



Panorama

Pilot devices Product Overview

Unique benefits from ABB pilot devices



L-Mark

L-mark - Makes customer specific marking easy

A new system for custom marking our pilot devices is now available. In addition to engraving legend plates, ABB can now laser-engage our entire pilot device offering as well. The customer will receive a reference number for the marking from the L-mark webpage, where it also will be stored, making reordering simple, and ensuring that our customers receive their preferred marking every time they order.

Create a customer specific marking online using a five step marking tool:

Visit: <http://bolservices.it.abb.com/pilot-devices>

1. Find your product by typing the type or order code
2. Choose between text or symbol marking
3. Choose your preferred marking layout
4. Type marking or choose any of our 3000 symbols including the ISO 7000 library
5. Order by the order code + ref. code provided on the site Example: Order code:1SFA61130L1101 (order code always with a L instead of a R) type code:MPD1-11R-L Reference number:MUE979



Wiping action

Wiping action

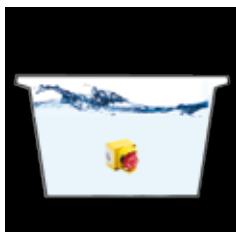
The contact blocks for both compact and modular devices feature self-cleaning contacts thanks to a built in wiping action. At operation the moving contact rolls over and slides sideways when touching the fixed contact. This feature ensures a good clean contact function also in low energy applications.



Easy installation

Fast and easy installation

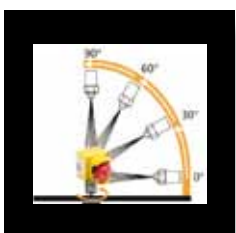
All ABB pilot devices are easy to install. Spring-loaded tabs ensure that actuators and legend plates are in the correct position. Our actuators can be used in both notched and round holes. The modular snap-on design provides one of the fastest assemblies on the market. See picture to the left.



IP67

IP67

Our Entire compact line and parts of modular are approved according to IP67. This means that the product is protected against the effects of temporary immersion in water one meter down for 30 min. This gives a water-proof enclosure for tough environments.



IP69K

IP69K

The IP69K test specification was initially developed for road vehicles, especially those that need regular intensive cleaning (dump trucks, cement mixers, etc.), but also finds use in other areas (e.g., food industry).

Our entire compact line and parts of the modular line are approved according to IP69K. The standard requires the water pressure to be 100 bar, at a rate of about 15 l/minute, and at a temperature of 80 °C. The nozzle from which the water is sprayed is 10 cm from the product. The spray is applied at the angles of 0 °, 30 °, 60 °, and 90 °, during 40 seconds at each angle, while the product is rotated at 5 rpm.

Modular range designed for flexibility and quick assembly

Modular range pilot devices, 22 mm



Pushbuttons
flush and extended buttons,
maintained and momentary, illu-
minated and non-illuminated



Mushroom pushbuttons
Ø 40 mm and Ø 60 mm, momen-
tary, illuminated and non-illumi-
nated



Key operated selector switches,
2 and 3 position, several key
codes



Pilot lights
with integrated LED blocks, Ba9
sockets for LEDs or filament bulbs



Double pushbuttons
with two flush buttons
or with extended lower button.
Illuminated or non-illuminated



Selector switches
2 and 3 position short and long
handle maintained and momentary,
illuminated and non-illuminated



Toggle switches
2 and 3 position maintained
and momentary

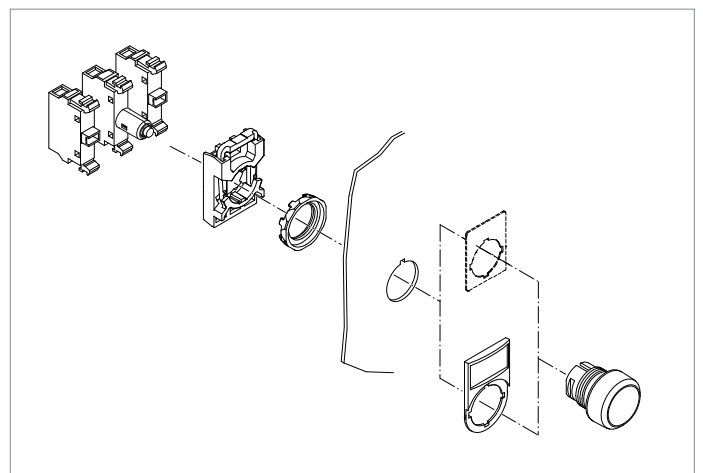


Joysticks
latching function, 2 and 4 position,
maintained and spring return

Modular range – The flexible range

- Made for tough environments
- Wiping action to secure contact function
- IP66, UL Type 1, 3R, 4, 4X, 12 and 13
- Fast and easy installing
- Widest range of integrated LEDs

The modular range is extensive and well known all around the world for its flexibility and robustness. By combining a few basic components a large number of different devices can be configured. In addition to traditional operators like push-buttons, selector switches, emergency stops and pilot lights, ABB also offers a wide range of special functions such as machine stops, joysticks, toggle switches, buzzers, definite purpose pushbuttons, potentiometers and reset buttons.



Compact range and additional products all in one design

Compact range pilot devices, 22 mm



Pushbuttons
flush and extended buttons,
momentary and maintained,
illuminated and non-illuminated



Selector switches
2 or 3 position, short handle,
maintained and momentary



Pilot lights
with integrated LED
or Ba9 sockets



Compact mushroom
mushrooms in several colors with
heavy duty design

Additional products



Extreme duty pushbuttons
with 30 mm mounting hole



Buzzers
wide range of voltages, both
continues and pulsing sound



Reset pushbuttons
flush or extended button,
with or without shaft



Potentiometers
with or without resistor,
5 ohm, 10 ohm and 50 ohm

Compact range – The competitive alternative to traditional modular series

- Robust all-in-one design
- Wiping action
- IP66, 67
- IP69K
- UL Type 1, 3R, 4, 4X, 12, 13
- Fast mounting
- Pilot lights with integrated LED as an option
- Low built-in depth

The compact range is a very price competitive “all-in-one” alternative to traditional modular products. The ABB family design with the same appearance from the front side is an advantage when combining the compact range with the modular range.

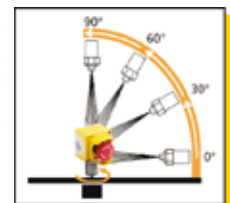
The all-in-one design makes everything easier; the entire functionality is condensed into one unit. Each item has a single ordering number. The compact range includes pushbuttons, selector switches, emergency stops and pilot lights. The compact range works in perfect harmony with the extensive modular range since the front design is identical.

Segments and applications required IP67 and IP69K rating:

- Food processing
- Pharmaceutical
- Petrochemical
- Waste treatment
- Bottling
- Trucking / transportation
- Water / waste water processing



IP67K
The IP67 is specified in IEC60529. The product is protected against the effects of temporary immersion in water one meter down in 30 min. A typical situation where this can be applied is when wash-downs occur on the enclosure.



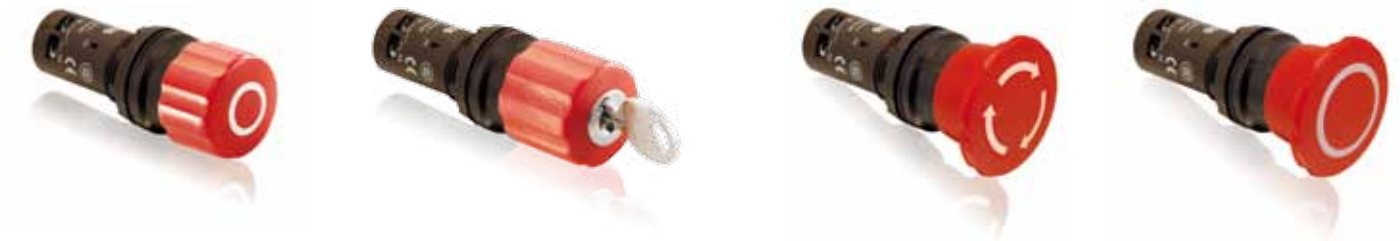
IP69K
The IP69K standard requires the water pressure to be 100 bar, at a rate of about 15 l/minute, and at a temperature of 80 °C. The nozzle from which the water is sprayed is 10 cm from the product. The spray is applied at the angles of 0 °, 30 °, 60 °, and 90 °, for duration of 30 seconds at each angle, while the product is rotated at 5 rpm.

Emergency stops award winning design

Emergency stops in modular and compact range



Modular range - emergency stops
Ø 30 mm, Ø 40 mm, Ø 60 mm, twist release, pull release, key release, illuminated and non-illuminated



Compact range - emergency stops
Ø 30 mm and Ø 40 mm, twist release, pull release and key release

Emergency stops

The emergency stops are designed for tough industrial environments. The products are approved according to IEC 60947-5-5 and meet protection degree IP66 (C-type IP67 and 69K) on the front side and IP20 on terminal side. They are also approved in accordance with UL Type 1, 3R, 4, 4X, 12 and 13. This competitive and wide range was awarded "Best product award" by the readers of the well known German magazine P & A.

Emergency stop test IEC60947-5-5:

Durability test	6050 cycles. This is not a test of mechanical life. The product has a mechanical life of 100 000 operations.
Robustness	Test force, 113 N applied in three axes
Conditioning	Heat and cold, moist, dry and salty atmosphere
Shock	15 g shock (equivalent to 150 m/s ²)
Vibration	2 h at max. acc. 50 m/s ² , 10 - 500 Hz
Opening test	Impulse voltage test at 2 500 V
Latching test	With 1.6 kg hammer
Resetting test	Pulling force < 50 N, Turning torque < 1 Nm
Impact test	Three strikes with 1.6 kg hammer
Electrical tests	Acc. to utilization category AC15 and DC13
Contacts with positive opening operation	Acc.to Annex K § 5.2

Machine stops

The mushroom machine stops have the same design as the emergency stop, except for the color. The products have passed the same tests but do not, due to the black color, fulfill the requirements for emergency stop pushbuttons. Machine stops are used by customers when a robust and reliable stop is needed but an emergency stop is not required.



Machine stops - Modular range
Ø 30 mm and Ø 40 mm, twist release, pull release and key release.



Machine stops - Compact range
Ø 30 mm and Ø 40 mm, twist release, pull release and key release.

Other offerings

Signal towers and signal beacons



Wide range with a number of functions with light and sound

Accessories and pilot devices, 30 mm



Wide range of accessories

Enclosures and stations



Plastic enclosures - Modular range up to five base mounted contact blocks / operator, available in yellow and grey



Plastic enclosures - Compact range 1-seat , IP69K, available in yellow and grey

A solution for every signalling field

The modular 70 mm signal tower system offers a wide range of optical and audible elements in all common voltages. A bayonet mechanism allows the components to be mechanically and electrically connected within seconds. Up to 5 signalling elements can be combined per station and the protection degree is IP54. The vandal proof design of signal beacons withstands all mechanical and natural challenges indoors and outdoors. The protection degree is IP65.

Enclosures for modular and compact range plastic (1, 2, 3, 4, 6-seat)

- Rear mounted contact blocks (DIN-rail)
- Up to 5 blocks / actuator
- UL type: 1, 3R, 4, 4X, 12 and 13. IP 66

metallic (1, 2, 3, 4, 6-seat)

- IP 66, 67, 69K
- Aluminium

compact plastic 1-seat

- UL type: 1, 3R, 4, 4X, 12 and 13. IP 66, 67, 69K
- One of the smallest on the market

To make both the modular and compact range even more flexible...

ABB offers a wide range of accessories such as:

- Legend plates and text caps with or without text or symbols
- Protective covers and membranes
- Shrouds
- Bezels
- Widest range of integrated LEDs on the market
- Gold plated contact blocks
- Double contact blocks
- Adapters for assembly of 22 mm pilot devices in 30 mm diameter holes, available in plastic and metal versions.
- Assembly tools and lamp changing tools.
- DIN-rail adaptors
- Blanking plugs

Contact blocks / lamp blocks

We have the widest range of lamp blocks with integrated LED:s on the market. Micro switch block for low energy applications such as PLC, that offer a great low energy solution performing down to 3 VDC, 1 mA and with minimal contact bouncing.

Emergency stops award winning design



Get prepared with ABB

Choosing the right emergency stop device is critical in order to guarantee the safety of your personnel and equipment. ABB has a very wide range of emergency stops which all fulfill IEC 60947-5-5 the standard for emergency stop devices.

Best product award

Our emergency stop series was awarded "Best Product" by the well known magazine P&A, in the category "Ex-shutz & sicherheit" voted by the magazine's readers.

Modular range

This range includes operators, holders, contact blocks and accessories that can be combined with high flexibility. The latest design has a green line added to indicate that the emergency stop is not actuated.

Compact range

The compact range has all functions built-in in one single unit.

Accessories

- Emergency stop shroud
- Enclosures
- Legend plates



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