

HANDLES DE

Operators for Ex de enclosures

(pilot light - push button - ammeter - selector switch)

Installation: hazardous areas - Zone 1 / 2 (Gases) - Zone 21 / 22 (Dusts)

Classification: Group II - Category 2G 2D

Explosion Proof Electrical Equipment



Ex Enclosures



◀SEL-DE#



◀EFL-DE#



◀EFPF-DE#



AM72# ▶



◀EFP-DE#



REFERENCE STANDARDS

Directive 94/9/EC (until April 19th, 2016) and Directive 2014/34/EU (from April 20th, 2016)

EXECUTION	⊕ III 2 G Ex de IIC Gb
RULES OF COMPLIANCE	EN/IEC 60079-1; EN/IEC 60079-7; IEC 60079-0
EC Type-Examination Certificate	LCIE 13 ATEX 3021U (pilot lights - type LIE...) LCIE 13 ATEX 3005U (push buttons - type PBE...) LCIE 13 ATEX 3070U (ammeters - type AM...) LCIE 13 ATEX 3004U (selector switches - type IRE...)
PROTECTION DEGREE	IP66
AMBIENT TEMPERATURE	-20°C ÷ +60°C
OTHER AVAILABLE CERTIFICATES	IECEX: IECEx LCIE 13.0018U (pilot lights) IECEX LCIE 13.0007U (push buttons) IECEX LCIE 13.0009U (ammeters) IECEX LCIE 13.0005U (selector switches) EAC: TC RU C-IT.ГБ08.B.01323 (-50°C ÷ +55°C)

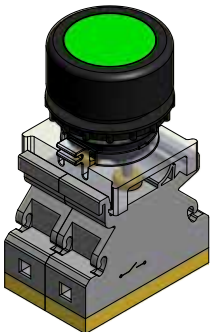
Mechanical characteristics

PILOT LIGHTS		AMMETERS	
Body	thermo plastic	Housing	fire retardant plastic
Diffuser / Lens	polycarbonate	Insulating voltage	690V ac
Voltage	12V ÷ 380V ac/dc	Working mode	electromagnetic
PUSH BUTTONS / SELECTOR SWITCHES		Accuracy	1,50%
Body	thermo plastic	Start up over current	5 times - (other of request)
Ring	thermo plastic		
Operator	thermo plastic		

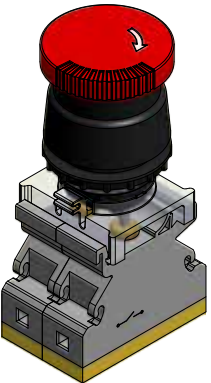


HANDLES DE Technical data

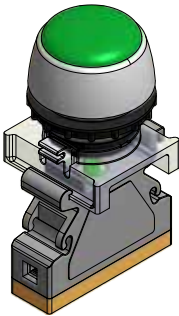
SPRING RETURN PUSH BUTTON - 10AMP CONTACT

HANDLES-DE	CODE	CONTACT BLOCK	OPERATOR COLOR	BODY DIAMETER [mm]
	EFP-DE#G11	1 NO	YELLOW	30
	EFP-DE#G12	1 NC	YELLOW	30
	EFP-DE#G13	1 NO + 1 NC	YELLOW	30
	EFP-DE#G14	2 NO	YELLOW	30
	EFP-DE#G15	2 NC	YELLOW	30
	EFP-DE#R01	1 NO	RED	30
	EFP-DE#R02	1 NC	RED	30
	EFP-DE#R03	1 NO + 1 NC	RED	30
	EFP-DE#R04	2 NO	RED	30
	EFP-DE#R05	2 NC	RED	30
	EFP-DE#VE1	1 NO	GREEN	30
	EFP-DE#VE2	1 NC	GREEN	30
	EFP-DE#VE3	1 NO + 1 NC	GREEN	30
	EFP-DE#VE4	2 NO	GREEN	30
	EFP-DE#VE5	2 NC	GREEN	30

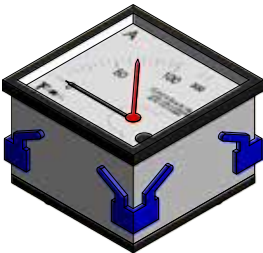
TURN TO RELEASE MUSHROOM PUSH BUTTON

	EFPF-DE#1	1 NO	RED	30
	EFPF-DE#2	1 NC	RED	30
	EFPF-DE#3	1 NO + 1 NC	RED	30
	EFPF-DE#4	2 NO	RED	30
	EFPF-DE#5	2 NC	RED	30

PILOT LIGHT FOR BACK COVER INSTALLATION

HANDLES-DE	CODE	SUPPLY	LAMP TYPE	LAMP COLOR	BODY DIAMETER [mm]
	EFL-DE#B11	12V ÷ 36V ac/dc	LED	WHITE	30
	EFL-DE#B12	48V ÷ 110V ac/dc	LED	WHITE	30
	EFL-DE#B13	220V ÷ 380V ac/dc	LED	WHITE	30
	EFL-DE#G11	12V ÷ 36V ac/dc	LED	YELLOW	30
	EFL-DE#G12	48V ÷ 110V ac/dc	LED	YELLOW	30
	EFL-DE#G13	220V ÷ 380V ac/dc	LED	YELLOW	30
	EFL-DE#R01	12V ÷ 36V ac/dc	LED	RED	30
	EFL-DE#R02	48V ÷ 110V ac/dc	LED	RED	30
	EFL-DE#R03	220V ÷ 380V ac/dc	LED	RED	30
	EFL-DE#VE1	12V ÷ 36V ac/dc	LED	GREEN	30
	EFL-DE#VE2	48V ÷ 110V ac/dc	LED	GREEN	30
	EFL-DE#VE3	220V ÷ 380V ac/dc	LED	GREEN	30

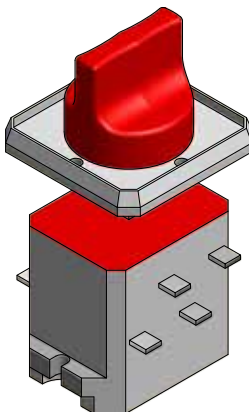
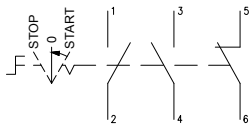
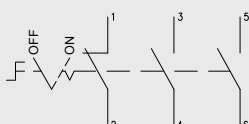
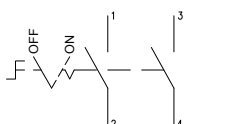
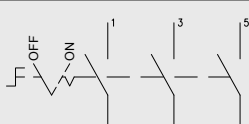
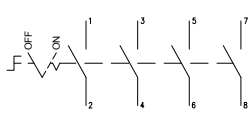
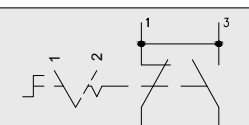
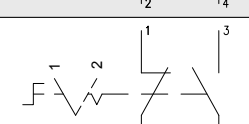
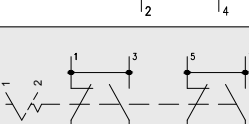
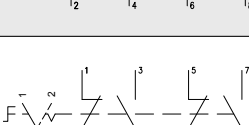
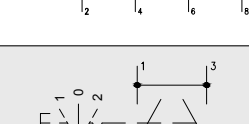
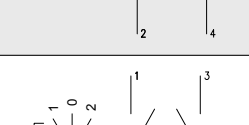
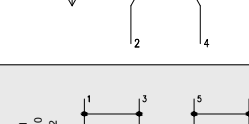
AMMETER AND MILLIAMMETER

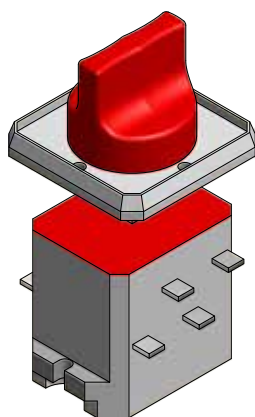
HANDLES-DE	CODE	RATED CURRENT	SCALE
	AM72#	40mA	0÷20mA
		40mA	0÷20mA
		1A	0÷1A
		5A	0÷5A
		X/1A	0...1A; 5A; 10A; 15A; 20A; 25A; 30A; 40A; 60A; 75A; 100A; 150A; 200A; 300A; 500A;
		X/5A	0...1A; 5A; 10A; 15A; 20A; 25A; 30A; 40A; 60A; 75A; 100A; 150A; 200A; 300A; 500A;

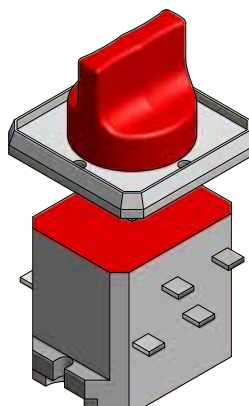


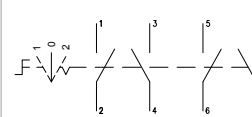
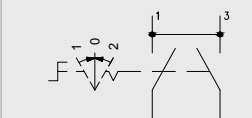
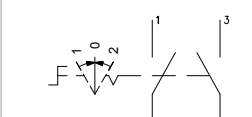
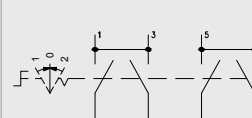
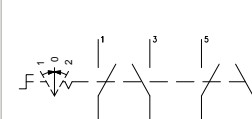
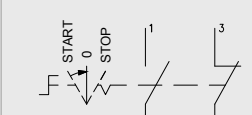
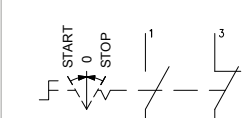
HANDLES DE Technical data

SELECTOR SWITCHES

HANDLES-DE	CODE	SCHEME	CONTACT	SWITCH (POSITION)																			
	SEL-DE#01Y	Y	<table><tr><th>POSITION</th><th>1-2</th><th>3-4</th><th>5-6</th></tr><tr><td>STOP</td><td>X</td><td></td><td></td></tr><tr><td>0</td><td></td><td></td><td>X</td></tr><tr><td>START</td><td></td><td>X</td><td>X</td></tr></table>	POSITION	1-2	3-4	5-6	STOP	X			0			X	START		X	X				
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	0			X																			
	START		X	X																			
	SEL-DE#1Z	Z	<table><tr><th>POSITION</th><th>1-2</th><th>3-4</th><th>5-6</th></tr><tr><td>OFF</td><td>X</td><td></td><td></td></tr><tr><td>ON</td><td></td><td>X</td><td>X</td></tr></table>	POSITION	1-2	3-4	5-6	OFF	X			ON		X	X								
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	SEL-DE#02I	2I	<table><tr><th>POSITION</th><th>1-2</th><th>3-4</th></tr><tr><td>OFF</td><td></td><td></td></tr><tr><td>ON</td><td>X</td><td>X</td></tr></table>	POSITION	1-2	3-4	OFF			ON	X	X											
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	0																							
	2		X		X																			
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SEL-DE#1W1	1W1	<table><tr><th>POSITION</th><th>1-2</th><th>3-4</th></tr><tr><td>1</td><td>X</td><td></td></tr><tr><td>0</td><td></td><td></td></tr><tr><td>2</td><td></td><td>X</td></tr></table>	POSITION	1-2	3-4	1	X		0			2		X										
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SEL-DE#01X	1X	<table><tr><th>POSITION</th><th>1-2</th><th>3-4</th></tr><tr><td>START</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td>X</td></tr><tr><td>STOP</td><td></td><td></td></tr></table>	POSITION	1-2	3-4	START	X	X	0		X	STOP												
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START	X	X																						
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