

EXPLOSION VENTING DEVICE ROUNDED VMP SU



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 VMP SU. If the p_{stat} is exceeded during an explosion inside the equipment, VMP SU 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 VMP SU. These VMPs have a convex three-layer construction and high vacuum resistance. They are manufactured in a rounded and rectangular design and they are in accordance with EN 14797 and European Directive 2014/34/EU.

VMP SU CLASSIFICATION

Equipment group	II.
Explosive atmosphere	D
Equipment category	1D
Operating temperature	-40 to 240 °C
Storage temperature	10 to 40 °C
Standard static opening pressure	10 kPa +/- 15 %

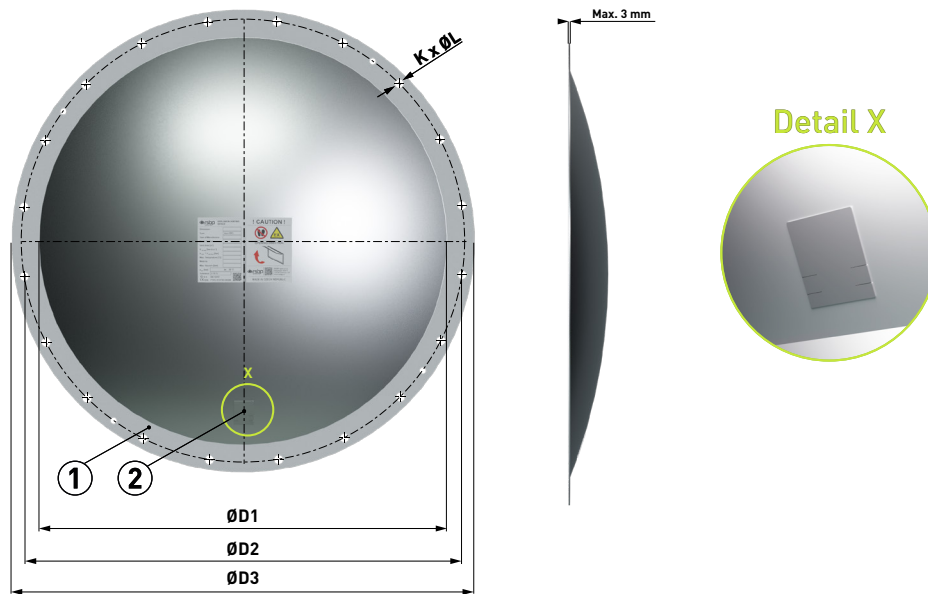
MATERIAL DESIGN

VMP	Stainless steel
VMP sealing	PTFE

OPTIONAL ACCESSORIES

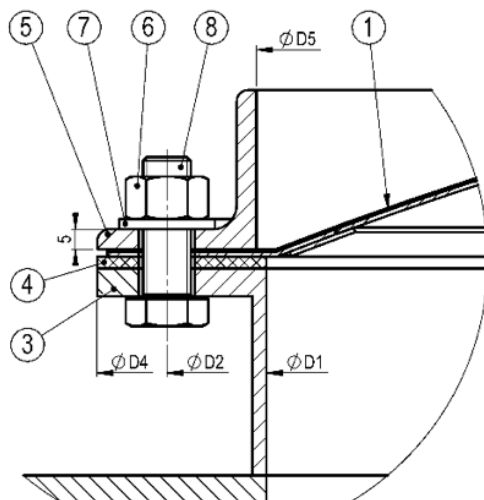
Opening indicator	Cable (type G1), magnetic (type G2) or additional (type G3)
Intrinsically safe relay	It is used to create the interface between the safe and dangerous zone
Flange gasket	EPDM, silicon
Thermal Insulation	Synthetic rubber-based foam
Fasteners	Screws - (strength 8.8 or A2-70), nuts ISO 4070, washers ISO 7090 (all in galvanized finish or stainless-steel design)
Upper frame	Made of stainless steel or constructional steel, galvanized

DIMENSIONAL DIAGRAM

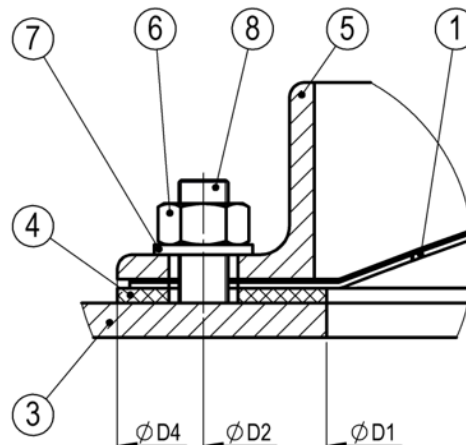


INSTALLATION VARIANTS

Installing with bolts



Installing with welded screws



Position	Components	Quantity
1	VMP SU	1
2	Universal opening indicator holder	1
3	Protected equipment ¹⁾	1
4	Flange gasket ⁵⁾	1
5	Upper frame ^{2),3)}	1
6	Nut ³⁾	see ⁴⁾
7	Washer ³⁾	see ⁴⁾
8	Screw ³⁾	see ⁴⁾

¹⁾ For the installation of VMP SU, 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.

²⁾ The frame is made out of L-shaped steel see technical parameters table. In case there is a risk of rainwater remaining in the upper frame, it is necessary to create drainage channels 5 mm wide and 5 mm high in suitable places in it.

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 ØD1 [mm]	Spaced circle ØD2 [mm]	VMP external dimension ØD3 [mm]	External dimension of the frame, seal and flange of the protected equipment ØD4 [mm]	Internal dimension of the frame ØD5 [mm]	screws /holes		
							K [ks]	ØL [mm]	Screw size
DN 250	0,05	265	320	345	350	270	12	11	M8
DN 300¹⁾	0,06	315	350	375	380	320	12	11	
DN 350	0,07	340	387	420	425	345	12	11	
DN 400	0,10	390	443	475	480	400	16	13	M10
DN 450	0,13	445	486	525	530	450	12	14	
DN 510	0,16	505	550	585	590	510	20	14	
DN 600	0,24	595	646	675	680	600	20	14	
DN 630	0,27	625	680	705	710	630	20	14	
DN 750	0,41	765	817	845	850	770	28	14	
DN 800	0,47	815	860	895	900	820	24	14	
DN 880	0,53	875	920	955	960	880	24	14	
DN 900²⁾	0,57	895	955	995	1000	900	32	14	
DN 1000²⁾	0,72	995	1060	1095	1100	1000	36	13	
DN 1100²⁾	0,87	1095	1160	1195	1200	1100	40	14	

Use of the standard L profile frame 40x40x5

¹⁾ Use of the L profile frame 30x30x5

²⁾ Use of the L profile frame 50x50x5

ØD1 Hole dimension in protected equipment = ØD1 Bulge dimension

ØD1, ØD4 and ØD5 see Fig. 24 and Fig. 25

Use screws, flat washers (ISO 7090) and nuts (ISO 7040) to secure the rounded VMP SU

Comply with a tightening torque of 15Nm (for M8) and 21Nm (for M10).