

CARLO GAVAZZI
Automation Components



Push Buttons, Selector Switches & Pilot Lights



Switch



Push Buttons, Selector Switches and Pilot Lights

CARLO GAVAZZI has developed a new range of push buttons, selector switches and pilot lights which provide a vast array of solutions for your ever increasing application demands. Push buttons are mechanical switches that have their operating head pushed down to actuate an electrical contact to a closed or open position. They are typically used to start and/or stop electric circuits/devices such as lamps, motors, etc.

The main function of a pilot light is to quickly provide a visual indication when an event occurs or to indicate an on or off state. The source of the light is a highly efficient LED. Due to its ideal color rendering, the LED provides optimum visibility. Additionally, it is reliable and provides a cost-savings due to its long lifetime.



**Space
Optimization**



**User
Friendly**



**Long Term
Reliability**



**Time
Saving**

Easy to Choose and Install

It is as easy as 1, 2, 3 - just choose the operator, the holder and the contact block. The only tool required is a screwdriver. The same screwdriver is then used to wire the contact block, and adjust the final position of the push button. The pilot light is secured from behind the panel via hand tightening of its plastic mounting nut.

Three Different Holders

The metal holder was designed to provide maximum durability; the plastic holder in order to have all components in the same material and the plastic nut holder to find the quickest installation solution.

Different Operator's Design

Each operator is offered in three different styles. Available in plastic, with a metal bezel or for flush mounting - to satisfy the aesthetic tastes and needs.

LED's High Efficiency and Reliability

The illuminated function, for push buttons and pilot lights, is made by a high-brightness pure color LED. It is a guarantee of improved efficiency and reliability. In fact, the LED technology reaches over 100,000 hours of service life and the power consumption is lower than an incandescent bulb.

The Terminal Block

The contact rating of 10A @ 250V (AC1) provides the ability for a high operating performance. The terminals have a captive screw system, so it is impossible to lose the screw while attempting to wire.

More Solutions

Push buttons, selector switches, mushroom head emergency stop push buttons, key switches and pilot lights are available in up to six different colors (red, green, yellow, white, blue and black) and actions (maintained or spring return).

Approvals

The push buttons, selector switches and pilot devices are approved according to the related European and North American safety standards.



Push Buttons and Selector Switches

Market Applications

Panel Builder

Available in a wide variety of colors, styles, and sizes, the push buttons and pilot lights provide users with the flexibility to meet requirements of most applications. They are designed to fit most space and application requirements.

Industrial Manufacturing Equipment

Command devices are of great importance on the man-machine interface in the area of industrial applications. They can be mounted in switchboards, control panels, operator's consoles, on conveyors, elevators, etc.

Emergency Systems

Emergency stop devices are generally connected in the safety circuit of a machine or plant, and are of particular importance for their control system. In case of a fault or accident, the secure function and quick accessibility of an emergency stop device can be crucial for saving lives, limiting the degree of injury to personnel or the extent of damage to a machine.

Product Features

AC and DC Supply Voltage

All illuminated push buttons, short-handle selector switches and pilot lights have a wide range of supply voltages: 6, 12, 24, 48 or 110 VAC/DC; 220 VDC; 220 or 380 VAC.

Six Colors

They are available with a various selection of colors: Red, Green, Yellow, White, Blue and Black.

Actions

The switch function can be maintained or spring return. In a maintained the actuator stays in thrown position (on-off). In a spring return the switch must be held in position and it reverts to its normal position when the actuating force is removed.

Flush Push Buttons



Extended Push Buttons



Short-Handle Selector Switches



Long-Handle Selector Switches



Mushroom Push Buttons



Red Emergency Stop Push Buttons

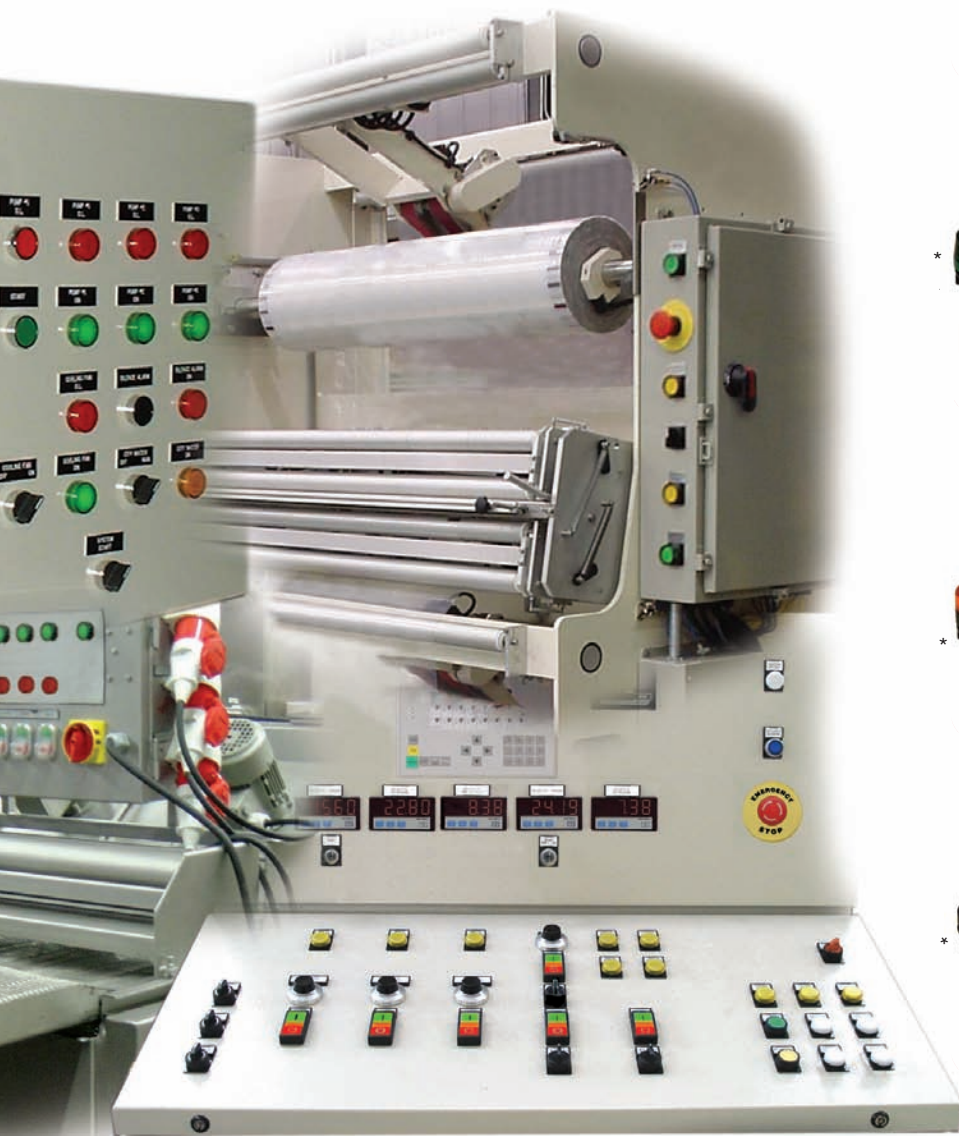


I/O Push Buttons and Key Switches



Pilot Lights

CARLO GAVAZZI



Pilot Light with Concentric Rings



High Lens Pilot Light



Low Lens Pilot Light



Teeth Lens Pilot Light

Holders

Flashing Buzzer



Flashing Pilot Light

Lamp Element and Contact Block

Buzzer



Two Color Pilot Light

* = Compact size

Part Number Nomenclature

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Actions

0 = Spring Return	32* = Three pos. L [↖] C [↗] R
1 = Maintained	33* = Three pos. L [↖] C R
21 = Two pos. L R	34* = Three pos. L C [↗] R
22* = Two pos. L [↖] C	
23* = Two pos. C [↗] R	* : not for illuminated
31 = Three pos. L C R	↖ : spring return



Voltages

06 = 6VAC/DC	110 = 110VAC/DC
12 = 12VAC/DC	220D = 220VDC
24 = 24VAC/DC	220A = 220VAC
48 = 48VAC/DC	380A = 380VAC



Key Extraction Position

KL = on the left position
 KC = on the center position
 KR = on the right position



Colors

R = Red
 G = Green
 Y = Yellow
 W = Clear/White
 B = Blue
 K = Black

PB 22S F	Standard Flush Push Buttons
PB 22S IF	Standard Flush Illuminated ¹ Push Buttons
PB 22B F	Bezel Flush Push Buttons
PB 22B IF	Bezel Flush Illuminated ¹ Push Buttons
PB 30F F	Flush Push Buttons
PB 30F IF	Flush Illuminated ¹ Push Buttons
PB 22S E	Standard Extended Push Buttons
PB 22S IE	Standard Illuminated ¹ Extended Push Buttons
PB 22B E	Bezel Extended Push Buttons
PB 22B IE	Bezel Illuminated ¹ Extended Push Buttons
PB 30F E	Flush Extended Push Buttons
PB 30F IE	Flush Illuminated ¹ Extended Push Buttons
PB 22S M4	Standard Mushroom Ø40mm Push Buttons
PB 22S IM4	Standard Illuminated ¹ Mushroom Ø40mm Push Buttons
PB 22B M4	Bezel Mushroom Ø40mm Push Buttons
PB 22B IM4	Bezel Illuminated ¹ Mushroom Ø40mm Push Buttons
PB 30F M4	Flush Mushroom Ø40mm Push Buttons
PB 30F IM4	Flush Illuminated ¹ Mushroom Ø40mm Push Buttons
PB 22S M6	Standard Mushroom Ø60mm Push Buttons
PB 22S IM6	Standard Illuminated ¹ Mushroom Ø60mm Push Buttons
PB 22B M6	Bezel Mushroom Ø60mm Push Buttons
PB 22B IM6	Bezel Illuminated ¹ Mushroom Ø60mm Push Buttons
PB 30F M6	Flush Mushroom Ø60mm Push Buttons
PB 30F IM6	Flush Illuminated ¹ Mushroom Ø60mm Push Buttons
PB 22S EM4 1R	Standard Red Emergency Stop Ø40mm Push Buttons
PB 22B EM4 1R	Bezel Red Emergency Stop Ø40mm Push Buttons
PB 30F EM4 1R	Flush Red Emergency Stop Ø40mm Push Buttons
PB 22S EM6 1R	Standard Red Emergency Stop Ø60mm Push Buttons
PB 22B EM6 1R	Bezel Red Emergency Stop Ø60mm Push Buttons
PB 30F EM6 1R	Flush Red Emergency Stop Ø60mm Push Buttons
PB 22S KM4 1R	Standard Key-reset Emergency Stop Ø40mm Push Buttons
PB 22B KM4 1R	Bezel Key-reset Emergency Stop Ø40mm Push Buttons
PB 30F KM4 1R	Flush Key-reset Emergency Stop Ø40mm Push Buttons
PB 22S SRS	Standard Short-handle Selector Switches
PB 22S ISRS	Standard Illuminated ¹ Short-handle Selector Switches
PB 22B SRS	Bezel Short-handle Selector Switches
PB 22B ISRS	Bezel Illuminated ¹ Short-handle Selector Switches
PB 30F SRS	Flush Short-handle Selector Switches
PB 22S LRS	Standard Long-handle Selector Switches
PB 22B LRS	Bezel Long-handle Selector Switches
PB 30F LRS	Flush Long-handle Selector Switches
PB 22S KRS	Standard Key Selector Switches
PB 30F KRS	Flush Triangle-Key Selector Switches
PB 22S IO ORG	Standard I/O Rectangular Push Buttons
PB 22S IOL ORG	Standard Illuminated ¹ Rectangular I/O Push Buttons
PB MB M	Metal Holder
PB MB P	Plastic Holder
PB MB N	Nut Holder
PA LAMP	Lamp Element with LED
PA2 ²	Contact Block Snap 010/1 100/1 020/1 200/1 110/1
PA2	Contact Block Slow 010/2 100/2 020/2 200/2 110/2
PL 22 SHL	Pilot Light High Lens standard size
PL 22 CHL	Pilot Light High Lens compact size
PL 22 SRL	Pilot Light Concentric Lens standard size
PL 22 CRL	Pilot Light Concentric Lens compact size
PL 22 SLL	Pilot Light Low Lens standard size
PL 22 CLL	Pilot Light Low Lens compact size
PL 22 STL	Pilot Light Teeth Lens standard size
PL 22 CTL	Pilot Light Teeth Lens compact size
PL 22 SFL	Flashing Pilot Light
PL 22 STC	Pilot Light Two Colours
PL 22 SFBZ R	Pilot Light Flashing Buzzer
PL 22 SBZ K	Pilot Light Buzzer

¹ = To choose also the lamp element in order to get the lighting function

² = for example: PA2 110/1 is a contact block with 1NO + 1NC snap action.

The Complete Product Package



Sense

Inductive Proximity Sensors
 Tripleshield™ Capacitive Sensors
 Photoelectric Sensors
 Inductive Loop Detectors
 Ultrasonic Sensors
 Radar Sensors
 Level Sensors
 Limit Switches
 Magnetic Switches



Switch

Solid State Relays
 Contactors and Overloads
 Manual Motor Starters
 Motor Controllers
 Variable Frequency Drives
 Electromechanical Relays
 Pilot Devices
 Cam Switches
 Rotary Disconnects



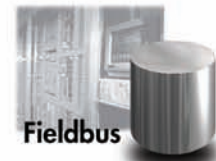
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 Current Monitoring Relays
 Voltage Monitoring Relays
 Three Phase Monitoring Relays
 Current Transformers
 Enclosures



Safety

Control Modules
 Interlock Switches
 Magnetic Sensors
 Light Curtains
 Stack Lights
 Mat Systems



Fieldbus

Dupline Field & Installation Bus
 Building Automation Systems
 Elevator Systems

A Global Force in Industrial Automation

CARLO GAVAZZI has a multitude of sales offices spanning North America (*not to mention our hundreds of distributors*). Therefore, we can be viewed as "your local automation resource" - assisting you every step of the way in finding the proper solution for your various application requirements. Naturally, our job is greatly simplified as we have such a vast range of solutions to offer you via our comprehensive *product package*.

Our worldwide sales offices make us an ideal business partner, *especially for manufacturers of exported machinery*, as our products are available locally and they are CE marked.

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Push Button, Selector Switch and Pilot Light Brochure 8/07

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