Ostreamer

OM TECHNICAL SOLUTIONS

FIPRES

ELECTRICAL FIRE PREVENTION & OVERHEATING CONTROL SYSTEM

- 24/7 control of overheating in LV and MV electrical panels
- Increases equipment safety and reliability of operation
- Can be integrated to SCADA/BMS and local alarm systems
- Quick, easy, and affordable solution for both new and retrofit systems
- Detects hot spots months before fire hazards to prevent life-threatening situations, economic, and production losses

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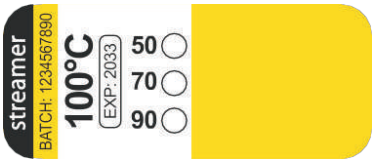
FIPRES TECHNOLOGY

Fire is one of the most dangerous situations that could arise in any residential or industrial installation. One-third of all fires occur due to an electrical malfunction, and loose connection problems are the most widespread reason for the fire.

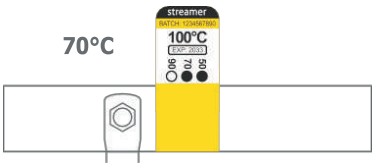
FIPRES is a new and unique technology that detects dangerous overheating of loose contacts long before a fire hazard occurs. FIPRES consists of 3 products working 24/7 to remotely inform when dangerous overheating appears in LV/MV electrical panels.

rFPT. Remote fire prevention thermolabel

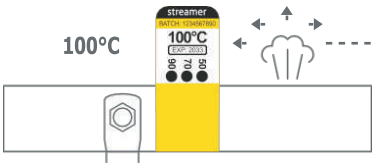
1 rFPT must be wrapped around cables/ busbars close to the contact points. A gas sensor (FPA) should be installed into the same volume



2 When a contact is heated above 50°/70°/90°C thermoindication dots irreversibly change their colors to black



3 In emergency situations when the temperature rises above 80°C/100°C/130°C the sticker releases signal gas which is detected by the gas sensor FPA



FPA. Fire prevention alarm.
FPA 24/X - FP.AL.00SB.01.WW
FPA 24(4S) - FP.AL.004S.02.WW

4 FPA transmits alarm signals to SCADA or BMS system through Modbus RTU, or to local alarm systems using dry contact output

Signal gas (non-toxic and non-flammable)

VIA RS 485 MODBUS

FPC. Fire prevention concentrator.
FPC 220S - FP.CU.S000.01.WW
FPC 220S (GSM) - FP.CU.SGSM.01.WW

5 FPC monitors the status of up to 32 FPA, displays and records Alarm signals. When FPA is triggered, the FPC transmits information to the central fire alarm system, SCADA or BMS. FPA has a speaker for audible notification

You can use a similar device which supports RS 485 Modbus instead of FPC (or even use light version of FIPRES: only rFPT + FPA. In this case FPA transmits signal directly to SCADA/BMS)

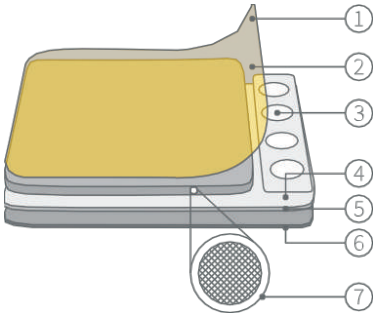
SCADA or BMS system | Duty personnel | Fire alarm system | Local computer Network

remote FIRE PREVENTION THERMOLABELS (rFPT)

Remote Fire Prevention Thermolabels (rFPTs) are installed at the contact connection points, on electrical wires or some parts of electrical equipment which are potentially prone to overheating. When heated to activation temperature, a signal gas is emitted from rFPT and is detected by Fire Prevention Alarm (FPA).

- Innovative system of gas encapsulation
- Validity period is 10 years
- Safe, non-toxic and non-flammable gas inside
- Easy installation without additional accessories

Activation temperature	Item name	Conductor cross-section, mm^2	Volume of compartment, m^3
80°C	rFPT 80/0,1	< 10	0,1
	rFPT 80/0,3	10-35	0,3
	rFPT 80/1	35-120	1
	rFPT 80/XL	> 120	1-4
100°C	rFPT 100/0,1	< 10	0,1
	rFPT 100/0,3	10-35	0,3
	rFPT 100/1	35-120	1
	rFPT 100/XL	> 120	1-4
130°C	rFPT 130/0,1	< 10	0,1
	rFPT 130/0,3	10-35	0,3
	rFPT 130/1	35-120	1
	rFPT 130/XL	> 120	1-4
Operating temperature of all rFPTs is from -60°C to +50 °C. Validity period of rFPT is 10 years.			

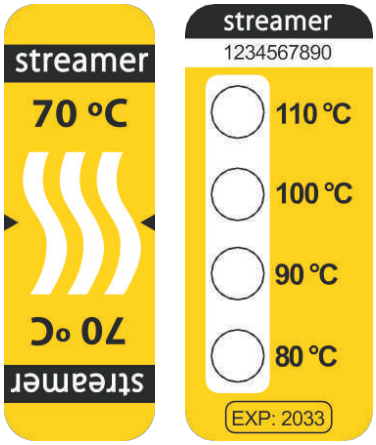


	0.1	0.3	1	XL
Length, mm	50	80	138	210
Width, mm	20	20	20	35
Thickness, mm	1,75	1,75	1,75	1,75
Weight, g	1,1	2,2	4,3	11

1. Protective film
2. Composition material
3. Thermoindicator dot
4. Polymer film
5. Adhesive layer
6. Backing layer
7. Microcapsules

visual FIRE PREVENTION THERMOLABELS (vFPT)

vFPT helps maintenance personnel understand the condition of the equipment, not only at the time of inspection, but can also see if the equipment has reached a certain temperature in the past. Unlike using a thermal imager, vFPT provides a clear picture of what has happened since the last check. These labels are extremely easy to install for any configuration of electrical equipment. The principle of operation is simple: at the activation temperature the white strips or dots irreversibly change color to black.



- vFPT provides information on overheating occurred between 2 checks.
- Long strips allow to get 360° angle of observation.
- 4 vFPT temperature dots allows you to understand not only if the contact has reached highest permissible temperature but also to see how defect evolves and understand the reasons of overheating.
- Specially designed for installation on electrical equipment
- Control hard-to-reach or inaccessible elements for the thermal imager (MV switchgear, explosion-proof electrical equipment).

	S	M	L	4-temperatures vFPT
Length, mm	40	50	75	50
Width, mm	15	15	15	20

Activation temperature	Item name	Conductor cross-section, mm²
70 °C	vFPT 70S	up to 10
	vFPT 70M	10-35
	vFPT 70L	35-120
90 °C	vFPT 90S	up to 10
	vFPT 90M	10-35
	vFPT 90L	35-120
110 °C	vFPT 110S	up to 10
	vFPT 110M	10-35
	vFPT 110L	35-120
50-60-70-80 °C	vFPT 50-80 4D	10-120
80-90-100-110 °C	vFPT 80-110 4D	10-120

Other temperature vFPT can be created on request with a minimum order quantity. Validity period of vFPT is 10 years.

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