

SECRETARIA DE ESTADO DOS NEGÓCIOS DA SEGURANÇA PÚBLICA



**POLÍCIA MILITAR DO ESTADO DE SÃO PAULO**



**Corpo de Bombeiros**

## **INSTRUÇÃO TÉCNICA Nº. 04/2011**

### **Símbolos gráficos para projeto de segurança contra incêndio**

#### **SUMÁRIO**

- 1 Objetivo
- 2 Aplicação
- 3 Referência normativa e bibliográfica
- 4 Definições
- 5 Procedimentos

#### **ANEXO**

Símbolos gráficos para projeto de segurança contra incêndio

## **1 OBJETIVO**

Padronizar os símbolos gráficos a serem utilizados nos projetos de segurança contra incêndio das edificações e áreas de risco, atendendo ao previsto no Decreto Estadual nº 56.819/11 – Regulamento de Segurança contra Incêndio das edificações e áreas de risco do Estado de São Paulo.

## **2 APLICAÇÃO**

**2.1** Esta Instrução Técnica (IT) aplica-se a todos os projetos de segurança contra incêndio, por ocasião da regularização perante ao Corpo de Bombeiros.

**2.2** Adota-se a NBR 14100/98 – Proteção contra incêndio – símbolos gráficos para projeto, com as inclusões e adequações de exigências constantes nesta IT.

## **3 REFERÊNCIA NORMATIVA**

NBR 14100/98 – Proteção contra incêndio – símbolos gráficos para projeto.

## **4 DEFINIÇÕES**

Para efeito desta Instrução Técnica, aplicam-se as definições constantes da IT 03/11 – Terminologia de segurança contra incêndio.

## **5 PROCEDIMENTOS**

**5.1** Os símbolos gráficos que devem constar nos projetos de segurança contra incêndio das edificações e áreas de risco são apresentados no anexo desta IT.

**5.2** Os símbolos gráficos são compostos por uma forma geométrica básica, que define uma categoria de segurança contra incêndio e por um símbolo suplementar, que, quando colocado no interior da forma geométrica básica, define o significado específico do conjunto.

**5.3** As dimensões dos símbolos devem estar em uma mesma escala, proporcional à escala de desenho do projeto, e devem permitir a perfeita visualização dos sistemas e equipamentos de segurança contra incêndio.

**5.4** Os símbolos podem ser suplementados por figuras detalhadas, números ou abreviaturas.

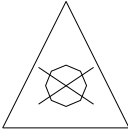
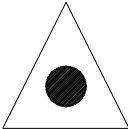

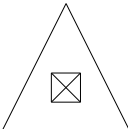
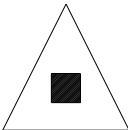
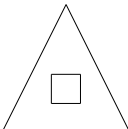
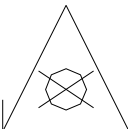
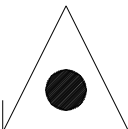
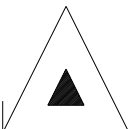
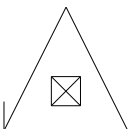
**5.5** Os significados de todos os símbolos utilizados devem ser representados em uma legenda, de forma clara e de fácil identificação pelo leitor.

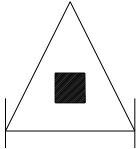
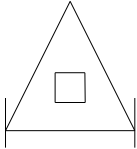
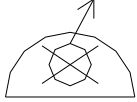
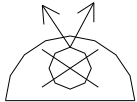
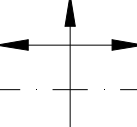
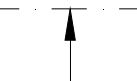
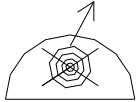
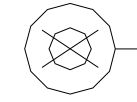
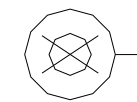

**5.6** Símbolos complementares que não constem do anexo desta IT, podem ser incorporados ao projeto de segurança contra incêndio, desde que devidamente definidos em legenda.


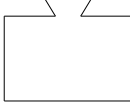
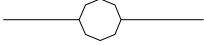
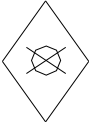
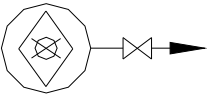

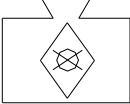
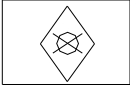
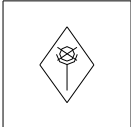
**5.7** No caso de projetos executivos das instalações de segurança contra incêndio, podem ser adotadas as simbologias próprias das respectivas normas técnicas da ABNT.




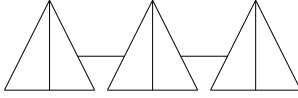

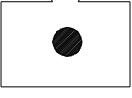

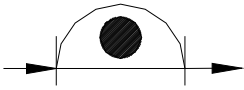
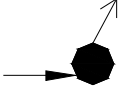
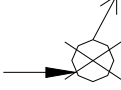
Anexo




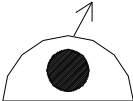


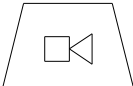
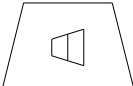
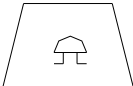
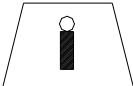
Símbolos gráficos para projeto de segurança contra incêndio

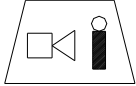
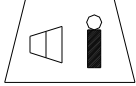
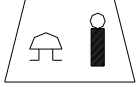
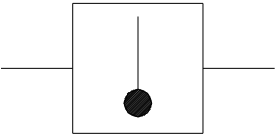
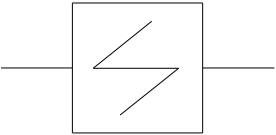
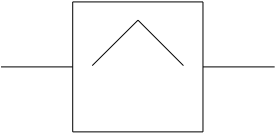
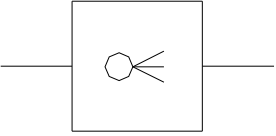
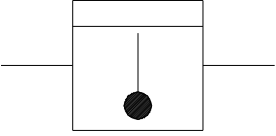
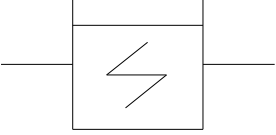
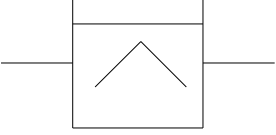
EXTINTORES	EXTINTORES PORTÁTEIS	CARGA D'ÁGUA	
		CARGA DE ESPUMA MECÂNICA	
		CARGA DE DIÓXIDO DE CARBONO (CO2)	
		CARGA DE PÓ BC	
		CARGA DE PÓ ABC	
		CARGA DE PÓ D	
	EXTINTORES SOBRE-RODAS	CARGA D'ÁGUA	
		CARGA DE ESPUMA MECÂNICA	
		CARGA DE DIÓXIDO DE CARBONO (CO2)	
		CARGA DE PÓ BC	

EXTINTORES	EXTINTORES SOBRE-RODAS	CARGA DE PÓ ABC	
		CARGA DE PÓ D	
SISTEMA DE HIDRANTES	SISTEMA DE HIDRANTES	HIDRANTE SIMPLES	
		HIDRANTE DUPLO	
		HIDRANTE URBANO DE COLUNA	
		HIDRANTE URBANO SUBTERRÂNEO	
		MANGOTINHO	
		REGISTRO DE RECALQUE COM VÁLVULA DE RETENÇÃO	
		REGISTRO DE RECALQUE SEM VÁLVULA DE RETENÇÃO	
		ACIONADOR DE BOMBA DE INCÊNDIO (BOTOEIRA TIPO LIGA DESLIGA)	

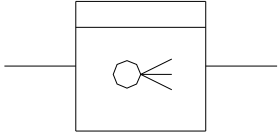
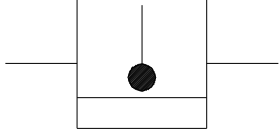
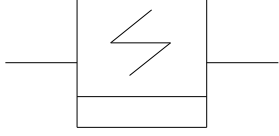
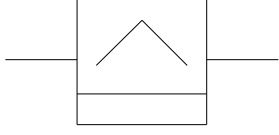
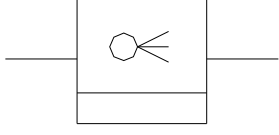
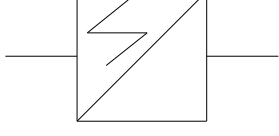
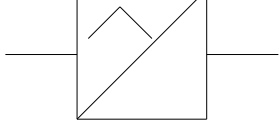
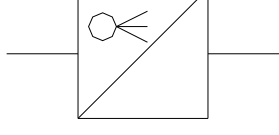
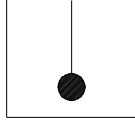
SISTEMA DE HIDRANTES	SISTEMA DE HIDRANTES	BOMBA DE INCÊNDIO	
		RESERVA DE INCÊNDIO	
SISTEMA FIXO DE EXTINÇÃO	CHUVEIROS AUTOMÁTICOS	PONTO (BICO DE SPRINKLER)	
		ÁREA PROTEGIDA PELO SISTEMA DE CHUVEIROS AUTOMÁTICOS	
		REGISTRO DE RECALQUE PARA SISTEMA DE CHUVEIROS AUTOMÁTICOS	
		BOMBA DE INCÊNDIO PARA SISTEMA DE CHUVEIROS AUTOMÁTICOS	
		RESERVA DE INCÊNDIO PARA SISTEMA DE CHUVEIROS AUTOMÁTICOS	
		PAINEL DE COMANDO CENTRAL SISTEMA DE CHUVEIROS AUTOMÁTICOS	
		VÁLVULA DE GOVERNO E ALARME (VGA) E/OU COMANDO SECCIONAL (CS)	
	GÁS CARBÔNICO		ÁREA PROTEGIDA PELO SISTEMA FIXO DE CO2

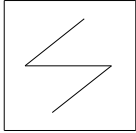
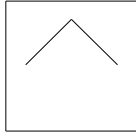
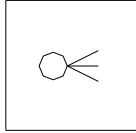
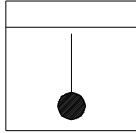
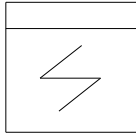
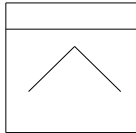
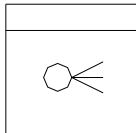
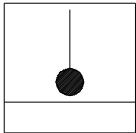
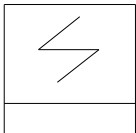
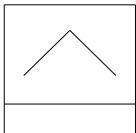
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		ACIONADOR MANUAL DO SISTEMA FIXO DE CO2	
	SISTEMA ALTERNATIVO AO HALON	ÁREA PROTEGIDA HALON	
		CENTRAL DE BATERIAS HALON	
		ACIONADOR MANUAL HALON	
	SISTEMA DE ESPUMA	TANQUE ATMOSFÉRICO DE EFE SISTEMA FIXO DE ESPUMA	
		ESTAÇÃO FIXA DE EMULSIONAMENTO	
		ESTAÇÃO MÓVEL DE EMULSIONAMENTO	
		CANHÃO MONITOR (PORTÁTIL) SISTEMA FIXO DE ESPUMA	
		CANHÃO MONITOR (PORTÁTIL) SISTEMA FIXO DE RESFRIAMENTO	

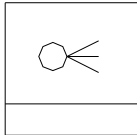
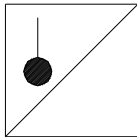
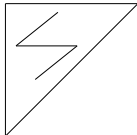
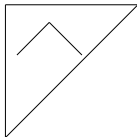
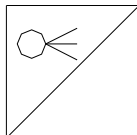
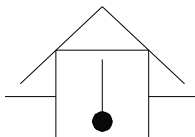
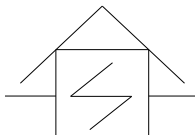
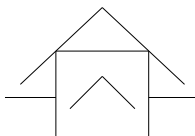
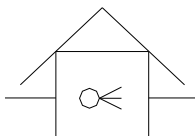
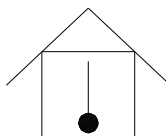
SISTEMA FIXO DE EXTINÇÃO	SISTEMA DE ESPUMA	ÁREA PROTEGIDA PELO SISTEMA FIXO DE ESPUMA		
		CÂMARA DE ESPUMA DO SISTEMA FIXO DE ESPUMA		
		EXTRATO FORMADOR DE ESPUMA (EFE) – PORTÁTIL		
		SISTEMA PORTÁTIL DE ESPUMA (ESGUICHO LANÇADOR)		
	NEBULIZADORES	ÁREA PROTEGIDA PELO SISTEMA DE NEBULIZADORES		
		REGISTRO MANUAL DO SISTEMA DE NEBULIZADORES		
	SISTEMA DE DETECÇÃO E ALARME	SISTEMA DE ALARME	AVISADOR SONORO TIPO SIRENE	
			AVISADOR SONORO TIPO ALTO FALANTE	
AVISADOR SONORO TIPO GONGO				
AVISADOR VISUAL				

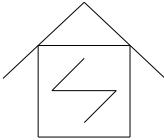
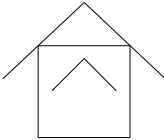
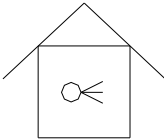
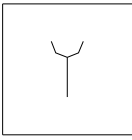
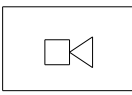
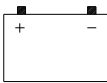
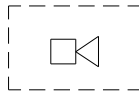
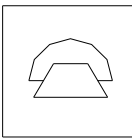

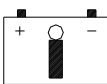
SISTEMA DE DETECCAO E ALARME	SISTEMA DE ALARME	AVISADOR SONORO E VISUAL (COM SIRENE)	
		AVISADOR SONORO E VISUAL (COM ALTO FALANTE)	
		AVISADOR SONORO E VISUAL (COM GONGO)	
	DETECTORES LINEARES	DETECTOR DE CALOR LINEAR	
		DETECTOR DE FUMACA LINEAR	
		DETECTOR DE CHAMAS LINEAR	
		DETECTOR DE GAS LINEAR	
	DETECTORES LINEARES ENTRE FORRO	DETECTOR DE CALOR LINEAR ENTRE FORRO	
		DETECTOR DE FUMACA LINEAR ENTRE FORRO	
		DETECTOR DE CHAMAS LINEAR ENTRE FORRO	

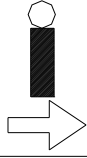
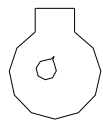
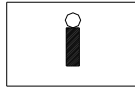
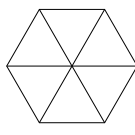
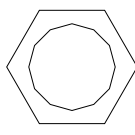
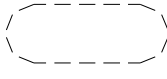



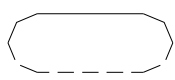



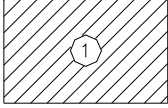
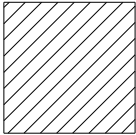
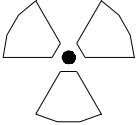
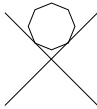
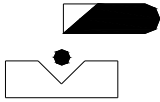

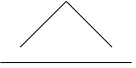
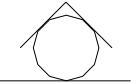

SISTEMA DE DETECÇÃO E ALARME	DETECTOR LINEAR ENTRE FORRO	DETECTOR DE GÁS LINEAR ENTRE FORRO	
	DETECTORES LINEARES ENTRE PISO	DETECTOR DE PISO LINEAR ENTRE PISO	
		DETECTOR DE FUMAÇA LINEAR ENTRE PISO	
		DETECTOR DE CHAMAS LINEAR ENTRE PISO	
		DETECTOR DE GÁS LINEAR ENTRE PISO	
		DETECTORES LINEARES EM ARMÁRIOS	DETECTOR DE CALOR LINEAR EM ARMÁRIO
	DETECTOR DE FUMAÇA LINEAR EM ARMÁRIO		
	DETECTOR DE CHAMA LINEAR EM ARMÁRIO		
	DETECTOR DE GAS LINEAR EM ARMÁRIO		
	DETECTORES PONTUAIS	DETECTOR DE CALOR PONTUAL	


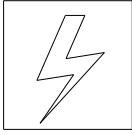
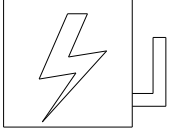

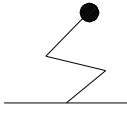

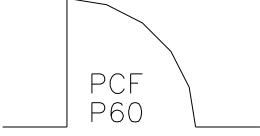
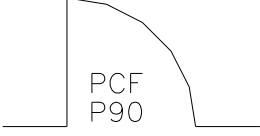
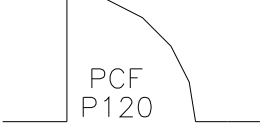

SISTEMA DE DETECÇÃO E ALARME	DETECTORES PONTUAIS	DETECTOR DE FUMAÇA PONTUAL	
		DETECTOR DE CHAMAS PONTUAL	
		DETECTOR DE GÁS PONTUAL	
	DETECTORES PONTUAIS ENTRE FORRO	DETECTOR DE CALOR PONTUAL ENTRE FORRO	
		DETECTOR DE FUMAÇA PONTUAL ENTRE FORRO	
		DETECTOR DE CHAMAS PONTUAL ENTRE FORRO	
		DETECTOR DE GÁS PONTUAL ENTRE FORRO	
	DETECTORES PONTUAIS ENTRE PISO	DETECTOR DE PISO PONTUAL ENTRE PISO	
		DETECTOR DE FUMAÇA PONTUAL ENTRE PISO	
		DETECTOR DE CHAMAS PONTUAL ENTRE PISO	






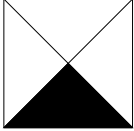
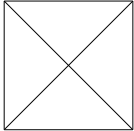
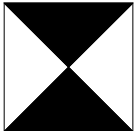
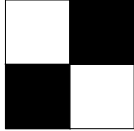

SISTEMA DE DETEÇÃO E ALARME	DETECTOR PONTUAL EM ARMÁRIO	DETECTOR DE GÁS PONTUAL ENTRE PISO	
	DETECTORES PONTUAIS EM ARMÁRIO	DETECTOR DE CALOR PONTUAL EM ARMÁRIO	
		DETECTOR DE FUMACA PONTUAL EM ARMÁRIO	
		DETECTOR DE CHAMA PONTUAL EM ARMÁRIO	
		DETECTOR DE GÁS PONTUAL EM ARMÁRIO	
	DETEC. LINEARES PROT.	DETECTOR DE CALOR LINEAR COM PROTEÇÃO CONTRA INTEMPÉRIES	
		DETECTOR DE FUMAÇA LINEAR COM PROTEÇÃO CONTRA INTEMPÉRIES	
		DETECTOR DE CHAMAS LINEAR COM PROTEÇÃO CONTRA INTEMPÉRIES	
		DETECTOR DE GÁS LINEAR COM PROTEÇÃO CONTRA INTEMPÉRIES	
	DETECTORES PONTUAIS PROT.	DETECTOR DE CALOR PONTUAL COM PROTEÇÃO CONTRA INTEMPÉRIES	

SISTEMA DE DETECÇÃO E ALARME	DETEC. PONTUAIS PROT.	DETECTOR DE FUMAÇA PONTUAL COM PROTEÇÃO CONTRA INTEMPÉRIES		
		DETECTOR DE CHAMAS PONTUAL COM PROTEÇÃO CONTRA INTEMPÉRIES		
		DETECTOR DE GÁS PONTUAL COM PROTEÇÃO CONTRA INTEMPÉRIES		
	COMPLEMENTOS	ACIONADOR MANUAL DO SISTEMA DE DETECÇÃO E ALARME		
		CENTRAL DE DETECÇÃO E ALARME		
		BATERIAS DO SISTEMA DE DETECÇÃO E ALARME		
		PAINEL REPETIDOR DO SISTEMA		
		TELEFONE DE EMERGÊNCIA/ INTERFONE		
	SIST. DE ILUM. DE EMERG.	ILUM. DE EMERGÊNCIA	PONTO DE ILUMINAÇÃO DE EMERGÊNCIA	
			BATERIAS DE ACUMULADORES PARA O SISTEMA DE ILUMINAÇÃO DE EMERGÊNCIA	

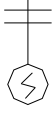
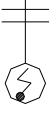
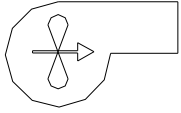
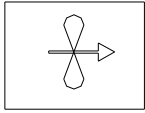
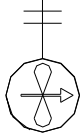
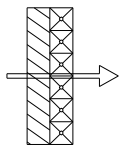
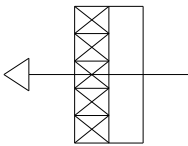
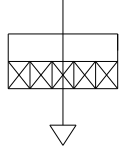
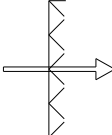
SIST. DE ILUM. DE EMERGÊNCIA	ILUMINAÇÃO DE EMERGÊNCIA	PONTO DE ILUMINAÇÃO DE EMERGÊNCIA TIPO BALIZAMENTO	
		GRUPO MOTO GERADOR	
		CENTRAL DO SISTEMA DE ILUMINAÇÃO DE EMERGÊNCIA	
VAZOS E TANQUES	CENTRAL GLP	CENTRAL PREDIAL DE GLP OU GÁS NATURAL	
	VASO PRES.	VASO SOBRE PRESSÃO	
	TANQUES	TANQUE HORIZONTAL ABAIXO DO SOLO (ENTERRADO)	
		TANQUE HORIZONTAL ACIMA DO SOLO (SUPERFÍCIE)	
	TANQUE VERTICAL ABAIXO DO SOLO (ENTERRADO)		
	TANQUE VERTICAL ACIMA DO SOLO (ELEVADO)		
	TANQUE HORINZONTAL SEMI-ENTERRADO		

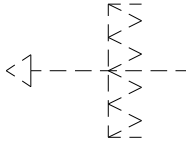
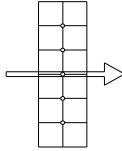
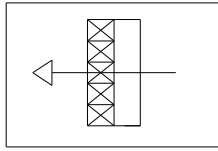
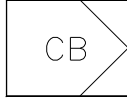
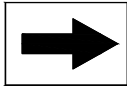

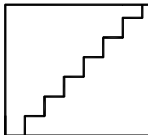
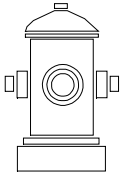
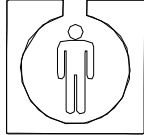
VASOS E TANQUES	TANQUES	TANQUE VERTICAL SEMI-ENTERRADO		
RISCOS	ÁREAS DE RISCO	ÁREA DE RISCO ESPECIAL		
		ÁREAS FRIAS		
	PRODUTOS PERIGOSOS	RADIOATIVOS		
		TÓXICO		
		CORROSIVO		
		EXPLOSIVO		
		COMBUSTÍVEL		
		COMBURENTE		
	ROTAS DE SAÍDA	DIRECIONAMENTO	DIREÇÃO DO FLUXO DA ROTA DE SAÍDA	

ROTA DE SAÍDA	DIRECIONAMENTO	SAÍDA FINAL DA ROTA		
	SISTEMA ELÉTRICO	INSTALAÇÃO ELÉTRICA	CHAVE ELÉTRICA SECUNDÁRIA	
			CHAVE ELÉTRICA PRINCIPAL	
			QUADRO DE DISTRIBUIÇÃO DE LUZ (QDL)	
SISTEMA PASSIVO	PÁRA RAIOS	PÁRA RAIOS		
	ANTIPÂNICO	BARRA ANTIPÂNICO		
	ABERTURAS PROTEGIDAS		PORTA CORTA FOGO P-60	
			PORTA CORTA FOGO P-90	
			PORTA CORTA FOGO P-120	
		ABERTURA PROTEGIDA P-60		

SISTEMA PASSIVO	SIST. PASSIVO	ABERTURA PROT.	ABERTURA PROTEGIDA P-30	
	VEDOS		PAREDES CORTA FOGO	
			PAREDE DE COMPARTIMENTAÇÃO	
			PAREDE COMUM	
			DIVISÓRIAS LEVES	
	ELEVADORES		ELEVADOR MONTA CARGA	
			ELEVADOR SIMPLES	
			ELEVADOR DE EMERGÊNCIA	
	SHAFTS		SHAFTS PROTEGIDOS	
	DÂMPERS		DÂMPERS CORTA FOGO	



SISTEMA PASSIVO	DAMPERS	DAMPERS CORTA FUMAÇA	
		DAMPERS CORTA FOGO E FUMAÇA	
	SISTEMA DE VENTILAÇÃO E SISTEMA DE CONTROLE DE FUMAÇA	GRUPO MOTO-VENTILADOR OU GRUPO MOTO-EXAUSTOR OU EXAUSTOR PARA CONTROLE DE FUMAÇA	
		ACIONADOR MANUAL PRESSURIZAÇÃO/EXAUSTÃO	
		DÂMPER DE SOBREPRESSÃO	
		VENEZIANA DE ENTRADA DE AR COM FILTRO METÁLICO LAVÁVEL	
		VENEZIANA DE ENTRADA DE AR PARA SISTEMA DE CONTROLE DE FUMAÇA (junto ao PISO)	
		VENEZIANA DE EXAUSTÃO PARA SISTEMA DE CONTROLE DE FUMAÇA (junto ao TETO)	
		DIMENSÕES DA VENEZIANA E ALTURA DO PISO (m)	$\frac{\text{Largura x Altura (Veneziana)}}{\text{Altura do piso}}$
		GRELHA COM DISPOSITIVO DE AJUSTE E BALANCEAMENTO	

SISTEMA PASSIVO	Sistema de Ventilação e Sistema de Controle de Fumaça	GRELHA PARA SISTEMA DE CONTROLE DE FUMAÇA	
		REGISTRO DE FLUXO	
		CENTRAL DE AÇIONAMENTO DAS VENEZIANAS	
OUTROS	OUTROS	ACESSO DE VIATURA NA EDIFICAÇÃO OU ÁREA DE RISCO	
		ACESSO DE GUARNIÇÃO À EDIFICAÇÃO OU ÁREA DE RISCO	
		EQUIPAMENTOS A PROVA DE EXPLOÇÃO	
		ESCADA DE SEGURANÇA COM RESISTÊNCIA AO FOGO	
		HIDRANTE PÚBLICO	
		LOCAL CONFINADO	
		PRODUTO PERIGOSO	