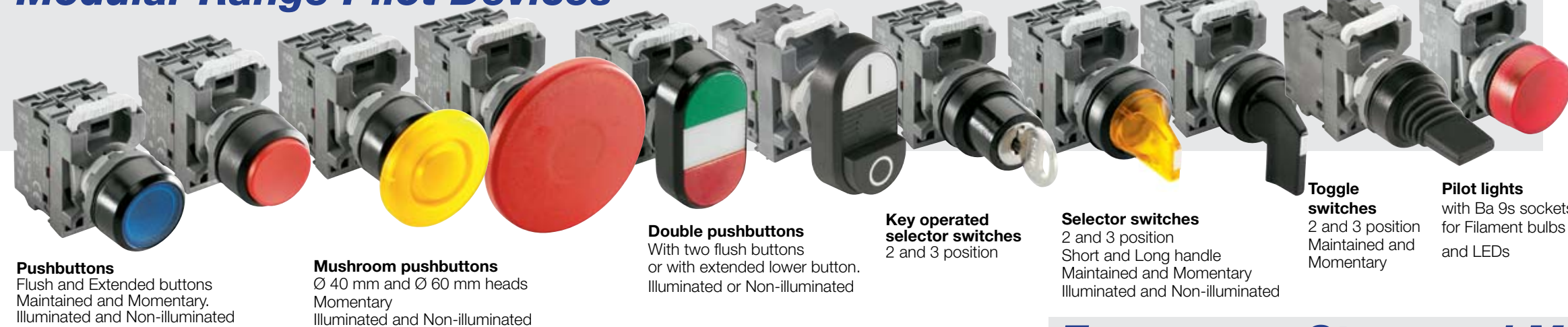


Modular Range Pilot Devices



Pushbuttons

Flush and Extended buttons
Maintained and Momentary
Illuminated and Non-illuminated

Mushroom pushbuttons

Ø 40 mm and Ø 60 mm heads
Momentary
Illuminated and Non-illuminated

Double pushbuttons

With two flush buttons
or with extended lower button.
Illuminated or Non-illuminated

Key operated selector switches

2 and 3 position

Selector switches

2 and 3 position
Short and Long handle
Maintained and Momentary
Illuminated and Non-illuminated

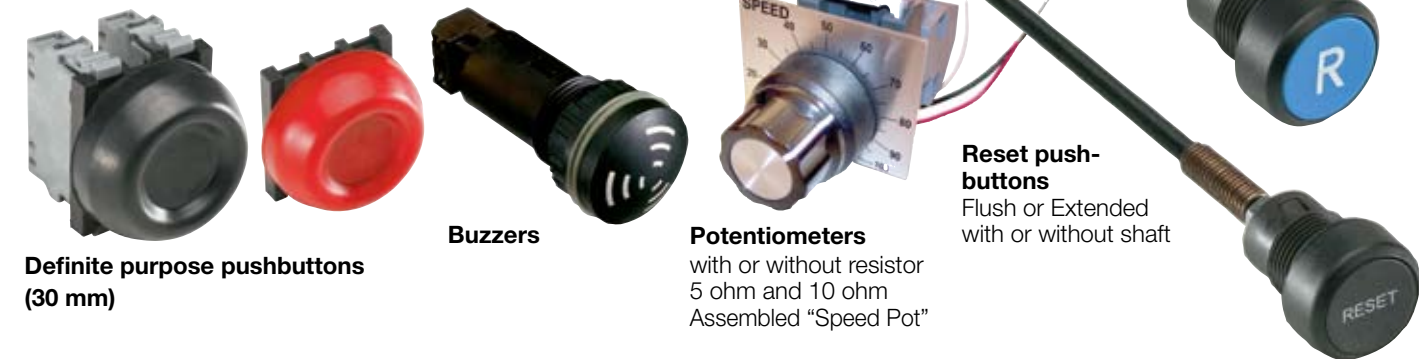
Toggle switches

2 and 3 position
Maintained and Momentary

Pilot lights

with Ba 9s sockets
for Filament bulbs
and LEDs

Additional Products



Definite purpose pushbuttons (30 mm)

Buzzers

Potentiometers

with or without resistor
5 ohm and 10 ohm
Assembled "Speed Pot"

Reset push-buttons

Flush or Extended
with or without shaft

Compact Range Pilot Devices



Pushbuttons

Flush and Extended buttons
Momentary and Maintained

Selector switches

2 or 3 position
Short handle
Maintained and Momentary

Pilot lights

with Ba 9s sockets
for Filament bulbs
or LEDs

Pilot lights

with integrated LED

Emergency Stops and Machine Stops in Modular and Compact range



Modular range Emergency Stops
Ø 40 mm and Ø 60 mm, Twist release, Pull release
Illuminated and Non-illuminated, Maintained

Compact range Emergency Stops
Ø 30 mm and Ø 40 mm, Twist release, Pull release
and Key release, Maintained

Modular range Machine Stops
Ø 40 mm, Twist release, Pull release
Non-illuminated, Maintained

Compact range Machine Stops
Ø 30 mm and Ø 40 mm, Twist release, Pull release
and Key release, Maintained

30mm Adaptors



Both the Modular Range and the Compact Range (22 mm) can, by use of adaptors, be mounted in 30 mm holes.

Accessories



Enclosures & Stations



Modular

Compact

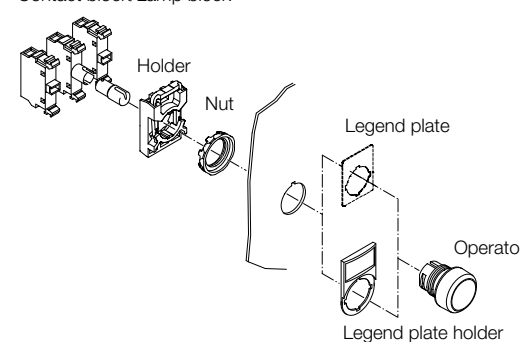
Signal Towers & Signal Beacons



Modular range – flexible and tough

- Made for tough environments
- Wiping action to secure contact function
- IP66, NEMA Type 1, 3R, 4, 4X, 12 and 13
- Easy to mount and to wire

Contact block/Lamp block



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 combination of devices can be acquired.

In addition to traditional operators like Pushbuttons, Selector Switches, Emergency Stops and Pilot Lights, ABB also offers a wide range of special functions such as Machine Stops, Toggle Switches, Buzzers, Definite Purpose Pushbuttons, Potentiometers and Reset Buttons.

Compact range – competitive alternative

- Robust all-in-one design
- Wiping action
- IP66
- IP69K (rubber membrane required for pushbuttons)
- 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.

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 on the front side and IP20 on the terminal side. They are also approved in accordance with NEMA Type 1, 3R, 4, 4X, 12 and 13.

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 Hot, cold, moist, dry and salty atmospheres

Shock 15 g shock (equivalent to 150 m/s²)

Vibration 2 h at max. acc. 50 m/s², 10 - 500 Hz

Opening test Impulse voltage test at 2500 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

These maintained mushroom pushbuttons have the same design as the Emergency Stop pushbuttons, except for the color. The products have passed the same tests but do not, due to the black color, fulfil 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. Non-illuminated yellow and illuminated blue maintained 40 mm mushroom pushbuttons are also available.



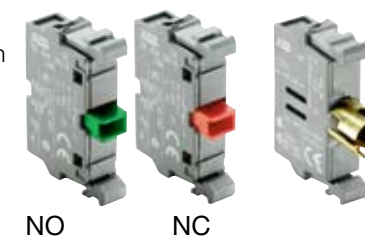
Contact Blocks/Lamp Blocks

ABB Contact Blocks offer self cleaning contacts thanks to a built in wiping action. At operation the moving contact rolls over and moves sideways when touching the fixed contact. This feature ensures a good clean contact function in critical applications.



The contact carriers are color coded to indicate normally open and normally closed contacts.

The same lamp blocks can be used for both filament bulbs and LEDs for all illuminated products.



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
- Wide ranges of bulbs and LED's
- 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
- Shrouds for Emergency Stops and Machine Stops
- DIN-rail adaptors
- Blanking plugs



Plastic Enclosures

ABB offers 1-, 2-, 3-, 4- and 6- seat Plastic Enclosures made of PC and suitable for indoor and outdoor use. All enclosures are approved according to IP66 and NEMA Type 1, 3R, 4, 4X, 12 and 13. The fronts are made in a dark grey color and the bases are light grey. The 1-seat enclosures are also available with yellow fronts suitable for emergency stop applications.

The enclosures are equipped with DIN-rails suitable for rear mounted contact blocks and have space for 4 contact blocks / lamp block for each operator.

Enclosures for the Compact Range

1-seat Enclosures are available with yellow front for Emergency Stops and dark grey fronts for other operators.

Metal Enclosures

ABB also offers 1-, 2-, 3-, 4- and 6-seat Metal Enclosures in a light grey color. These enclosures are approved according to IP66 and IP67.

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.