

- Botões de comando para painel com furações de Ø22mm
- Diversas cores e modelos
- Grau de proteção IP40
- Certificado UL

- Push button switches for panels with Ø22mm holes
- Various colors and types
- IP40 protection degree
- UL approval



### Código de compra / How to order

**M20 IC R 2 - R 2 - 1A**

**Furo para fixação / Mounting hole**  
M20 - Ø22 mm Corpo metálico / Metallic body  
P20 - Ø22 mm Corpo plástico / Plastic body

**Tipo / Type**  
AF - Cabeçote plano (faceado) / Flush button  
AR - Cabeçote com ressalto (não faceado) / Non flush button  
IG - Cabeçote plano iluminado / Illuminated flush button  
AM - Cabeçote cogumelo Ø40mm / Mushroom button Ø40mm  
AK - Cabeçote cogumelo Ø40mm c/ trava e giro p/ destravar  
Mushroom button Ø40mm push-lock twist-to-release  
AC - Cabeçote cogumelo Ø40mm c/ trava e chave p/ destravar  
Mushroom button Ø40mm push-lock and key-to-release  
BY - Cabeçote cogumelo Ø60mm c/ trava e giro p/ destravar  
Mushroom button Ø60mm push-lock twist-to-release  
BE - Cabeçote cogumelo Ø40mm c/ trava e puxa p/ destravar  
Mushroom button Ø40mm push-lock pull to release  
AX - Cabeçote cogumelo Ø30mm c/ trava e giro p/ destravar  
Mushroom button Ø30mm push-lock twist-to-release  
AP - Duplo toque\* / Twin-touch\*  
ID - Duplo toque iluminado\* / Illuminated twin-touch\*  
SC - Seletor c/ knob curto / Selector with short lever  
SL - Seletor c/ knob longo / Selector with long lever  
KN - Seletor c/ chave e remoção em 0  
Selector switch with key operation withdrawable in 0 position  
IC - Seletor c/ knob curto iluminado / Illuminated selector with short lever  
P - Sinalizador (alimentação direta) / Indicator (direct supply)

**Formato / Shape**  
R - Redondo / Round  
L - Retangular / Rectangular

**Contatos / Contacts**  
Em branco / Nil - Sinalizador / Indicator  
1A - 1 NA / NO  
1B - 1 NF / NC  
1C - 1NA+1NF / NO+NC  
2A - 2 NA / NO  
*Outros arranjos sob consulta*  
*Other arrangements on inquiry*

**Alimentação do LED / LED power supply**  
Em branco / Nil - 220VCC/VCA / VDC/VAC  
7 - 24VCC/VCA / VDC/VAC  
*Apenas modelos iluminados*  
*Only illuminated model*

**Cor / Color**  
Em branco / Nil - Botão AP ou IT / Button AP or IT  
B - Preto / Black  
R - Vermelho / Red  
G - Verde / Green  
BL - Azul / Blue  
Y - Amarelo / Yellow  
W - Branco / White

**Posição / Position**  
Branco / Nil - Botão pulsador ou sinalizador / Push button or Indicator  
2 - 2 pos. fixas 90° / fix <sub>1</sub> <sub>2</sub>  
3 - 2 pos. retorno 90° / return <sub>1</sub> <sub>2</sub>  
4 - 3 pos. fixas 45° / fix <sub>1</sub> <sub>2</sub> <sub>3</sub>  
5 - 3 pos. 45° retorno direita, esquerda fixa <sub>1</sub> <sub>2</sub> <sub>3</sub>  
right returns and left fix  
6 - 3 pos. 45° retorno esquerda, direita fixa <sub>1</sub> <sub>2</sub> <sub>3</sub>  
left returns and right fix  
7 - 3 pos. retorno da direita, esquerda 45° <sub>1</sub> <sub>2</sub> <sub>3</sub>  
with left and right returns

Obs.: Nem todos os códigos possíveis estão disponíveis. Para todos os casos, blocos de contatos podem ser adicionados. (No máximo 8 blocos).

Todos os botões possuem modo de operação pulsador momentâneo, exceto botões de emergência (AK, BY, BE e AX), chaves seletoras e sinalizadores.

\*Os botões de duplo toque têm como padrão os atuadores com as cores Verde / Vermelho, devendo-se assim indicar no momento da composição do código a opção em branco.

Not all possible codes are available. It is possible to add contact blocks for all types. (Max. 8 blocks).

All buttons have momentary pushbutton operation mode except emergency buttons (AK, BY, BE and AX), selector switches and indicators.

\*Actuators of twin touch switches are standard as Green / Red. Please specify "Nil" in the code.

### Especificações / Specifications

Grau de proteção / Protection degree	IP 40
Tensão de operação Ue / Operation voltage Ue	380V
Tensão de isolamento Ui / Insulation voltage Ui	660V
Umidade / Humidity	45% ~ 85% sem condensação 45 % ~ 85% without condensation
Temperatura / Temperature	-5 ~ 40°C
Corrente nominal Ie / Nominal current Ie	5A
Corrente térmica Ith / Thermal current Ith	10A
Resistência de contato inicial / Initial contact resistance	<50mΩ
Vida elétrica / Electrical life	500 x 10 <sup>3</sup> operações / operations
Vida Mecânica / Mechanical life	10 <sup>6</sup> operações / operations

### Acessórios / Accessories

<b>Blocos de contato / Contact blocks</b> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>M20-1A</b></p> <p>3 — 4</p> <p>1NA 5A/380V 1NO 5A/380V</p> </div> <div style="text-align: center;"> <p><b>M20-1B</b></p> <p>1 — 2</p> <p>1NF 5A/380V 1NC 5A/380V</p> </div> </div>		<b>M20-RT</b> Bloco para função alternada Alternate function block <p>Para modelos For models M20AF P20AF M20AR P20AR M20IG P20IG M20AM P20AM</p> <p>No máximo 2 blocos de contato podem ser adicionados Up to contact blocks can be added</p>	<b>P20-TF</b> <p>Preto Black</p> <p>Tapa furo Ø22mm Ø22mm hole closer</p>	<b>P20-ADP30</b> Usado em pares Used in pairs <p>Adaptador para furo Ø30mm Ø30mm hole adaptor</p>	<b>P20-ID</b> <p>Identificador com porta etiqueta Identifier with label holder</p>
<b>P20-PA</b> <p>Protetor plástico amarelo para botão de emergência Yellow plastic protector for emergency button</p>		<b>Capa protetora de silicone</b> Silicone protective cover <p><b>P20-CAP1</b> Para modelos For models M20/P20AF M20/P20IG</p> <p><b>P20-CAP2</b> Para modelos For models M20IDL/P20IDL</p>	<b>P20-IDEM</b> Amarelo com gravação vermelha Yellow with red writing <p>Identificador de emergência Emergency identifier</p>	<b>P20-ID123</b> Preto com gravação branca Black with white writing <p>Identificador p/ chave seletora 3 posições Identifier for 3 positions selector switch</p>	

### Instruções / Instructions

<b>Para botões normais</b> For standard buttons <p>Dimensões do atuador Button dimensions</p>	<p>Dimensões dos blocos Block dimensions</p>	<p>Dimensões do atuador+blocos Button+Blocks dimensions</p>	<p>A dimensão total dos botões de comando é sempre composta pelo tamanho do atuador (A) + suporte de fixação (B) + bloco(s) de contato (C) + bloco de alimentação do LED (D)</p> <p>Full dimension of mounted push buttons is composed by actuator (A) + mounting bracket (B) + contact block(s) (C) + LED power supply unit (D)</p> <p>Veja dimensões na página 118 e 119 See dimensions at page 118 and 119</p>
<b>Para botões iluminados</b> For illuminated buttons <p>Dimensões do atuador Button dimensions</p>	<p>Dimensões dos blocos Block dimensions</p>	<p>Dimensões do atuador+blocos Button+Blocks dimensions</p>	

### Dimensões / Dimensions (mm)

### Instalação / Installation

<p>Exceto botão cogumelo &gt;Ø30mm Except mushroom button &gt;Ø30mm</p>	<p>Botão cogumelo Ø40mm Mushroom button Ø40mm</p>	<p>Botão cogumelo Ø60mm Mushroom button Ø60mm</p>
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M20 - Metálico / Metallic		P20 - Plástico / Plastic	
Não iluminado / Non-illuminated	Iluminado / Illuminated	Não iluminado / Non-illuminated	Iluminado / Illuminated

### Redondos / Round



M20AFR-B-1A  
M20AFR-R-1B  
M20AFR-G-1A  
M20AFR-Y-1A  
M20AFR-BL-1A  
M20AFR-W-1A



P20AFR-B-1A  
P20AFR-R-1B  
P20AFR-G-1A  
P20AFR-Y-1A  
P20AFR-BL-1A  
P20AFR-W-1A



M20ARR-B-1A  
M20ARR-R-1B  
M20ARR-G-1A  
M20ARR-Y-1A  
M20ARR-BL-1A  
M20ARR-W-1A



P20ARR-B-1A  
P20ARR-R-1B  
P20ARR-G-1A  
P20ARR-Y-1A  
P20ARR-BL-1A  
P20ARR-W-1A



M20IGR-R□-1C  
M20IGR-G□-1C  
M20IGR-Y□-1C  
M20IGR-BL□-1C  
M20IGR-W□-1C



P20IGR-R□-1C  
P20IGR-G□-1C  
P20IGR-Y□-1C  
P20IGR-BL□-1C  
P20IGR-W□-1C

### Cogumelo / Mushroom



M20AMR-B-1A  
M20AMR-R-1B  
M20AMR-G-1A  
M20AMR-Y-1A



P20AMR-B-1A  
P20AMR-R-1B  
P20AMR-G-1A  
P20AMR-Y-1A



M20AKR-R-1B  
M20BYR-R-1B



P20AKR-R-1B  
P20BYR-R-1B



M20BER-R-1B



M20AXR-R-1B



P20AXR-R-1B



M20ACR-R-1B



P20ACR-R-1B

com chave  
with key

### Retangulares / Rectangular

#### Iluminados / Illuminated



M20APL-1C  
Acompanha capa protetora de silicone  
With silicone protective cover



P20APL-1C



M20IDL-Y□-1C



P20IDL-Y□-1C

### Sinalizadores / Indicators



M20PR-BL□  
M20PR-G□  
M20PR-R□  
M20PR-W□  
M20PR-Y□

Alimentação direta  
Direct supply

Acompanha lâmpada LED  
With LED lamp

### Chaves Seletoras / Selector Switches



M20SCR2-B-1A  
M20SCR3-B-1A  
M20SCR4-B-2A  
M20SCR5-B-2A  
M20SCR6-B-2A  
M20SCR7-B-2A



P20SCR2-B-1A  
P20SCR3-B-1A  
P20SCR4-B-2A  
P20SCR5-B-2A  
P20SCR6-B-2A  
P20SCR7-B-2A



M20SLR2-B-1A  
M20SLR3-B-2A  
M20SLR4-B-2A  
M20SLR7-B-2A



P20SLR2-B-1A  
P20SLR3-B-2A  
P20SLR4-B-2A  
P20SLR7-B-2A



M20ICR2-R□-1A  
M20ICR4-R□-2A  
M20ICR2-G□-1A  
M20ICR4-G□-2A  
M20ICR2-Y□-1A  
M20ICR4-Y□-2A



M20KNR2-B-1A  
M20KNR4-B-2A

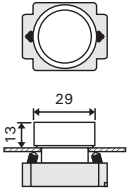
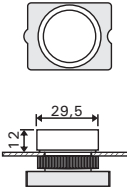
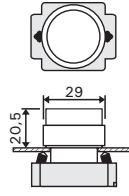
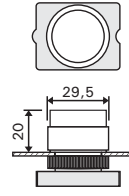
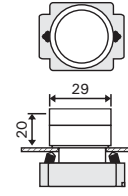
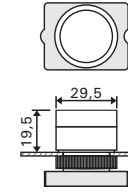
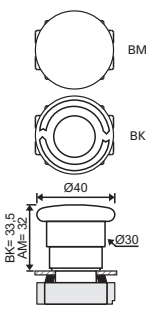
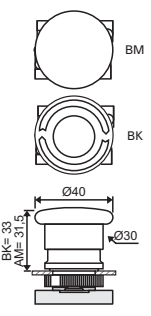
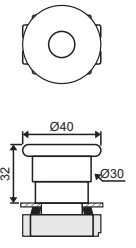
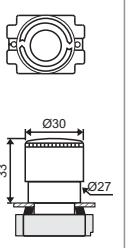
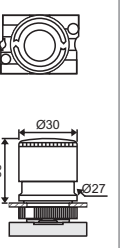
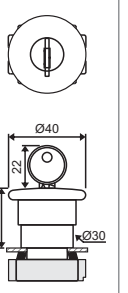
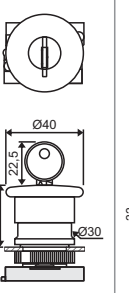
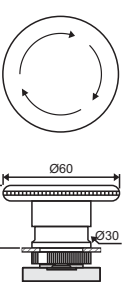
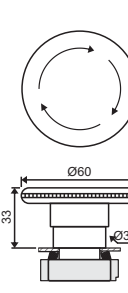
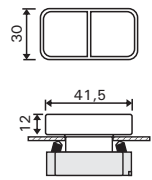
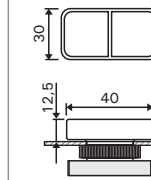
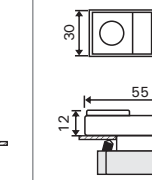
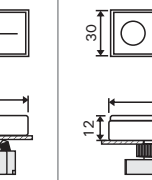
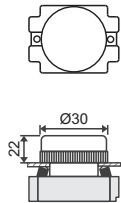
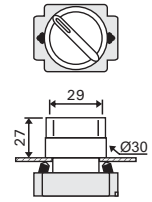
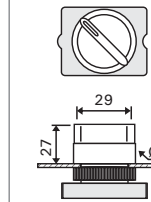
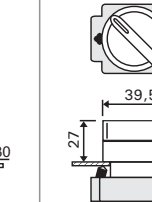
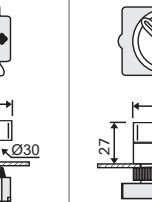
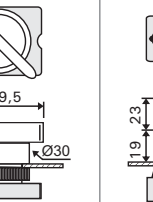
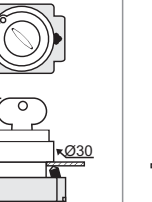
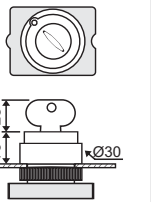


P20KNR2-B-1A  
P20KNR4-B-2A

com chave  
with key

□ = Tensão de alimentação do LED / LED power supply

Dimensões / Dimensions (mm)

Botões de comando / Push button switches									
Redondos / Round									
Iluminados / Illuminated									
 M20AF	 P20AF	 M20RR	 P20RR	 M20IG	 P20IG				
Cogumelo / Mushroom									
 M20AM M20AK	 P20AM P20AK	 M20BE	 M20AX	 P20AX	 M20AC	 P20AC	 P20BY	 M20BY	
Retangulares / Rectangular					Sinalizador / Indicators				
 M20AP	 P20AP	 M20ID	 P20ID	 M20PR					
Chaves Seletoras / Selector Switches									
 M20SC	 P20SC	 M20SL	 P20SL	 M20KN	 P20KN	 M20IC			