

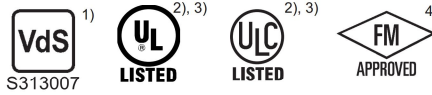


## Extinguishing technology Halocarbon agents P21.231.112 - 3 Cylinder Halocarbon agents assembled

Extinguishing agent cyl. UL/FM/GL,  
VSN 200 EU/DOT/GOST-R (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 (Ar, 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)	Steel cylinder 7)	Nominal volume	Part no.		Amount filled 5)				Empty weight approx.
			Valve type 6)		min.		max.		
			A / A25	B / B25 (not UL / ULC)	VdS / CE kg (lbs)	UL / ULC FM / GL kg (lbs)	VdS kg (lbs)	CE / GL / UL ULC / FM kg (lbs)	
bar (psi)		l (lbs)							kg (lbs)
25 (360)	TPED, GL, GOST-R	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)
		100.0 (250)	888471	888472	40 (88.2)	50 (110.3)	104 (229.2)	114 (251.3)	127 (280)
	TPED, GL, GOST-R, DOT	80.0 (200) 9)	888557	888558	32 (70.6)	40 (88.2)	83.2 (183.4)	91.2 (201.0)	99 (218)
		140.0 (350)	888561	888562	56 (123.5)	70 (154.4)	145.6 (320.9)	159.6 (351.8)	131 (289)
42 (610)	TPED, GL, GOST-R	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)
		100.0 (250)	888477	888478	40 (88.2)	50 (110.3)	104 (229.2)	114 (251.3)	127 (280)
	TPED, GL, GOST-R, DOT	80.0 (200) 9)	888565	888566	32 (70.6)	40 (88.2)	83.2 (183.4)	91.2 (201.0)	99 (218)
		140.0 (350)	888567	888568	56 (123.5)	70 (154.4)	145.6 (320.9)	159.6 (351.8)	131 (289)
50 (725)	TPED, GL, GOST-R	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)
		100.0 (250)	888484	888485	40 (88.2)	50 (110.3)	85 (187.3)	105 (231.4)	127 (280)
	TPED, GL, GOST-R, DOT	80.0 (200) 9)	888571	888573	32 (70.6)	40 (88.2)	68 (149.9)	84 (185.1)	99 (218)
		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 HFC-227ea part no. 887745 must be ordered additionally.

6) - 9) Footnotes see on page 2

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### Extinguishing agent cyl. UL/FM/GL, VSN 200 EU/DOT/GOST-R (drawn) 22 I, 40 I, 80 I, 100 I, 140 I, 180 I

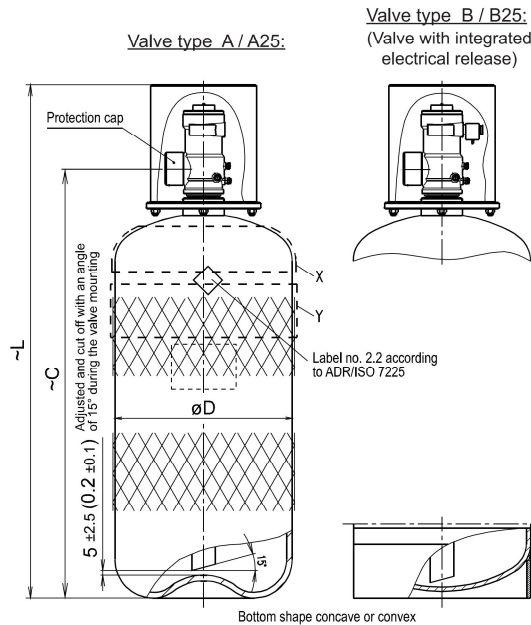
- 6) Valve type A / A25 (25 bar):  
Valve B0482-A DN33 / B0481-A DN49  
Valve B0482-A25 DN33 / B0481-A25 DN49 (for 25 bar)
- Valve type B / B25 (25 bar):  
(Valves with integrated electrical release)  
Valve B0482-B DN33 / B0481-B DN49  
Valve B0482-B25 DN33 / B0481-B25 DN49 (for 25 bar)
- 7) Approval with collective certificate by:  
- TEPEd, a notified body in acc. with directive TPED 2010/35/EC  
- GL (Germanischer Lloyd) in acc. with directive MED 96/98/EC  
- DOT (US Department of Transportation)  
GOST-R certificate of conformity acc. to ROSTECHNADZOR
- 8) 80.0 I - Exting. agent cylinder with  $\varnothing D = 267$  mm (10.51")
- 9) 80.0 I - Exting. agent cylinder with  $\varnothing D = 406$  mm (15.98")

#### Marking

- Marking no. according to GGVS/ADR: UN 3296, UN 1066 in the area X
- Part no. marked in the area Y

#### Dimension drawing

Dimensions in mm (inch)



#### Technical data

Extinguishing agent .....HFC-227ea

Min. fill ratio:

- VdS / CE .....0.4 kg/l (25.0 lbs/ft<sup>3</sup>)
- UL / ULC / FM / GL .....0.5 kg/l (31.1 lbs/ft<sup>3</sup>)

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

- VdS .....1.04 kg/l (64.9 lbs/ft<sup>3</sup>)
- CE / GL / UL / ULC / FM .....1.14 kg/l (71.1 lbs/ft<sup>3</sup>)

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

- VdS .....0.85 kg/l (53.0 lbs/ft<sup>3</sup>)
- CE / GL / UL / ULC / FM .....1.05 kg/l (65.5 lbs/ft<sup>3</sup>)

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 .....P21.231.131

#### Technical data steel cylinder VSN 1230/200 (blank):

Steel cylinder (seamless) ....acc. to directive TPED 2010/35/EC, .....directive MED 96/98/EC and DOT regulations

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)

Marking steel cylinder VSN 1230/200 (blank):

Marking .....acc. to directives 2008/68/EC, ISO 13769, .....2010/35/EC and DOT regulations

Additional marking:

- Owner marking, Minimax Feuerschutz .....MF
- Owner no. (acc. to order) .....xxxxxxx
- Tare weight .....xxxxxxx
- DOT specification .....DOT-3AA-910

#### Not included in delivery

Type label .....P21.231.140 - 2

Adapter M12x1.5 - G1/8 VSN 1230/200 .....887644, P21.231.210

Contact pressure gauge VSN 1230/200 .....P21.231.43

Clamp for extinguishing agent cyl. VSN 1230/200 ....P21.231.240

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

Pneumatic, pneumatic/manual, manual,  
tackle pneumatic/manual - marine .....P21.231.210

#### Release devices for valve type A / A25 only:

Electrical, electrical with mech. blocking device .....P21.231.210

Nominal volume	~L	~C	øD ±3 (±0.12)	Nominal diameter valve
22.0 I (55 lbs)	970 (38.19)	749 (29.49)	229 (9.00)	DN33
40.0 I (100 lbs)	1450 (57.09)	1229 (48.39)	229 (9.00)	
80.0 I (200 lbs)	1960 (77.17)	1757 (69.17)	267 (10.51)	
80.0 I (200 lbs)	1090 (42.91)	887 (34.92)	406 (15.98)	DN49
100.0 I (250 lbs)	1800 (70.87)	1597 (62.87)	316 (12.44)	
140.0 I (350 lbs)	1570 (61.81)	1367 (53.82)	406 (15.98)	
180.0 I (450 lbs)	1910 (75.20)	1792 (70.55)	406 (15.98)	