– think ABB

Complete range
The ABB Pilot Device family is divided into two ranges; the **Modular** range that includes operators, holders, contact blocks and accessories that can be combined with high flexibility. The **Compact** range has all functions built-in into one single unit.

Fast and easy to install
All pilot devices are easy to install. Spring-loaded tabs ensure that actuators and legend plates are in correct position. Same actuator can be used in both notched and round holes.

Flexible–Functional–Aesthetic
The pilot devices have an aesthetic and functional design
• Tight, withstanding even the toughest environment.
• No additional protective boots are needed.
• Large text and push area, clear and visible markings for quick and easy handling.
• Different choices of bezels - black plastic or metal.
• Contacts are provided with wiping action. The tips of the contacts rub against each other each time the contacts close, thus forcing dust and oxide to the side. The NC block has positive opening for high performance in safety circuits.

Worldwide availability
ABB is represented in over 130 countries. Our pilot devices meet all major international and national standards.

ME01

ABB

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            866-460-3300 Ontario
            866-222-8368 Mid-West & Pacific Region

When you think Pilot Devices

The comprehensive ABB program
The ABB Pilot Devices are part of the comprehensive ABB program of high quality Low Voltage Products and Systems for buildings, industries and OEMs. Much of this is sold through external channel partners such as distributors, system integrators and panel builders. Our products meet all essential national and international standards.

ABB offers a modern range of control products such as contactors, soft starters, DOL & Y/D starters and a wider range of electronic relays, switches and sensors.

ABB Pilot Devices
ABB offers a complete range of 22 mm Pushbuttons, Emergency Stops, Selector Switches and Signalling units. These are complemented with enclosures and a wide range of accessories.

The main advantages are the robustness and the fast and easy installation ensuring cost efficiency for our customers. The ABB Pilot Devices are suitable for all types of industrial environments, indoor as well as outdoor. Other sectors of common usage include trucks, buses, trains and official buildings.

Made for tough industrial environments
Can be used in many different applications by OEMs, panel builders, contractors, etc.

For industrial machines and equipment, control panels and control stations

For emergency circuits, alarm and signal equipment, traction equipment, hoists and lifts, door openers, etc.
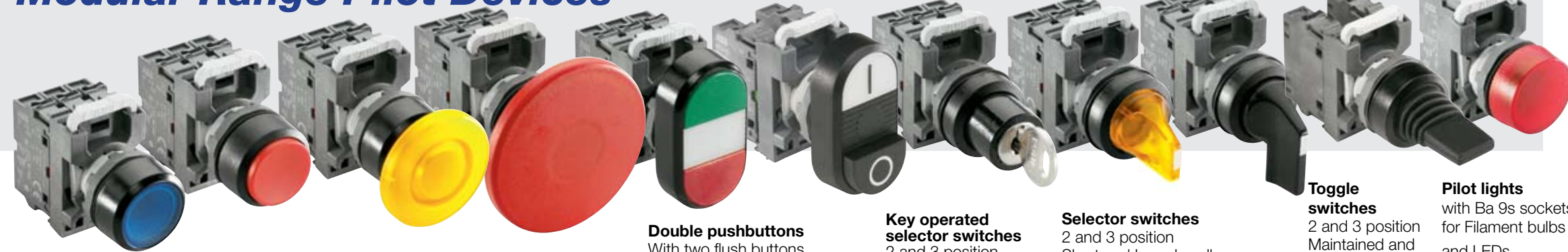
The important link
Pushbuttons and pilot lights – the world's simplest devices. They are used to make and break a circuit, pass on a message or control an operation: in short, to be a link between man and machine.

A pushbutton has to be sturdy and reliable, suitable for all environments and adaptable to widely differing requirements. Further, it should be easy to fit or set up. You will find all these features in ABB's Pilot Devices.
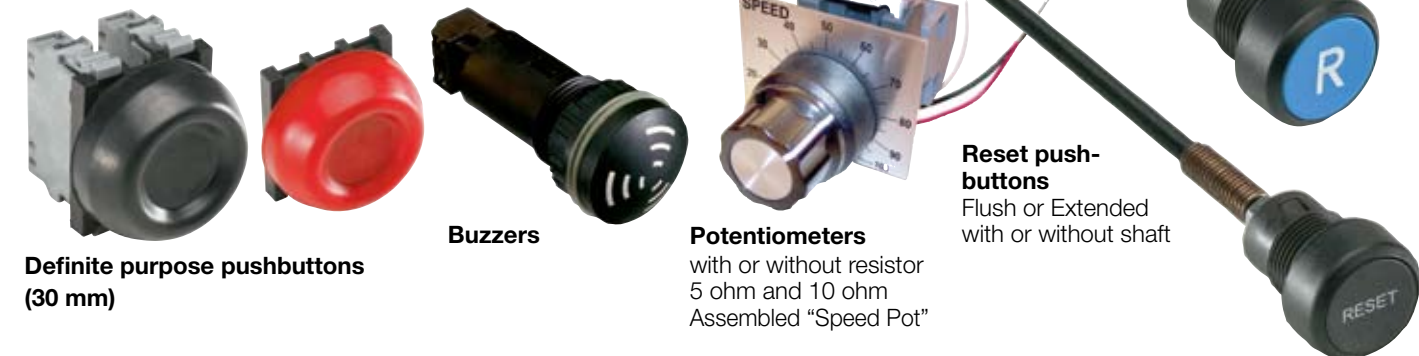
ABB

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 adapters, be mounted in 30
mm holes.
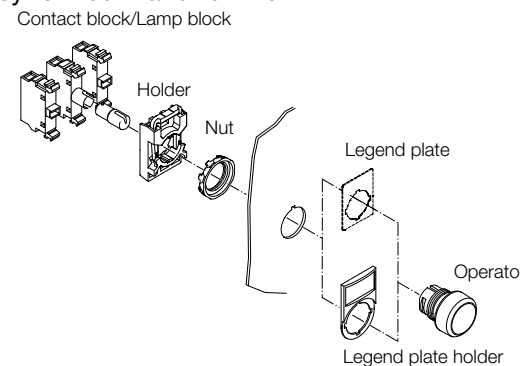
Accessories

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

Holder

Nut

Legend plate

Operator

Legend plate holder

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 environ-
ments. The products are approved according to IEC 60947-5-5 and
meet protection degree IP66 on the front side and IP20 on the termi-
nal 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-illumi-
nated yellow and illuminated blue maintained 40 mm mushroom
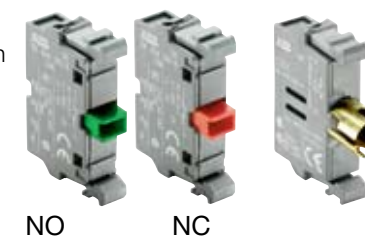pushbuttons are also available.

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.

NO   NC

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

Bezels in metal

Adaptors for 30 mm

DIN-rail adaptor

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 electri-
cally 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 mechani-
cal and natural challenges, indoors and outdoors. The protection
degree is IP65.

ABB