

VENT PRO D - EXPLOSION VENTING DEVICE



It is a safety device designed to relieve and release an explosion that might occur inside the protected equipment, where there is an environment with a risk of explosion. Under normal operating conditions, the relief area on the protected equipment is covered by VENT PRO D. If the p_{stat} is exceeded during an explosion inside the equipment, VENT PRO D will open, thus releasing the pressure from the jeopardized area. The equipment will be exposed to a pressure lower than its pressure resistance.

This data sheet describes the technical parameters of VENT PRO D. These VENT PRO D have a single-layer construction and are convex. They are manufactured in a rectangular design and they are in accordance with EN 14797 and European Directive 2014/34/EU.

VENT PRO D CLASSIFICATION

Equipment group	II
Explosive atmosphere	D
Equipment category, indoor/outdoor	1/2G, 1/2D
Operating temperature	-40 °C to 100 °C
Storage temperature	-10 °C to 40 °C
Standard static opening pressure*	10 kPa ±15%

* Can also be supplied with a different static opening pressure

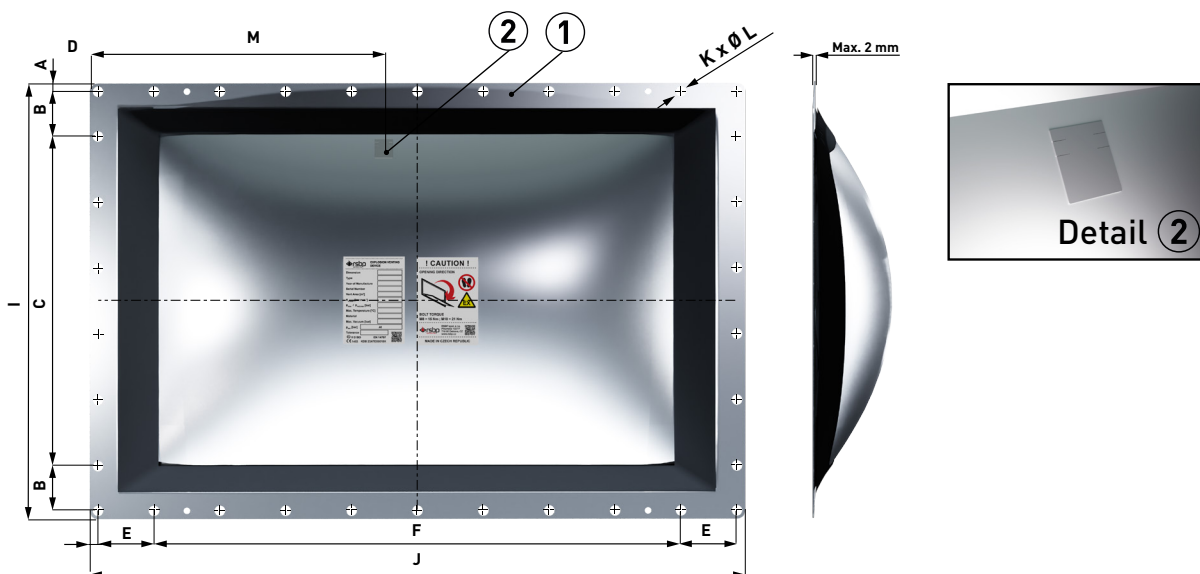
MATERIAL DESIGN

VENT PRO D	stainless steel
Sealing	EPDM

OPTIONAL ACCESSORIES

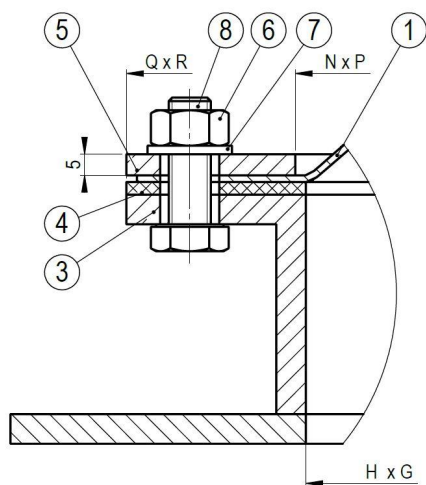
Opening indicator	cable (G1), magnetic (G2), additional (G3) or induction (G4)
Intrinsically safe relay	it is used to create the interface between the safe and dangerous zone
Flange gasket	EPDM, silicon
Thermal Insulation	synthetic rubber-based foam
Fasteners	screws - (strength 8.8 or A2-70), nuts ISO 4032, washers ISO 7089 (all in galvanized finish or stainless-steel design)
Upper frame	made of stainless steel or constructional steel, galvanized

DIMENSIONAL DIAGRAM

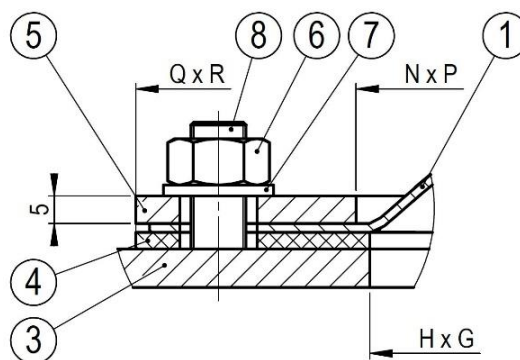


INSTALLATION VARIANTS

Installing with bolts



Installing with welded screws



Position	Components	Quantity
①	VENT PRO D	1
②	opening indicator plate VENT PRO	1
③	protected equipment ¹⁾	1
④	flange gasket ⁵⁾	1
⑤	upper frame ²⁾	1
⑥	nut ³⁾	see ⁴⁾
⑦	washer ³⁾	see ⁴⁾
⑧	screw ³⁾	see ⁴⁾

¹⁾ For the installation of VENT PRO D, the flange of the protected equipment must meet the requirements of standard EN ISO 13920-BE and must be sufficiently rigid. In case of mounting on insufficiently rigid equipment, it is necessary to provide the flange with additional reinforcement. The diameters of the holes in the flange of the protected device for M10 screws are $\varnothing 12$ mm (EN 20273).

²⁾ The upper frame is made of 5 mm thick sheet metal, stainless steel or galvanized structural steel.

³⁾ Material – galvanized steel or stainless steel (screws strength 8.8, or A2-70).

⁴⁾ Number according to technical parameters table.

⁵⁾ A suitable sealant can be used instead of the flange gasket.

TECHNICAL PARAMETERS

Dimensions	Vent area [m ²]	Hole dimension in protected equipment H x G [mm]	Outer diameter I x J [mm]	A [mm]	B [mm]	C [mm]		D [mm]	E [mm]	F [mm]		Screws / Holes in the VENT PRO		M [mm]	Frame internal dimension N x P [mm]	Frame, seal and flange external dimension Q x R [mm]	Max. vacuum [bar]
						Number of holes	Spacing			Number of holes	Spacing	K	ØL [mm]				
150x600	0.08	150x600	220x670	12.5	65.0	2	65	13.0	92.0	6	92	20	243.0	150x600	230x680	-0.08	
220x540	0.11	220x540	300x620	16.0	90.0	2	88	16.0	98.0	5	98	18	261.0	220x540	300x620	-0.10	
229x229	0.05	229x229	309x309	14.5	93.0	2	94	14.5	93.0	2	94	12	154.5	235x235	315x315	-0.10	
260x260	0.06	260x260	340x340	16.0	103.0	2	102	16.0	103.0	2	102	12	170.0	265x265	345x345	-0.10	
305x457	0.12	300x452	375x527	9.5	76.0	3	102	10.0	102.0	4	101	18	263.5	305x457	385x537	-0.10	
450x800	0.34	450x800	530x880	15.0	125.0	3	125	15.0	110.0	6	126	22	440.0	455x805	535x885	-0.25	
490x590	0.27	485x585	565x665	17.5	90.0	5	117	17.5	90.0	6	90	26	332.5	490x590	570x670	-0.25	
586x920	0.51	581x915	661x995	12.5	68.0	6	100	12.5	85.0	9	100	34	447.5	586x920	666x1000	-0.10	
610x290	0.16	285x605	365x685	11.5	114.0	2	114	12.5	110.0	5	110	18	397.5	290x610	370x690	-0.10	
2x610x290	0.32	2x285x605	385x1385	21.5	114.0	2	114	21.5	122.0	10	122	34	11	2x290x612.5	390x1390	-0.10	
630x310	0.18	305x625	385x705	16.0	118.0	2	117	16.5	112.0	5	112	18	408.5	310x630	390x710	-0.10	
2x630x310	0.35	2x305x625	378x1378	12.5	118.0	2	117	12.5	123.0	11	117	32	11	2x310x630	410x1410	-0.10	
915x1118	0.98	910x1113	990x1193	12.5	82.5	9	100	12.5	111.5	10	105	42	596.5	915x1118	995x1198	-0.10	
920x920	0.81	915x915	995x995	12.5	85.0	9	100	12.5	85.0	9	100	40	447.5	920x920	1000x1000	-0.14	
1020x1020	1.00	1015x1015	1095x1095	12.5	107.0	9	107	12.5	107.0	9	107	40	601.0	1020x1020	1100x1100	-0.12	

¹⁾Contact the manufacturer for more information and another dimensions.

Use M10 screws, flat washers 10 (ISO 7089) and M10 nuts (ISO 4032).

Comply with a bolt torque of 21 Nm.

The diameters of the holes in the flange of the protected device for M10 screws are Ø12 mm (EN 20273).

The values of maximum vacuum are for VENT PRO D with a static opening pressure of 10 kPa.