

LINHA NP20

NP20 SERIES

PT

EN

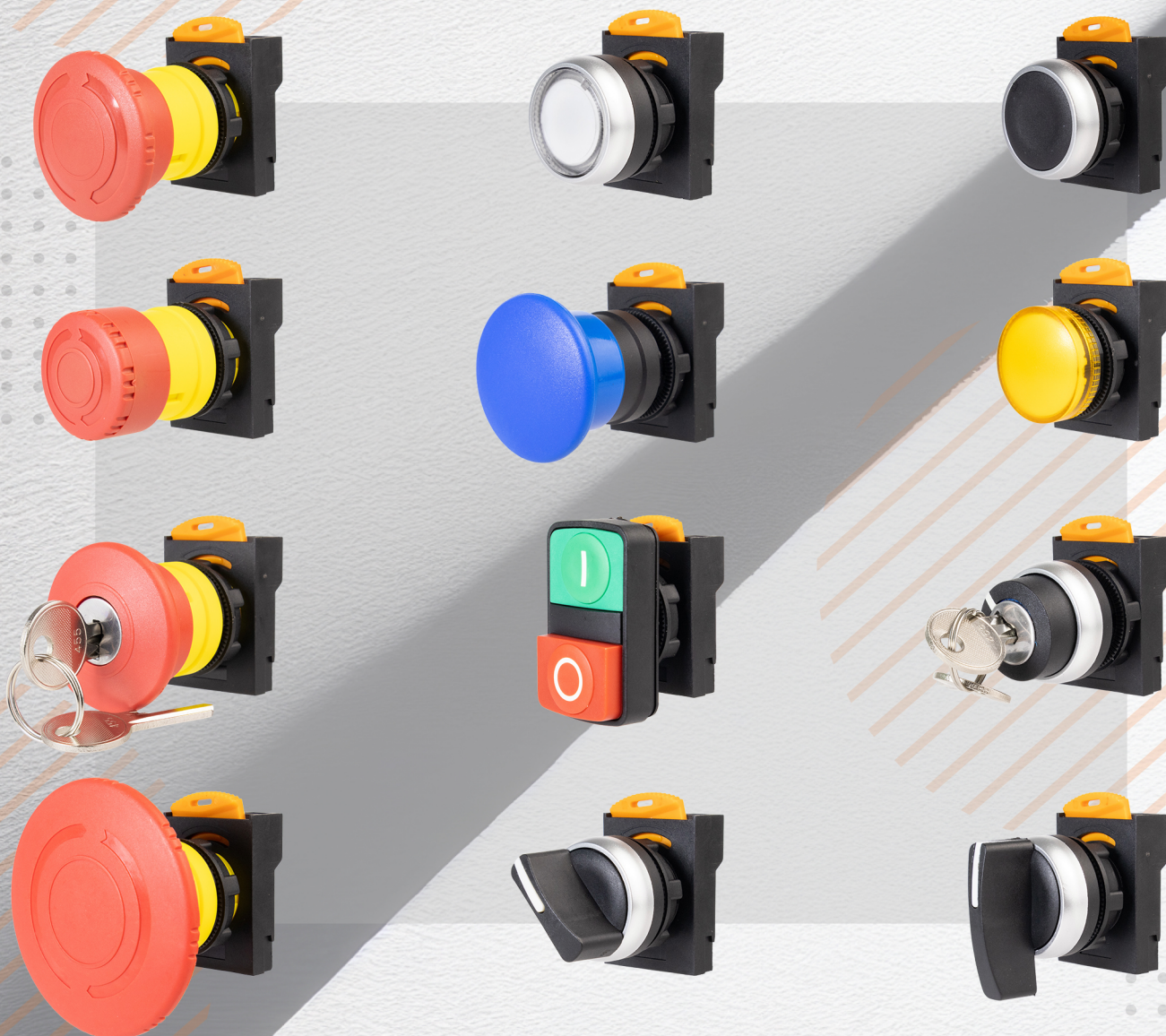
ES

BOTÕES DE COMANDO MODULAR 22 mm

22 mm MODULAR PUSH BUTTONS

ESPECIFICAÇÕES TÉCNICAS

TECHNICAL SPECIFICATIONS



PRINCIPAIS CARACTERÍSTICAS

- Botão de comando modular para painel com furação de Ø22 mm;
- Corpo termoplástico autoextinguível com alta resistência mecânica e ao calor;
- Grau de proteção IP40 ou IP65;
- De acordo com a norma IEC 60947-5-1;
- Certificado TÜV e CE;
- Diversos acessórios incluindo identificadores, tapa furos, adaptadores de furo, lâmpadas e etc (vendidos separadamente).

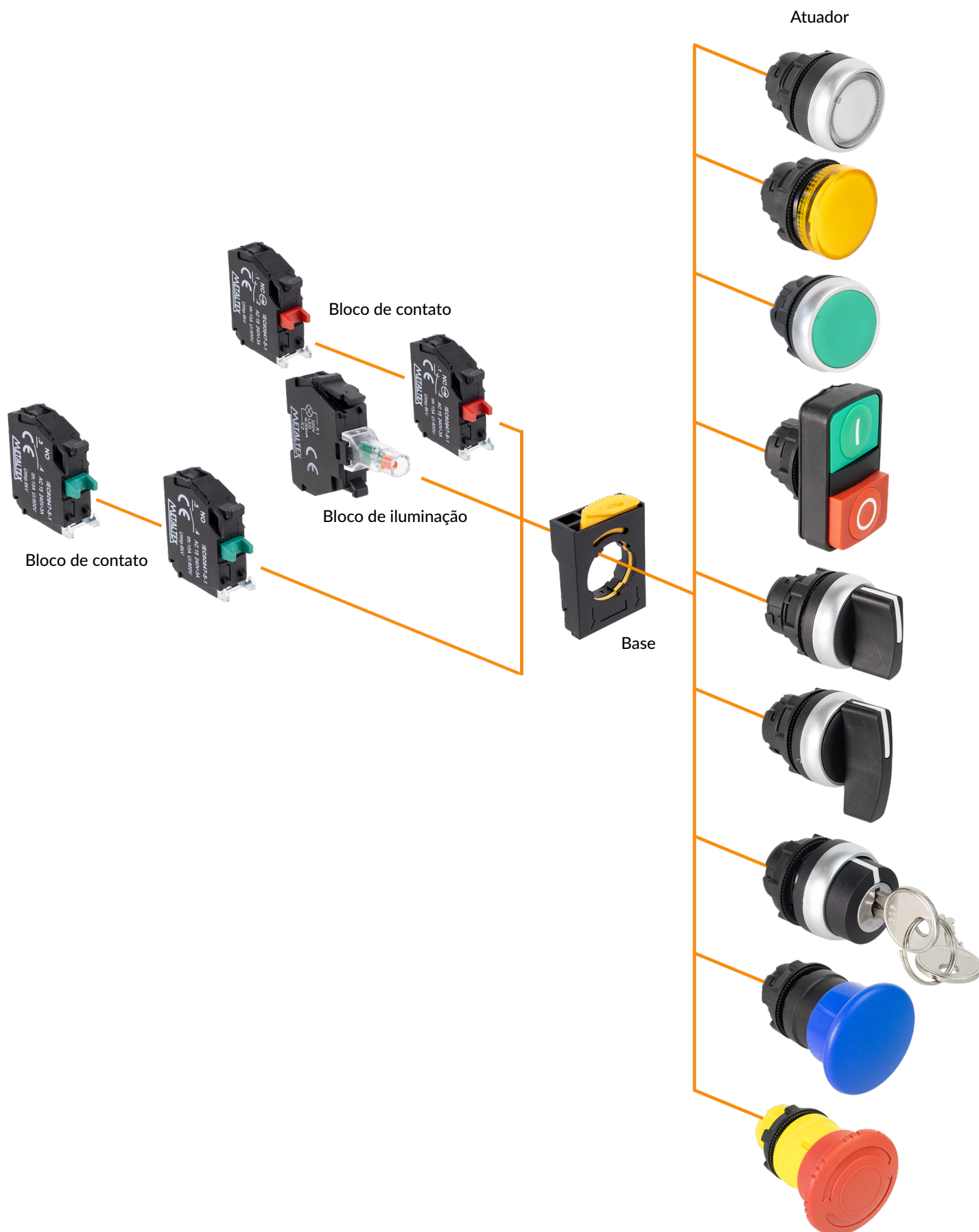


ESPECIFICAÇÕES GERAIS

Botões de comando e chaves seletoras		
Grau de proteção	IP40 e IP65	
Material do corpo	Termoplástico V0, autoextinguível	
Vida elétrica	1.000.000 operações	
Umidade	45% ~ 85% sem condensação	
Temperatura	-5 ~ 40 °C	
Altitude	< 2000 m	
Grau de poluição	Nível 3	
Normas	IEC 60947-5-1	
Certificações	TÜV / CE	
Diâmetro de montagem	22mm	
Bloco de contato		
Modelo	NP20-1A	NP20-1B
Tipo de contato	1NA	1NF
Grau de proteção	IP20	
Material do contato	AgNi	
Tensão de operação Ue	380 V	
Tensão de isolamento Ui	660 V	
Tensão de impulso		
Corrente nominal Ie	AC-15 (A600): 3 A / 240 V; 6 A / 120 V; 1,2 A / 600 V DC-13 (Q600): 0,1 A / 600 V; 0,27 A / 250 V; 0,55 A / 125 V	
Corrente térmica Ith	10 A	
Proteção contra curto-circuito	Fusível tipo cartucho 10 A, tipo gG	
Contato inicial	< 50 mΩ	
Resistência de vida elétrica	500.000 operações	
Bloco de iluminação		
Tipo de sinalização		Contínua
Consumo de corrente	12 VCC/VCA	≤ 20 mA
	24 VCC/VCA	
	110 VCC/VCA	
	220 VCC/VCA	

COMPOSIÇÃO DO BOTÃO MODULAR

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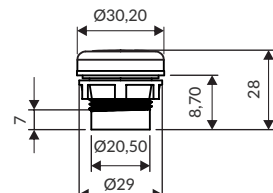
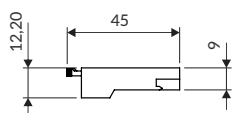
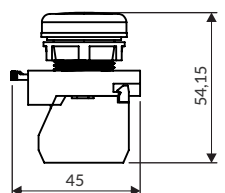


Botão vendido por módulos:

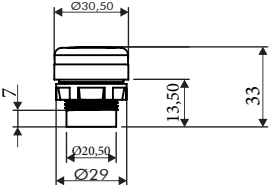
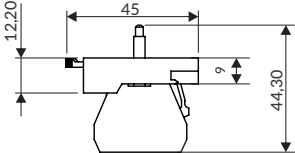
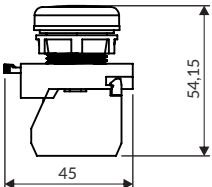
- A base acompanha os atuadores
- Os blocos de contato e bloco de iluminação são vendidos separados
- Possível adicionar até 4 blocos de contato

BOTÕES PULSADORES MOMENTÂNEOS

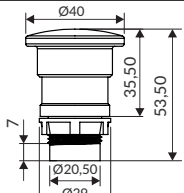
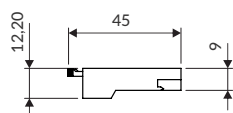
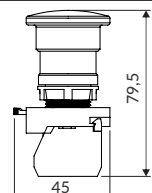
PT

 	Grau de proteção	Cor	Código
	IP65	Amarelo	NP20AF-Y
		Azul	NP20AF-BL
		Branco	NP20AF-W
		Preto	NP20AF-B
		Vermelho	NP20AF-R
		Verde	NP20AF-G
Dimensão (mm)			
			

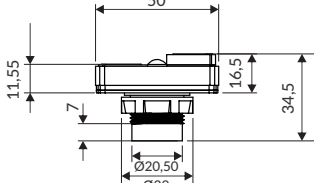
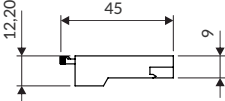
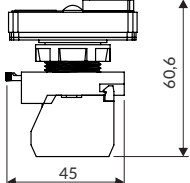
BOTÕES PULSADORES ILUMINADOS

	Grau de proteção	Cor	Código
	IP65	Amarelo	NP20IG-Y
		Azul	NP20IG-BL
		Branco	NP20IG-W
		Vermelho	NP20IG-R
		Verde	NP20IG-G
Dimensão (mm)			
			

BOTÕES PULSADORES COGUMELO

 	Grau de proteção	Cor	Código
	IP40	Amarelo	NP20AM-Y
		Azul	NP20AM-BL
		Branco	NP20AM-W
		Preto	NP20AM-B
		Vermelho	NP20AM-R
		Verde	NP20AM-G
Dimensão (mm)			
			

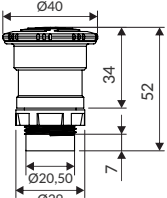
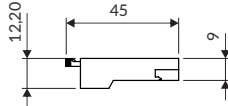
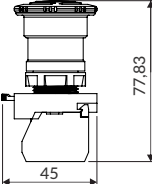
BOTÃO DUPLO

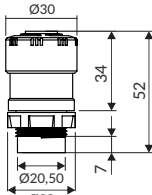
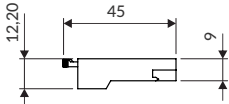
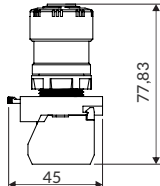
	Grau de proteção	Cor	Código	PT
	IP40	Verde e vermelho	NP20AP	
	Dimensão (mm)			
				

BOTÃO DUPLO ILUMINADO

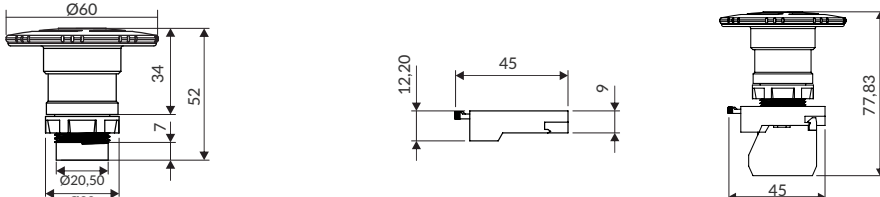
	Grau de proteção	Cor	Código
	IP40	Verde e vermelho	NP20ID
	Dimensão (mm)		

BOTÕES DE EMERGÊNCIA COGUMELO

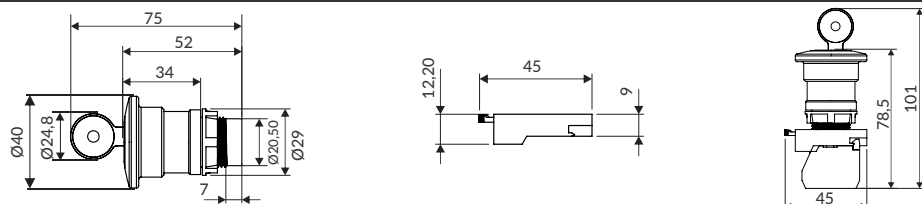
Trava e gira para destravar - Ø40 mm			
	Grau de proteção	Cor	Código
	IP65	Amarelo	NP20AK-Y
		Vermelho	NP20AK-R
Dimensão (mm)			
			

Trava e gira para destravar - Ø30 mm			
	Grau de proteção	Cor	Código
	IP65	Vermelho	NP20AX-R
	Dimensão (mm)		
			

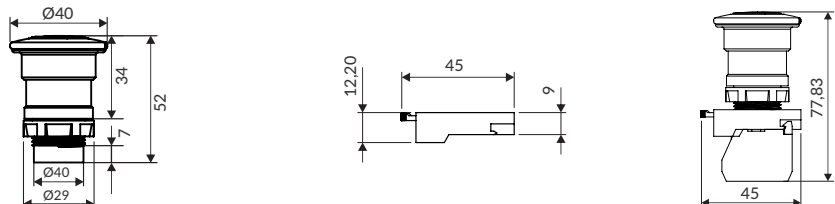
Trava e gira para destravar - Ø60 mm

	Grau de proteção	Cor	Código	PT
	IP65	Vermelho	NP20BY-R	
	Dimensão (mm)			
				

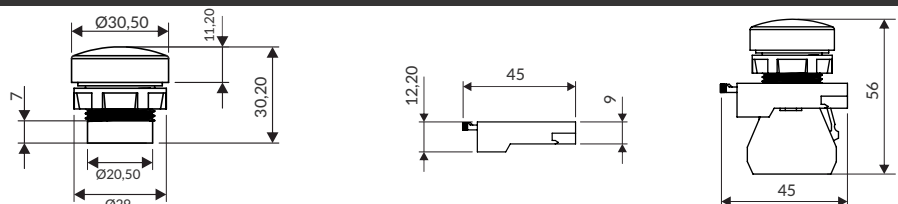
Trava e chave para destravar - Ø40 mm

	Grau de proteção	Cor	Código
	IP40	Vermelho	NP20AC-R
	Dimensão (mm)		
			

Trava e puxa para destravar - Ø40 mm

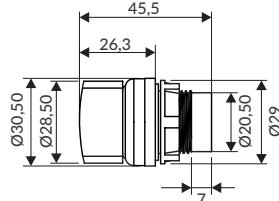
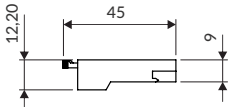
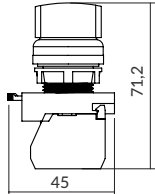
	Grau de proteção	Cor	Código
	IP65	Vermelho	NP20BE-R
	Dimensão (mm)		
			

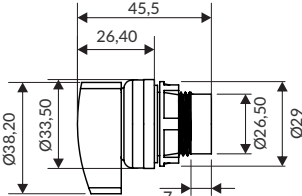
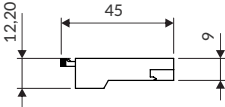
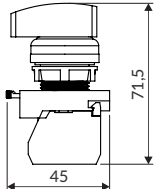
SINALIZADORES

	Grau de proteção	Cor	Código
	IP40	Amarelo	NP20PR-Y
		Azul	NP20PR-BL
		Branco	NP20PR-W
		Vermelho	NP20PR-R
		Verde	NP20PR-G
	Dimensão (mm)		
			



CHAVES SELETORAS

	Knob curto			PT
	Grau de proteção	Posições	Código	
	IP40	2 posições fixas 90° 	NP20SC2-B	
		3 posições fixas 45° 	NP20SC4-B	
		3 posições retorno direita, esquerda 45° 	NP20SC7-B	
Dimensão (mm)				
				

	Knob longo		
	Grau de proteção	Posições	Código
	IP40	2 posições fixas 90° 	NP20SL2-B
		3 posições fixas 45° 	NP20SL4-B
		3 posições retorno direita, esquerda 45° 	NP20SL7-B
Dimensão (mm)			
			
			
			

Seletora com chave

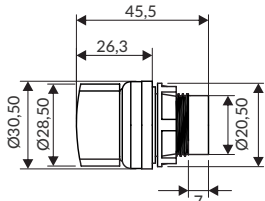
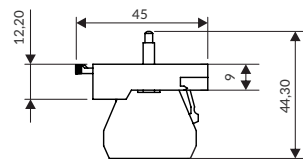
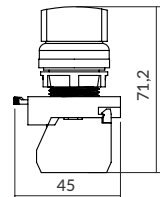
Grau de proteção	Posições	Código
IP40	2 posições fixas 90° 	NP20KN2-B
	2 posições com retorno 90° 	NP20KN3-B
	3 posições fixas 45° 	NP20KN5-B
	3 posições retorno direita, esquerda 45° 	NP20KN7-B

Dimensão (mm)

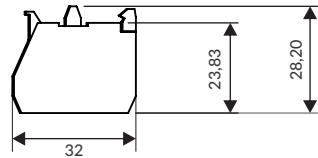
OBS.: As chaves só podem ser retiradas na posição 0 (zero)

CHAVES SELETORAS ILUMINADA

PT

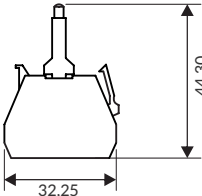
Knob curto				
 	Grau de proteção	Posições	Cor	Código
	IP40	2 posições fixas 90° 	Amarelo	NP20IC2-Y
			Azul	NP20IC2-BL
			Branco	NP20IC2-W
			Vermelho	NP20IC2-R
			Verde	NP20IC2-G
		3 posições fixas 45° 	Amarelo	NP20IC4-Y
			Azul	NP20IC4-BL
			Branco	NP20IC4-W
			Vermelho	NP20IC4-R
			Verde	NP20IC4-G
		3 posições retorno direita, esquerda 45° 	Amarelo	NP20IC7-Y
			Azul	NP20IC7-BL
			Branco	NP20IC7-W
			Vermelho	NP20IC7-R
			Verde	NP20IC7-G
Dimensão (mm)				
  				

BLOCO DE CONTATO

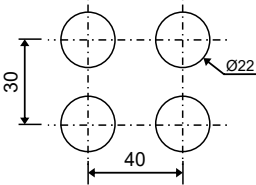
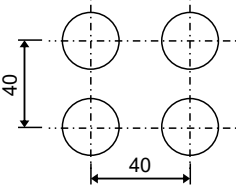
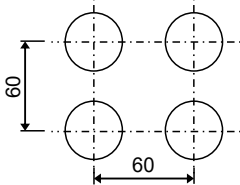
	Arranjo de contato	Código
	1NA	NP20-1A
	1NF ⊕ Ruptura positiva	NP20-1B
Dimensão (mm)		
		

BLOCO DE ILUMINAÇÃO

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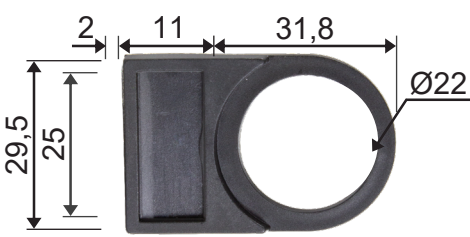
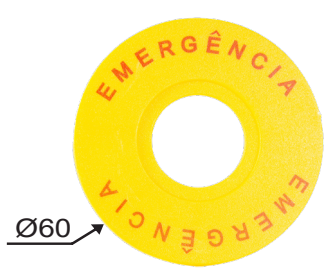
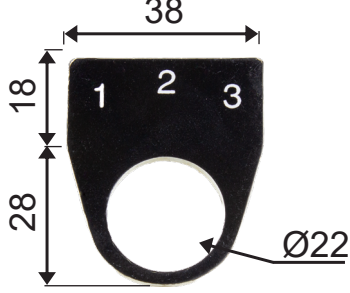
 	Tensão de alimentação	Cor	Código
	110 VCA/VCC	Amarelo	NP20-IL1Y
		Azul	NP20-IL1BL
		Branco	NP20-IL1W
		Vermelho	NP20-IL1R
		Verde	NP20-IL1G
	220 VCA/VCC	Amarelo	NP20-IL2Y
		Azul	NP20-IL2BL
		Branco	NP20-IL2W
		Vermelho	NP20-IL2R
		Verde	NP20-IL2G
	24 VCA/VCC	Amarelo	NP20-IL7Y
		Azul	NP20-IL7BL
		Branco	NP20-IL7W
		Vermelho	NP20-IL7R
		Verde	NP20-IL7G
	12 VCA/VCC	Amarelo	NP20-IL9Y
		Azul	NP20-IL9BL
		Branco	NP20-IL9W
		Vermelho	NP20-IL9R
		Verde	NP20-IL9G
	Dimensão (mm)		
			

INSTALAÇÃO

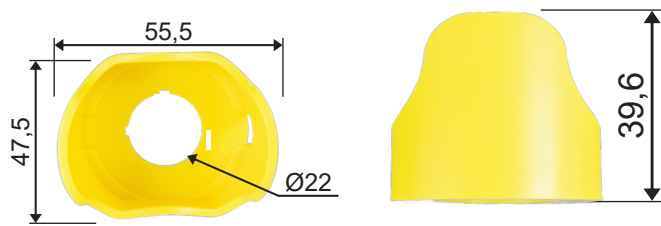
 Exceto botão cogumelo > Ø30 mm	 Botão cogumelo Ø40 mm	 Botão cogumelo Ø60 mm
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ACESSÓRIOS

PT

Identificadores		
P20-ID  Identificador com porta etiqueta	P20-IDEM  Identificador de emergência Amarelo com gravação vermelha	P20-ID123  Identificador para chave seletora 3 posições Preto com gravação branca

Tapa furo Ø22 mm P20-TF  Tapa furo Ø22 mm	Adaptador para furo Ø30 mm P20-ADP30  Usado em pares
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Protetor plástico P20-PA	
 Protetor plástico (PA66) amarelo para botão de emergência	

MAIN CHARACTERISTICS

- Modular push button for panel mounting with Ø22 mm hole;
- Self-extinguishing thermoplastic body with high mechanical and heat resistance;
- IP40 or IP65 protection degree;
- According to IEC 60947-5-1;
- TUV approval;
- Various accessories including identifiers, hole closer, hoje adapter, bulbs and etc (sold separately);



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GENERAL SPECIFICATIONS

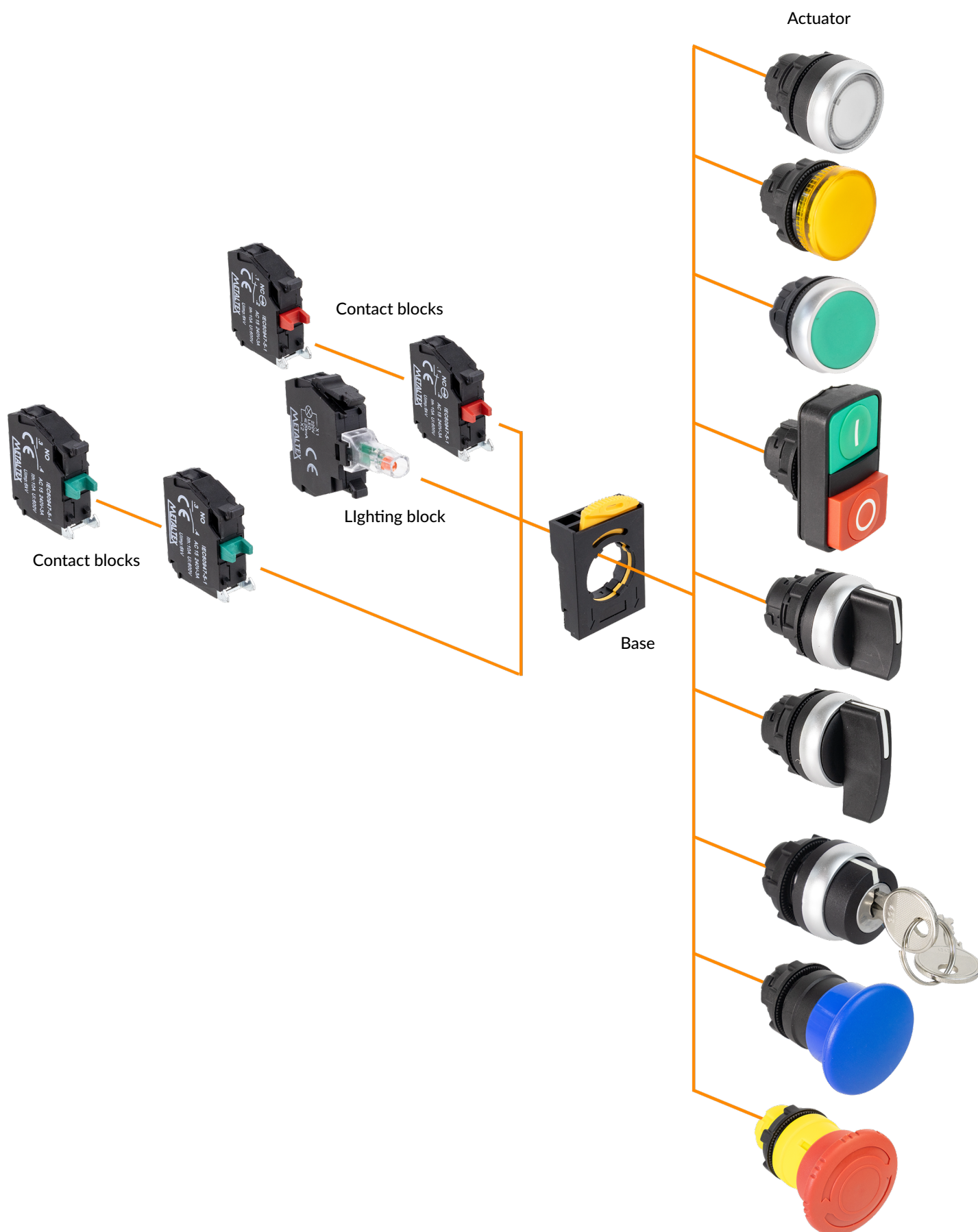
Command buttons and selector switches	
Protection degree	IP40 and IP65
Body material	Thermoplastic VO, self-extinguishing
Electrical life	1.000.000 operations
Humidity	45% ~ 85% non-condensing
Temperature	-5 ~ 40 °C
Altitude	< 2000 m
Pollution degree	Level 3
Norms	IEC 60947-5-1
Certifications	TÜV / CE
Mounting diameter	22mm

Contact blocks		
Model	NP20-1A	NP20-1B
Type of contact	1NA	1NF
Protection degree	IP20	
Contact material	AgNi	
Operation voltage Ue	380 V	
Insulation voltage Ui	660 V	
Impulse voltage		
Nominal current Ie	AC-15 (A600): 3 A / 240 V; 6 A / 120 V; 1,2 A / 600 V DC-13 (Q600): 0,1 A / 600 V; 0,27 A / 250 V; 0,55 A / 125 V	
Thermal current Ith	10 A	
Short-circuit protection	10 A cartridge fuse type gG	
Initial contact resistance	< 50 mΩ	
Electrical life	500.000 operations	

Lighting block		
Type of signage		Continuous
Current consumption	12 VDC/VAC	≤ 20 mA
	24 VDC/VAC	
	110 VDC/VAC	
	220 VDC/VAC	

MODULAR PUSH BUTTON COMPOSITION

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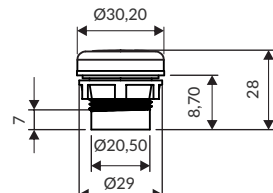
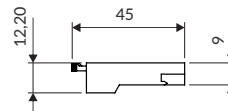
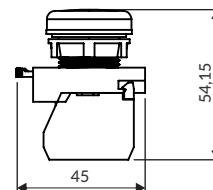


Button sold in modules:

- The base comes with the actuators.
- The contact blocks and lighting block are sold separately.
- Up to 4 contact blocks can be added.

MOMENTARY PUSH BUTTON

EN

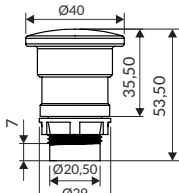
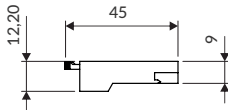
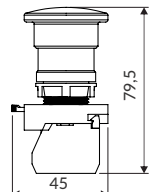
 	Protection degree	Color	Code
	IP65	Amarelo	NP20AF-Y
		Azul	NP20AF-BL
		Branco	NP20AF-W
		Preto	NP20AF-B
		Vermelho	NP20AF-R
		Verde	NP20AF-G
Dimension (mm)			
			

ILLUMINATED PUSH BUTTON

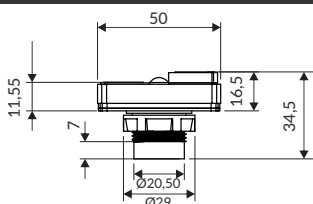
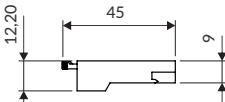
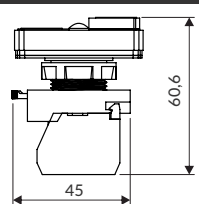
Protection degree	Color	Code
IP65	Amarelo	NP20IG-Y
	Azul	NP20IG-BL
	Branco	NP20IG-W
	Vermelho	NP20IG-R
	Verde	NP20IG-G

Dimension (mm)		

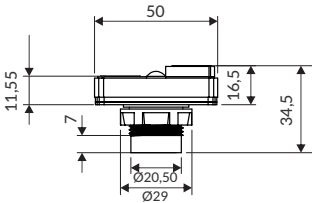
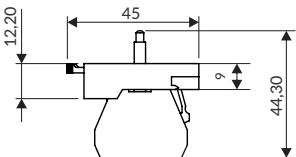
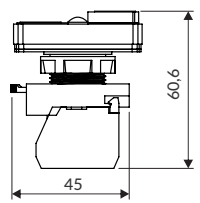
MUSHROOM PULSATOR PUSH BUTTON

 	Protection degree	Color	Code
	IP40	Yellow	NP20AM-Y
		Blue	NP20AM-BL
		White	NP20AM-W
		Black	NP20AM-B
		Red	NP20AM-R
		Green	NP20AM-G
Dimension (mm)			
			

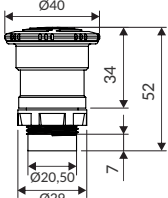
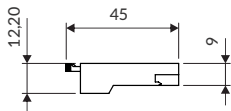
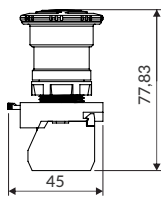
TWIN BUTTON

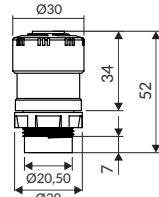
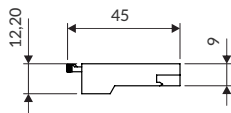
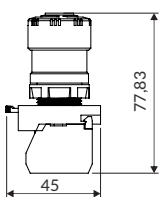
	Protection degree	Color	Code	EN
	IP40	Verde e vermelho	NP20AP	
	Dimension (mm)			
				

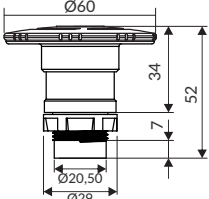
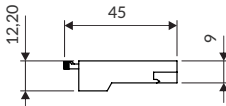
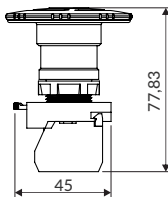
ILLUMINATED TWIN PUSH BUTTON

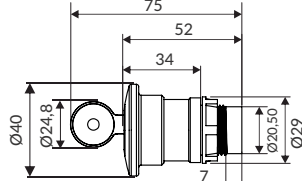
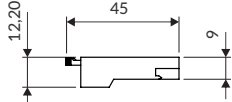
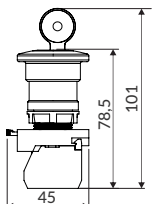
	Protection degree	Color	Code
	IP40	Verde e vermelho	NP20ID
	Dimension (mm)		
			

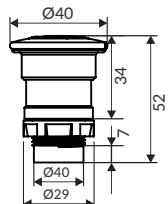
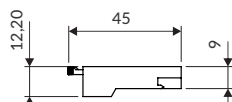
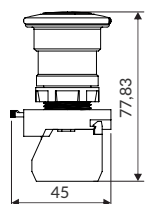
MUSHROOM EMERGENCY PUSH BUTTON

Push-lock twist-to-release - Ø40mm			
	Protection degree	Color	Code
	IP65	Yellow	NP20AK-Y
		Red	NP20AK-R
	Dimension (mm)		
			

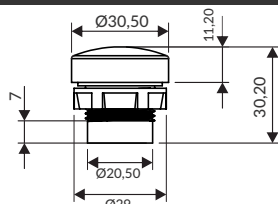
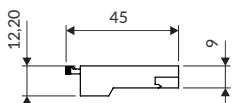
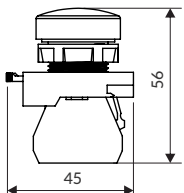
Push-lock twist-to-release - Ø30mm			
	Protection degree	Color	Code
	IP65	Vermelho	NP20AX-R
	Dimension (mm)		
			

Push-lock twist-to-release - Ø60mm				
	Protection degree		Color	Code
	IP65		Vermelho	NP20BY-R
	Dimension (mm)			
				
				

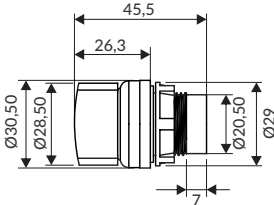
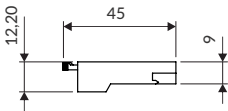
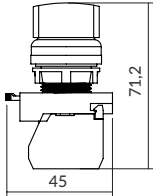
Push-lock and key-to-release - Ø40mm			
	Protection degree	Color	Code
	IP40	Vermelho	NP20AC-R
	Dimension (mm)		
			

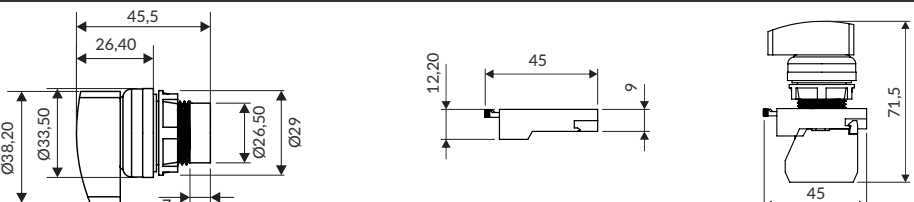
Push - lock and pull-to- release - Ø40 mm			
	Protection degree	Color	Code
	IP65	Vermelho	NP20BE-R
	Dimension (mm)		
			

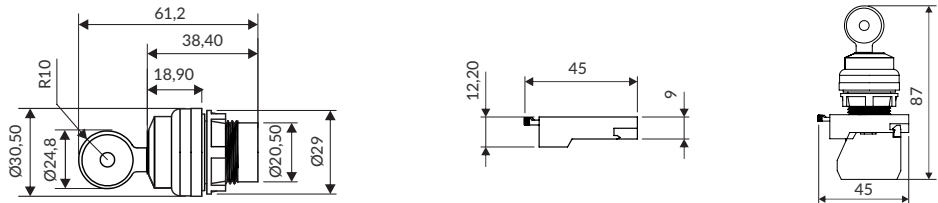
INDICATOR

 	Protection degree	Color	Code
	IP40	Amarelo	NP20PR-Y
		Azul	NP20PR-BL
		Branco	NP20PR-W
		Vermelho	NP20PR-R
		Verde	NP20PR-G
	Dimension (mm)		
			

SELECTOR SWITCHES

	Short knob		
	Protection degree	Position	Code
	IP40	2 positions fixed 90° 	NP20SC2-B
		3 positions fixed 45° 	NP20SC4-B
		3 right and left return positions 45° 	NP20SC7-B
Dimension (mm)			
			

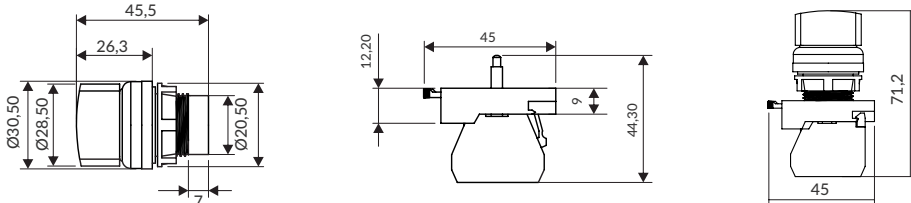
Long knob			
	Protection degree	Position	Code
	IP40	2 positions fixed 90° 	NP20SL2-B
		3 positions fixed 45° 	NP20SL4-B
		3 right and left return positions 45° 	NP20SL7-B
	Dimension (mm)		
			

Selector with key			
	Protection degree	Position	Code
	IP40	2 positions fixed 90° 	NP20KN2-B
		2 positions return 90° 	NP20KN3-B
		3 positions fixed 45° 	NP20KN5-B
		3 right and left return positions 45° 	NP20KN7-B
	Dimension (mm)		
			

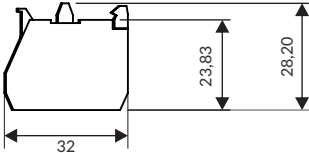
OBS.: The keys can only be removed in position 0 (zero)

ILLUMINATED SELECTOR SWITCHES

EN

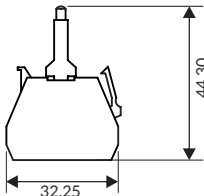
Short knob				
 	Protection degree	Position	Color	Code
	IP40	2 positions fixed 90° 	Yellow	NP20IC2-Y
			Blue	NP20IC2-BL
			White	NP20IC2-W
			Red	NP20IC2-R
			Green	NP20IC2-G
		3 positions fixed 45° 	Yellow	NP20IC4-Y
			Blue	NP20IC4-BL
			White	NP20IC4-W
			Red	NP20IC4-R
			Green	NP20IC4-G
		3 right and left return positions 45° 	Yellow	NP20IC7-Y
			Blue	NP20IC7-BL
			White	NP20IC7-W
			Red	NP20IC7-R
			Green	NP20IC7-G
Dimension (mm)				
				

CONTACT BLOCKS

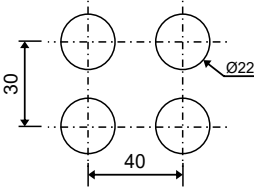
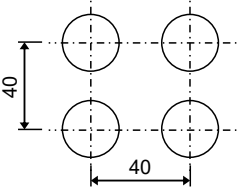
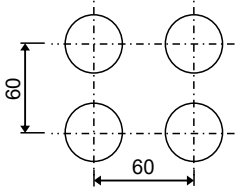
	Contact arrangement	Code
	1NA	NP20-1A
	1NF ⊕ Positive break	NP20-1B
Dimension (mm)		
		

LIGHTING BLOCKS

EN

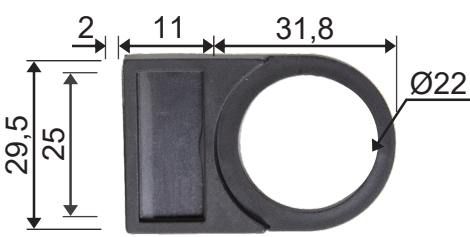
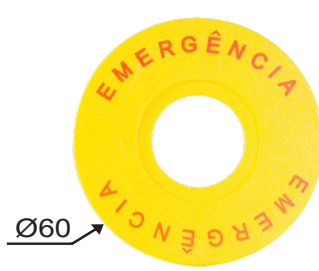
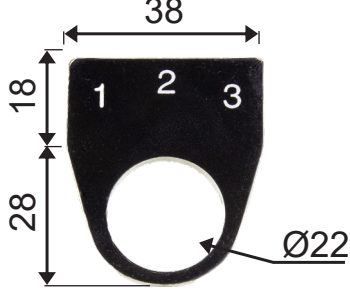
 	Power supply	Color	Code
	110 VDC/VAC	Yellow	NP20-IL1Y
		Blue	NP20-IL1BL
		White	NP20-IL1W
		Red	NP20-IL1R
		Green	NP20-IL1G
	220 VDC/VAC	Yellow	NP20-IL2Y
		Blue	NP20-IL2BL
		White	NP20-IL2W
		Red	NP20-IL2R
		Green	NP20-IL2G
	24 VDC/VAC	Yellow	NP20-IL7Y
		Blue	NP20-IL7BL
		White	NP20-IL7W
		Red	NP20-IL7R
		Green	NP20-IL7G
	12 VDC/VAC	Yellow	NP20-IL9Y
		Blue	NP20-IL9BL
		White	NP20-IL9W
		Red	NP20-IL9R
		Green	NP20-IL9G
	Dimension (mm)		
			

INSTALLATION

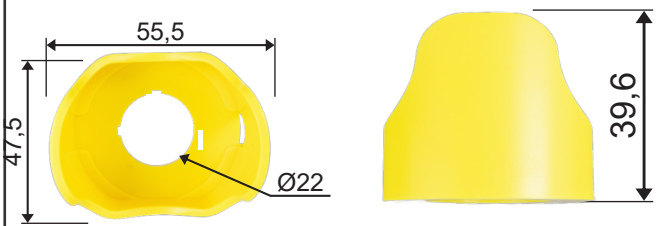
 Except mushroom button > Ø30mm	 Mushroom button Ø40mm	 Mushroom button Ø60mm
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ACCESSORIES

EN

Identifiers		
P20-ID  Identifier with label holder	P20-IDEM  Emergency identifier Yellow with red writing	P20-ID123  Identifier for 3 positions selector switch Black with white writing

Hole closer Ø22mm	Ø30mm hole adaptor
P20-TF  Ø22mm hole closer	P20-ADP30  Used in pairs

Plastic protector
P20-PA  Yellow plastic protector (PA66) for emergency button