



**INDOOR
SURGE ARRESTER
TYPE PROXAR-IIW DC
FOR DC SYSTEM VOLTAGE
IN SILICONE HOUSING**

CATALOGUE CHART

APPLICATION

PROXAR-IIW DC surge arresters in silicone housing are designed to protect DC power networks against overvoltage's with particular emphasis on: converters, switchboards and circuit breakers, and traction vehicle devices, as well as an element of multi-stage surge protection against multiple lightning and switching surges. The surge arrester is designed for indoor applications.

OPERATING CONDITIONS

Surge arresters adapted for indoor installation in temperate and tropical climate. The possibility to install in any working positions. Dimension of surge arresters enables installation in DC switchgear in minimum pole distances.

ADVANTAGES

- Low residual voltage
- High energy input capacity
- Stable U-I characteristics even after absorbing multiple surges
- Housing resistant to rough handling
- Explosion and shatter – resistant design
- Pollution resistant and UV
- Ability to install in any position (vertically or horizontally)
- Maintenance free
- Low weight, easy transportation and storage
- Ability to work in horizontal position
- Stable against shock and vibration

ADDITIONAL EQUIPMENT

Additional accessories include a base for mounting surge arresters, as well as line and grounding accessories (see: accessories for surge arresters).

ELECTRICAL DETAILS

Line discharge class according to EN 50526-1: 2012	DC-A
Line discharge class according to IEC 60099-4: 2009	2
System voltage (U_{nDC})	0.6 – 3 kV
Continuous operating voltage (U_{cDC})	1 – 4.7 kV
Nominal discharge current I_n 8/20 μs	10 kA
High current impulse I_{hc} 4/10 μs	100 kA
Long duration current impulse, 2000 μs	600 A
Energy absorption capability, 2 impulses	5.5 kJ/kV U_c
Short circuit rating	31.5 kA/0.2s
Service conditions:	
- ambient temperature	-40 °C do +40 °C*
- altitude up to	1000 m*
Mechanical strength:	
- SLL specified long-term load	350 Nm
- SSL specified short-term load	560 Nm
- torque	100 Nm
- tensile	1000 N

*) For higher values please contact with manufacturer.

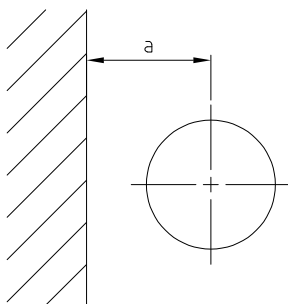
ELECTRICAL DATA

Type PROXAR IIW DC	Max. continuous operating voltage (DC) U _c	Residual voltage in [kV] peak at a specified impulse current							
		Wave 1/... μs	Wave 8/20 μs				Wave 30/60 μs		
		10kA	2.5kA	5kA	10kA	20kA	125A	250A	500A
	kV	kV	kV	kV	kV	kV	kV	kV	kV
1.0	1.0	3,2	2,3	2,5	2,7	2,9	2,0	2,0	2,1
1.2	1.2	3,8	2,7	2,9	3,2	3,5	2,4	2,4	2,5
1.5	1,5	4,8	3,4	3,7	4,0	4,3	2,9	3,0	3,1
1,8	1,8	5,8	4,1	4,4	4,8	5,2	3,5	3,6	3,7
2.0	2.0	6,4	4,5	4,9	5,3	5,8	3,9	4,0	4,1
2.2	2.2	7,0	5,0	5,4	5,8	6,4	4,3	4,4	4,6
2.5	2.5	8,0	5,6	6,1	6,6	7,2	4,9	5,0	5,2
3.0	3.0	9,6	6,8	7,4	8,0	8,7	5,9	6,0	6,2
3.2	3.2	10,2	7,2	7,8	8,5	9,2	6,3	6,4	6,6
3.6	3.6	11,5	8,1	8,8	9,5	10,4	7,1	7,2	7,5
4.2	4.2	13,4	9,5	10,3	11,1	12,1	8,2	8,4	8,7
4.5	4.5	14,4	10,1	11,0	11,9	13,0	8,8	9,0	9,3
4.7	4.7	15,0	10,6	11,5	12,5	13,6	9,2	9,4	9,7

Attention: There is possibility to make surge arresters PROXAR-IIW DC in different continuous operating voltage.

TECHNICAL DATA FOR HOUSING

Type PROXAR IIW DC	Insulation withstand voltage		Minimal distances	H	Creepage distance	Flash-over distance	Housing number	Weight
	50 Hz (60s)	1.2/50 μs dry	Distance between arrester and the nearest return path „a”					
kV	kV	kV	mm	mm	mm	mm	No	kg
1.0	29	63	38	125	120	120	02	0.90
1.2			40					0.90
1.5			46					0.90
1.8			48					0.90
2.0			48					0.95
2.2			52					0.95
2.5			55					0.95
3.0			61					0.95
3.2			63					0.95
3.6			68					0.95
4.2			77					1.00
4.5			78					1.00
4.7			83					1.00



Minimal mounting distances for surge arresters.

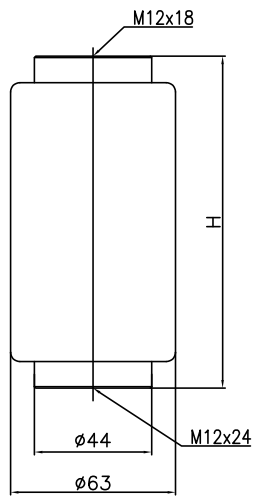


Fig.1

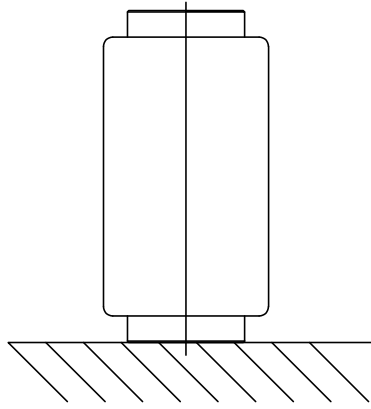


Fig.2

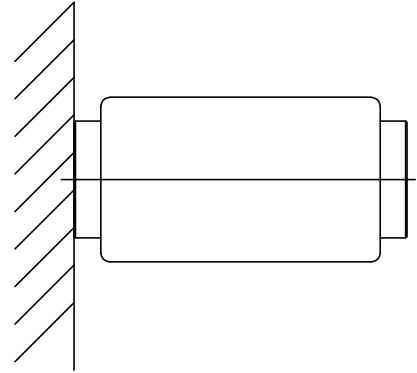


Fig.3

The above drawings show the configuration of the surge arresters in operation. Drawings No 2 presents vertical system of assembling. Drawings No 3 presents horizontal system of assembling. Below the figures are presenting different options line and earth accessories available for use in surge arrester type PROXAR-IIW DC For horizontal working configuration of surge arresters is this same option like for vertical working.

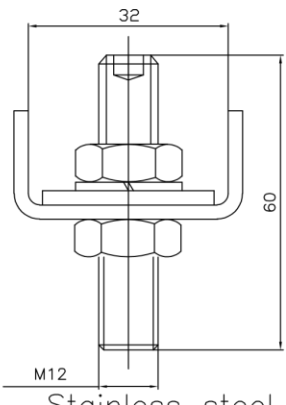
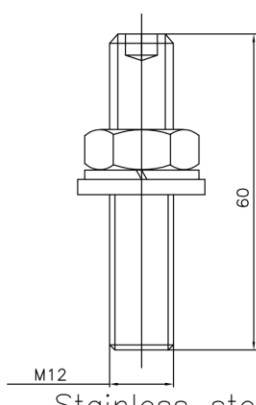
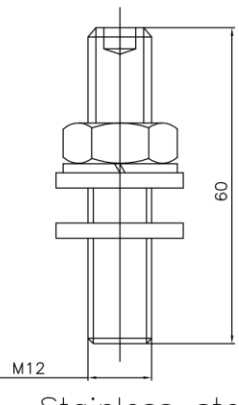
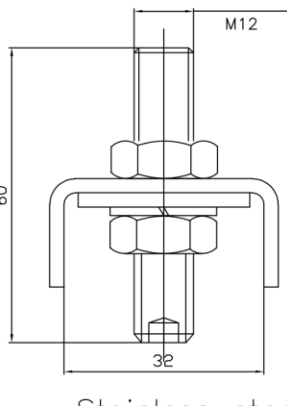
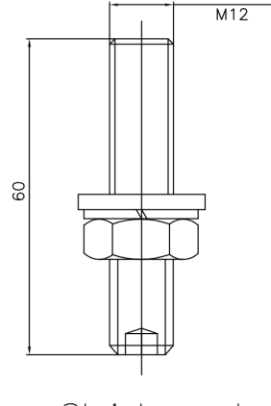
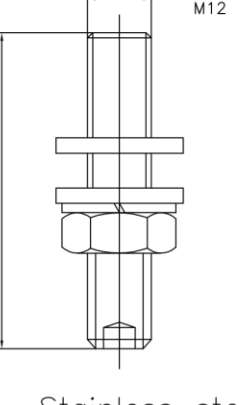
LINE ACCESSORIES LINE TERMINAL 1  Weight: 0.12kg M12 Stainless steel	LINE TERMINAL 2  Weight: 0.058kg M12 Stainless steel
LINE ACCESSORIES LINE TERMINAL 6  Weight: 0.069kg M12 Stainless steel	
EARTH ACCESSORIES EARTH TERMINAL 1  Weight: 0.12kg M12 Stainless steel	EARTH TERMINAL 2  Weight: 0.058kg M12 Stainless steel
EARTH ACCESSORIES EARTH TERMINAL 6  Weight: 0.069kg M12 Stainless steel	

Fig. 4. Equipment for surge arresters type PROXAR-IIW DC

Order configurator**:

***) Empty fields to fill.

1. Type of product

PROXAR-IIW

2. Continuous operating voltage U_c

See table – ELECTRICAL DATA

Uc

3. Voltage type

Direct voltage

DC

4. Mounting (according fig.2; 3)

Vertical (fig. 2)

1

Horizontal (fig. 3)

2

5. Base

Without base

0

6. Line terminal (according fig.4)

Without line terminal

0

Line terminal 1

1

Line terminal 2

2

Line terminal 6

6

7. Earth terminal (according fig.4)

Without earth terminal

0

Earth terminal 1

1

Earth terminal 2

2

Earth terminal 6

6

8. Housing number

See table – TECHNICAL DATA FOR HOUSING

Housing number

9. Design

– standard

0

– non-standard (to be agreed with the manufacturer)

X

Order example:

1	2	3	4	5	6	7	8	9
PROXAR-IIW	1.2	DC	1	0	1	1	02	0

PROXAR-IIW 1.2 DC 1011020 – 3 pcs.

Description: Surge arrester type **PROXAR-IIW** with continuous operating voltage $U_c=1.2$ kV for **DC** system in vertical mounting version -**1**; without base – **0**; line terminal – **1**; earth terminal – **1**; housing number – **02**; in standard design **0**.

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POLAND



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ATTENTION

Note: The manufacturer reserves the right to change technical data or designee without prior notice.

PROXAR® is a registered trademark of the latest family of surge arresters made by Protektel.