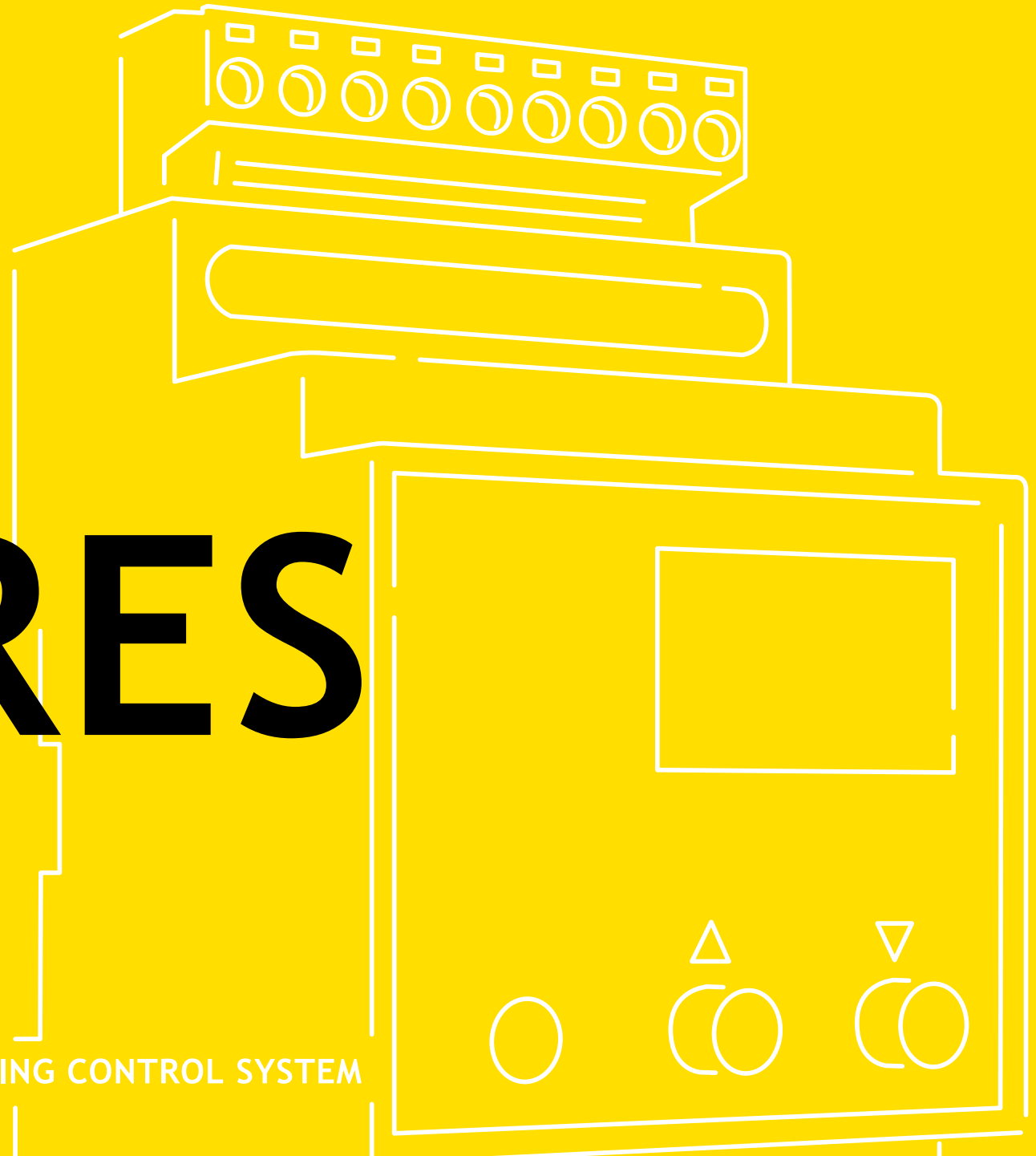


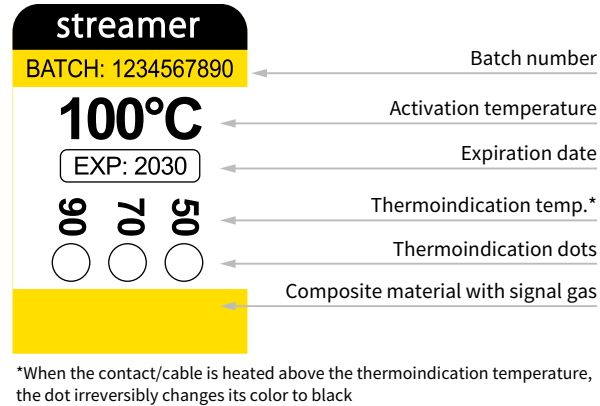
ALBUM
OF STANDARD
SOLUTIONS

FIPRES

FIRE PREVENTION & OVERHEATING CONTROL SYSTEM



	rFPT 0.1	rFPT 0.3	rFPT 1	rFPT XL
Length, mm	50	80	138	210
Width, mm	20	20	20	35
Thickness, mm	1.75	1.75	1.75	1.75
Weight, g	1.1	2.2	4.3	11.0
Conductor cross-section, mm ²	<10	10-35	35-120	>120



List of compatibility of rFPT and FPA

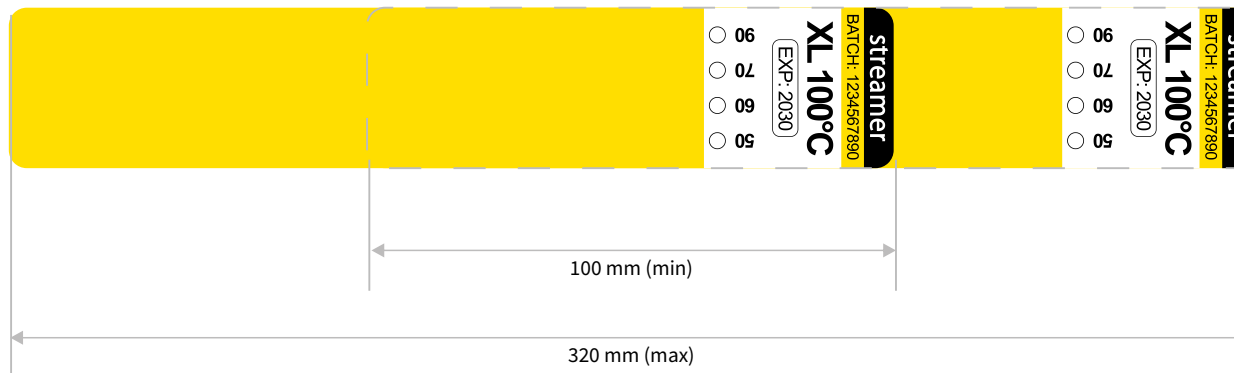
Volume of electrical panel, m ³	FPC 220S FPC 220S (GSM)	rFPT 0.1	rFPT 0.3	rFPT 1	rFPT XL 2x rFPT XL	FPA 24/X	FPA 24(4S)
up to 0.1	+	+	+	+	+	+	+
0.11 - 0.3	+	-	+	+	+	+	+
0.31 - 1	+	-	-	+	+	+	+
1.01 - 4	+	-	-	-	+	-	+

⊕ recommended solution

⊕ acceptable solution

⊖ unacceptable solution

2x rFPT XL length extension – rFPTs are glued on top of each other



- rFPT is recommended to be installed:
 - on wiring near connection points;
 - on the terminal and bolted connections of the control wiring;
 - on electric buses in contact points;
 - on terminal boxes;
 - on the housing of electrical apparatus, etc.
- rFPT is attached in such a way that its surface is wrapped around the protected element, with gluing the final part of the sticker onto the sticker body itself (gluing it into a ring).
- In order to avoid damage to rFPT, it is not allowed to press it strongly during the installation process, as well as to peel it off when being installed.
- When sticking rFPT, ensure that it fits snugly to the protected element.
- rFPT must be glued in such a way that the thermoindication dots are located on a visible angle.
- rFPT are available in various sizes depending on the volume of the switchgear they are used in. Products are intended to be used only together with Fire Prevention Alarm (FPA).
- rFPT are nonrestorable items and shall be replaced once triggered.
- Acceptable temperature range for operation (-60°C to +50°C).
- Validity period of rFPT is 10 years.

Table of compatibility of rFPT and dimension of connections

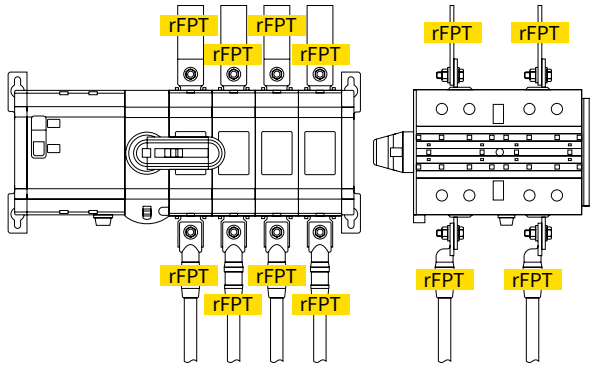
Busbar or rectangular cross-section dimension and rFPT correspondence

Busbar cross-section, mm	rFPT				
	0.1 (50 mm)	0.3 (80 mm)	1 (138 mm)	XL (210 mm)	2x XL
15 x 3	+	+	-	-	-
20 x 3	+	+	-	-	-
25 x 3	-	+	+	-	-
30 x 4	-	+	+	-	-
40 x 4	-	-	+	+	-
40 x 5	-	-	+	+	-
50 x 5	-	-	+	+	-
50 x 6	-	-	+	+	-
60 x 6	-	-	-	+	-
60 x 8	-	-	-	+	-
60 x 10	-	-	-	+	-
80 x 6	-	-	-	+	-
80 x 8	-	-	-	+	-
80 x 10	-	-	-	+	-
100 x 6	-	-	-	-	+
100 x 8	-	-	-	-	+
100 x 10	-	-	-	-	+
120 x 8	-	-	-	-	+
120 x 10	-	-	-	-	+
150 x 10	-	-	-	-	+

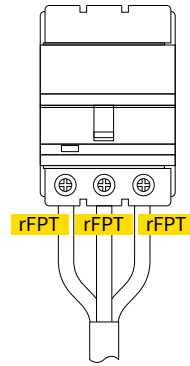
Busbar or rectangular cross-section dimension and rFPT correspondence

Cable cross-section, mm ²	rFPT			
	0.1 (50 mm)	0.3 (80 mm)	1 (138 mm)	XL (210 mm)
1.5	+	-	-	-
2.5	+	-	-	-
4	+	-	-	-
6	+	+	-	-
10	+	+	-	-
16	+	+	-	-
25	+	+	+	-
35	+	+	+	-
50	+	+	+	-
70	-	+	+	-
95	-	+	+	+
120	-	+	+	+

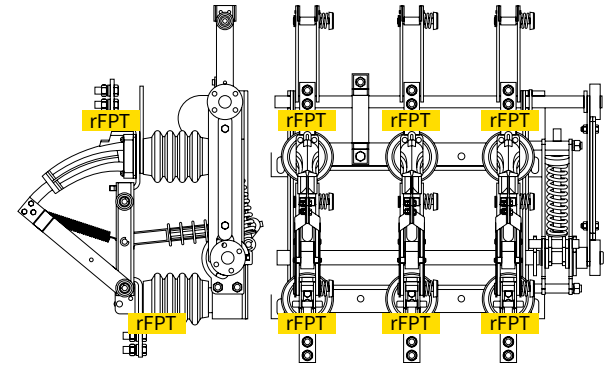
Installation rFPT on a switcher



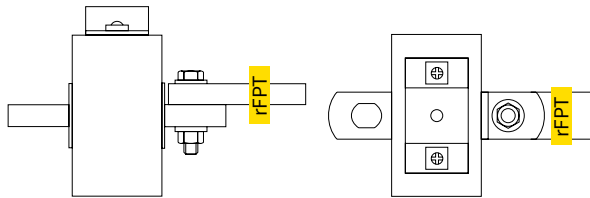
Installation rFPT on a CB



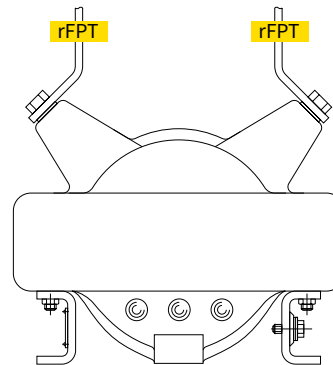
Installation rFPT on a self-blast circuit breaker



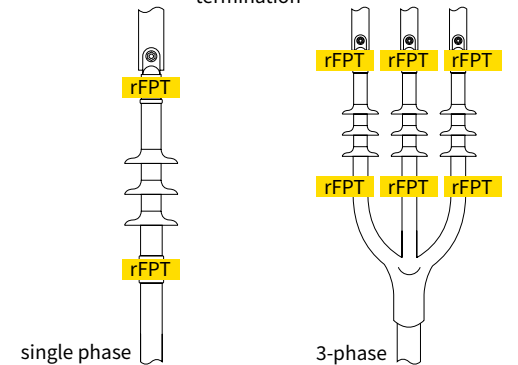
Installation rFPT on a current transformer



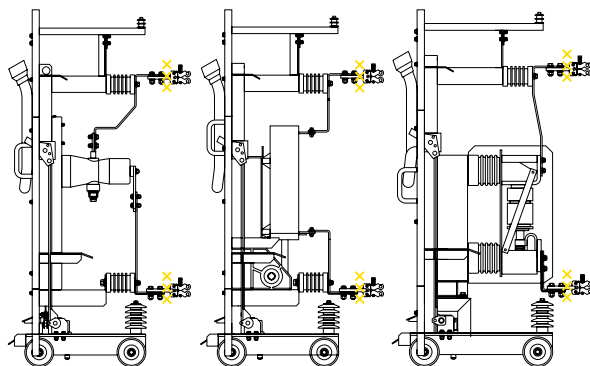
Installation rFPT on a voltage transformer



Installation rFPT on a heat shrinkable termination



Installation rFPT on withdrawable circuit breakers

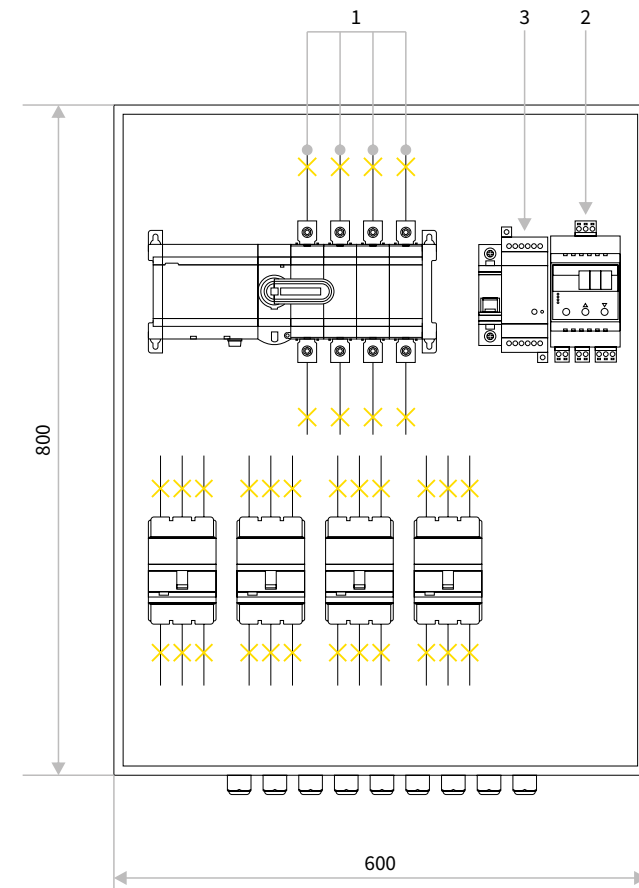
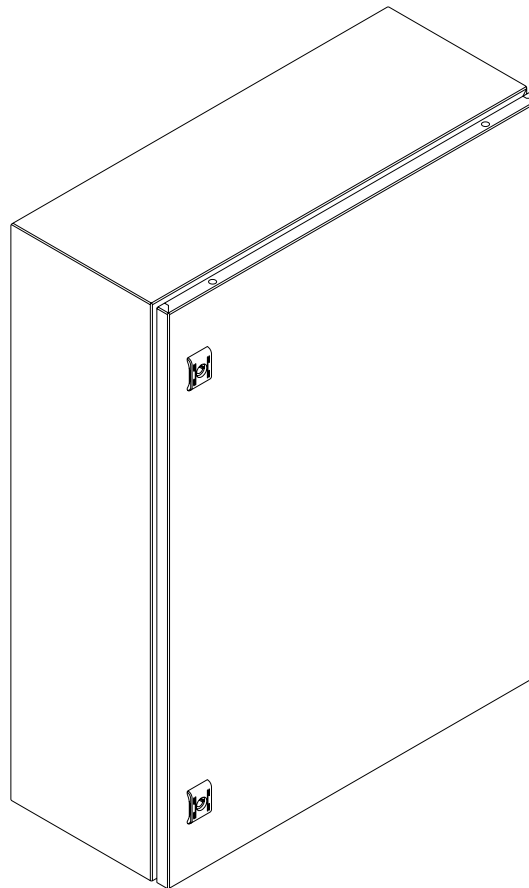


Notes:

rFPT - remote Fire Prevention Thermolabel

Electrical panel (0.4 kV) with up to 0.3 m³ volume

1. FPA sensor is installed in the object of protection together with the rFPT (in the same volume). In the volume of the protected object, one FPA is installed. If possible, the FPA sensor should be placed in close proximity to the accumulation sites of the installed rFPT. Preferably, the FPA is mounted in the upper part of the protected switchgear compartment so that its optical indicators are accessible for visual inspection.
2. The FPA is mounted on a galvanized steel or aluminum DIN rail of TN35 type in accordance with IEC 60715. During the installation work, ensure that the mounted elements of the sensor do not damage vital elements.
3. For communication lines and power supply of FPA sensors it is allowed to use combined cable of U / UTP, FTP or STP type according to ISO / IEC 11801 or separate cables with copper conductors with a section of not less than 0.125 mm². When using multiwire cables, cable lugs should be used. It is allowed to use cables with non-twisted conductors with a communication line length of only up to 50 m.
4. A terminal block of power supply for FPA is designed for connecting conductors with a cross section of up to 0.5 mm².
5. When using a twisted pair cable, it is recommended to comply with the following scheme of the color coding:
 - blue + white-blue - 24V power supply "-";
 - orange + white-orange - 24V supply "+";
 - green - RS-485 (A);
 - white-green - RS-485 (B).
6. Voltage converter recommended characteristics:
 - input: 110-220V AC;
 - output: 24V DC;
 - rated power: based on the fact that FPA24/X consumes 1.5W, FPA 24(4S) with 4 corded sensors consumes 5W.

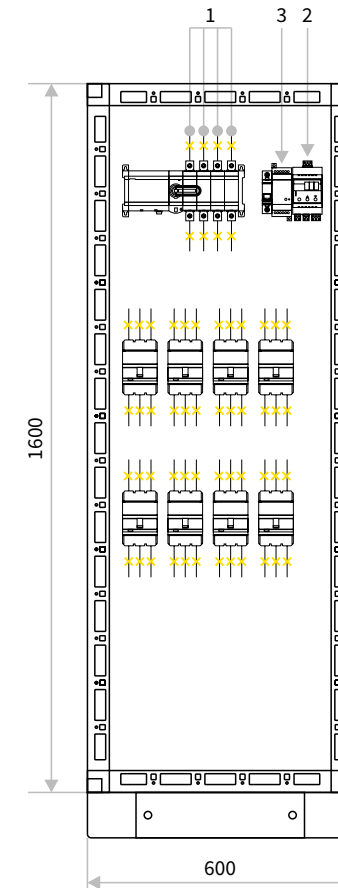
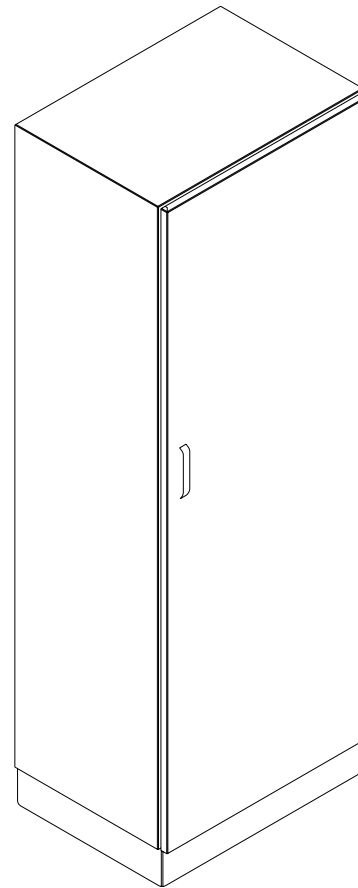


BOM

#	Name	Description	Qty
1	rFPT 100/0.3	remote Fire Prevention Thermolabel	32
2	FPA 24/X	Fire Prevention Alarm	1
3	24V DC Power Supply	Voltage converter 24V DC, 10W	1
4	FPC 220S	Fire Prevention Concentrator	1

Electrical panel (0.4 kV) with 1 m³ volume

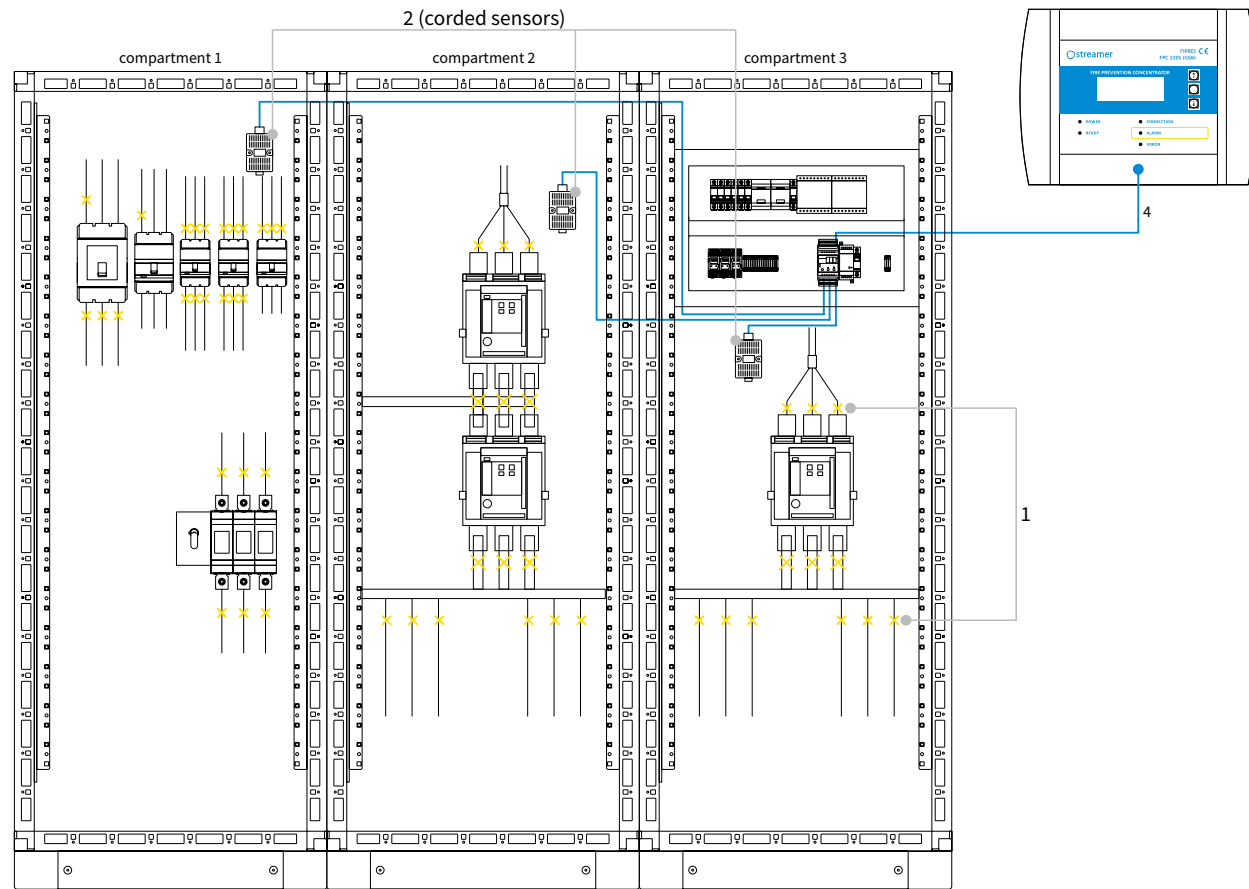
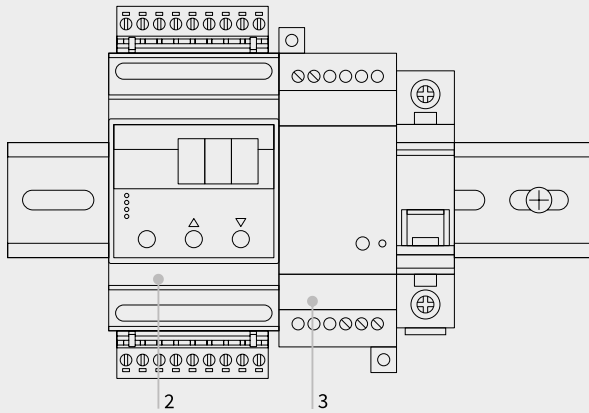
1. FPA sensor is installed in the object of protection together with the rFPT (in the same volume). In the volume of the protected object, one FPA is installed. If possible, the FPA sensor should be placed in close proximity to the accumulation sites of the installed rFPT. Preferably, the FPA is mounted in the upper part of the protected switchgear compartment so that its optical indicators are accessible for visual inspection.
2. The FPA is mounted on a galvanized steel or aluminum DIN rail of TN35 type in accordance with IEC 60715. During the installation work, ensure that the mounted elements of the sensor do not damage vital elements.
3. For communication lines and power supply of FPA sensors it is allowed to use combined cable of U / UTP, FTP or STP type according to ISO / IEC 11801 or separate cables with copper conductors with a section of not less than 0.125 mm². When using multiwire cables, cable lugs should be used. It is allowed to use cables with non-twisted conductors with a communication line length of only up to 50 m.
4. A terminal block of power supply for FPA is designed for connecting conductors with a cross section of up to 0.5 mm².
5. When using a twisted pair cable, it is recommended to comply with the following scheme of the color coding:
 - blue + white-blue — 24V power supply "-";
 - orange + white-orange — 24V supply "+";
 - green — RS-485 (A);
 - white-green — RS-485 (B).
6. Voltage converter recommended characteristics:
 - input: 110-220V AC;
 - output: 24V DC;
 - rated power: based on the fact that FPA24/X consumes 1.5W, FPA 24(4S) with 4 corded sensors consumes 5W.



BOM

#	Name	Description	Qty
1	rFPT 100/1	remote Fire Prevention Thermolabel	56
2	FPA 24/X	Fire Prevention Alarm	1
3	24V DC Power Supply	Voltage converter 24V DC, 10W	1
4	FPC 220S	Fire Prevention Concentrator	1

Low voltage distribution switchboard 0.4 kV



BOM

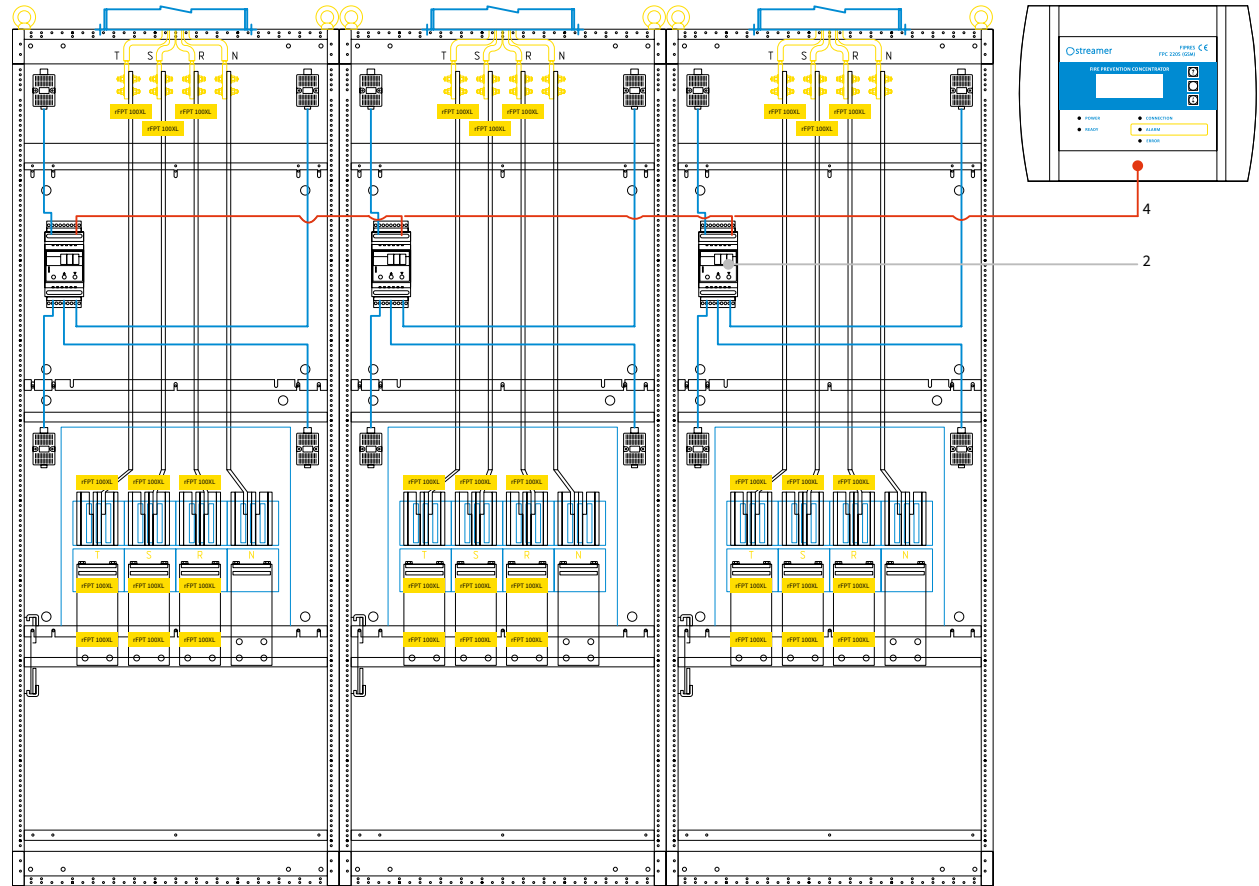
#	Name	Description	Qty
1	rFPT 100/XL	remote Fire Prevention Thermolabel	57
2	FPA 24(4S)	Fire Prevention Alarm	1
3	24V DC Power Supply	Voltage converter 24V DC, 10W	1
4	FPC 220S	Fire Prevention Concentrator	1

Distributor board 0.4 kV without internal partitions

For the case with merged compartments without internal partitions it's necessary to use FPA 24(4S).

It's very important to place corded sensors near to the spots of rFPTs.

It's also needed to consider that due to the spread of gas from bottom to top, FPA can be triggered in an adjacent compartment.



BOM

#	Name	Description	Qty
1	rFPT 100/XL	remote Fire Prevention Thermolabel	36
2	FPA 24(4S)	Fire Prevention Alarm	3
3	24V DC Power Supply	Voltage converter 24V DC, 10W	1
4	FPC 220S	Fire Prevention Concentrator	1

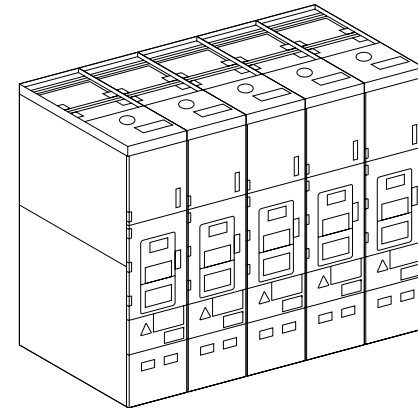
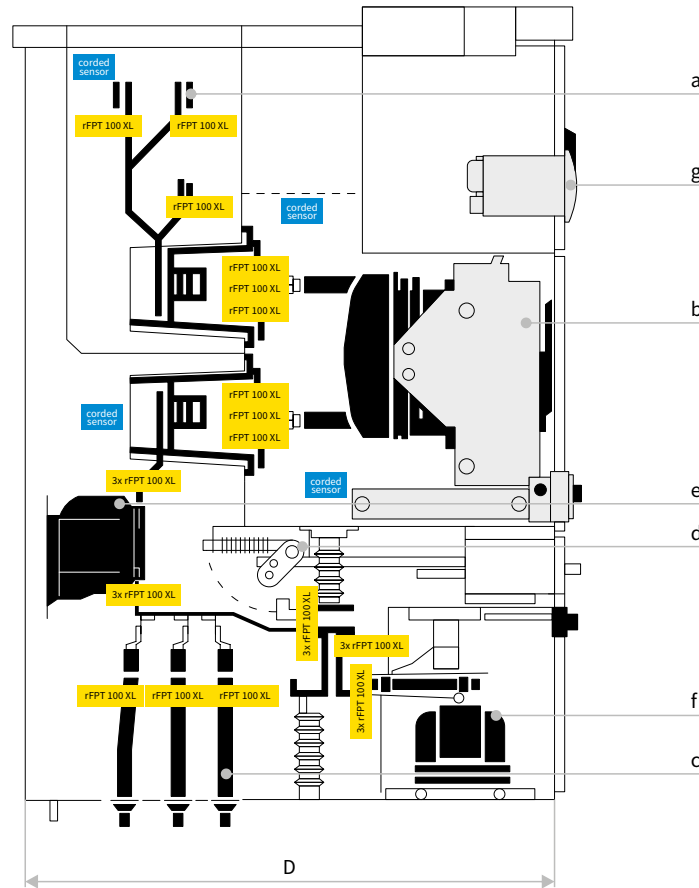
Switchgear

MV compartments

- a. busbars for cubicle interconnection;
- b. withdrawable circuit breaker;
- c. incoming cables;
- d. earthing switch;
- e. current transformer;
- f. voltage transformers (optionally equipped with withdrawable fuses);

LV control cabinet

- g. low voltage compartment.



BOM

#	Name	Description	Qty
1	rFPT 100/XL	remote Fire Prevention Thermolabel	27
2	FPA 24(4S)	Fire Prevention Alarm	1
3	24V DC Power Supply	Voltage converter 24V DC, 10W	1
4	FPC 220S	Fire Prevention Concentrator	1

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