)



| DN | R | L ₁ ±15 (0.6) | L ₂ ±15 (0.6) |
|----------|-------------------|--------------------------|--------------------------|
| 25 | R1 - DIN 2999 | 810 (31.9) | 579 (22.8) |
| 40 | R1.1/2 - DIN 2999 | 795 (31.3) | 575 (22.6) |
| 50 | R2 - DIN 2999 | 805 (31.7) | 584 (23.0) |
| 25 - NPT | 1 - 11.5 NPT | 810 (31.9) | 579 (22.8) |
| 40 - NPT | 1.1/2 - 11.5 NPT | 795 (31.3) | 575 (22.6) |
| 50 - NPT | 2 - 11.5 NPT | 805 (31.7) | 584 (23.0) |



Inert gas extinguishing technology

Selector valve accessories

Push-button selector valve



Approvals



¹⁾ Part of the system approval VSN 1230 (S314012) und VSN 200 (S313007)

²⁾ Listed system covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

³⁾ Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 822674: Push-button selector valve

Maintenance

see product information push-button selector valve
part no. 886501

| Designation | Part no. | Weight |
|----------------------------|----------|--------------------|
| Push-button selector valve | 822674 | 0.16 kg (0.35 lbs) |

Technical data

Operating mediumCO₂ - gaseous, argon (IG-01),
.....nitrogen (IG-100), IG-55, IG-541, HFC-227ea, FK-5-1-12
Working pressure2 to 365 bar (29 to 5294 psi)
Temperature range-20 °C to +50 °C (-4 °F to 122 °F)
Thread connectionfor precision-drawn steel pipe 10 x 1
Position of deviceas desired

Material / Surface

Knurled screwbrass, nickel plated
Non-return valvesteel, galvanized

Application

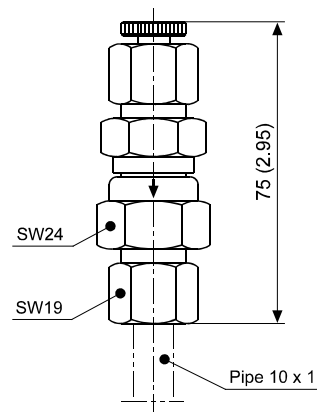
The push-button is used in accordance with the project-specific system schema in fixed fire extinguishing systems.
The push-button is used to manually vent pilot lines. This ensures that the pilot lines can be pressure-relieved without having to dismount them.

Included in delivery

Push-button selector valve
Product information push-button selector valve part no. 886501

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Safety valve Halocarbon agents

Safety valve G1/2 - 66 bar



Approvals



1) Part of the system approval:

- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- VSN 1230 (S314012) / VSN 200 (S313007)

2) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

3) Part of the system approval

SAP designation

part no. 888007: Safety valve G1/2-66bar

Maintenance

maintenance-free

| Designation | Part no. | Weight |
|----------------------------|----------|-------------------|
| Safety valve G1/2 - 66 bar | 888007 | 1.2 kg (2.65 lbs) |

Technical data

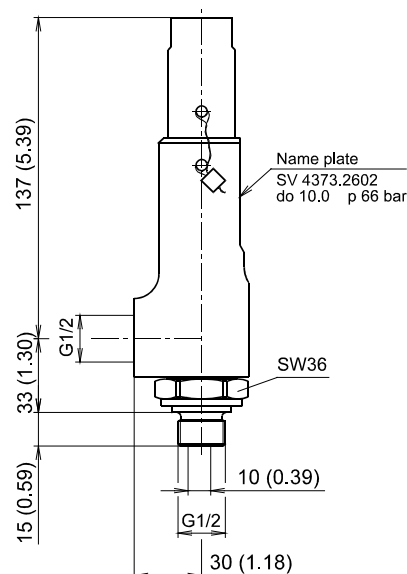
Type4373.2602
 MediumFK-5-1-12, HFC-227ea, argon, nitrogen
 Response pressure max. ...66 bar (957 psi) at +50 °C (122 °F)
 Operating temperature range:
-20 °C to +50 °C (-4 °F to 122 °F)
 UL / ULC / FM-18 °C to +50 °C (0 °F to 122 °F)
 Threadacc. to ISO 228
 Metal seal-270 °C to +280 °C (-454 °F to 536 °F)
 Test certificateEN 10204 - 3.1 (response pressure)
 Position of devicevertical
 Safety valve according to pressure equipment directive
 97/23/EC category IV.

Application

Manifold selector valve for VSN 1230/200 systems and for
 Constant Flow systems.

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology CO₂ HP

Safety valve CO₂

Safety valve G1/2 - 140 bar



Approvals



- 1) Part of the system approval:
- CO₂ extinguishing system HD-1 (S398010) / HD-2 (S398011)
 - Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
 - Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
 - Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
 - VSN 1230 (S314012) / VSN 200 (S313007)

- 2) Listed system covered by:
- UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

- 3) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 886282: Safety valve G1/2-140bar

Maintenance

maintenance-free

| Designation | Part no. | Weight |
|-----------------------------|----------|-------------------|
| Safety valve G1/2 - 140 bar | 886282 | 1.4 kg (3.09 lbs) |

Technical data

Type4373.2612
 Operating mediumCO₂ - gaseous
 Response pressure140 bar (2030 psi) at +50 °C (122 °F)
 Flow rateapprox. 3014 Nm³/h, gaseous
 Threadin acc. to ISO 228
 Metal seal-270 °C to +220 °C (-454 °F to 428 °F)
 Position of devicevertical

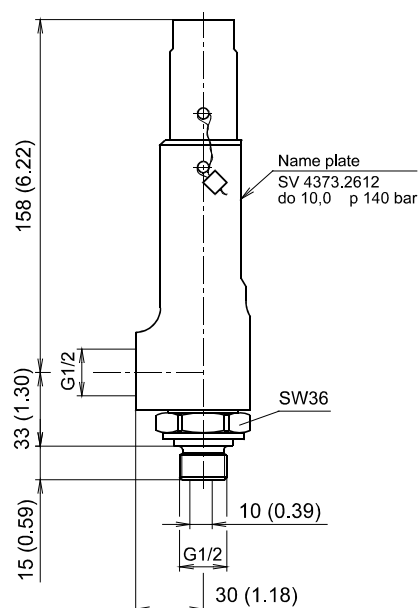
Safety valve according to pressure equipment directive
 97/23/EC category IV

Application

- Upstream piping in stationary CO₂ fire extinguishing systems
- Pilot pipe in stationary CO₂, argon and nitrogen fire extinguishing systems and/or in VSN 1230/200 fire extinguishing systems

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Nozzle Halocarbon agents

Nozzles type CD, VSN 200



Approvals



G307010



1), 2)



1), 2)



2), 3)

1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Version A and B without UL / ULC / FM approval

3) Part of the system approval

SAP designation

e.g. part no. 887759: Nozzle CD 1/2 x A ...-Ms

Maintenance

see product information nozzles CD part no. 887869

| Nozzle | Version ⁴⁾ | Part no. | | ød ±0,1 mm (±0.0039 inch) | | Weight approx. kg (lbs) |
|--------------|-----------------------|----------|--------|------------------------------|-------------------|-------------------------------|
| | | Ms | XCrNi | min. mm (inch) | max. mm (inch) | |
| CD 1/2 | A ²⁾ | 887759 | 887781 | 3 (0.1181) | 6 (0.2362) | 0.2 (0.4) |
| | B ²⁾ | 887760 | 887782 | | | |
| | C | 887761 | 887783 | | | |
| | D | 887763 | 887784 | | 5 (0.1969) | |
| CD 1/2 NPT | A ²⁾ | 889033 | 889046 | 3 (0.1181) | 6 (0.2362) | 0.2 (0.4) |
| | B ²⁾ | 889034 | 889048 | | | |
| | C | 889036 | 889049 | | | |
| | D | 889037 | 889050 | | 5 (0.1969) | |
| CD 1 | A ²⁾ | 887768 | 887790 | 3 (0.1181) | 11 (0.4331) | 0.4 (0.9) |
| | B ²⁾ | 887769 | 887791 | | | |
| | C | 887770 | 887792 | | | |
| | D | 887771 | 887793 | | 10 (0.3937) | |
| CD 1 NPT | A ²⁾ | 889038 | 889051 | 3 (0.1181) | 11 (0.4331) | 0.4 (0.9) |
| | B ²⁾ | 889039 | 889052 | | | |
| | C | 889040 | 889053 | | | |
| | D | 889041 | 889054 | | 10 (0.3937) | |
| CD 1.1/2 | A ²⁾ | 887777 | 887799 | 3 (0.1181) | 18 (0.7087) | 0.6 (1.3) |
| | B ²⁾ | 887778 | 887800 | | | |
| | C | 887779 | 887801 | | | |
| | D | 887780 | 887802 | | 16 (0.6299) | |
| CD 1.1/2 NPT | A ²⁾ | 889042 | 889055 | 3 (0.1181) | 18 (0.7087) | 0.6 (1.3) |
| | B ²⁾ | 889043 | 889056 | | | |
| | C | 889044 | 889057 | | | |
| | D | 889045 | 889058 | | 16 (0.6299) | |

⁴⁾ Version (nozzle bore hole layout) see on page 2

Order informations

For manufacturing, the nozzle bore diameter ød must be stated within the permitted limits in 1/10 mm gradations.



Extinguishing technology Halocarbon agents

Nozzle Halocarbon agents

Nozzles type CD, VSN 200

Technical data

TypeCD
 MediumHFC-227ea with nitrogen pressure charging
 Connection thread Rpacc. to EN 10226
 NPTacc. to ANSI/ASME B1.20.1
 Gradation of the bore hole diameters ϕd in 0.1 mm steps
 Coverage area, corage heightsee design manual
 Working pressure:
 min. 9.6 bar (139 psi), max. 60 bar (870 psi)
 UL / ULC / FMmin. 9 bar (131 psi), max. 60 bar (870 psi)
 Minimum temperature-20 °C (-4 °F)
 UL / ULC / FM-18 °C (0 °F)
 Required storage pressure in extinguishing agent container
 dependent on system at 21 °C (70 °F):
 25 bar (360 psi), 42 bar (610 psi) oder 50 bar (725 psi)
 Nozzle body Msbrass
 XCrNistainless steel
 Installation positionacc. to product information

Note

The 180° nozzle spray the extinguishing agent in a semicircle and the 360° in a full circle around the nozzle.

The dimensioning of the nozzle bore diameter takes place specifically for the fire extinguishing system using a calculation program suitable for the extinguishing agent.

Version A und B are for special use.

Using the DesignManager there are other limitations in the minimal and maximal nozzle bore diameters.

Details see DesignManager calculation.

Application

The nozzles CD are used as room protection nozzles in accordance with system approval in VSN 200 fire extinguishing systems using the extinguishing agent HFC-227ea (Heptafluoropropane). They are used to supply the extinguishing agent within the calculated flow time and distribute it evenly throughout the extinguishing area.

Marking

manufacturer / year date (MX/xx) or
 manufacturer / year date / thread (MX/xx/NPT), type (CD),
 version and bore diameter d (y x,x),
 approval sign (VdS), serial number

Included in delivery

nozzles type CD, VSN 200
 product information nozzles CD part no. 887869

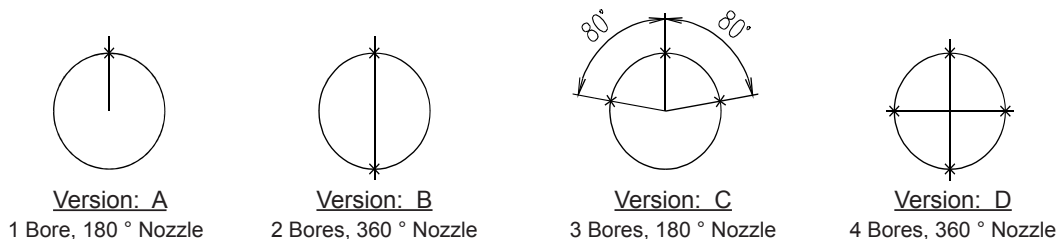
Not included in delivery

Fitting tool:

pin-type face spanner 20x2.988 7837
 (for nozzles CD 1/2" and 1")

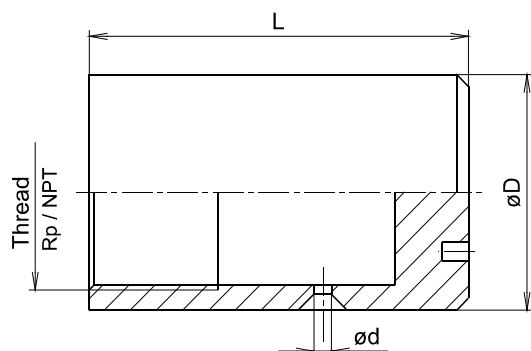
pin-type face spanner 35x3.988 7838
 (for nozzles CD 1.1/2")

Nozzle bore hole layout



Dimension drawing

Dimensions in mm (inch)



| Nozzle | Thread Rp / NPT | Version | ϕd $\pm 0,1$ (± 0.0039) | | L | ϕD |
|--------|--------------------|---------|--|-------------|-----------|-----------|
| | | | min. | max. | | |
| CD | 1/2 | A, B, C | 3 (0.1181) | 6 (0.2362) | 55 (2.17) | 28 (1.10) |
| | | D | | 5 (0.1969) | | |
| | 1 | A, B, C | | 11 (0.4331) | 65 (2.56) | 40 (1.58) |
| | | D | | 10 (0.3937) | | |
| | 1.1/2 | A, B, C | | 18 (0.7087) | 85 (3.35) | 55 (2.17) |
| | | D | | 16 (0.6299) | | |



Extinguishing technology Halocarbon agents

Nozzle Halocarbon agents

Adapter hose DN40, DN50 ISO - NPT



Approvals

(VdS approval is not required!)



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 887450: Adapter hose DN40 ISO-NPT

Maintenance

maintenance-free

| Designation | | Part no. | Weight kg (lbs) |
|---------------------------|------|----------|--------------------|
| Adapter hose DN40 ISO-NPT | DN40 | 887450 | 0.3 (0.66) |
| | DN50 | 887451 | 0.4 (0.88) |

Technical data

Max. working pressure60 bar (870 psi)

Thread NPTacc. to ANSI / ASME B1.20.1-NPT

ISOacc. to EN 10226

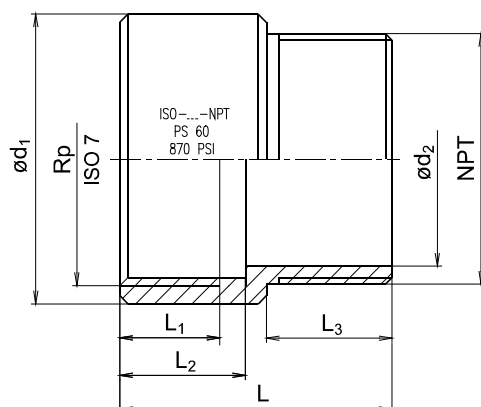
Materialsteel, galvanized acc. to EN 12329 - Fe/Zn12

Application

To connect VSN 1230/200 system parts with ISO thread to NPT pipes.

Dimension drawing

Dimensions in mm (inch)



| Adapter | Rp | NPT | $\varnothing d_1$ | $\varnothing d_2$ | L | L ₁ | L ₂ | L ₃ |
|---------|-------|------------|-------------------|-------------------|--------------|----------------|----------------|----------------|
| DN40 | 1.1/2 | 1.1/2-11,5 | 57 (2.24) | 41,5 (1.63) | 60 (2.36) | 20 (0.79) | 25 (0.98) | 30 (1.18) |
| DN50 | 2 | 2-11,5 | 69 (2.72) | 51 (2.01) | 65 (2.56) | 25 (0.98) | 30 (1.18) | 30 (1.18) |



Inert gas extinguishing technology

Alarm device

Makrofon



Approvals / CE marking



1) Listed system covered by UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 und VSN 1230)

2) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 860050: Makrofon

Maintenance

see product information makrofon part no. 871828

Spare parts

| | |
|---|--------|
| Union GE 6-PSR-EDA3 | 125578 |
| Bracket (large) | 888619 |
| 2x Hex. screw DIN933 M6X16-8.8 gal Zn | 206261 |
| 2x Spring lock washer DIN128-A6-A4 | 905383 |
| 2x Hex. nut DIN934-M6-gal Zn | 249230 |

| Designation | Part no. | Weight |
|-------------|----------|--------------------|
| Makrofon | 860050 | 1.15 kg (2.54 lbs) |

Technical data

| | |
|--|---|
| Operating medium | CO ₂ , gaseous |
| Temperature range | -20 to +300 °C (-4 to +572 °F) |
| Working pressure | 8 bar to 70 bar (116 psi to 1015 psi) |
|overpressure-proof up to 140 bar (2030 psi) | |
| Consumption at constant 70 bar | CO ₂ , 147 g/min |
| Consumption by using a CO ₂ pilot cylinder (falling pressure) | approx. 2350 g / 30 min, approx. 2950 g / 60 min |
| Connection | for precision drawn steel pipe 6 x 1 |
| Installation position | sound outlet points downward |
| Makrofon | complies with EN 12094-12 |
| CE conformity | acc. to Construction Products Regulation (EU) No 305/2011 |

Application

The makrofon is a pneumatically operated acoustic alarm device for the use in stationary gas extinguishing systems accordance with the system approval.

This alarm device warns persons being present prior to flooding of the area with extinguishing gas by a loud sound and constant frequency.

Caution: At operating pressure the makrofon generates at a distance of 1 m a sound level which may cause hearing disorder.

Note

For indoor use only

Not included in delivery

Clamping bolt for wall mounting
silencer makrofon877120, see alarm device

Included in delivery

Makrofon with bracket (small and large)
Product information makrofon part no. 871828



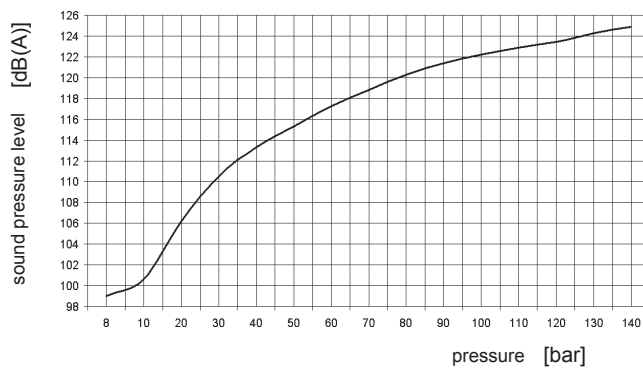
Inert gas extinguishing technology

Alarm device

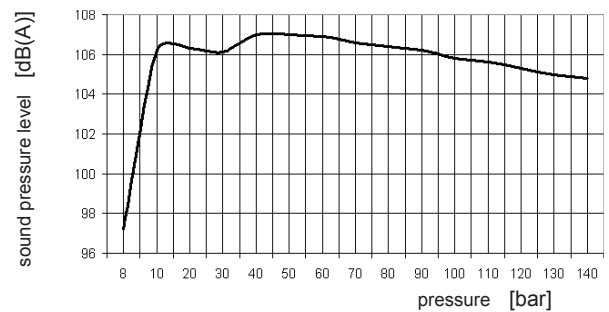
Makrofon

A-weighted sound pressure level over the pressure range

without silencer



with silencer

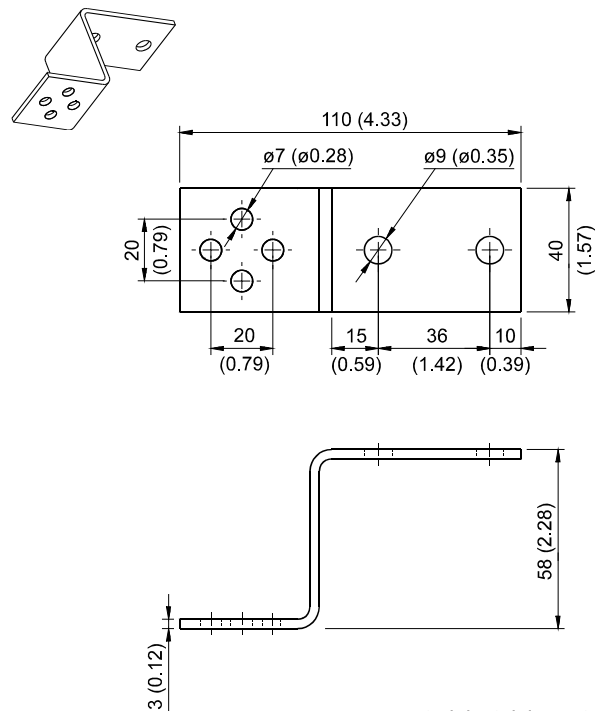
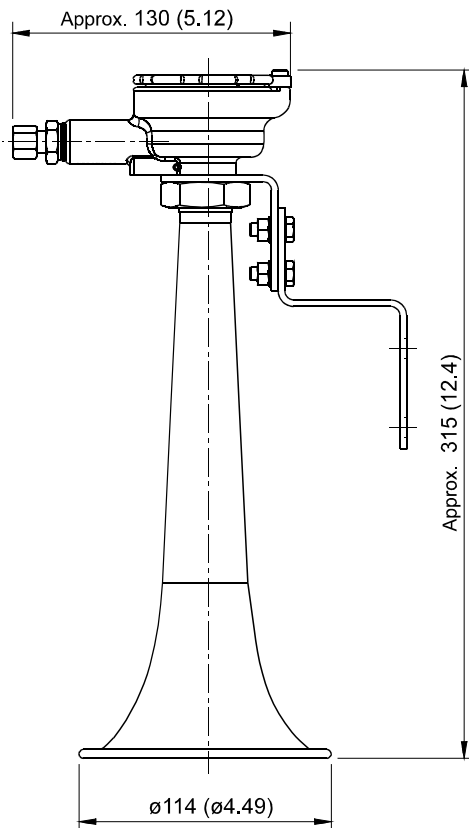


Note: The above shown curves were determined in the laboratory. Due to the influencing factors given in situ, the real values may deviate from the curves.

Dimension drawing

Dimensions in mm (inch)

Makrofon dimensions and bracket (large) dimensions



material: stainless steel



Inert gas extinguishing technology

Alarm device

Silencer makrofon MX-1

Approvals

no approval required



SAP designation

part no. 877120: Schalldämpfer Makrofon MX-1

Maintenance

maintenance-free

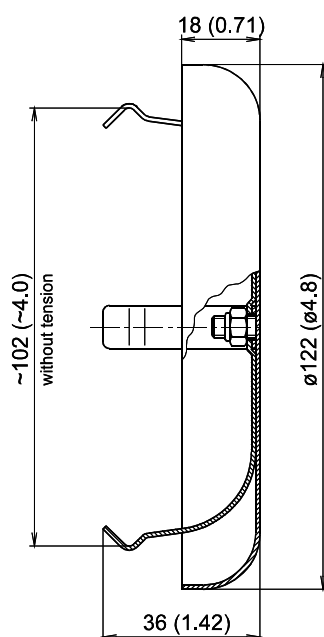
| Designation | Part no. | Weight |
|------------------------|----------|--------------------|
| Silencer makrofon MX-1 | 877120 | 0.12 kg (0.26 lbs) |

Technical data

Materialstainless steel

Dimension drawing

Dimensions in mm (inch)

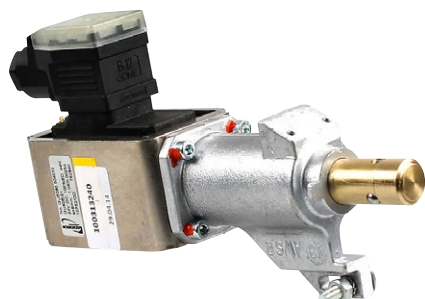




Inert gas extinguishing technology

Control device

Release device EM



Approvals



1)



2)



3)

1) Part of the system approval (release device 24 V DC only):

- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)

2) Listed system for release device 24 V DC only

- covered by UL-File EX6388 (CO₂) and
- covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

3) Part of the system approval (VSN 200 and VSN 1230)
release device EM 24 V DC only

SAP designation

e.g. part no. 885738: Release device EM 24V-DC

Maintenance

see operating instruction release device EM, part no. 885744

| Designation | | Part no. | Weight |
|-------------------|----------|----------|------------------|
| Release device EM | 24 V DC | 885738 | 1.8 kg (4.0 lbs) |
| | 230 V AC | 885739 | |

4) Release device EM 230 V AC without approval

Technical data

Temperature range

Solenoid-20 °C to +50 °C (-4 °F to 122 °F)

Magnetic force44 N

Switching duration100 %

Voltage24 V DC (18 - 28 V DC) / 230 V AC

Current1.04 A / 0.12 A

Stroke9 mm (0.35")

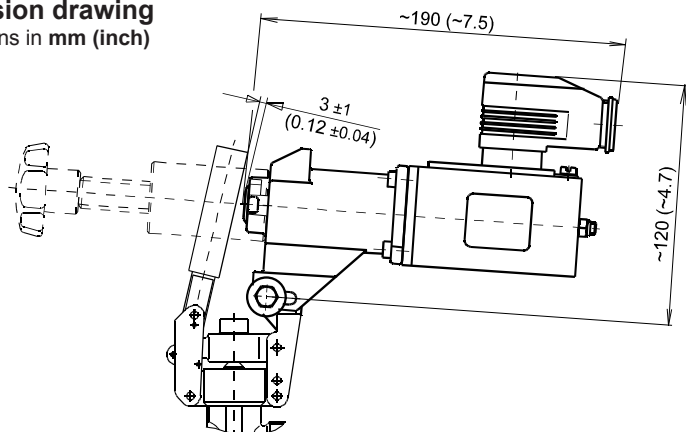
IP codeIP 54
(by accordingly covering of the pull and pressure rod side)

Application

The release device EM may be used only in accordance with the "documentation of special extinguishing systems" in fixed CO₂, argon, nitrogen, IG-55 and IG-541 fire extinguishing systems. It is used for electrical release of lever valve.

Dimension drawing

Dimensions in mm (inch)



Functional description

The solenoid of the release device EM is triggered by an electrical signal whereby the spring loaded release bolt is unlocked. The release bolt pushes against the lever of the valve, which turns around by approx. 90°.

Included in delivery

Release device EM with fastening material
Operating instruction release device EM part no. 885744

Additionally for release device EM 24 V DC:

- Card MVALÖ782239
- Product information card MVALÖ904653

Not included in delivery

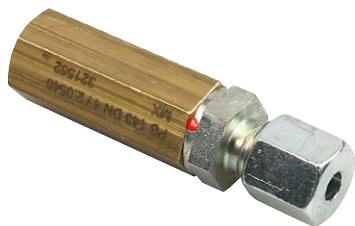
Reset tool for release device EM885530, see control device
Bracket for reset tool release device EM886367, see control device
Monitoring for release device EM885740, see monitoring device



Inert gas extinguishing technology

Control device

Safety device malfunction pressure SFD DN4



Approvals



1) Part of the system approval:

- CO₂ extinguishing system HD-1 (S398010) / HD-2 (S398011)
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- CO₂ extinguishing system ND-1 (S398012), electrical release
- CO₂ extinguishing system ND-2 (S398013), non-electrical release
- Oxeo Nitrogen low pressure extinguishing system (S310016)
- VSN 1230 (S314012) / VSN 200 (S313007)

2) Listed system covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

3) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 885869: Safety device malfunction pressure SFD DN4

Maintenance

see Product information safety device malfunction pressure
SFD DN4 part no. 885867

| Designation | Part no. | Weight |
|--|----------|--------------------|
| Safety device malfunction pressure SFD DN4 | 885869 | 0.15 kg (0.33 lbs) |

Technical data

Operating mediumargon (IG-01), nitrogen (IG-100),
.....IG-55, IG-541, carbon dioxide (CO₂) / gaseous,
.....HFC 227 ea, FK 5-1-12
Working pressure 140 bar (2030 psi)
Test pressure 210 bar (3045 psi)
Temperature range-20 °C to +50 °C (-4 °F to +122 °F)
Connection DN4pipe 6 x 1
Installation positionvertical, see page 2

Material / Surface

Housingbrass
GasketNBR
Ball1.4301

Application

The safety device malfunction pressure is used in accordance with the project-specific system schema in fixed fire extinguishing systems. The safety device malfunction pressure is intended only for releasing small amounts of leakage in pneumatic pilot lines. The safety device closes automatically on higher pressure.

Note

The safety device malfunction pressure **has to be** installed upright into the pilot lines as well an installation nearby a potential leakage (e.g. pilot gas tank) is recommended.

Included in delivery

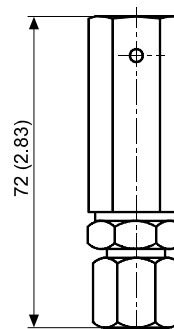
Safety device malfunction pressure SFD DN4
Product information safety device malfunction pressure SFD
DN4 part no. 885867

Not included in delivery

Unions and pipe for extinguishing pipework and pilot pipes
see page 2/2

Dimension drawing

Dimensions in mm (inch)



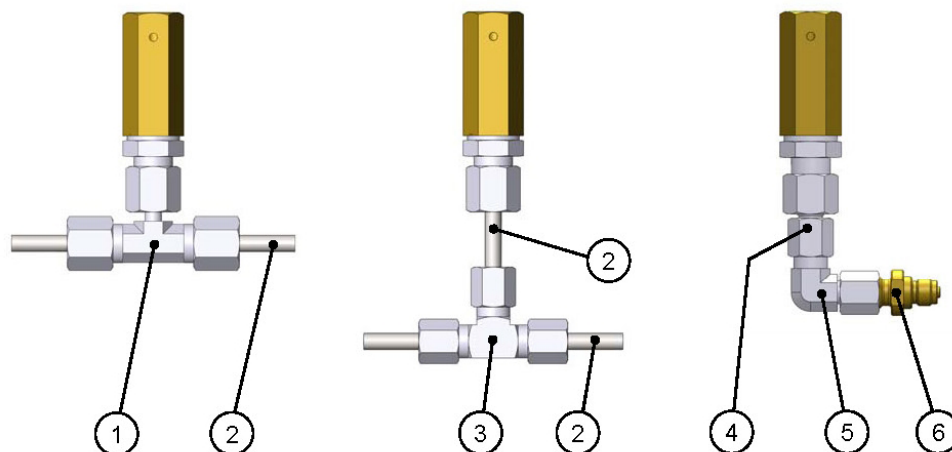


Inert gas extinguishing technology

Control device

Safety device malfunction pressure SFD DN4

Installations examples



Not included in delivery

- Item 1: Union EVT 06 SA3Cpart no. 886406
- Item 2: Pipe 6 x 1 mm (0.236 x 0.039 inch)part no. 823563
- Item 3: Union T 6-PLA3Cpart no. 125633
- Item 4: Union GZR06L/06SCFpart no. 910650
- Item 5: Union EW 06 L CFpart no. 889145
- Item 6: Adapter M12x1.5 – G1/8part no. 887644
(for release device pneumatic or pneumatic/manual)



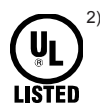
Extinguishing technology Halocarbon agents

Control device

Accessories connection pressure relief SFD DN4



Approvals



1) VdS applies to safety device malfunction pressure SFD DN4

Part of the system approval:

- CO₂ extinguishing system HD-1 (S398010) / HD-2 (S398011)
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- CO₂ extinguishing system ND-1 (S398012), electrical release
- CO₂ extinguishing system ND-2 (S398013), non-electrical release
- Oxeo Nitrogen low pressure extinguishing system (S310016)
- VSN 1230 (S314012) / VSN 200 (S313007)

2) UL applies to push-button selector valve

Listed system covered by UL-File EX26532 (Ar)

SAP designation

part no. 889320: Accessories connection pressure relief

Maintenance

see product information accessories connection pressure relief (English) part no. 912454

| Designation | Part no. | Weight |
|--|----------|--------------------|
| Accessories connection pressure relief SFD DN4 | 889320 | 0.57 kg (1.26 lbs) |

Technical data

Operating mediumargon (IG-01), nitrogen (IG-100),
IG-55, IG-541, carbon dioxide (CO₂) / gaseous,
HFC 227 ea, FK 5-1-12
 Working pressure.....140 bar (2030 psi)
 Temperature range-20 °C to +50 °C (-4 °F to +122 °F)
 Installation positionvertical, see page 2

Material / Surface

Housingbrass / steel
 GasketNBR
 Ball (safety device malfunction pressure SFD DN4)1.4301

Application

The pressure relief is used in accordance with the project-specific system schema in fixed fire extinguishing systems.

Intended use of the single components:

- The safety device malfunction pressure is intended only for releasing small amounts of leakage in pneumatic pilot lines. The safety device closes automatically on higher pressure.
- The push-button selector valve is intended only to manually vent of pneumatic pilot lines.

Note

The safety device malfunction pressure **has to be** installed upright into the pilot lines as well an installation nearby a potential leakage (e.g. pilot gas tank) is recommended.

Included in delivery

Accessories connection pressure relief SFD DN4 consisting of:

- Safety device malfunction pressure SFD DN4885869, see control device
- Push-button selector valve822674, see control device
- Union EVL 6-PL A3C786956
- Adapter M12x1,5 - G1/8 MX200887644
- Union GZR06L/06SCF910650
- Union GZR10/06LCF910651
- Union EW06LCF889145
- Product information accessories connection pressure relief part no. 910653

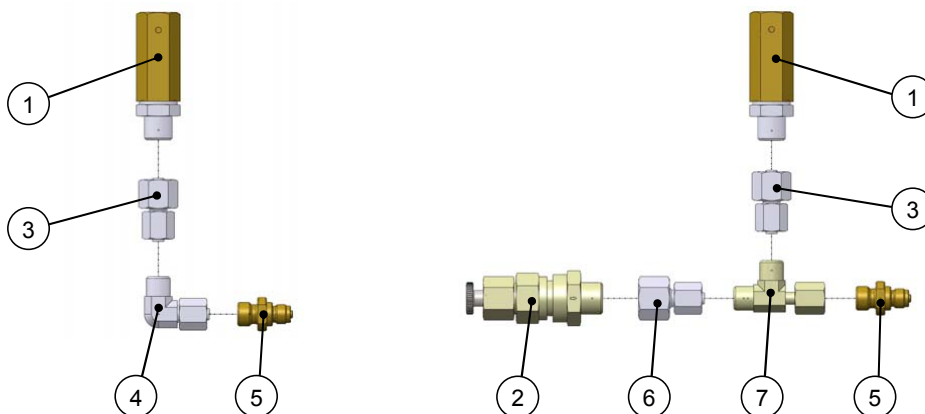


Extinguishing technology Halocarbon agents

Control device

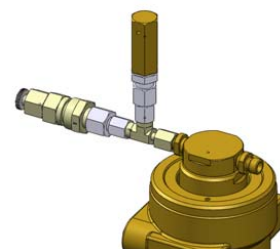
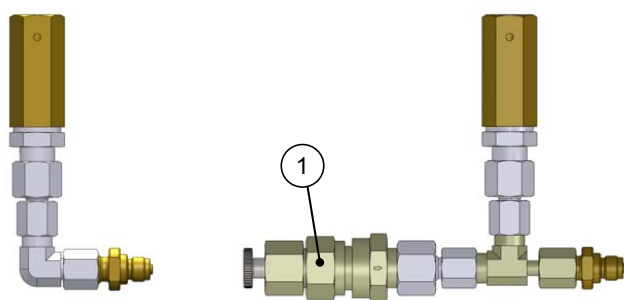
Accessories connection pressure relief SFD DN4

Accessories connection pressure relief (individual parts)



- Item 1 Safety device malfunction pressure SFD DN4
- Item 2 Push-button selector valve
- Item 3 Union GZR06L/06SCF
- Item 4 Union EW06LCF
- Item 5 Adapter M12x1,5 – G1/8
(for release device pneumatic or pneumatic/manual)
- Item 6 Union GZR10/06LCF
- Item 7 Union EVL 6-PLA3C

Accessories connection pressure relief (assembled)



Example of application

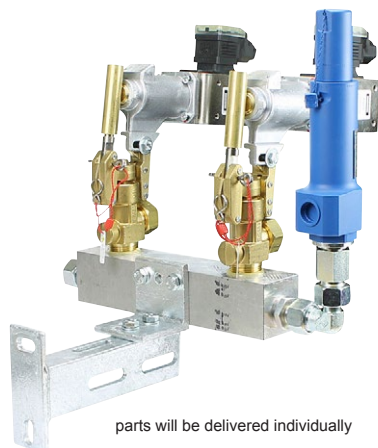
The version with the push-button selector valve (item 1) is used to manually vent pilot lines in combination with a pneumatic release device (PAE).



Inert gas extinguishing technology

Control device

Pilot control manifold CO₂ - DN15



parts will be delivered individually

Approvals



1) Part of the system approval:

- CO₂ extinguishing system HD-1 (S398010)
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- CO₂ extinguishing system ND-1 (S398012), electrical release
- VSN 1230 (S314012) / VSN 200 (S313007)

2) Listed system covered by UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

3) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

e.g. part no. 830778: Pilot control manifold CO₂ - DN15 - 2

Maintenance

see technical description pilot control manifold DN15
part no. 876772

| Branches | Part no. | Weight approx. kg (lbs) |
|----------|----------|----------------------------|
| 2 | 830778 | 9.7 (21.4) |
| 3 | 830791 | 14.2 (31.3) |
| 4 | 830808 | 17.7 (39.0) |
| 5 | 830833 | 22.2 (48.9) |
| 6 | 830857 | 26.8 (59.1) |
| 7 | 830870 | 30.2 (66.6) |
| 8 | 830894 | 34.7 (76.5) |

| Branches | Part no. | Weight approx. kg (lbs) |
|----------|----------|----------------------------|
| 9 | 830912 | 39.3 (86.6) |
| 10 | 830936 | 42.7 (94.1) |
| 11 | 830950 | 47.3 (104.3) |
| 12 | 830973 | 51.8 (114.2) |
| 13 | 830985 | 55.2 (121.7) |
| 14 | 830997 | 59.8 (131.8) |
| 15 | 834115 | 64.3 (141.8) |

Technical data

Operating mediumcarbon dioxide (CO₂)
Working pressure140 bar (2030 psi)
Test pressure235 bar (3408 psi)
Temperature range-20 °C to +50 °C (-4 °F to +122 °F)
Connected voltage24 V DC

Product sheets also applying

Safety valve G1/2 - 140 bar886282, see safety valve
Argon cylinder valve K85-20.0-S49871014, see cylinder valve
Lever - cylinder valve885603, see control device
Release device EM 24 V DC885738, see control device

Application

The pilot control manifold DN 15 may only be used in accordance with system approval in stationary CO₂, argon, nitrogen, IG-55, IG-541 and VSN 1230/200 fire extinguishing systems. It is used as a pilot control valve in the pneumatic activation of fire extinguishing systems or as a CO₂ extinguishing agent manifold for small design quantity, for example local protection for electrical devices.

Functional description

The release device EM is triggered by an electrical activation. The release bolt of the release device is released and actuates the valve lever, which turns around by approx. 90° and opens the valve. The safety valve prevents an undue exceeding of the operating pressure.

Included in delivery

Pilot control manifold CO₂ - DN15 (not pre-assembled)
Techn. description pilot control manifold DN15 part no. 876772
Installation drawing pilot control manifold DN15 part no. 827301

Not included in delivery

Connection to valve:
Adapter for connecting CO₂ - Ermeto DN4827325
DN8855425
Monitoring for release device EM ...885740, see monitoring device



Inert gas extinguishing technology

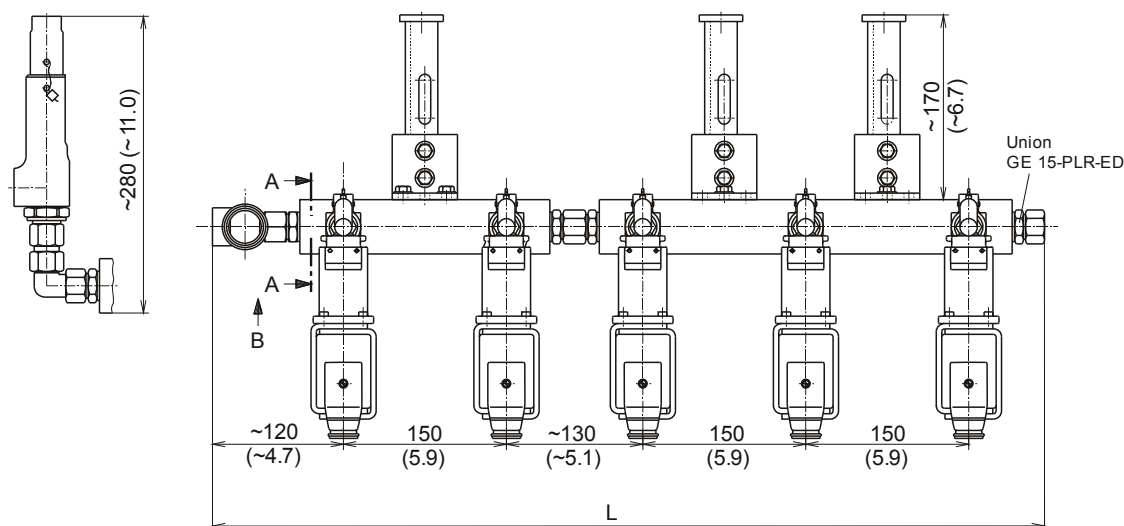
Control device

Pilot control manifold CO₂ - DN15

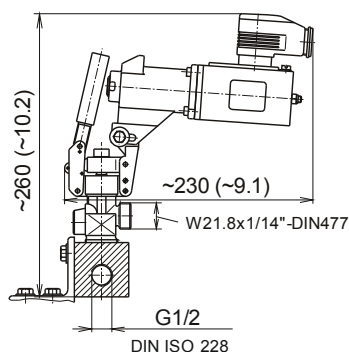
Dimension drawing

Dimensions in mm (inch)

View: B



Section: A-A



| Branches | L |
|----------|-------------|
| 2 | 340 (13.4) |
| 3 | 490 (19.3) |
| 4 | 620 (24.4) |
| 5 | 770 (30.3) |
| 6 | 920 (36.2) |
| 7 | 1050 (41.3) |
| 8 | 1200 (47.2) |
| 9 | 1350 (53.2) |
| 10 | 1480 (58.3) |
| 11 | 1630 (64.2) |
| 12 | 1780 (70.1) |
| 13 | 1910 (75.2) |
| 14 | 2060 (81.1) |
| 15 | 2210 (87.0) |



Inert gas extinguishing technology

Control device

Disable device complete



Approvals / CE marking



1) Listed system covered by UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

2) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 878070: Disable device complete

Maintenance

see product information disable device complete
part no. 878069

| Designation | Part no. | Weight |
|-------------------------|----------|------------------|
| Disable device complete | 878070 | 0.8 kg (1.8 lbs) |

Technical data

Operating mediumCO₂, argon (IG-01), nitrogen (IG-100),
.....IG-55, IG-541
Working pressure 140 bar (2030 psi)
Nominal diameterDN6
Connection threadsM12 x 1.5
Temperature range-30 °C to +80 °C
Connectioncone for 6 mm steel pipe
Disable devicecomplies with EN 12094-6
CE conformityacc. to Construction Products Regulation (EU)
.....No. 305/2011

Application

The disable device may only be used in accordance with system approval in stationary CO₂, argon, nitrogen, IG-55, IG-541 or in VSN 1230/200 fire extinguishing systems. The disable device is corresponding to the german rules BGR 134 of the workmen compensations board, a non electrical disable device to lock Argotec® extinguishing fire system. It prevents the extinguishing agent to be released in the extinguishing area. For repair or maintenance work in the protected area, when the system can be activated unintentionally or people can not leave the area within the pre - warning time, the extinguishing system must be blocked.

Functional description

The ball valve enables the pilot pipe to be shut off. At the same time the pilot pipe is vented to preclude an uncontrolled rise of pressure. When the system is in normal operation the ball valve is locked with a padlock in the eyelet so that the marking „Betrieb“ (operation) is visible.

To block the pilot pipe, the padlock is removed and the handle of the ball valve turned clockwise to the stop. The ball valve is then locked in position by fastening the padlock in the eyelet so that the marking „Blockiert“ (isolation) is visible. The resetting of the ready status is carried out in reversed order so that the marking "Betrieb" (operating) is visible again. For monitoring the operating and isolation position a limit switch for every position must be mounted (not included in delivery).

Included in delivery

Disable device type DN6885375
Padlock 635/40131777
Retainer shuttle valve873497
2x Cap nut M 6-LA3C173959
2x Progressive ring DPR 6-L/S-A3D208208
Product information disable device complete878069
as well as fastening material

Not included in delivery

The following must be ordered separately for monitoring of each ball valve position:
Limit switch type ZS 256-11Z828482, see monitoring device
2x Cheese-head screw DIN84-M4x25-brass106745
2x Washer DIN125-B 4,3 brass109734



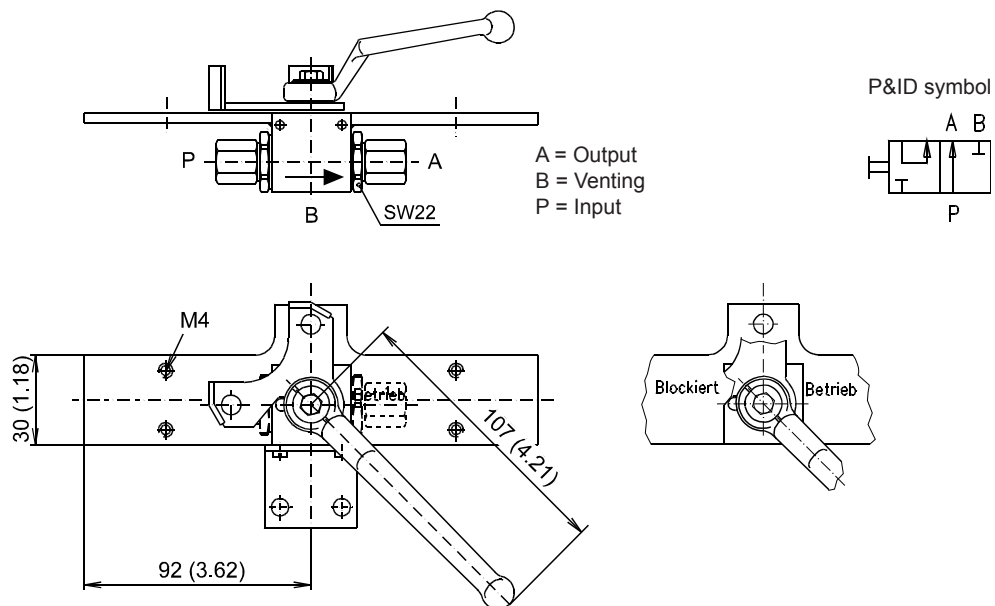
Inert gas extinguishing technology

Control device

Disable device complete

Dimension drawing

Dimensions in mm (inch)

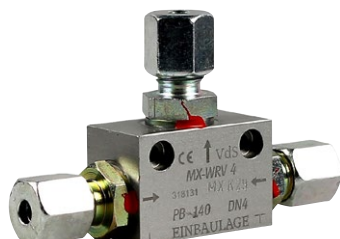




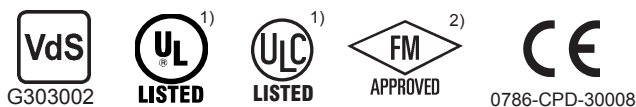
Inert gas extinguishing technology

Control device

Shuttle non-return valves WRV DN4 and DN8



Approvals / CE marking



1) Listed system covered by UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

2) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

e.g. part no. 886247: Shuttle non-return valve WRV 4

Maintenance

see product information shuttle non-return valve
part no. 886246

| DN | Part no. | For pipe | Weight |
|----|----------|----------|--------------------|
| 4 | 886247 | 6 x 1 | 0.25 kg (0.55 lbs) |
| 8 | 886248 | 10 x 1 | 0.24 kg (0.53 lbs) |

Technical data

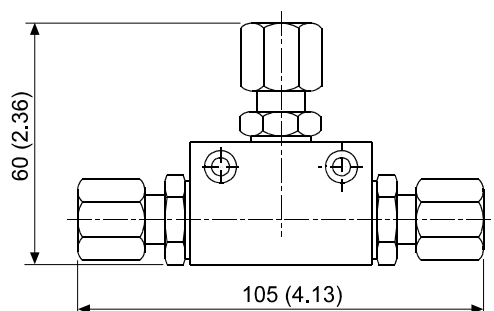
Operating mediumcarbon dioxide (CO₂) - gaseous
argon (IG-01), nitrogen (IG-100), IG-55, IG-541
 Working pressure2 to 140 bar (29 to 2030 psi)
 Test pressure210 bar (3045 psi)
 Rate of pressure risemin. 3 bar/s (43,5 psi/s)
 Installation positionfeedings only horizontal
 Shuttle non-return valvescomplies with EN 12094-13
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Material / Surface

Housingaluminium
 GasketNBR
 Ballstainless steel

Dimension drawing

Dimensions in mm (inch)



Application

The shuttle non-return valve is used in fixed high pressure CO₂, argon, nitrogen, IG-55 and IG-541 fire extinguishing systems or in VSN 1230/200 fire extinguishing systems according to the system approval.

Functional description

The shuttle non-return valve for the pneumatic control allows the differential direct control of pneumatic units with two pressure sources.

Included in delivery

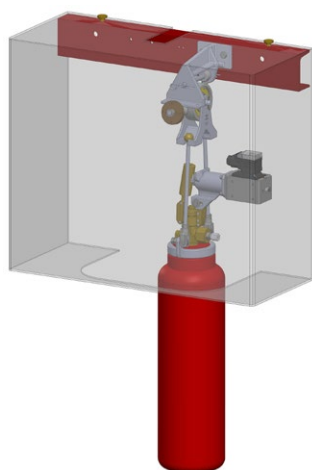
Shuttle non-return valves WRV
 Product information shuttle non-return valve part no. 886246



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical with protective cover



Fastening material not shown

Approvals



- 1) Part of the system approval:
- CO₂ extinguishing system HD-1 (S398010)
 - Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
 - Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
 - Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
 - VSN 1230 (S314012) / VSN 200 (S313007)
- 2) Listed system covered by:
- UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 885335: PAE-CO₂-EM-4kg compl.

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. | Weight approx. |
|---|------|----------|----------------|
| Pneumatic release device PAE - CO ₂ electrical with protective cover | 4 kg | 885335 | 28 kg (62 lbs) |
| | 8 kg | 885341 | 38 kg (84 lbs) |

Technical data

Operating mediumCO₂ - gaseous
 Working pressure140 bar (2030 psi)
 Test pressure210 bar (3045 psi)
 Amount filled4 kg (8.82 lbs) or 8 kg (17.64 lbs)
 Pilot cylinder volume5.4 l or 10.7 l
 Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder EUsee cylinder filled
 Weighing device WE4see ad-on part cylinder
 Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
 Release device EM 24 V DCsee control device
 Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The release device PAE has a protecting cover to protect against unintentional contact. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Included in delivery

PAE - CO₂ EM 4 kg885334
 8 kg885338
 Protective cover PAE885322
 Operating instruction PAE-CO₂ part no. 885374
 as well as fastenings

Not included in delivery

Pre-assembled connection pipesee operating instruction PAE
 Support weighing device PAE ...886350, see mounting accessories
 Reset tool885530, see control device
 Monitoring loss pneum. actuation device888998, see monitoring device
 Monitoring for release device EM885740, see monitoring device



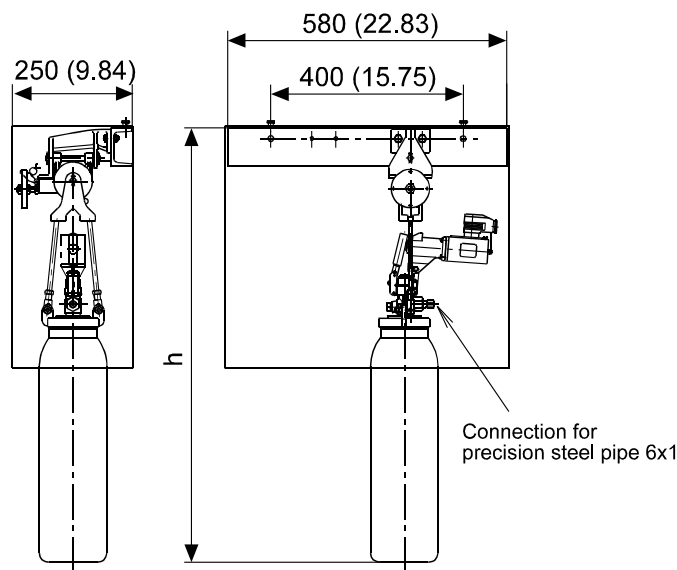
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical with protective cover

Dimension drawing

Dimensions in mm (inch)



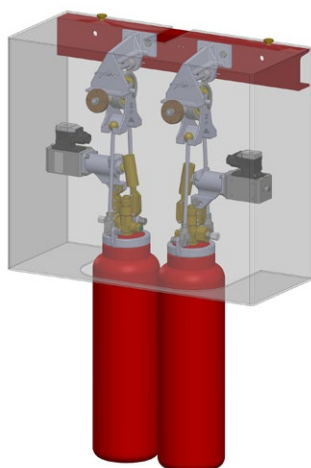
| PAE | h approx. |
|------|--------------|
| 4 kg | 925 (36.4) |
| 8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical with protective cover, with reserve



Fastening material not shown

Approvals



1) Part of the system approval:

- CO₂ extinguishing system HD-1 (S398010)
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- VSN 1230 (S314012) / VSN 200 (S313007)

2) Listed system covered by:

UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 885337: PAE-CO₂-EM-4kg reserve compl.

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. | Weight approx. |
|---|------|----------|-----------------|
| Pneumatic release device PAE - CO ₂ electrical with protective cover, with reserve | 4 kg | 885337 | 47 kg (104 lbs) |
| | 8 kg | 885343 | 67 kg (148 lbs) |

Technical data

Operating mediumCO₂ - gaseous
 Working pressure140 bar (2030 psi)
 Test pressure210 bar (3045 psi)
 Amount filled2x 4 kg (2x 8.82 lbs) or 2x 8 kg (2x 17.64 lbs)
 Pilot cylinder volume5.4 l or 10.7 l
 Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder EUsee cylinder filled
 Weighing device WE4see ad-on part cylinder
 Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
 Release device EM 24 V DCsee control device
 Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The release device PAE has a reserve cylinder and a protecting cover to protect against unintentional contact. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Included in delivery

PAE - CO₂ EM reserve 4 kg885336
 8 kg885342
 Protective cover PAE885322
 Operating instruction PAE-CO₂ part no. 885374
 as well as fastenings

Not included in delivery

Pre-assembled connection pipesee operating instruction PAE
 Support weighing device PAE ...886350, see mounting accessories
 Reset tool885530, see control device
 Monitoring loss pneum. actuation device888998, see monitoring device
 Monitoring for release device EM885740, see monitoring device



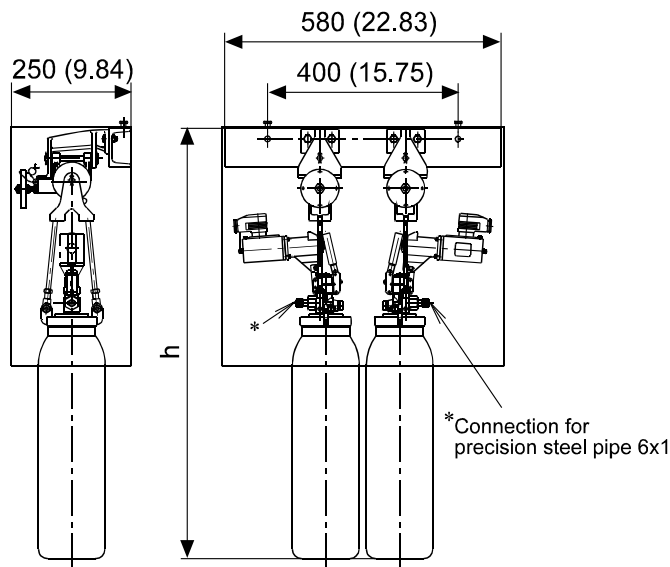
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical with protective cover, with reserve

Dimension drawing

Dimensions in mm (inch)



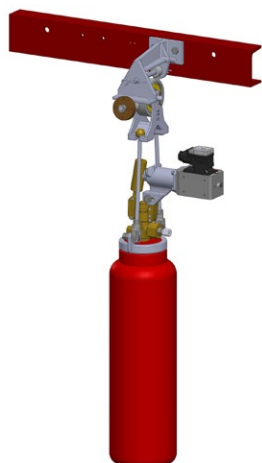
| PAE | h approx. |
|------|--------------|
| 4 kg | 925 (36.4) |
| 8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical without protective cover



Fastening material not shown

Approvals



1) Part of the system approval:

- CO₂ extinguishing system HD-1 (S398010)
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- VSN 1230 (S314012) / VSN 200 (S313007)

2) Listed system covered by:

UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 885334: PAE-CO₂-EM-4kg

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. | Weight approx. |
|--|------|----------|----------------|
| Pneumatic release device PAE - CO ₂ electrical without protective cover | 4 kg | 885334 | 24 kg (53 lbs) |
| | 8 kg | 885338 | 34 kg (75 lbs) |

Technical data

Operating mediumCO₂ - gaseous
 Working pressure140 bar (2030 psi)
 Test pressure210 bar (3045 psi)
 Amount filled4 kg (8.82 lbs) or 8 kg (17.64 lbs)
 Pilot cylinder volume5.4 l or 10.7 l
 Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder EUsee cylinder filled
 Weighing device WE4see ad-on part cylinder
 Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
 Release device EM 24 V DCsee control device
 Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Note

Each PAE has to be installed complete with protective cover only. Exception: If an additional protecting guard is provided (for example enclosure).

Included in delivery

PAE - CO₂ EM 4 kg885334
 8 kg885338
 Operating instruction PAE-CO₂ part no. 885374
 as well as fastenings

Not included in delivery

Pre-assembled connection pipesee operating instruction PAE
 Support weighing device PAE886350, see mounting accessories
 Reset tool885530, see control device
 Monitoring loss pneum. actuation device888998, see monitoring device
 Monitoring for release device EM885740, see monitoring device



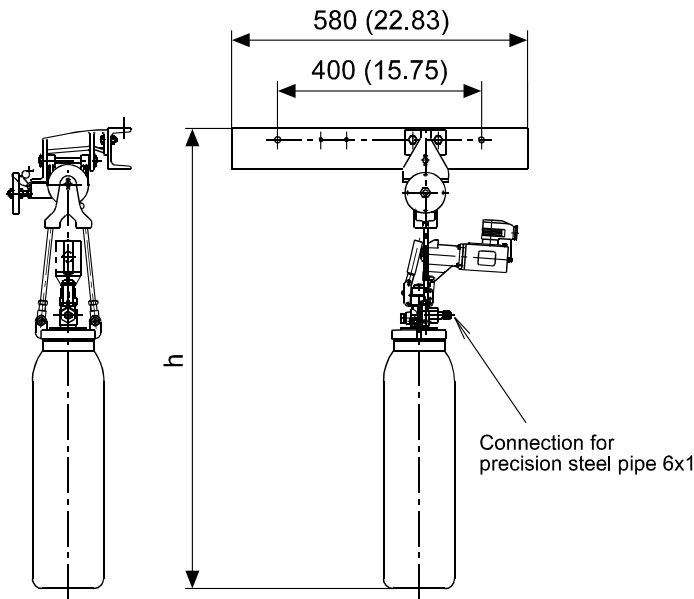
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical without protective cover

Dimension drawing

Dimensions in mm (inch)



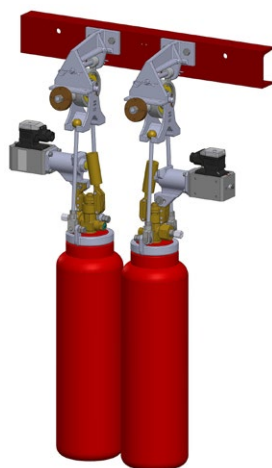
| PAE | h approx. |
|------|--------------|
| 4 kg | 925 (36.4) |
| 8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical without protective cover, with reserve



Fastening material not shown

Approvals



1) Part of the system approval:

- CO₂ extinguishing system HD-1 (S398010)
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
- Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
- Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
- VSN 1230 (S314012) / VSN 200 (S313007)

2) Listed system covered by:

UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 885336: PAE-CO₂-EM-4kg reserve

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. | Weight approx. |
|--|------|----------|-----------------|
| Pneumatic release device PAE - CO ₂ electrical without protective cover, with reserve | 4 kg | 885336 | 39 kg (86 lbs) |
| | 8 kg | 885342 | 59 kg (130 lbs) |

Technical data

Operating mediumCO₂ - gaseous
 Working pressure140 bar (2030 psi)
 Test pressure210 bar (3045 psi)
 Amount filled2x 4 kg (2x 8.82 lbs) or 2x 8 kg (2x 17.64 lbs)
 Pilot cylinder volume5.4 l or 10.7 l
 Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder EUsee cylinder filled
 Weighing device WE4see ad-on part cylinder
 Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
 Release device EM 24 V DCsee control device
 Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The release device PAE has a reserve cylinder. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Note

Each PAE has to be installed complete with protective cover only. Exception: If an additional protecting guard is provided (for example enclosure).

Included in delivery

PAE - CO₂ EM reserve 4 kg885336
 8 kg885342
 Operating instruction PAE-CO₂ part no. 885374
 as well as fastenings

Not included in delivery

Pre-assembled connection pipesee operating instruction PAE
 Support weighing device PAE ...886350, see mounting accessories
 Reset tool885530, see control device
 Monitoring loss pneum. actuation device888998, see monitoring device
 Monitoring for release device EM885740, see monitoring device



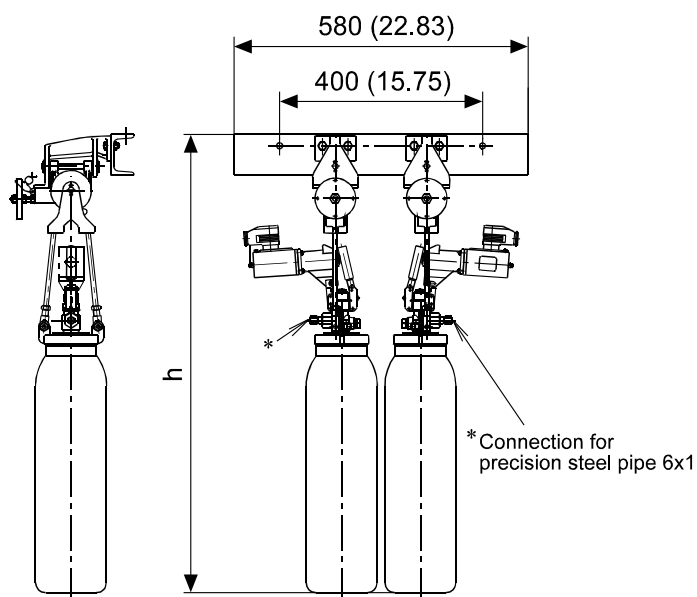
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical without protective cover, with reserve

Dimension drawing

Dimensions in mm (inch)



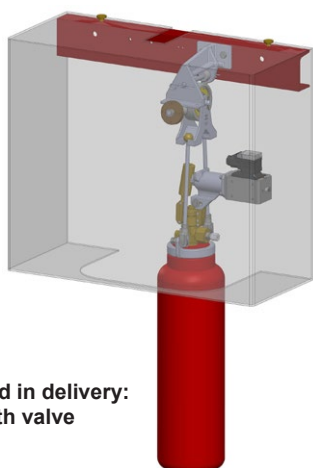
| PAE | h approx. |
|------|--------------|
| 4 kg | 925 (36.4) |
| 8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical with protective cover, FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 911751: PAE-CO₂-EM-3,6kg compl. FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. ³⁾ | Amount filled | Weight approx. |
|---|--------|------------------------|-------------------|----------------|
| Pneumatic release device PAE - CO ₂ electrical with protective cover FM/UL | 3.6 kg | 911751 | 3.6 kg (7.9 lbs) | 28 kg (62 lbs) |
| | 7.1 kg | 911759 | 7.1 kg (15.7 lbs) | 37 kg (82 lbs) |

³⁾ Cylinder with valve are not included in delivery

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume5.4 l or 10.7 l
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The release device PAE has a protecting cover to protect against unintentional contact. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Included in delivery

PAE - CO₂ EM FM/UL 3.6 kg911750
FM/UL 7.1 kg911758
Protective cover PAE885322
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder UL, EUsee cylinder filled
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device

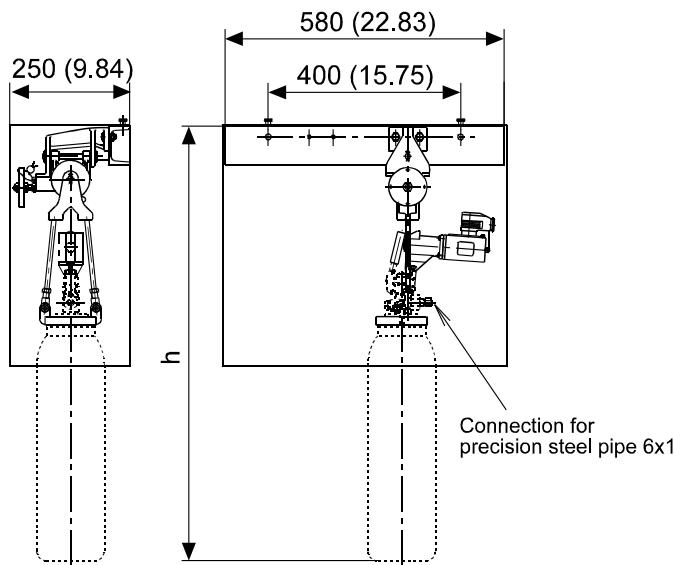


Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical with protective cover, FM/UL

Dimension drawing
Dimensions in mm (inch)



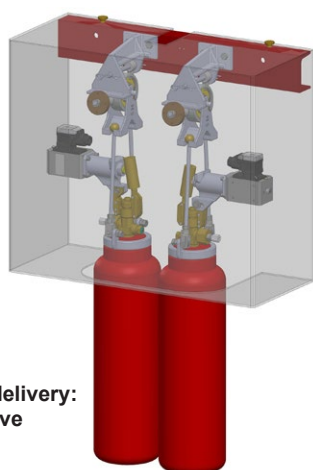
| PAE | h approx. |
|--------|--------------|
| 3.6 kg | 925 (36.4) |
| 7.1 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr. with protective cover, with reserve, FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 911753: PAE-CO₂-EM-3,6kg reserve compl. FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. ³⁾ | Amount filled | Weight approx. |
|---|--------|------------------------|-------------------------|-----------------|
| Pneumatic release device PAE - CO ₂ electrical with protective cover, with reserve FM/UL | 3.6 kg | 911753 | 2x 3.6 kg (2x 7.9 lbs) | 46 kg (101 lbs) |
| | 7.1 kg | 911761 | 2x 7.1 kg (2x 15.7 lbs) | 61 kg (134 lbs) |

³⁾ Cylinder with valve are not included in delivery

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume5.4 l or 10.7 l
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kg ...see ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The release device PAE has a reserve cylinder and a protecting cover to protect against unintentional contact. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Included in delivery

PAE - CO₂ EM reserve FM/UL 3.6 kg911752
FM/UL 7.1 kg911760
Protective cover PAE885322
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder UL, EUsee cylinder filled
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE ...886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device



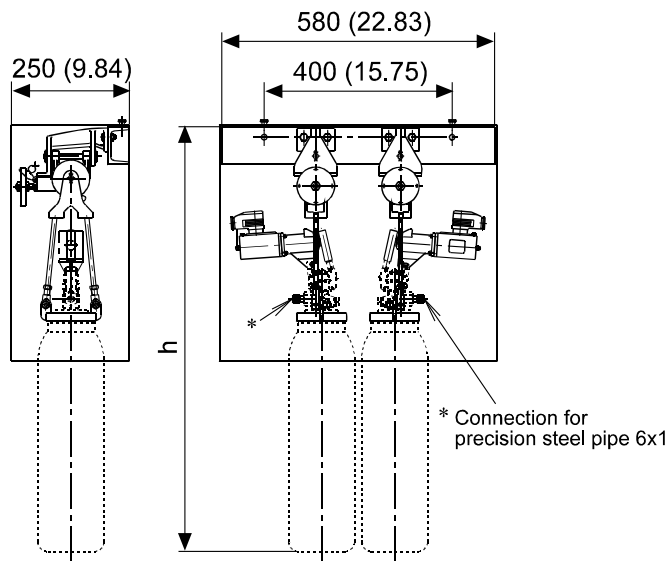
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr.
with protective cover, with reserve, FM/UL

Dimension drawing

Dimensions in mm (inch)



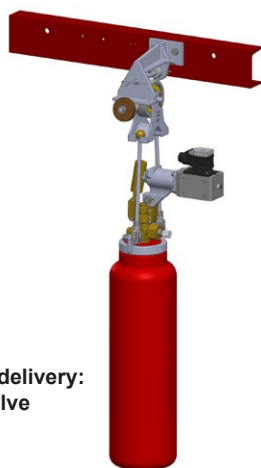
| PAE | h approx. |
|--------|--------------|
| 3.6 kg | 925 (36.4) |
| 7.1 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical without protective cover, FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 911750: PAE-CO₂-EM-3.6kg FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. ³⁾ | Amount filled | Weight approx. |
|--|--------|------------------------|-------------------|----------------|
| Pneumatic release device PAE - CO ₂ electrical without protective cover FM/UL | 3.6 kg | 911750 | 3.6 kg (7.9 lbs) | 24 kg (53 lbs) |
| | 7.1 kg | 911758 | 7.1 kg (15.7 lbs) | 33 kg (73 lbs) |

³⁾ Cylinder with valve are not included in delivery

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume5.4 l or 10.7 l
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kg ...see ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Note

Each PAE has to be installed complete with protective cover only. Exception: If an additional protecting guard is provided (for example enclosure).

Included in delivery

PAE - CO₂ EM FM/UL 3.6 kg911750
FM/UL 7.1 kg911758
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder UL, EUsee cylinder filled
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE ...886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device



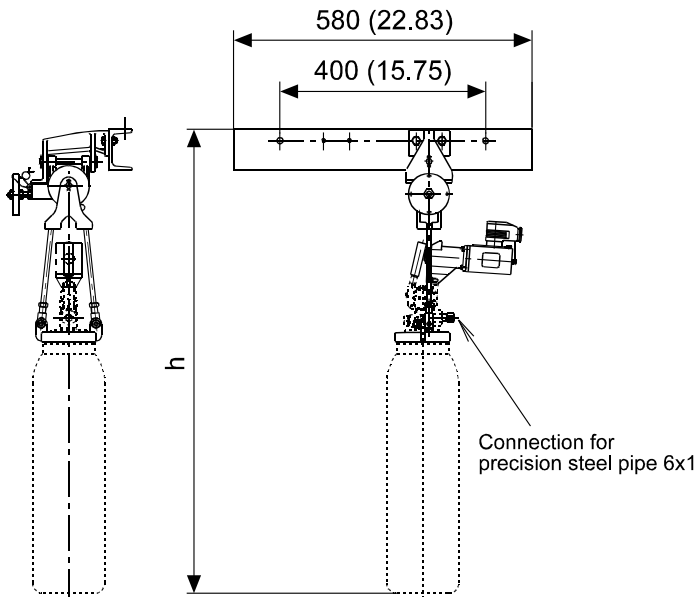
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical without protective cover, FM/UL

Dimension drawing

Dimensions in mm (inch)



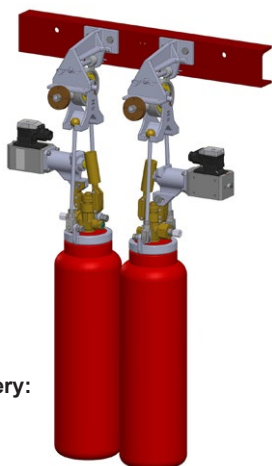
| PAE | h approx. |
|--------|--------------|
| 3.6 kg | 925 (36.4) |
| 7.1 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr. without protective cover, with reserve, FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

e.g. part no. 911752: PAE-CO₂-EM-3,6kg reserve FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | | Part no. ³⁾ | Amount filled | Weight approx. |
|--|--------|------------------------|-------------------------|-----------------|
| Pneumatic release device PAE - CO ₂ electrical without protective cover, with reserve FM/UL | 3.6 kg | 911752 | 2x 3.6 kg (2x 7.9 lbs) | 38 kg (84 lbs) |
| | 7.1 kg | 911760 | 2x 7.1 kg (2x 15.7 lbs) | 57 kg (126 lbs) |

³⁾ Cylinder with valve are not included in delivery

Technical data

Operating mediumCO₂ - gaseous
Working pressure 140 bar (2030 psi)
Test pressure 210 bar (3045 psi)
Pilot cylinder volume 5.4 l or 10.7 l
Thread connection for precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. Depending on the version a 5.4 l (1.43 US.liq.gal) or 10.7 l (2.83 US.liq.gal) pilot cylinder is used.

The release device PAE has a reserve cylinder. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Note

Each PAE has to be installed complete with protective cover only. Exception: If an additional protecting guard is provided (for example enclosure).

Included in delivery

PAE - CO₂ EM reserve FM/UL 3.6 kg911752
FM/UL 7.1 kg911760
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 5.4 l / 10.7 l:

- CO₂ - Cylinder UL, EUsee cylinder filled
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE ...886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM ...885740, see monitoring device



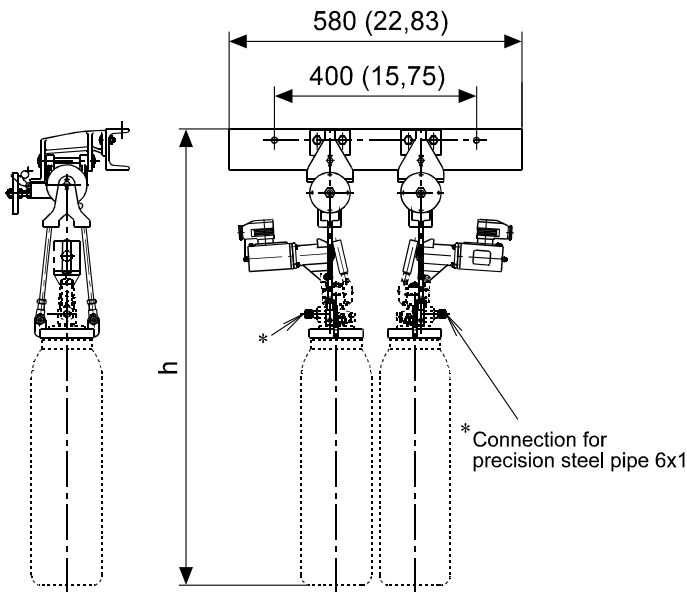
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr.
without protective cover, with reserve, FM/UL

Dimension drawing

Dimensions in mm (inch)



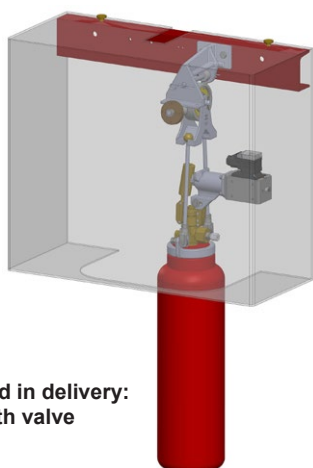
| PAE | h approx. |
|--------|--------------|
| 3.6 kg | 925 (36.4) |
| 7.1 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical with protective cover, DOT FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

part no. 911755: PAE-CO₂-EM-6,8kg compl. DOT FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | Part no. ³⁾ | Amount filled | Weight approx. |
|---|------------------------|-------------------|----------------|
| Pneumatic release device PAE - CO ₂ electrical with protective cover DOT FM/UL | 911755 | 6.8 kg (15.0 lbs) | 37 kg (82 lbs) |

³⁾ Cylinder with valve are not included in delivery

Caution: It is not allowed to transport filled steel cylinder (DOT) in Europe

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume10.7 l (2.83 US.liq.gal)
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system.

The release device PAE has a protecting cover to protect against unintentional contact. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Included in delivery

PAE - CO₂ EM DOT FM/UL 6.8 kg911754
Protective cover PAE885322
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 10.7 l:

- CO₂ - Cylinder DOT - UL
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE ...886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device



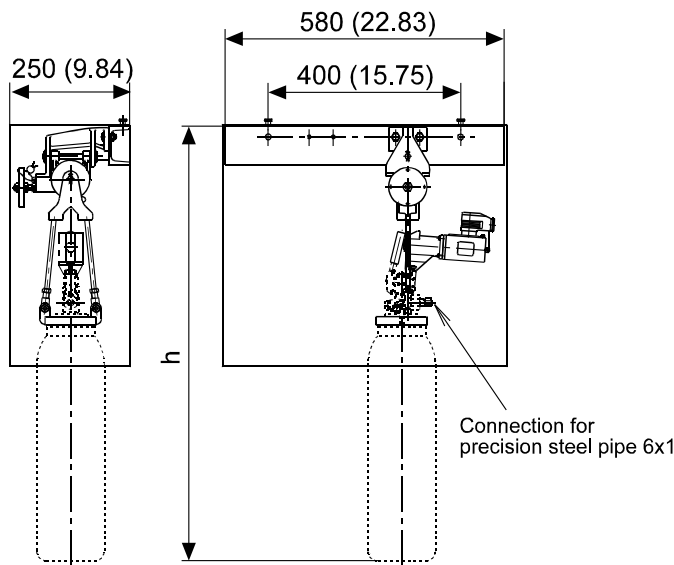
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical with protective cover, DOT FM/UL

Dimension drawing

Dimensions in mm (inch)



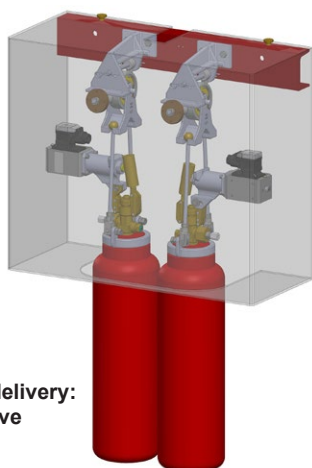
| PAE | h approx. |
|--------|--------------|
| 6.8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr. with protective cover, with reserve, DOT FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

part no. 911757: PAE-CO₂-EM-6,8kg reserve compl. DOT FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | Part no. ³⁾ | Amount filled | Weight approx. |
|---|------------------------|-------------------|-----------------|
| Pneumatic release device PAE - CO ₂ electrical with protective cover, with reserve DOT FM/UL | 911757 | 6.8 kg (15.0 lbs) | 61 kg (134 lbs) |

³⁾ Cylinder with valve are not included in delivery

Caution: It is not allowed to transport filled steel cylinder (DOT) in Europe

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume10.7 l (2.83 US.liq.gal)
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system.

The release device PAE has a reserve cylinder and a protecting cover to protect against unintentional contact. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Included in delivery

PAE - CO₂ EM DOT FM/UL 6.8 kg911754
Protective cover PAE885322
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 10.7 l:

- CO₂ - Cylinder DOT - UL
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device



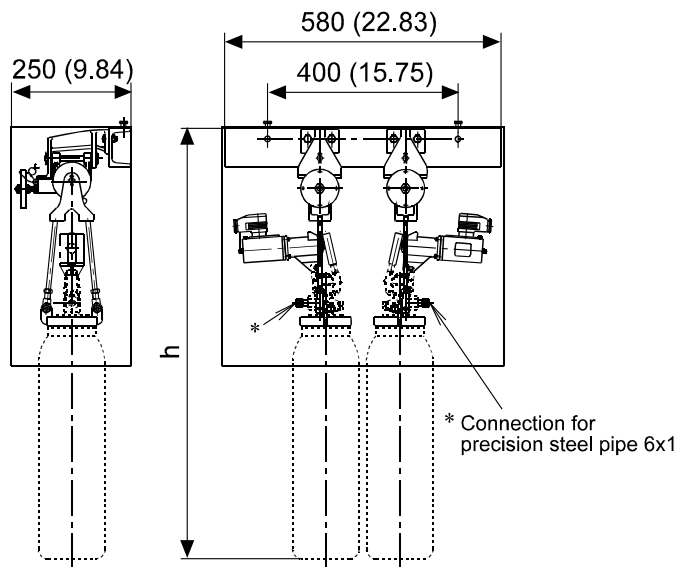
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr.
with protective cover, with reserve, DOT FM/UL

Dimension drawing

Dimensions in mm (inch)



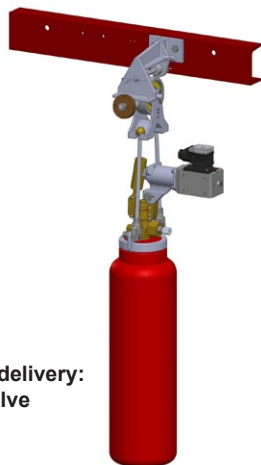
| PAE | h approx. |
|--------|--------------|
| 6.8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electrical without protective cover, DOT FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

part no. 911754: PAE-CO₂-EM-6.8kg DOT FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | Part no. ³⁾ | Amount filled | Weight approx. |
|---|------------------------|-------------------|----------------|
| Pneumatic release device PAE - CO ₂ electrical without protective cover DOT FM/UL | 911754 | 6.8 kg (15.0 lbs) | 33 kg (73 lbs) |

³⁾ Cylinder with valve are not included in delivery

Caution: It is not allowed to transport filled steel cylinder (DOT) in Europe

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume10.7 l (2.83 US.liq.gal)
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kgsee ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Note

Each PAE has to be installed complete with protective cover only. Exception: If an additional protecting guard is provided (for example enclosure).

Included in delivery

PAE - CO₂ EM DOT FM/UL 6.8 kg911754
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 10.7 l:

- CO₂ - Cylinder DOT - UL
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE ...886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device

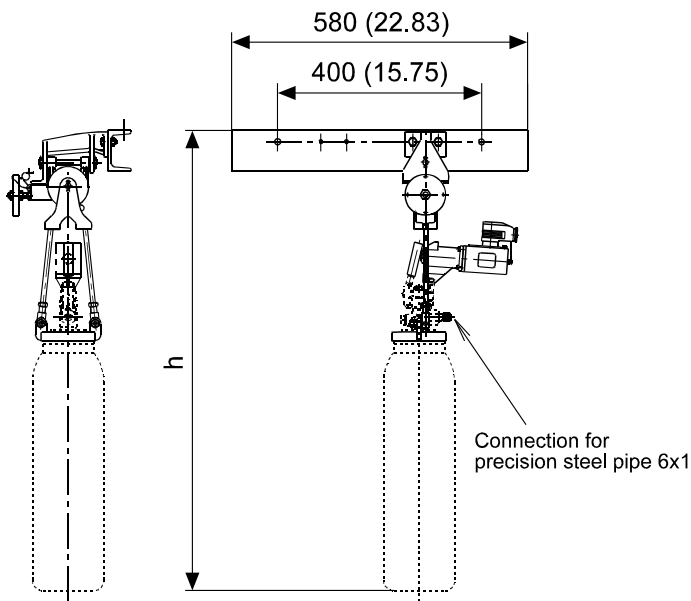


Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂
electrical without protective cover, DOT FM/UL

Dimension drawing
Dimensions in mm (inch)



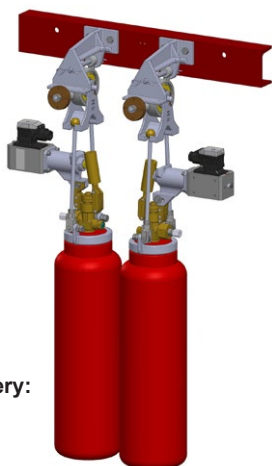
| PAE | h approx. |
|--------|--------------|
| 6.8 kg | 1335 (52.6) |



Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr. without protective cover, with reserve, DOT FM/UL



Not included in delivery:
Cylinder with valve

Fastening material not shown

Approvals



1) Part of the system approval (VSN 200 und VSN 1230)

2) Listed system covered by:
UL-File EX6388 (CO₂) and UL-File EX26532 (Ar, VSN 200 and VSN 1230)

SAP designation

part no. 911752: PAE-CO₂-EM-6,8kg reserve DOT FM/UL

Maintenance

see operating instruction PAE-CO₂ part no. 885374

| Designation | Part no. ³⁾ | Amount filled | Weight approx. |
|--|------------------------|-------------------|-----------------|
| Pneumatic release device PAE - CO ₂ electrical without protective cover, with reserve DOT FM/UL | 911756 | 6.8 kg (15.0 lbs) | 57 kg (126 lbs) |

³⁾ Cylinder with valve are not included in delivery

Caution: It is not allowed to transport filled steel cylinder (DOT) in Europe

Technical data

Operating mediumCO₂ - gaseous
Working pressure140 bar (2030 psi)
Test pressure210 bar (3045 psi)
Pilot cylinder volume10.7 l (2.83 US.liq.gal)
Thread connectionfor precision steel pipe 6x1

Product sheets also applying

Weighing device WE4see ad-on part cylinder
Weight for weighing device 0.16 kg / 0.3 kg ...see ad-on part cylinder
Release device EM 24 V DCsee control device
Lever - cylinder valve EM releasesee control device

Application

The release device PAE electrical must only be used in accordance with system approval in stationary carbon dioxide, argon, nitrogen, VSN 200 and VSN 1230 fire extinguishing systems. The release device PAE provides all pneumatic system parts with carbon dioxide (CO₂) as work medium and is used to activate:

- Cylinder batteries
- Selector valves
- Pneumatic control elements and alarm components (makrofon)
- Pneumatic door closing devices
- Pneumatic pressure relief dampers.

Functional description

The activation of the release device PAE occurs electrically (release device EM). Thus the toggle valve on the pilot cylinder is opened and the carbon dioxide (CO₂) flows through the connected pipe assembly respectively the hose to the pneumatic system components of the fire extinguishing system. The release device PAE has a reserve cylinder. The entire release device PAE is fastened onto a bearing structural element via a U-profile.

Note

Each PAE has to be installed complete with protective cover only. Exception: If an additional protecting guard is provided (for example enclosure).

Included in delivery

PAE - CO₂ EM DOT FM/UL 6.8 kg911754
Adapter connection NPT911762
Operating instruction PAE-CO₂ part no. 885374
as well as fastenings

Not included in delivery

Cylinder with valve 10.7 l:

- CO₂ - Cylinder DOT - UL
Pre-assembled connection pipesee operating instruction PAE
Support weighing device PAE886350, see mounting accessories
Reset tool885530, see control device
Monitoring loss pneum. actuation device888998, see monitoring device
Monitoring for release device EM885740, see monitoring device



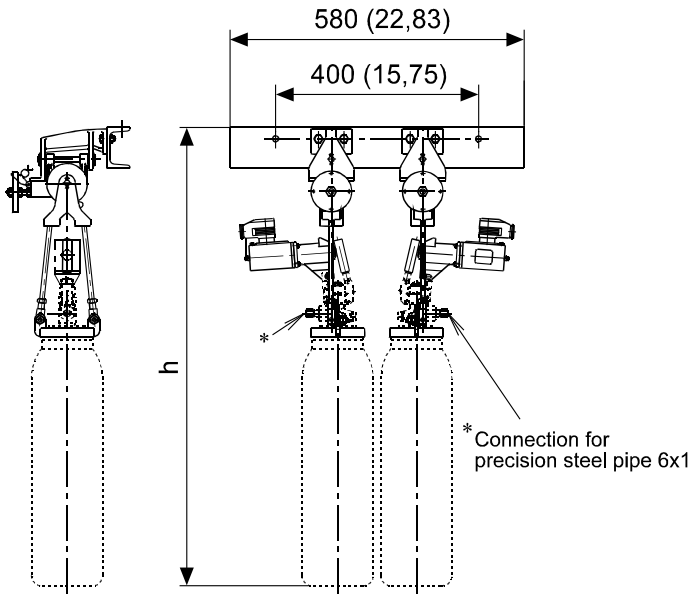
Extinguishing technology CO₂ HP

Control device CO₂ HP components

Pneumatic release device PAE - CO₂ electr.
without protective cover, with reserve, DOT FM/UL

Dimension drawing

Dimensions in mm (inch)



| PAE | h approx. |
|--------|--------------|
| 6.8 kg | 1335 (52.6) |



Extinguishing technology Halocarbon agents

Monitoring device Halocarbon agents

Contact pressure gauge VSN 1230/200

Approvals



G309005



0786-CPD-30095

SAP designation

e.g. part no. 888604: Contact pressure gauge 40bar / 22.5 (NC)

Maintenance

functional check within the framework of system-specific functional test

Spare parts

- O-ring part no. 888023
- Supporting ring O-ring part no. 888024

| Nominal pressure at 20 °C (68 °F) bar (psi) | Switching mode ²⁾ | Part no. | Pressure range / switching point bar (psi) | Max. operating pressure at 50 °C (122 °F) bar (psi) | Tolerance acc. to EN 12094-10 bar (psi) | Weight kg (lbs) |
|---|------------------------------|----------|--|---|---|--------------------|
| 25 (363) | break contact (NC) | 888604 | 40 / 22.5 (580 / 326) | 35 (508) | ± 0.9 (± 13) | 0.17 (0.37) |
| 42 (609) | | 888606 | 60 / 38 (870 / 551) | 53 (767) | ± 1.3 (± 19) | 0.16 (0.35) |
| 50 (725) | | 888607 | 60 / 45 (870 / 653) | 60 (870) | ± 1.3 (± 19) | 0.16 (0.35) |
| 25 (363) | make contact (NO) | 888608 | 40 / 22.5 (580 / 326) | 35 (508) | ± 0.9 (± 13) | 0.17 (0.37) |
| 42 (609) | | 888610 | 60 / 38 (870 / 551) | 53 (767) | ± 1.3 (± 19) | 0.16 (0.35) |
| 50 (725) | | 888611 | 60 / 45 (870 / 653) | 60 (870) | ± 1.3 (± 19) | 0.17 (0.37) |
| Caution special type: Contact pressure gauge without VdS system approval for VSN 200/1230 fire extinguishing system | | | | | | |
| 42 (609) | break contact (NC) | 888605 | 60 / 36 (870 / 522) | 53 (767) | ± 1.3 (± 19) | 0.16 (0.35) |
| | make contact (NO) | 888609 | | | | 0.17 (0.37) |

¹⁾ The pressure gauge may be used only in the temperature range from +5 °C to +25 °C (41 °F to 77 °F) at the side of the extinguishing agent cylinders to be monitored.

²⁾ Note switching mode

Break contact (NC) - pressureless closed:

At nominal pressure the contact is opened. Contact makes with falling pressure or anticlockwise pointer motion.

Make contact (NO) - pressureless opened:

At nominal pressure the contact is closed. Contact breaks with falling pressure or anticlockwise pointer motion.

³⁾ Note for temperature ranges

Observe a working temperature from +5 °C to +25 °C (41 °F to 77 °F) to receive an indication of loss of extinguishing agent in accordance with VdS / CE.

The mechanical, electrical function of the contact pressure gauge is guaranteed within the product temperature ranges from -40 °C up to +60 °C (-40 °F to 140 °F).

Technical data

TypePGS 21.050
 Pressure mediumFK-5-1-12, HFC-227ea
 Nominal size50
 Accuracy class1.6
 Temperature ranges: ³⁾
 Working temperature+5 °C to +25 °C (41 °F to 77 °F)
 Product temperature, storage temperature:
-40 °C to +60 °C (-40 °F to 140 °F)
measuring medium max. +60 °C (140 °F)
 IP codeIP65 with mounted cable
 Measuring network, motion workcopper alloy
 Directives, Standards ..EN837-1, VdS CEA 4030, EN 12094-10
 CE conformityacc. to Construction Products Regulation (EU)
No. 305/2011

Marking

manufacturer code (WIK), bar, accuracy class (1,6), type designation (PGS 21.050), switch pressure via set point on dial, year (WW YY), approval sign (VdS, CE)



Extinguishing technology Halocarbon agents

Monitoring device Halocarbon agents

Contact pressure gauge VSN 1230/200

Electrical data

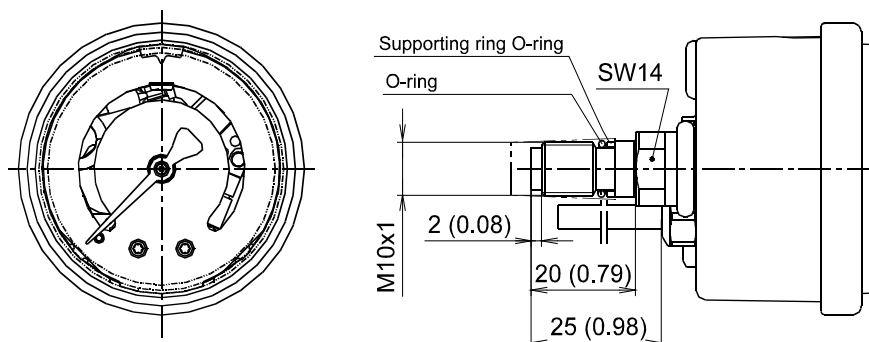
Switching voltage4.5 – 24 V DC / VAC
 Switching current5 – 100 mA
 Contact loadmax. 3 W, dry contact
 Conducting wiretwo-core, 100 cm (39.37")
 Cross-section of conducting wire ...0.14 mm² (0.000217 square inch),
AWG 26

Design of instrument dial

Materialaluminium, white
 Scaledual scale (bar / psi)
 Indicating range0 to pressure range
 Indicating range marked:
 - in red0 to switching point
 - in greenswitching point to max. working pressure
at 50 °C (122 °F)

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Monitoring device Halocarbon agents

Contact pressure gauge UL, VSN 200



Approvals



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 889306: Contact pressure gauge UL 725 (50) psi (bar) / 324 (22.5) NO HFC-227ea

Maintenance

functional check within the framework of system-specific functional test

Spare parts

- O-ring part no. 888023
- Supporting ring O-ring part no. 888024

| Nominal pressure at 70 °F (21 °C) psi (bar) | Switching mode ³⁾ | Part no. | Pressure range / switching point psi (bar) | max. Pressure psi (bar) | Tolerance acc. to UL / ULC psi (bar) | Weight kg (lbs) |
|---|------------------------------|----------|--|-------------------------------|---|--------------------|
| 360 (25) | break contact (NC) | 889311 | 870 / 324 (60 / 22.5) | 725 (50) | ± 19 (± 1.3) | 0.17 (0.37) |
| 610 (42) | | 889312 | 1160 / 549 (80 / 37.8) | 1015 (70) | ± 21 (± 1.4) | |
| 725 (50) | | 889313 | 1450 / 653 (100 / 45) | 1160 (80) | ± 23 (± 1.5) | |
| 360 (25) | make contact (NO) | 889306 | 870 / 324 (60 / 22.5) | 725 (50) | ± 19 (± 1.3) | |
| 610 (42) | | 889307 | 1160 / 549 (80 / 37.8) | 1015 (70) | ± 21 (± 1.4) | |
| 725 (50) | | 889309 | 1450 / 653 (100 / 45) | 1160 (80) | ± 23 (± 1.5) | |

³⁾ Note switching mode

Break contact (NC) - pressureless closed:
At nominal pressure the contact is opened. Contact makes with falling pressure or anticlockwise pointer motion.

Make contact (NO) - pressureless opened:
At nominal pressure the contact is closed. Contact breaks with falling pressure or anticlockwise pointer motion.

⁴⁾ Note for temperature range

The switching point of the integrated electric pressure switch is designed for the nominal system pressure minus 10 % at 20 °C.

Due to the temperature related pressure drop, this switching value is also achieved for systems without pressure loss if the ambient temperature falls below 5 °C.

We therefore recommend using the integrated electric pressure switch to monitor the system pressure only at temperatures > 5 °C.

Technical data

Pressure mediumHFC-227ea, N₂
Nominal size50
Accuracy class1.6
Working temperature electrical switching functionsee note ⁴⁾
Temperature range: ⁴⁾
Product temperature, storage temperature:
.....-40 °C to +60 °C (-40 °F to +140 °F)
.....measuring medium max. +60 °C (+140 °F)
IP codeIP65 with mounted cable
Measuring network, motion workcopper alloy

Electrical data

Switching voltage4.5 – 24 V DC / VAC
Switching current5 – 100 mA
Contact loadmax. 3 W, dry contact
Conducting wiretwo-core, 100 cm (39.37")
Cross-section of conducting wire ...0.14 mm² (0.000217 square inch),
.....AWG 26



Extinguishing technology Halocarbon agents

Monitoring device Halocarbon agents

Contact pressure gauge UL, VSN 200

Design of instrument dial

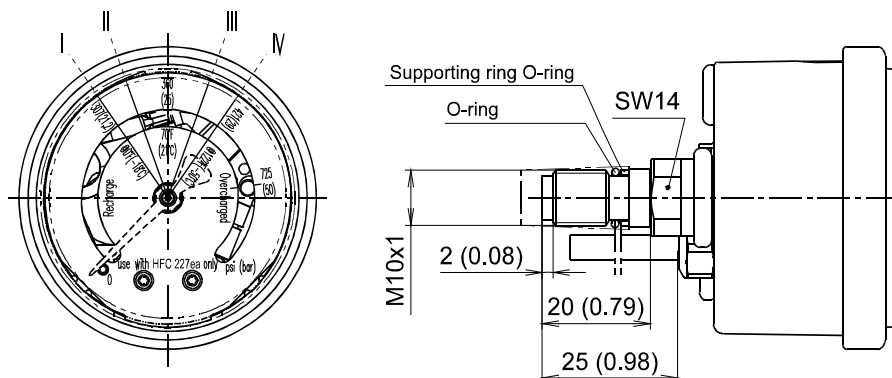
Design of instrument dialaccording to UL 2166
 Materialaluminium, white
 Scaledual scale (bar / psi)
 Indicating range0 to pressure range

Indicating range marked:

- 0 to IRecharge
 - I to IIred
 - II to IIIgreen
 - III to IVred
 - IV to max.Overcharged

Dimension drawing

Dimensions in mm (inch)



Indicating range marked

| Nominal pressure at 70 °F (21 °C) psi (bar) | Red area I to II | Green area II to III | Red area III to IV | Marking at nominal pressure | Marking at I | Marking at IV |
|---|------------------|----------------------|--------------------|-----------------------------|-----------------------|------------------------|
| 360 (25) | 290-324 | 324-396 | 396-493 | 360 I (25) 70°F I (21°C) | 290 (20) @0°F (-18°C) | 493 (34) @122°F (50°C) |
| 610 (42) | 480-549 | 549-671 | 671-767 | 610 I (42) 70°F I (21°C) | 480 (33) @0°F (-18°C) | 767 (53) @122°F (50°C) |
| 725 (50) | 587-653 | 653-798 | 798-864 | 725 I (50) 70°F I (21°C) | 587 (40) @0°F (-18°C) | 864 (60) @122°F (50°C) |



Extinguishing technology Halocarbon agents

Monitoring device Halocarbon agents

Pressure gauge UL, VSN 200



Approvals



1) Listed system covered by UL-file EX26532 (VSN 200 and VSN 1230)

2) Part of the system approval

SAP designation

e.g. part no. 912100: Pressure gauge UL 725 (50) psi (bar)
HFC-227ea

Maintenance

functional check within the framework of system-specific
functional test

Spare parts

- O-ring part no. 888023
- Supporting ring O-ring part no. 888024

| Nominal pressure at 70 °F (21 °C) psi (bar) | Part no. | Pressure range psi (bar) | max. Pressure psi (bar) | Weight kg (lbs) |
|---|----------|-----------------------------|-------------------------------|--------------------|
| 360 (25) | 912100 | 870 (60) | 725 (50) | 0.15 (0.33) |
| 610 (42) | 912101 | 1160 (80) | 1015 (70) | |
| 725 (50) | 912102 | 1450 (100) | 1160 (80) | |

Technical data

Pressure mediumHFC-227ea
Nominal size50
Accuracy class1.6
Temperature ranges-40 °C to +60 °C (-40 °F to 140 °F)
.....measuring medium max. +60 °C (140 °F)
Measuring network, motion workcopper alloy

Design of instrument dial

Design of instrument dialaccording to UL 2166
Materialaluminium, white
Scaledual scale (bar / psi)
Indicating range marked:
- 0 to IRecharge
- I to IIred
- II to IIIgreen
- III to IVred
- IV to max.Overcharged



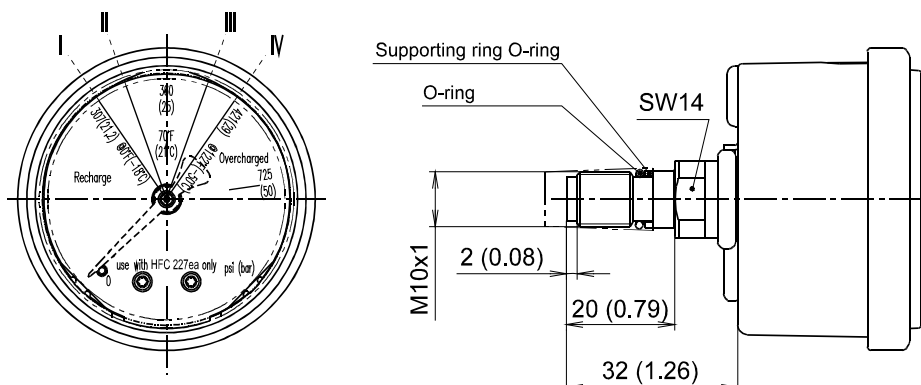
Extinguishing technology Halocarbon agents

Monitoring device Halocarbon agents

Pressure gauge UL, VSN 200

Dimension drawing

Dimensions in mm (inch)



Indicating range marked

| Nominal pressure at 70 °F (21 °C) psi (bar) | Red area I to II | Green area II to III | Red area III to IV | Marking at nominal pressure | Marking at I | Marking at IV |
|---|---------------------|-------------------------|-----------------------|--------------------------------|-----------------------|------------------------|
| 360 (25) | 290-324 | 324-396 | 396-493 | 360 I (25) 70°F I (21°C) | 290 (20) @0°F (-18°C) | 493 (34) @122°F (50°C) |
| 610 (42) | 480-549 | 549-671 | 671-767 | 610 I (42) 70°F I (21°C) | 480 (33) @0°F (-18°C) | 767 (53) @122°F (50°C) |
| 725 (50) | 587-653 | 653-798 | 798-864 | 725 I (50) 70°F I (21°C) | 587 (40) @0°F (-18°C) | 864 (60) @122°F (50°C) |



Inert gas extinguishing technology

Monitoring device

Limit switch ZS 256-11z



Approvals



1) Listed system covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

2) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 828482: Limit switch ZS 256-11Z-M20-2219

Maintenance

Functional check during the maintenance intervals specific to the fire extinguishing system, but at least annually.

| Designation | Part no. | Weight |
|-------------------------|----------|-------------------|
| Limit switch ZS 256-11z | 828482 | 0.14 kg (0.2 lbs) |

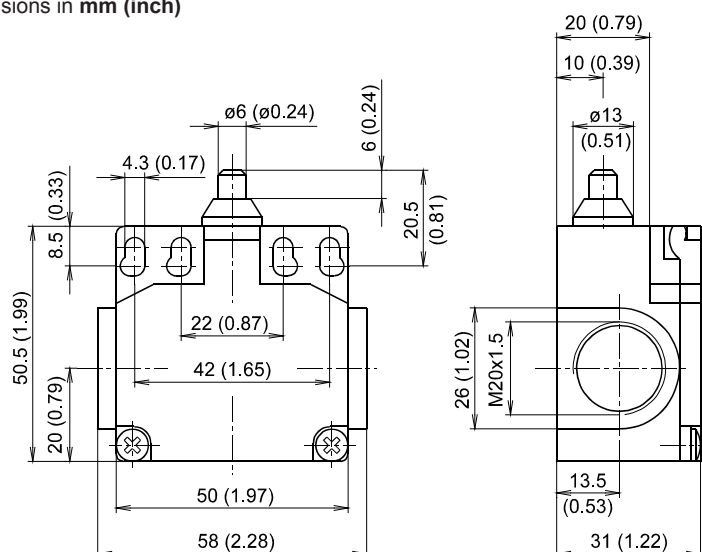
Technical data

Type ZS 256-11z-M20-2219
 Housing thermopl. glass fiber concentrated, self-quenching
 IP code IP67
 Contact material silver
 Contacts 1 NC, 1 NO
 galvanically isolated contact bridges
 Operating temperature -30 °C to +80 °C (-22 °F to 176 °F)
 Switch system spring control with
 twofold brake contacts, forced opener

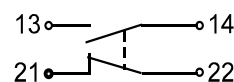
Nominal isolation voltage 500 V
 Permanent current 10 A
 Nominal operation current / voltage 4 A (230 V AC);
 2,5 A (400 V AC); 1 A (500 V AC)
 Short-circuit protection 10 A slow blow, 16 A quick blow
 Actuation force min. 9 N
 Mechn. durability 20x10⁶ switching cycles
 Operation speed max. 1 m/s, min. 0,01 m/s
 Time on in percent max. 5000 / h

Dimension drawing

Dimensions in mm (inch)



Circuit diagram:





Inert gas extinguishing technology

Monitoring device

Limit switch Typ US 432y, 2 contacts



Approvals



¹⁾ Listed system covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

²⁾ Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 724420: Limit switch US 432Y-M20-2352 2 contacts

Maintenance

see mounting and wiring instructions of the manufacturer

| Designation | Part no. | Weight |
|---------------------------------------|----------|--------------------|
| Limit switch type US 432y, 2 contacts | 724420 | 0.31 kg (0.68 lbs) |

Technical data

TypeUS 432y-M20-2352
 Housingalloy die-cast metal, chrome dulled and varnished
 IP codeIP65
 Contact materialsilver
 Switch systemslow action
with twofold brake contacts
 Ambient temperature-20 °C to +60 °C (-4 °F to 140 °F)
 Nominal isolation voltage500 V
 Permanent current16 A
 Nominal operation current6 A, 400 V AC
 Short-circuit protection16 A slow blow, 20 A quick blow

Actuation forcemax. 7 N
 (efficiency of the switch way)
 Operation speedmax. 1 m/s, min. 0.001 m/s
 Time on in percent.....max. 3000 / h
 Mechn. durability10x10⁶ switching cycles
 Contact spud durability2x10⁶ switching cycles
at 6 A / 400 V AC, cos φ = 0.4

Application

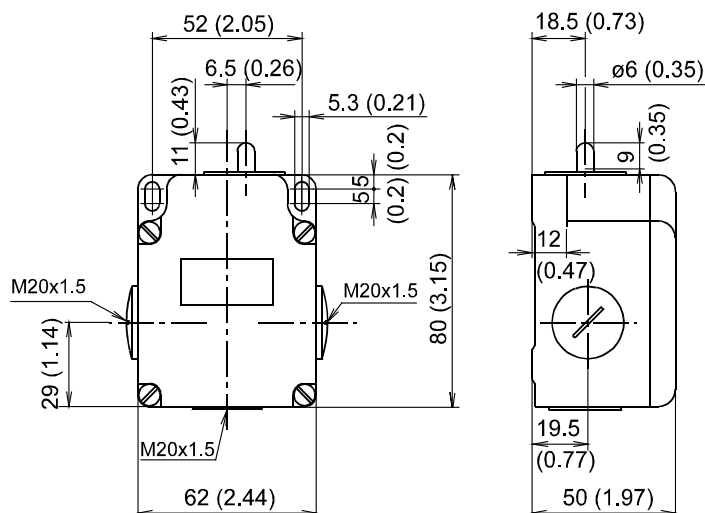
limit switch pneum. operated, manifold set, selector valve

Included in delivery

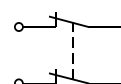
Limit switch type US 432y with mounting and wiring instructions

Dimension drawing

Dimensions in mm (inch)



Wiring diagram



contacts shown not operated

changing of the contact type from NC to NO contact and vice versa is adjustable

note: actuate limit switch axially



Inert gas extinguishing technology

Monitoring device

Limit switch US 434y, 4 contacts



Approvals

without approval

SAP designation

part no. 224831: Limit switch US 434Y-M20-2352 4 contacts

Maintenance

see mounting and wiring instructions of the manufacturer

| Designation | Part no. | Weight |
|----------------------------------|----------|--------------------|
| Limit switch US 434y, 4 contacts | 224831 | 0.42 kg (0.93 lbs) |

Technical data

TypeUS 434y-M20-2352
Housingalloy die-cast metal, chrome dulled and varnished
IPcodeIP65
Contact materialsilver
Switch systemslow action
.....with twofold brake contacts
Ambient temperature-20 °C to +60 °C (-4 °F to 140 °F)
Nominal isolation voltage500 V
Permanent current16 A
Nominal operation current6 A, 400 V AC
Short-circuit protection16 A slow blow, 20 A quick blow

Actuation forcemax. 100 N
(efficiency of the switch way)
Operation speedmax. 1 m/s, min. 0.001 m/s
Time on in percent.....max. 3000 / h
Mechn. durability10x10⁶ switching cycles
Contact spud durability2x10⁶ switching cycles
.....at 6 A / 400 V AC, cos φ = 0.4

Application

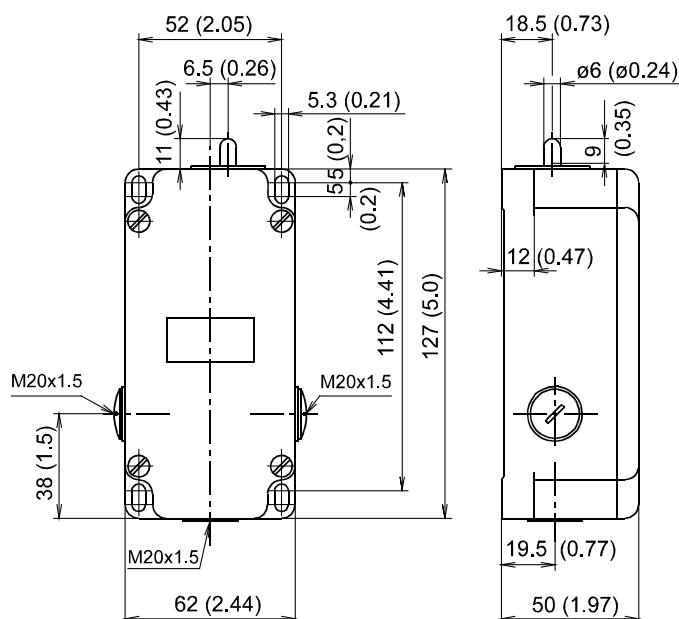
limit switch pneum. operated, manifold set, selector valve

Included in delivery

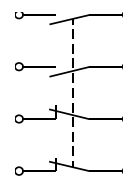
Limit switch US 434y with mounting and wiring instructions

Dimension drawing

Dimensions in mm (inch)



Wiring diagram



contacts shown not operated

changing of the contact type from
NC to NO contact and vice versa is
adjustable

Note: actuate limit switch axially



Inert gas extinguishing technology

Monitoring device

Monitoring release device EM



Approvals



¹⁾ Listed system covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)

²⁾ Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 885740: EM-release supervision

Maintenance

see product information monitoring EM-release
part no. 885742

| Designation | Part no. | Weight |
|------------------------------|----------|-------------------|
| Monitoring release device EM | 885740 | 0.09 kg (0.2 lbs) |

Application

The monitoring release device EM may be used only in accordance with system approval in stationary CO₂, argon and nitrogen fire extinguishing systems.

Function description

The monitoring EM-release device is used for electrical monitoring of the EM-release incl. cylinder valve lever in operation.

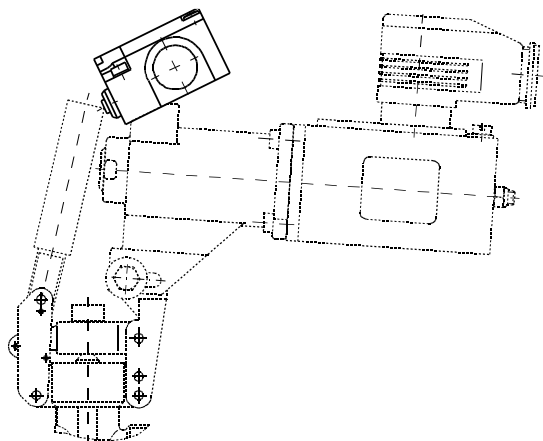
Product sheets also applying

Limit switch ZS 256-11zsee monitoring device

Included in delivery

Limit switch ZS 256-11z828482, see monitoring device
2x Cheese-head screw ISO4762-M4x25-8.8-A2E917743
2x Washer DIN125-A 4.3-St-gal. Zn896019
Product information monitoring EM-release885742

Installations example





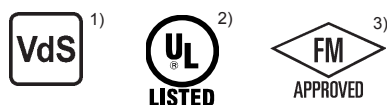
Inert gas extinguishing technology

Monitoring device

Limit switch pneum. operated



Approvals



- 1) Part of the system approval:
- Oxeo inert gas extinguishing system HD200 (S315011) / HD300 (S315010)
 - Oxeo inert gas extinguishing system with ConstantFlow HD200 (S315012)
 - Oxeo inert gas extinguishing system with ConstantFlow HD300 (S315013)
 - Oxeo inert gas exting. system with ConstantFlow HD300-LCP (S316006)
 - CO₂ extinguishing system HD-1 (S398010) / HD-2 (S398011)
 - CO₂ extinguishing system ND-1 (S398012), electrical release
 - CO₂ extinguishing system ND-2 (S398013), non-electrical release
 - Oxeo Nitrogen low pressure extinguishing system (S310016)
- 2) Listed system covered by UL-File EX26532 (Ar, VSN 200 and VSN 1230)
- 3) Part of the system approval (VSN 200 and VSN 1230)

SAP designation

part no. 826758: Limit switch pneum. operated

Maintenance

Functional check during the maintenance intervals specific to the fire extinguishing system, but at least annually.

| Designation | Part no. | Weight |
|------------------------------|----------|-------------------|
| Limit switch pneum. operated | 826758 | 1.5 kg (3.31 lbs) |

Application

The limit switch pneum. operated may only be used in accordance with system approval in stationary CO₂, argon and nitrogen fire extinguishing systems.

Function description

In case of fire the selector valve is released and the extinguishing line is flooded. The presence of pressure actuates the cylinder, which in turn opens or closes the floating contacts of the limit switch depending on how the contacts are set (make or break).

Product sheets also applying

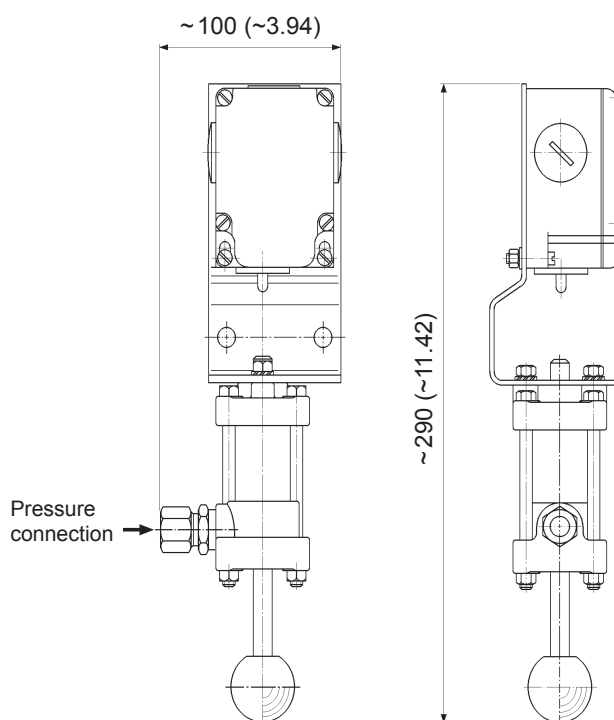
Cylinder ø25 x H30see control device
Limit switch US 432ysee monitoring device

Included in delivery

Cylinder ø25 x H30227303, see control device
Limit switch type US 432y724420, see monitoring device
Support limit switch pneum. activated827866
Union GE 6-PSR-EDA3C125578, M1-11-01
2x Cheese-head screw DIN84-M5x25-Ms106915
2x Hex. nut DIN934-M5-Ms108444
2x Washer DIN125-B-5,3-Ms109771
Technical description limit switch pneumatic827740
as well as fastening material

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology CO₂ HP

Monitoring device CO₂

Monitoring loss pneumatic activation device PAE

Approvals

without approval



SAP designation

part no. 888998: Monitoring loss pneumatic activation

Maintenance

see technical description monitoring loss pneumatic activation device part no. 888999

| Designation | Part no. | Weight |
|---|----------|--------------------|
| Monitoring loss pneumatic activation device PAE | 888998 | 0.20 kg (0.44 lbs) |

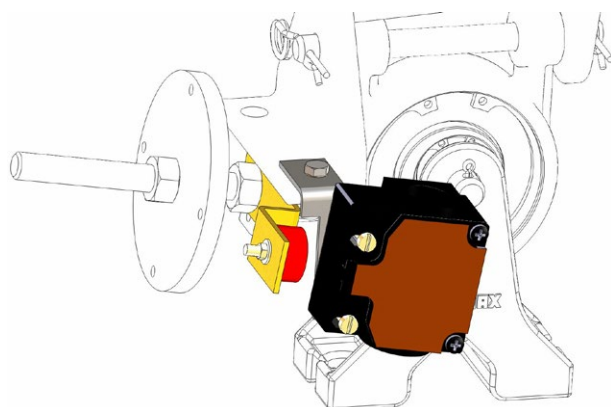
Application

The monitoring loss pneumatic activation device may only be used in accordance with system approval in stationary CO₂-, argon- and nitrogen fire extinguishing systems. It facilitates monitoring of the permissible loss (5% - 10% supply per control cylinder). If the permissible margin of loss is exceeded the beam weight falls and actuates a reed contact limit switch. The limit switch sends a fault message to the monitoring control panel and the fault is indicated locally via LED.

Included in delivery

Reed contact limit switch886343, see monitoring device
Magnet bracket for ÜWA loss PAE876875
Bracket limit switch monitoring loss PAE WE4888986
Technical description monitoring loss
pneumatic activation device888999
as well as screws, nuts and washers

Mounting example



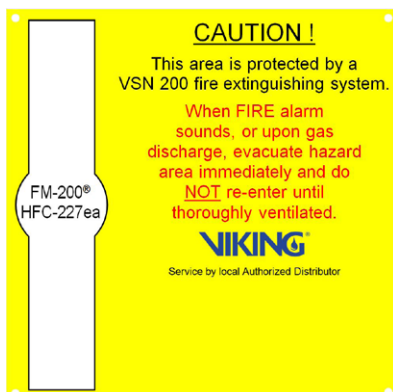


Extinguishing technology Halocarbon agents

Accessories Halocarbon agents

Labels VSN 200

Caution! ...



Approvals

no approval required

SAP designation

e.g. part no. 915479: Sign VSN200 Caution! This area is protected by a VSN 200 fire extinguishing system Alu 210x210

Maintenance

maintenance-free

| Text | Part no. | Weight |
|--|----------|--------------------|
| CAUTION! This area is protected by a VSN 200 fire extinguishing system. | 915479 | 0.12 kg (0.26 lbs) |
| CAUTION! Do <u>NOT</u> enter unless automatic release is isolated. | 915480 | |
| CAUTION! Do <u>NOT</u> enter unless isolate valve is in the closed position. | 915481 | |

Technical data

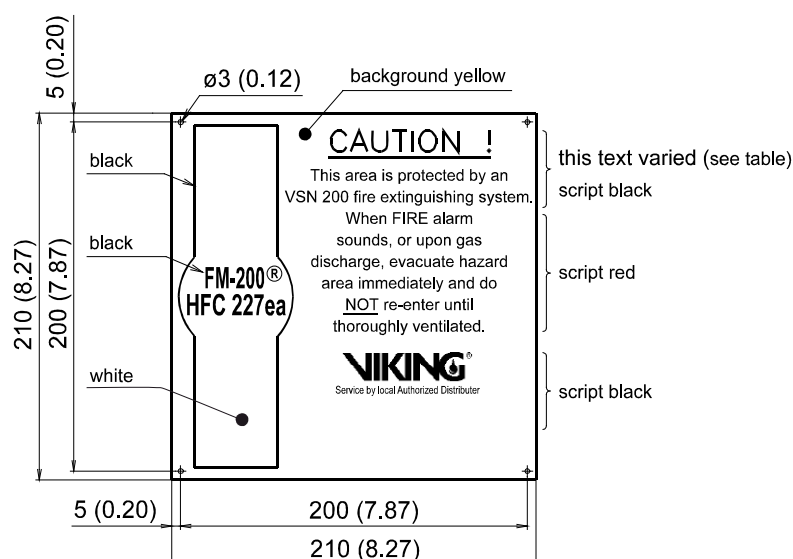
Materialaluminium plate 1 mm (0.04") thickness
 Script typeHelvetica medium face
 Company logoRAL 5002 - blue

Not included in delivery

Fastening material

Dimension drawing

Dimensions in mm (inch)





Extinguishing technology Halocarbon agents

Mounting accessories Halocarbon agents

Toolkit VSN 1230/200



Approvals

no approval required

SAP designation

e.g. part no. 910907: Toolkit VSN 200 / 1230 compl.

Maintenance

see product information:

- Toolkit VSN 1230/200 compl. part no. 912237
- Test device service part no. 888622

Spare parts

Sensor tip for leak detector part no. 912094

(has to be replaced after 20 operating hours of the leak detector)

| Designation | Part no. | Weight |
|------------------------------------|----------|---------------------|
| Toolkit VSN 1230/200 | 910907 | 4.89 kg (10.77 lbs) |
| Optional tools | | |
| Test device service pressure gauge | 888051 | 0.65 kg (1.43 lbs) |
| Leak detector for halogens | 910851 | 0.52 kg (1.15 lbs) |

Technical data

Dimensions B x H x Tapprox. 460 x 105 x 370 mm

.....(18,1" x 4,1" x 14,6")

Materialpolypropylene

Application

Tollkit special prepared for installation and service of VSN 1230/200 systems

Content toolkit VSN 1230/200

- Torque wrench 9x12 5-50 Nm
- Pin type face wrench 35x3.9 for nozzles CD 1 ¼ - 1 ½
- Pin type face wrench 20x2.9 for nozzles CD ½ - 1
- Pin wrench adjustable D = 5 mm
- 2x Combination wrench 14 mm
- Combination T-L-Shapes wrench hex 4 mm
- Combination wrench 10 mm
- 5x Plug for pressure gauge outlet VSN 200
- 5x Plug for pilot connection G1/8 VSN 200
- 5x Adapter M12x1.5 – G1/8 VSN 200
- Insert open end wrench 9x12 10 mm
- Open end wrench 41 mm aluminum complete
- Screwdriver Pozidriv PZ1
- Insert open end wrench 9x12 14 mm
- Combination T-L-Shapes wrench hex 3 mm
- Socket 1/2" 8 mm Hex Bit / long
- Ratchet insert tool 9x12 ½"
- Tool for 2 hole nut 20x2.9 complete
- Tool for 2 hole nut 35x3.9 complete
- Insert open end wrench 9x12 46 mm complete
- Socket ½" 17 mm hexagon
- Insert open end wrench 9x12 50 mm complete
- Reset tool release device EM
- Screw reset tool VSN 200
- Mounting aid O-/supporting ring pressure gauge
- 10x Supporting ring O-ring pressure gauge VSN200
- 10x O-Ring pressure gauge VSN200

Optional tools

- (1) Test device service pressure gauge
- (2) Leak detector for halogens with sensor tip
- (3)





Extinguishing technology Halocarbon agents

Mounting accessories Halocarbon agents

Screw reset tool VSN 1230/200

Approvals

no approval required



SAP designation

part no. 887645: Screw reset tool VSN 200

Maintenance

maintenance-free

| Designation | Part no. | Weight |
|-------------------------------|----------|--------------------|
| Screw reset tool VSN 1230/200 | 887645 | 0.39 kg (0.86 lbs) |

Technical data

Werkstoffbrass

Application

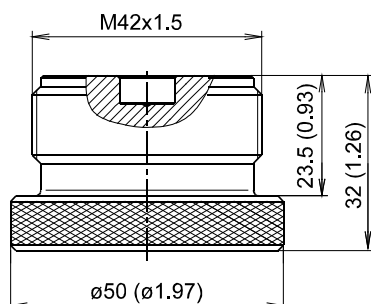
The screw reset tool VSN 1230/200 functions as tool to reset the electrical release device and the electrical release device with mechanical blocking device after a release took place - also during maintenance.

Caution

The assembly of a released release device on the cylinder valve leads to the opening and emptying of the cylinders.

Dimension drawing

Dimensions in mm (inch)



Reset note

For reset the screw reset tool (2) is screwed in by hand as far as stop onto the electrical release device (1).

After removing this screw the pin must be in the not activated position.

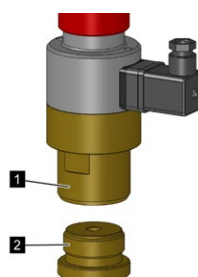


Figure 1:
Resetting release pin

Position of the release pin

With the release pin (1) in the position "activated" (= released) a red marking (2) is visible at the release pin and the pin protrudes approx. 3 mm more as in "not activated" position:

Position "not activated": the pin protrudes approx. 5,5 mm

Position "activated": the pin protrudes approx. 8,1 mm.

On each electrical release device is a label on which this is shown.

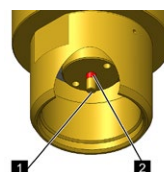


Figure 2:
Position release pin "activated"



Extinguishing technology CO₂ HP

Assembly accessories CO₂

Support weighing device PAE

Approvals

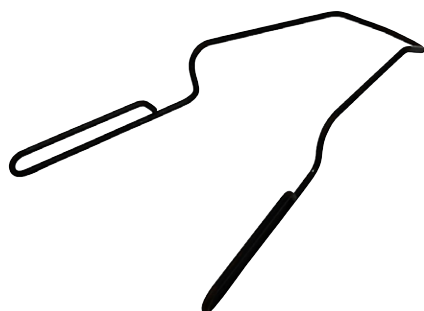
no approval required

SAP designation

part no. 886350: Support weighing device PAE

Maintenance

maintenance-free



| Designation | Part no. | Weight |
|-----------------------------|----------|--------------------|
| Support weighing device PAE | 886350 | 0.02 kg (0.04 lbs) |

Technical data

Materialspring wire, EN 10270-1-2,5 Z

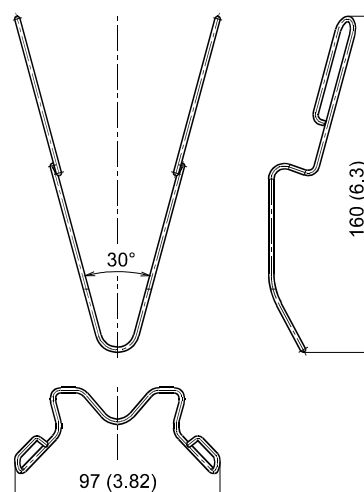
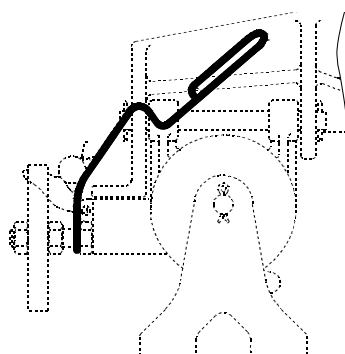
Dimension drawing

Dimensions in mm (inch)

Application

- Ease of assembling / disassembling of the pilot cylinder (PAE) resp. extinguishing agent cylinder (one-cylinder system)
- Prevention of loss indication during cylinder assembling / cylinder disassembling

Mounting example





Pipe element (Special)

Welding fitting and flange

Welding neck flange DIN 2638 - PN160



SAP designation

part no. 786592: Flange DIN2638-E65x76,1-C22.8

Maintenance

Visual check during the maintenance intervals specific to the fire extinguishing system, but at least annually.

| Designation | DN | Part no. | Weight kg (lbs) |
|-------------------------------------|-----|----------|--------------------|
| Welding neck flange DIN2638 - PN160 | 65 | 786592 | 8.4 (18.5) |
| | 80 | 810618 | 9.8 (21.6) |
| | 100 | 888963 | 14.8 (32.6) |

Technical Data

Welding neck flange.....acc. to DIN2638 - PN160 (2320 psi)

Flange connection.....acc. to DIN2501 - PN160 (2320 psi)

MaterialC22.8

all assemblies with test certificate acc. to DIN EN 10204 - 3.1

Note

Flanges without protective varnish and without coating.

Welded joints

Electrode TK 2,5759873

Electrode TK 3,25759885

Application

Welding neck flange DIN 2638 - PN160 for flange connection in:

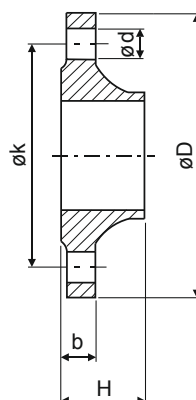
- CO₂- high pressure fire extinguishing systems
- Argon-, Nitrogen-, IG-55-, IG-541- fire extinguishing systems with ConstantFlow (CF)
- Halocarbon fire extinguishing systems

Not included in delivery

hex. screws, hex. nuts and gasket see selection table

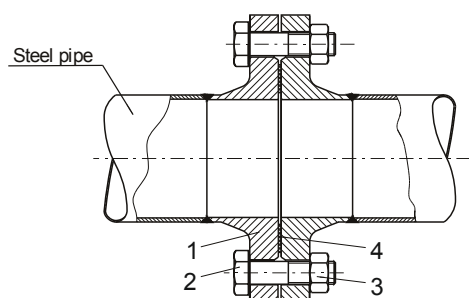
Dimension drawing

Dimensions in mm



| DN | ØD | Ød | b | PN160 | | | Screws |
|-----|-----|----|----|-------|-----|--|---------|
| | | | | ØK | H | | |
| 65 | 220 | 26 | 34 | 170 | 82 | | 8 x M24 |
| 80 | 230 | 26 | 36 | 180 | 86 | | 8 x M24 |
| 100 | 265 | 30 | 40 | 210 | 100 | | 8 x M27 |

Selection table flange connections PN160



| Pos. | 1 | 2 | 3 | 4 |
|------|----------------------------|---------------------|--------------------|-----------------|
| DN | Flange DIN2638 | Hex. srew DIN931 | Hex. nut DIN934 | Gasket PN160 |
| 65 | 786592 E65x76,1-C22.8 | 789556 M24 x 100 | 786610 M24 | 773647 C4400 |
| 80 | 810618 E80x88,8-C22.8 | | | 773659 C4400 |
| 100 | 888963 E100x114,3-C22.8 | 888959 M27 x 130 | 810680 M27 | 773684 C4400 |



Pipe element (Special)

Pipe threaded connection

Pipe threaded connection DN15 - 80



SAP designation

e.g. part no. 776685: Pipe 21,3x2,6 St37.0-B-90-2458

Maintenance

Functional check during the maintenance intervals specific to the fire extinguishing system, but at least annually.

| DN | Application | | | | | | | | | Part no. | Test pressure bar | Test certificate | Surface ¹⁾ | Colour coding |
|----|-------------|---|---|---|---|---|---|---|---|----------|-------------------|------------------|-----------------------|---------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 15 | • | | • | | | | | | | 776685 | 90 | 3.1 | B | blue |
| 15 | | | | • | | | | | | 840958 | 210 | 3.1 | B | orange |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 20 | • | | • | | | | | | | 776697 | 90 | 3.1 | B | blue |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 25 | • | • | | | | | | | | 872766 | 50 | 3.1 | A | gold |
| 25 | • | | • | | | | | | | 776703 | 90 | 3.1 | B | blue |
| 25 | | | | | • | | | | | 840983 | 210 | 3.1 | B | orange |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 32 | • | | • | | | | | | | 776715 | 90 | 3.1 | B | blue |
| 32 | • | • | | | | | | | | 872778 | 50 | 3.1 | A | gold |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 40 | • | • | | | | | | | | 872780 | 50 | 3.1 | A | gold |
| 40 | • | | • | | | | | | | 776727 | 90 | 3.1 | B | blue |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 50 | • | | • | | | | | | | 776739 | 90 | 3.1 | B | blue |
| 50 | | | | | • | | | | | 841057 | 210 | 3.1 | A | orange |
| 50 | | | | | • | | | | | 886346 | 210 | 3.1 | B | orange |
| 50 | | | | | | • | | | | 885208 | 353 | 3.1 | B | red |
| 50 | | | | | | | • | | | 886126 | 548 | 3.1 | B | purple |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 65 | • | | • | | | | | | | 776740 | 90 | 3.1 | B | blue |
| 65 | | | | | • | | | | | 857616 | 210 | 3.1 | A | orange |
| 65 | | | | | • | | | | | 886347 | 210 | 3.1 | B | orange |
| 65 | | | | | | • | | | | 885209 | 353 | 3.1 | B | red |
| 65 | | | | | | | • | | | 886124 | 548 | 3.1 | B | purple |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | |
| 80 | • | | • | | | | | | | 847874 | 90 | 3.1 | B | blue |
| 80 | • | • | | | | | | • | | 776788 | 50 | 3.1 | A | gold |
| 80 | | | • | | | | | | | 841148 | 90 | 3.1 | A | blue |

¹⁾ A = Steel pipe, black (blank)

B = Steel pipe, thermal galvanized

Application

1 = CO₂ LP system30 bar (435 psi)
 2 = CO₂ LP manifold socket30 bar (435 psi)
 3 = CO₂ HD / Ar / N₂ / IG-55 / IG-541 downsystem piping and
 Halocarbon / ConstantFlow (CF) system60 bar (870 psi)
 4 = CO₂ HP shipbuilding100 bar (1450 psi)





5 = CO₂ HP upstream piping140 bar (2031 psi)
 6 = Ar / N₂ / IG-55 / IG-541 - upstream piping235 bar (3408 psi)
 7 = Ar / N₂ / IG-55 / IG-541 -
 300 bar HP upstream piping365 bar (5294 psi)
 8 = CO₂ LP base manifold30 bar (435 psi)
 9 = CO₂ HP base manifold140 bar (2031 psi)








Pipe element (Special)

Fitting threaded connection

Fittings - type D, EN 10242 galvanized

| Designation | Feature | Part no. | Weight kg (lbs) |
|---|---------------------|----------|--------------------|
| Elbow A1  | 1/2 | 747921 | 0.09 (0.20) |
| | 3/4 | 747933 | 0.14 (0.31) |
| | 1 | 747945 | 0.19 (0.42) |
| | 1.1/4 | 747957 | 0.35 (0.77) |
| | 1.1/2 | 747969 | 0.38 (0.84) |
| | 2 | 747970 | 0.59 (1.30) |
| | 2 x 1 | 790307 | 0.54 (1.14) |
| | 2.1/2 | 757694 | 0.94 (2.07) |
| | 3 | 886833 | 1.63 (3.59) |
| Elbow A4-45°  | 1/2 | 886491 | 0.08 (0.18) |
| | | | |
| T B1  | 1/2 | 747982 | 0.12 (0.26) |
| | 3/4 | 747994 | 0.17 (0.37) |
| | 1 | 749516 | 0.30 (0.66) |
| | 1.1/4 | 749530 | 0.44 (0.97) |
| | 1.1/2 | 749577 | 0.50 (1.10) |
| | 2 | 749590 | 0.92 (2.03) |
| | 2.1/2 | 777422 | 1.56 (3.44) |
| | 3 | 886097 | 2.19 (4.83) |
| | 3/4 x 1/2 x 3/4 | 748007 | 0.15 (0.33) |
| | 1 x 1/2 x 1 | 888063 | 0.32 (0.71) |
| | 1 x 3/4 x 1 | 749528 | 0.26 (0.57) |
| | 1.1/4 x 3/4 x 1 | 749541 | 0.27 (0.60) |
| | 1.1/4 x 1/2 x 1.1/4 | 888064 | 0.40 (0.88) |
| | 1.1/4 x 3/4 x 1.1/4 | 749553 | 0.29 (0.64) |
| | 1.1/4 x 1 x 1.1/4 | 749565 | 0.33 (0.73) |
| | 1.1/2 x 1/2 x 1.1/2 | 888065 | 0.47 (1.04) |
| | 1.1/2 x 3/4 x 1.1/2 | 749589 | 0.36 (0.79) |
| | 2 x 1/2 x 2 | 888066 | 0.72 (1.59) |
| | 2 x 3/4 x 2 | 888068 | 0.70 (1.54) |
| | 2 x 1 x 2 | 749607 | 0.55 (1.21) |
| | 2 x 1.1/4 x 2 | 790186 | 0.61 (1.34) |
| | 2 x 1.1/2 x 2 | 790198 | 0.65 (1.43) |
| Plug T9  | 1/2 | 817984 | 0.05 (0.11) |
| | 1 | 818654 | 0.12 (0.26) |
| | 1.1/4 | 818666 | 0.20 (0.44) |
| | 1.1/2 | 818678 | 0.23 (0.51) |
| | 2 | 759800 | 0.37 (0.82) |



| Designation | Feature | Part no. | Weight kg (lbs) |
|---|---------------|----------|--------------------|
| Cap T1  | 1/2 | 749887 | 0.05 (0.11) |
| | 3/4 | 749899 | 0.08 (0.18) |
| | 1 | 749905 | 0.11 (0.24) |
| | 1.1/4 | 749917 | 0.17 (0.37) |
| | 1.1/2 | 749929 | 0.23 (0.51) |
| | 2 | 749930 | 0.38 (0.84) |
| | 2.1/2 | 757724 | 0.62 (1.37) |
| | 3 | 764800 | 0.84 (1.85) |
| Union U11  | 1/2 | 757669 | 0.22 (0.49) |
| | 3/4 | 749942 | 0.27 (0.6) |
| | 1 | 749954 | 0.36 (0.79) |
| | 1.1/4 | 749966 | 0.61 (1.34) |
| | 1.1/2 | 749978 | 0.75 (1.65) |
| | 2 | 749980 | 1.24 (2.73) |
| | 2.1/2 | 819040 | 1.84 (4.06) |
| Union U12  | 3 | 886837 | 2.50 (5.51) |
| | 1/2 | 818540 | 0.20 (0.44) |
| Reducing nipple N4  | 1/2 x 1/4 | 749644 | 0.04 (2.29) |
| | 3/4 x 1/2 | 749656 | 0.05 (2.31) |
| | 1 x 3/8 | 768994 | 0.10 (0.22) |
| | 1 x 1/2 | 749668 | 0.10 (0.22) |
| | 1 x 3/4 | 749670 | 0.08 (0.18) |
| | 1.1/4 x 3/4 | 749681 | 0.16 (0.35) |
| | 1.1/4 x 1 | 749693 | 0.13 (0.29) |
| | 1.1/2 x 3/4 | 749700 | 0.22 (0.49) |
| | 1.1/2 x 1 | 749711 | 0.20 (0.44) |
| | 1.1/2 x 1.1/4 | 749723 | 0.13 (0.29) |
| | 2 x 1 | 749735 | 0.41 (0.90) |
| | 2 x 1.1/4 | 749747 | 0.35 (0.77) |
| | 2 x 1.1/2 | 749759 | 0.27 (0.6) |
| | 2.1/2 x 2 | 757980 | 0.49 (1.08) |
| | 3 x 2.1/2 | 886835 | 0.65 (1.43) |
| Hex. nipple, reduced N8  | 1/2 x 1/4 | 857008 | 0.05 (0.11) |
| | | | |




Pipe element (Special)

Fitting threaded connection

Fittings - type D, EN 10242 galvanized

| Designation | Feature | Part no. | Weight kg (lbs) |
|---|-------------|----------|--------------------|
| Hex. nipple N8  | 1/2 | 749826 | 0.07 (0.15) |
| | 3/4 | 749838 | 0.10 (0.22) |
| | 1 | 749840 | 0.15 (0.33) |
| | 1.1/4 | 749851 | 0.23 (0.51) |
| | 1.1/2 | 749863 | 0.30 (0.66) |
| | 2 | 749875 | 0.48 (1.06) |
| Socket, reduced M2  | 1 x 3/4 | 749619 | 0.12 (0.26) |
| | 1.1/4 x 3/4 | 749620 | 0.19 (0.42) |
| | 2 x 1.1/4 | 749632 | 0.45 (0.99) |
| | | | |

| Designation | Feature | Part no. | Weight kg (lbs) |
|--|---------|----------|--------------------|
| Socket M2  | 1/2 | 749760 | 0.06 (0.13) |
| | 3/4 | 749772 | 0.08 (0.18) |
| | 1 | 749784 | 0.12 (0.26) |
| | 1.1/4 | 749796 | 0.19 (0.42) |
| | 1.1/2 | 749802 | 0.26 (0.57) |
| | 2 | 749814 | 0.42 (0.93) |
| | 2.1/2 | 762372 | 0.66 (1.46) |
| | 3 | 886834 | 1.10 (2.43) |

Technical Data

Test pressure160 bar (2320 psi), single test
or 300 bar (4351 psi), type test
 Operating temperatureup to -50 °C (-58 °F)
 Materialmalleable cast iron, galvanized
EN-GJMB-350-10 oder EN-GJMW-400-5
 Test certificateEN 10204 - 2.2
 Markingwith stamped D and red colour point

Application

- CO₂ high pressure downstream piping60 bar (870 psi)
- CO₂ low pressure system30 bar (435 psi)
- Ar / N₂ / IG-55 / IG-541:
 - downstream piping (after pressure reducer)60 bar (870 psi)
 - ConstantFlow (CF) system60 bar (870 psi)
- Halocarbon (HFC 227ea) system60 bar (870 psi)
- Halocarbon (FK-5-1-12) system60 bar (870 psi)



Pipe element (Special) Pilot pipe

Pipe for extinguishing pipework and pilot pipes



SAP designation

part no. 823563: Pipe 6x1 B-210-2394/1

Maintenance

functional check within the framework of system-specific functional test

| Designation | | Part no. | Nominal diameter | Test pressure bar (psi) | Weight kg (lbs) |
|-------------|-------------------|----------------------|------------------|----------------------------|--------------------|
| Pipe | 6x1 B-210-2394/1 | 823563 ¹⁾ | DN4 | 210 (3045) | 0.3 (0.06) |
| | 10x1 B-210-2394/1 | 823575 ¹⁾ | DN8 | 210 (3045) | 0.22 (0.10) |
| | 15x1.5 B-90-2391 | 240020 | DN12 | 90 (1305) | 0.50 (0.23) |

¹⁾ Marked by black heat shrink sleeve at both pipe ends

Technical Data

Materialsteel, galvanized
 Pipe 6 x 1 and 10 x 1acc. to DIN2394
 15 x 1.5acc. to DIN2391
 Test certificateEN 10204 - 3.1 (material and pressure test)

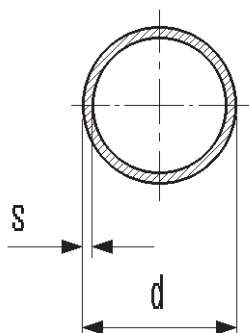
Application

Precision steel pipe are used for extinguishing pipework and pilot pipes in:

- CO₂- high pressure fire extinguishing systems
- CO₂- low pressure fire extinguishing systems
- Argon-, Nitrogen-, IG-55-, IG-541 fire extinguishing systems
- Halocarbon fire extinguishing systems

Dimension drawing

Dimensions in mm (inch)



| Pipe | d | s |
|--------|-----------|------------|
| 6x1 | 6 (0.24) | 1 (0.04) |
| 10x1 | 10 (0.39) | 1 (0.04) |
| 15x1.5 | 15 (0.59) | 1.5 (0.06) |



Pipe element (Special)

Fitting pilot pipe

Unions - stock list

| Feature | | Part no. | Series | Pipe o.d. | Weight kg (lbs) |
|--|---------------------|----------|------------|-----------|--------------------|
| <div>G - Union</div> <div></div> | G 06-PL A3C | 125920 | L PN315 | 06 | 0.034 (0.07) |
| | G 10-PL A3C | 125943 | | 10 | 0.062 (0.14) |
| | G 15-PL A3C | 125931 | | 15 | 0.138 (0.3) |
| | | | | | |
| <div>SV - Bulkhead union</div> <div></div> | SV 06-PL Ms | 822900 | L PN315 | 06 | 0.064 (0.14) |
| | SV 10-PL Ms | 822893 | | 10 | 0.114 (0.25) |
| | SV 10-PL A3C | 212010 | | 10 | 0.106 (0.23) |
| | | | | | |
| <div>W - Elbow union</div> <div></div> | W 06-PL A3C | 125797 | L PN315 | 06 | 0.052 (0.11) |
| | W 10-PL A3C | 174678 | | 10 | 0.096 (0.21) |
| | W 15-PL A3C | 125815 | | 15 | 0.160 (0.35) |
| | | | | | |
| <div>T - Union tee</div> <div></div> | T 06-PL A3C | 125633 | L PN315 | 06 | 0.070 (0.15) |
| | T 10-PL A3C | 125645 | | 10 | 0.126 (0.28) |
| | T 15-PL A3C | 125669 | | 15 | 0.230 (0.51) |
| | | | | | |
| <div>K - Union cross</div> <div></div> | K 10-PL A3C | 841744 | L PN315 | 10 | 0.134 (0.3) |
| | | | | | |
| <div>RHD - Non-return valve</div> <div></div> | RHD 06-PL A3K | 125980 | L PN250 | 06 | 0.068 (0.15) |
| | RHD 10-PL A3K | 125992 | | 10 | 0.142 (0.31) |
| | | | | | |
| <div>MAV - Pressure gauge connector</div> <div></div> | MAV 06-PLR A3C | 126054 | L PN315 | 06 | 0.046 (0.1) |
| | MAV 10-PSR A3C | 126078 | S PN630 | 10 | 0.120 (0.26) |
| | | | | | |
| <div>GE - Male stud connector</div> <div></div> | GE 06-PLR-ED A3C | 125566 | L PN315 | 06 | 0.026 (0.06) |
| | GE 10-PLR-ED A3C | 174666 | | 10 | 0.048 (0.11) |
| | GE 15-PLR-ED A3C | 125610 | | 15 | 0.116 (0.26) |
| | GE 06-PSR-ED A3C | 125578 | S PN630 | 06 | 0.054 (0.12) |
| | GE 10-PSR-ED A3C | 125608 | | 10 | 0.088 (0.19) |



Pipe element (Special)

Fitting pilot pipe

Unions - stock list

| Feature | | Part no. | Series | Pipe o.d. | Weight kg (lbs) |
|---|--------------------|----------|------------|-----------|--------------------|
| EVGE - Swivel connector  | EVGE 10-PLR-ED A3C | 841732 | L | 10 | 0.047 (0.1) |
| | EVGE 15-PLR-ED A3C | 886237 | PN250 | 15 | 0.123 (0.27) |
| | | | | | |
| WE - Male stud elbow  | WE 06-PLR A3C | 125761 | L PN315 | 06 | 0.040 (0.09) |
| | WE 10-PLR A3C | 125750 | | 10 | 0.082 (0.18) |
| | WE 15-PLR Ms-DPR | 840752 | | 15 | 0.150 (0.33) |
| | WE 06-PSR A3C | 125773 | S PN400 | 06 | 0.074 (0.16) |
| TE - Male stud branch  | TE 15-PLR A3C | 814971 | L PN315 | 15 | 0.200 (0.44) |
| | | | | | |
| LE - Male stud run tee  | LE 06-PLR A3C | 125876 | L PN315 | 06 | 0.051 (0.11) |
| | LE 10-PLR A3C | 125890 | | 10 | 0.112 (0.25) |
| | | | | | |
| EVW - Standpipe elbow  | EVW 15-PL A3C | 886238 | L PN315 | 15 | 0.165 (0.36) |
| | | | | | |
| EVT - Standpipe branch tee  | EVT 06-S A3C | 886406 | S PN630 | 06 | 0.102 (0.22) |
| | | | | | |
| EVL - Standpipe run tee  | EVL 06-PL A3C | 786956 | L PN315 | 06 | 0.058 (0.13) |
| | | | | | |
| M - Nut  | M 06-L A3C | 173959 | L | 06 | 0.010 (0.020) |
| | M 10-L A3C | 126133 | | 10 | 0.016 (0.04) |
| | M 15-L Ms | 861820 | | 15 | 0.045 (0.1) |
| | M 06-S A3C | 829656 | S | 06 | 0.017 (0.04) |



Pipe element (Special)

Fitting pilot pipe

Unions - stock list

| Feature | | Part no. | Series | Pipe o.d. | Weight kg (lbs) |
|---|-------------------|----------|------------|-----------|--------------------|
| DPR - Progressive ring  | DPR 06-L/S A3D | 208208 | L/S | 06 | 0.002 (0.0044) |
| | DPR 10-L/S A3D | 126091 | | 10 | 0.002 (0.0044) |
| | | | | | |
| VKA - Blanking plug for cones  | VKA 06-L A3C | 885373 | L | 06 | 0.005 (0.001) |
| | VKA 10-L A3C | 815008 | | PN315 | 0.014 (0.0031) |
| | VKA 15-L A3C | 814983 | | 15 | 0.030 (0.07) |
| | | | | | |
| VSTI - Blanking plug for ports  | VSTI R1/4-ED A3C | 776387 | PN400 | - | 0.018 (0.04) |
| | VSTI R1/2-ED A3C | 774822 | | - | 0.045 (0.1) |
| | | | | | |
| RI - Thread reducer/expander  | RI 1/2 x 3/4 A3C | 751060 | PN400 | - | 0.180 (0.4) |
| | RI 1/2 x 1 A3C | 704059 | | - | 0.164 (0.36) |
| | | | | | |
| KOR - Tube end reducer  | KOR 08/06-PL A3C | 886263 | L PN315 | 08/06 | 0.039 (0.09) |
| | KOR 10/06-PL A3C | 755260 | | 10/06 | 0.044 (0.1) |
| | KOR 15/10-PL A3C | 755259 | | 15/10 | 0.088 (0.19) |
| | | | | | |
| EDKOR - Straight reducer connection with taper  | EDKOR 10L/15L A3C | 886612 | L PN400 | 10/15 | 0.094 (0.21) |
| | | | | | |

Explanation Feature

e.g. GE 06-PLR-ED A3C

GE: material: steel, galv., yellow chrome dulled
 06: seal type: Eolastic seal
 PLR: thread type: BSPP
 ED: series: light
 A3C: pipe outside diameter: ø 6mm
 type: male stud connector

Series Llight
 Sheavy
 Material A3Csteel, galvanized, yellow chrome dulled
 A3Ksteel, galvanized, blue chrome dulled
 A3Dsteel, galvanized, green chrome dulled
 Msbrass



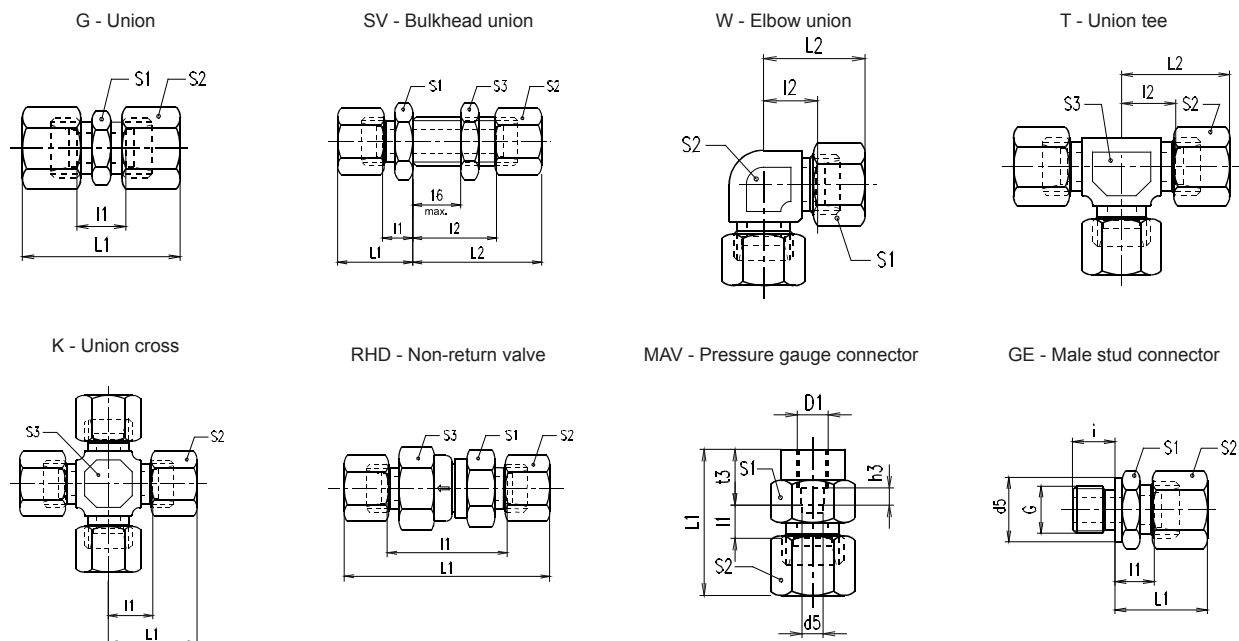
Pipe element (Special)

Fitting pilot pipe

Unions - stock list

Dimension drawing

Dimensions in mm (inch)



| Feature | S1 | S2 | S3 | L1 | I1 | L2 | I2 |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| G 06-PL A3C | 12 (0.47) | 14 (0.55) | - | 39 (1.54) | 10 (0.39) | - | - |
| G 10-PL A3C | 17 (0.67) | 19 (0.75) | - | 42 (1.65) | 13 (0.51) | - | - |
| G 15-PL A3C | 24 (0.94) | 27 (1.06) | - | 46 (1.81) | 16 (0.63) | - | - |
| SV 06-PL Ms | 17 (0.67) | 14 (0.55) | 17 (0.67) | 22 (0.87) | 7 (0.28) | 42 (1.65) | 27 (1.06) |
| SV 10-PL Ms | 22 (0.87) | 19 (0.75) | 22 (0.87) | 25 (0.98) | 10 (0.39) | 43 (1.69) | 28 (1.10) |
| SV 10-PL A3C | 22 (0.87) | 19 (0.75) | 22 (0.87) | 25 (0.98) | 10 (0.39) | 43 (1.69) | 28 (1.10) |
| W 06-PL A3C | 14 (0.55) | 12 (0.47) | - | - | - | 27 (1.06) | 12 (0.47) |
| W 10-PL A3C | 19 (0.75) | 17 (0.67) | - | - | - | 30 (1.18) | 15 (0.59) |
| W 15-PL A3C | 27 (1.06) | 19 (0.75) | - | - | - | 36 (1.42) | 21 (0.83) |
| T 06-PL A3C | - | 14 (0.55) | 12 (0.47) | - | - | 27 (1.06) | 12 (0.47) |
| T 10-PL A3C | - | 19 (0.75) | 17 (0.67) | - | - | 30 (1.18) | 15 (0.59) |
| T 15-PL A3C | - | 27 (1.06) | 19 (0.75) | - | - | 36 (1.42) | 21 (0.83) |

| Feature | S1 | S2 | L1 | S3/ D1 | I1/d1 | t3/G | h3/i | d5 |
|------------------|-----------|-----------|-------------|-----------|-------------|-------------|------------|------------|
| K 10-PL A3C | - | 19 (0.75) | 30 (1.18) | 14 (0.55) | 15 (0.59) | - | - | - |
| RHD 06-PL A3K | 17 (0.67) | 24 (0.94) | 58 (2.28) | 17 (0.67) | 29 (1.14) | - | - | - |
| RHD 10-PL A3K | 22 (0.87) | 19 (0.75) | 69.5 (2.74) | 24 (0.94) | 40.5 (1.59) | - | - | - |
| MAV 06-PLR A3C | 19 (0.75) | 14 (0.55) | 37 (1.46) | G1/4 | 7.5 (0.3) | 14.5 (0.57) | 4.5 (0.18) | 2.5 (0.1) |
| MAV 10-PSR A3C | 27 (1.06) | 22 (0.87) | 47 (1.85) | G1/2 | 10.5 (0.41) | 20 (0.79) | 5 (0.197) | 7.0 (0.28) |
| GE 06-PLR-ED A3C | 14 (0.55) | 14 (0.55) | 23 (0.91) | - | 8.5 (0.33) | G1/8 | 8 (0.31) | 14 (0.55) |
| GE 10-PLR-ED A3C | 19 (0.75) | 19 (0.75) | 26 (1.02) | - | 11 (0.43) | G1/4 | 12 (0.47) | 19 (0.75) |
| GE 15-PLR-ED A3C | 27 (1.06) | 27 (1.06) | 29 (1.14) | - | 14 (0.55) | G1/2 | 14 (0.55) | 27 (1.06) |
| GE 06-PSR-ED A3C | 19 (0.75) | 17 (0.67) | - | 28 (1.10) | - | - | - | - |
| GE 10-PSR-ED A3C | 22 (0.87) | 22 (0.87) | - | 31 (1.22) | - | - | - | - |

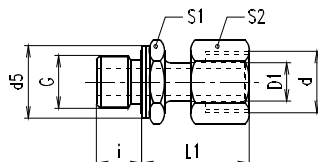


Pipe element (Special)

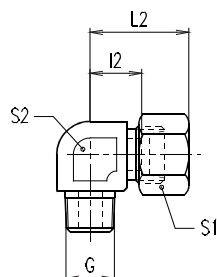
Fitting pilot pipe

Unions - stock list

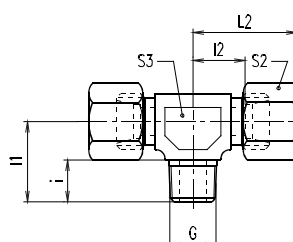
EVGE - Swivel connector



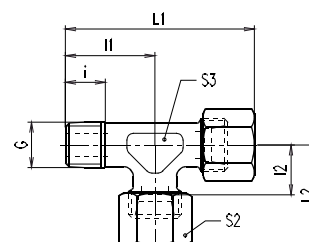
WE - Male stud elbow



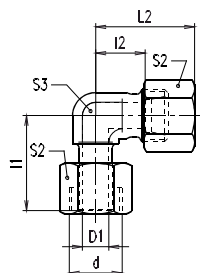
TE - Male stud branch



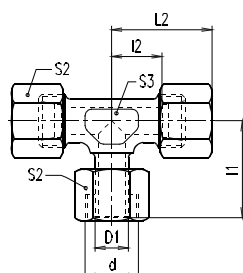
LE - Male stud run tee



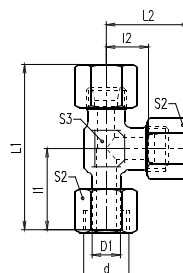
EVW - Standpipe elbow



EVT - Standpipe branch tee



EVL - Standpipe run tee



| Feature | S1 | S2 | L1 | S3 /D1 | t3/G | h3/i | d5 |
|--------------------|-----------|-----------|-------------|-----------|------|-----------|-----------|
| EVGE 10-PLR-ED A3C | 19 (0.75) | 19 (0.75) | 27.5 (1.08) | 10 (0.39) | G1/4 | 12 (0.47) | 19 (0.75) |
| EVGE 15-PLR-ED A3C | 27 (1.06) | 27 (1.06) | 31 (1.22) | 15 (0.59) | G1/2 | 14 (0.55) | 27 (1.06) |

| Feature | S1 | S2 | S3 | L1 | I1 | L2 | I2 | G/D1 | i/d1 |
|------------------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|
| WE 06-PLR A3C | 14 (0.55) | 12 (0.47) | - | - | - | 27 (1.06) | 12 (0.47) | R1/8 | - |
| WE 10-PLR A3C | 19 (0.75) | 17 (0.67) | - | - | - | 30 (1.18) | 15 (0.59) | R1/4 | - |
| WE 15-PLR Ms-DPR | 27 (1.06) | 19 (0.75) | - | - | - | 36 (1.42) | 21 (0.83) | R1/2 | - |
| WE 06-PSR A3C | 17 (0.67) | 14 (0.55) | - | - | - | 31 (1.22) | 16 (0.63) | R1/4 | - |
| TE 15-PLR A3C | - | 27 (1.06) | 19 (0.75) | - | 34 (1.34) | 36 (1.42) | 21 (0.83) | R1/2 | 14 (0.55) |
| LE 06-PLR A3C | - | 14 (0.55) | 12 (0.47) | 47 (1.85) | 20 (0.78) | 27 (1.06) | 12 (0.47) | R1/8 | 8 (0.31) |
| LE 10-PLR A3C | - | 19 (0.75) | 17 (0.67) | 57 (2.24) | 27 (1.06) | 30 (1.18) | 15 (0.59) | R1/4 | 12 (0.47) |
| E 15-PL A3C | - | 27 (1.06) | 19 (0.75) | - | 32,5 (1.28) | 36 (1.42) | 21 (0.83) | 15 (0.59) | - |
| EVT 06-S A3C | - | 17 (0.67) | 12 (0.47) | - | 27 (1.06) | 31 (1.22) | 16 (0.63) | 6 (0.24) | - |
| EVL 06-PL A3C | - | 14 (0.55) | 12 (0.47) | 53 (2.09) | 26 (1.02) | 27 (1.06) | 12 (0.47) | 6 (0.24) | - |
| M 06-L A3C | - | 14 (0.55) | - | - | - | - | - | - | - |
| M 10-L A3C | - | 19 (0.75) | - | - | - | - | - | - | - |
| M 15-L Ms | - | 27 (1.06) | - | - | - | - | - | - | - |
| M 06-S A3C | - | 17 (0.67) | - | - | - | - | - | - | - |

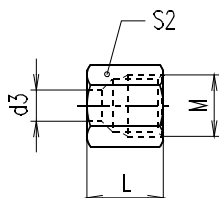


Pipe element (Special)

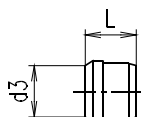
Fitting pilot pipe

Unions - stock list

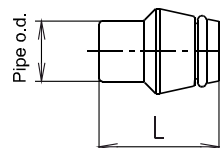
M - Nut



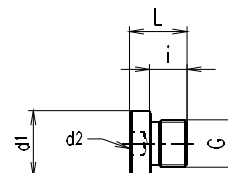
DPR - Progressive ring



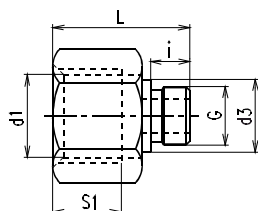
VKA - Blanking plug for cones



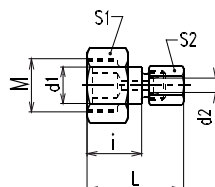
VSTI - Blanking plug for ports



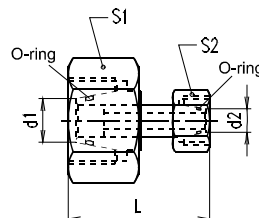
RI - Thread reducer/expander



KOR - Tube end reducer



EDKOR - Straight reducer connection with taper



| Feature | | S1 | S2 | M/G | i | L | d1 | d2 | d3 |
|---------|---------------|-------------|-----------|---------|-------------|-------------|-----------|-----------|-----------|
| M | 06-L A3C | - | 14 (0.55) | M12x1,5 | - | 9.5 (0.37) | - | - | 6 (0.24) |
| M | 10-L A3C | - | 19 (0.75) | M16x1,5 | - | 10 (0.39) | - | - | 10 (0.39) |
| M | 15-L Ms | - | 27 (1.06) | M22x1,5 | - | 10 (0.39) | - | - | 15 (0.59) |
| M | 06-S A3C | - | 17 (0.67) | M14x1,5 | - | 9.5 (0.37) | - | - | 6 (0.24) |
| DPR | 06-L/S A3D | - | - | - | - | 9.5 (0.37) | - | - | 6 (0.24) |
| DPR | 10-L/S A3D | - | - | - | - | 10 (0.39) | - | - | 10 (0.39) |
| VKA | 06-L A3C | - | - | - | - | 18.5 (0.73) | - | - | - |
| VKA | 10-L A3C | - | - | - | - | 20 (0.79) | - | - | - |
| VKA | 15-L A3C | - | - | - | - | 20.5 (0.81) | - | - | - |
| VSTI | R1/4-ED A3C | - | - | G1/4 A | 12 (0.47) | 17 (0.67) | 19 (0.75) | 6 (0.24) | - |
| VSTI | R1/2-ED A3C | - | - | G1/2 A | 14 (0.55) | 19 (0.75) | 27 (1.06) | 10 (0.39) | - |
| RI | 1/2 x 3/4 A3C | 24.5 (0.96) | - | G1/2 A | 14 (0.55) | 46 (1.81) | G3/4 | - | 26 (1.02) |
| RI | 1/2 x 1 A3C | 26.5 (1.04) | - | G1/2 A | 14 (0.55) | 49 (1.93) | G1 | - | 26 (1.02) |
| KOR | 08/06-PL A3C | 17 (0.67) | 14 (0.55) | M14x1,5 | 23.5 (0.93) | 38 (1.5) | 8 (0.31) | 6 (0.24) | - |
| KOR | 10/06-PL A3C | 19 (0.75) | 14 (0.55) | M16x1,5 | 23.5 (0.93) | 38 (1.5) | 10 (0.39) | 6 (0.24) | - |
| KOR | 15/10-PL A3C | 27 (1.06) | 19 (0.75) | M22x1,5 | 24.5 (0.96) | 39 (1.54) | 15 (0.59) | 10 (0.39) | - |
| EDKOR | 10L/15L A3C | 27 (1.06) | 19 (0.75) | - | - | ~36 (~1.42) | 15 (0.59) | 10 (0.39) | - |



Pipe element (Special) Bracket pilot piping network

Cable clip B16 galv.



SAP designation

part no. 813589: Cable clamp B 16 galvanized

Maintenance

functional check within the framework of system-specific functional test

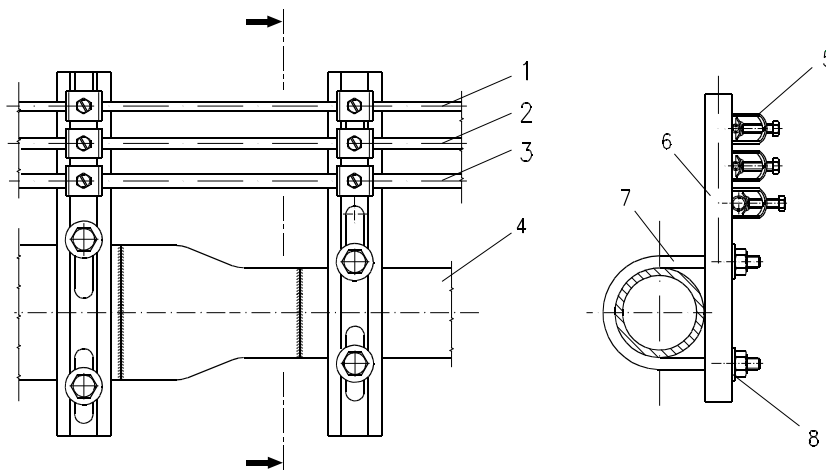
| Designation | Part no. | Weight |
|---------------------------|----------|---------------------|
| Cable clip B16 galvanized | 813589 | 0.023 kg (0.05 lbs) |

Technical Data

ApplicationCO₂ - systems

Installationvertical or horizontal

Installation example:



| Pos. | Designation | Part no. | Gewicht kg (lbs) |
|------|-----------------------------|----------------------|---------------------|
| 1 | steel pipe 6 x 1 - Zista | 823563 ¹⁾ | 0.13 (0.29) |
| 2 | steel pipe 10 x 1 - Zista | 823575 ¹⁾ | 0.22 (0.49) |
| 3 | steel pipe 15 x 1,5 - Zista | 240020 ¹⁾ | 0.5 (1.1) |
| 4 | pipe system | DN20 - DN200 | |
| 5 | cable clip B16 galv. | 813589 | 0.023 (0.05) |

¹⁾ length on stock 6 m (19.7 ft)



| Pos. | Designation | Part no. | Gewicht kg (lbs) |
|------|-------------------------|----------------------|---------------------|
| 6 | profil type HM 315-FV-L | 811465 ²⁾ | 1.2 (2.65) |
| 7 | U - bolt | M16-01 | |
| 8 | washer DIN9021 - B8,4 | 110029 | 0.006 (0.01) |
| | washer DIN9021 - B10,5 | 110042 | 0.012 (0.03) |
| | washer DIN9021 - B13 | 116123 | 0.023 (0.05) |

²⁾ length on stock 2 m (6.6 ft)



Pipe element (Special) Bracket pilot piping network

Hose clip DIN 3017 and pipe clip RSGU1.

| Pos. | Designation | | Extinguishing Pipe | Part no. | Weight kg (lbs) |
|------|---|----------|--------------------|----------|--------------------|
| 1 | <div>Hose clip DIN 3017</div>  | S 34/15 | DN25 | 886839 | 0.01 (0.02) |
| | | S 43/9 | DN32 | 870150 | 0.01 (0.02) |
| | | S 49/9 | DN40 | 870162 | 0.01 (0.02) |
| | | S 61/15 | DN50 | 870174 | 0.03 (0.07) |
| | | S 77/15 | DN65 | 870186 | 0.04 (0.09) |
| | | S 89/15 | DN80 | 870198 | 0.04 (0.09) |
| | | S 115/20 | DN100 | 870204 | 0.10 (0.22) |
| 2 | <div>Pipe clip RSGU1.</div>  | 6/15 | DN25 | 870230 | 0.008 (0.02) |
| | | 10/15 | | 870241 | 0.01 (0.02) |
| | | 6/9 | DN32 / DN40 | 870216 | 0.003 (0.01) |
| | | 10/9 | | 870228 | 0.004 (0.01) |
| | | 6/15 | DN50 / DN65 / DN80 | 870230 | 0.008 (0.02) |
| | | 10/15 | | 870241 | 0.01 (0.02) |
| | | 6/20 | DN100 | 870253 | 0.017 (0.04) |
| | | 10/20 | | 870265 | 0.02 (0.04) |

Technical Data

Finishgalvanized
 Hose clip e.g. S 34/15clamping range 34 mm (1,34")
clip band with 15 mm (0,59")
 Pipe clip RSGU1. e.g. 6/15for control pipe 6x1,
clip band with 15 mm (0,59")

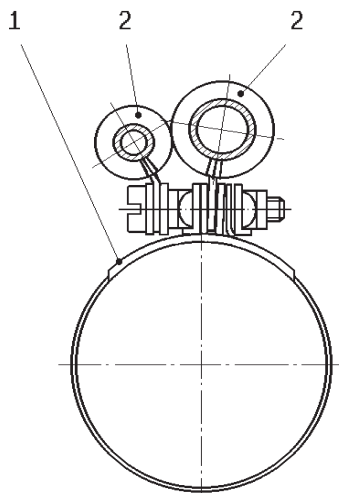
SAP designation

part no. 886839: Hose clip DIN3017-S 34/15 gal Zn

Maintenance

functional check within the framework of system-specific functional test

Mounting illustration:



Pos. 1 hose clip DIN 3017 type S
for extinguishing pipe DN25 - 100

Pos. 2 pipe clip typ RSGU1.
for control pipe 6x1 and 10x1



Pipe element (Special)

Accessories flange connection

Gaskets PN160



SAP designation

part no. 773647: Sealing DN65-PN160

Maintenance

functional check within the framework of system-specific functional test

| Designation | DN | Part no. | Weight kg (lbs) |
|--------------|-----|----------|--------------------|
| Gasket PN160 | 65 | 773647 | 0.03 (0.07) |
| | 80 | 773659 | 0.04 (0.09) |
| | 100 | 773684 | 0.04 (0.09) |

Material

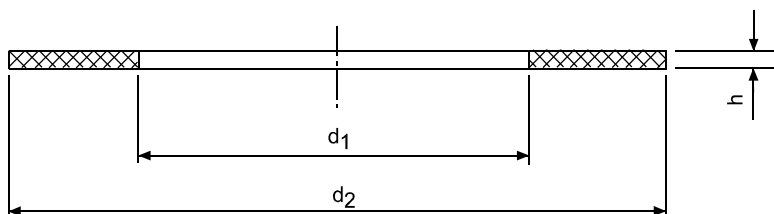
Klingsil C4400 asbestos-free, silicone-free

Application

Welding-neck flanges according to DIN2638 - PN160 (2320 psi)

Dimension drawing

Dimensions in mm (inch)



| DN | d ₁ | d ₂ | h |
|-----|----------------|----------------|--------------------------|
| 65 | 70 (2.76) | 122 (4.80) | 1.5 ±0.2 (0.06 ±0.01) |
| 80 | 82 (3.23) | 138 (5.43) | |
| 100 | 106 (4.17) | 162 (6.38) | |

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In all cases the full product datasheet remains the reference document
Information, photos and drawings are not contractually binding
Subject to modifications without notice

Trusted above all.



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