

M30 button

145...AA/AB/AE

robust, illuminated push button on a reed contact base

- + long life time thanks to magnetic actuation principle
- + wear resistant reed contact for low switching current
- + designed for harsh environment with internal electronics sealed to IP67
- + different actuator colours and symbols to suit many applications
- + different connector models for a wide range of applications



Use

This robust push button is designed for applications which are subject to adverse environmental conditions. The M30 push button is ideal for use in vehicle construction such as hydraulic controls. The switching element is separate from the actuation mechanism, and fulfills the high requirements of international protection IP67, therefore it is resistant to dust, dirt and humidity.



M30 push buttons at the back of a tractor for controlling a rear hoist unit

Types



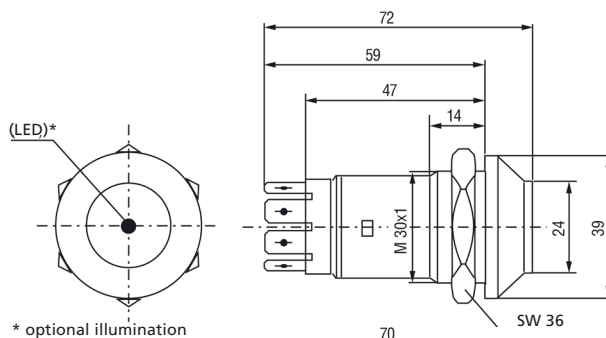
A variety of colours and symbols can be selected, as well as the LED spot lighting option



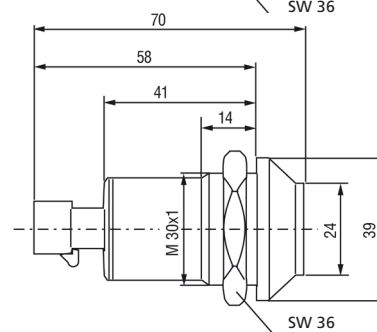
Electrical connection using flat, AMP Superseal or Deutsch connectors, others available on request

Mechanical assembly

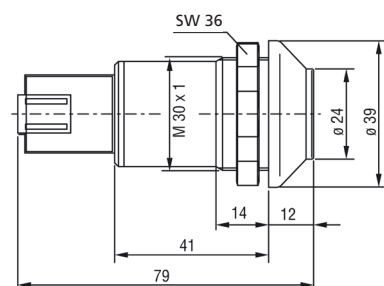
Type 145...AA (with spade terminals):



Type 145...AB (with AMP Superseal):



Type 145...AE (with Deutsch connector):



Installation dimensions

Installation opening	drill hole Ø 30 mm
Mounting	M30x1 thread with locking nut
Height	depends on connector, see technical drawings

Key mechanical data

Technology	reed switch with magnetic actuation
Service life	2 million switching operations
Actuation force	approx. 25 N
Actuation travel	approx. 5 mm
Nut tightening torque	max. 6 Nm
Material	PBT (polybutylene terephthalate)
Operating temp. range	-20 °C to +100 °C (-4 °F to +212 °F)
International protection - electronics	IP67
International protection actuation side	IP64
International protection connection side	with spade terminals IP20; with AMP and Deutsch connector IP67

Technical data and content subject to change without notice.

Illumination

The button can be fitted with an LED in the middle of the actuator cap for optical visualization.

Illumination colours available:

- red

green

white
- blue

yellow



Colours and symbols of actuator caps

The following actuator colours are available in the standard range. Other colours are also available on request.

Colour	Colour number
saffron yellow	RAL1017
zinc yellow	RAL1018
blood orange	RAL2002
pastel orange	RAL2003
pure orange	RAL2004
fire red	RAL3000
traffic red	RAL3020
light blue	RAL5012
capri blue	RAL5019
may green	RAL6017
signal brown	RAL8002
pure white	RAL9010
green	pantone green
black	
stainless steel	



Individual symbols can also be embossed on the cap. For black actuator caps, this can be done by laser engraving. This procedure ensures a high resistance to wear and tear.

The printable surface of the symbol cap has a 24 mm diameter.

Here are a few examples of symbols:



Key electrical data

Version 145...AA (with spade terminals):

*Refer to the following page (page 5) for the type of connection

Type	LED	Series resistor	Type of contact	Switching voltage	Switching current	Switching capacity	Circuit diagram*
145 000 AA	no	no	N.O.	max. 48 V	max. 0.5 A	max. 10 W/VA	I
145 010 AA	no	no	N.C.	max. 48 V	max. 0.5 A	max. 10 W/VA	II
145 100 AA	no	yes	N.O.	max. 48 V	max. 0.3 A	max. 10 W/VA	III
145 110 AA	no	yes	N.C.	max. 48 V	max. 0.3 A	max. 10 W/VA	IV
145 101 AA	yes	yes	N.O.	max. 48 V	max. 0.3 A	max. 10 W/VA	V
145 040 AA	no	no	N.O. + N.C.	max. 48 V	max. 0.5 A	max. 10 W/VA	VI
145 041 AA	yes	no	N.O. + N.C.	max. 48 V	max. 0.5 A	max. 10 W/VA	VII
145 141 AA	yes	yes	N.O. + N.C.	max. 48 V	max. 0.3 A	max. 10 W/VA	VIII
145 105 AA	yes	yes	N.O.	max. 16 V	max. 0.1 A	-	IX
145 115 AA	yes	yes	N.C.	max. 16 V	max. 0.1 A	-	X
145 300 AA	no	no	N.O.	max. 240 V	max. 1.5 A	max. 50 W/VA	I

Version 145...AB with AMP Superseal connector:

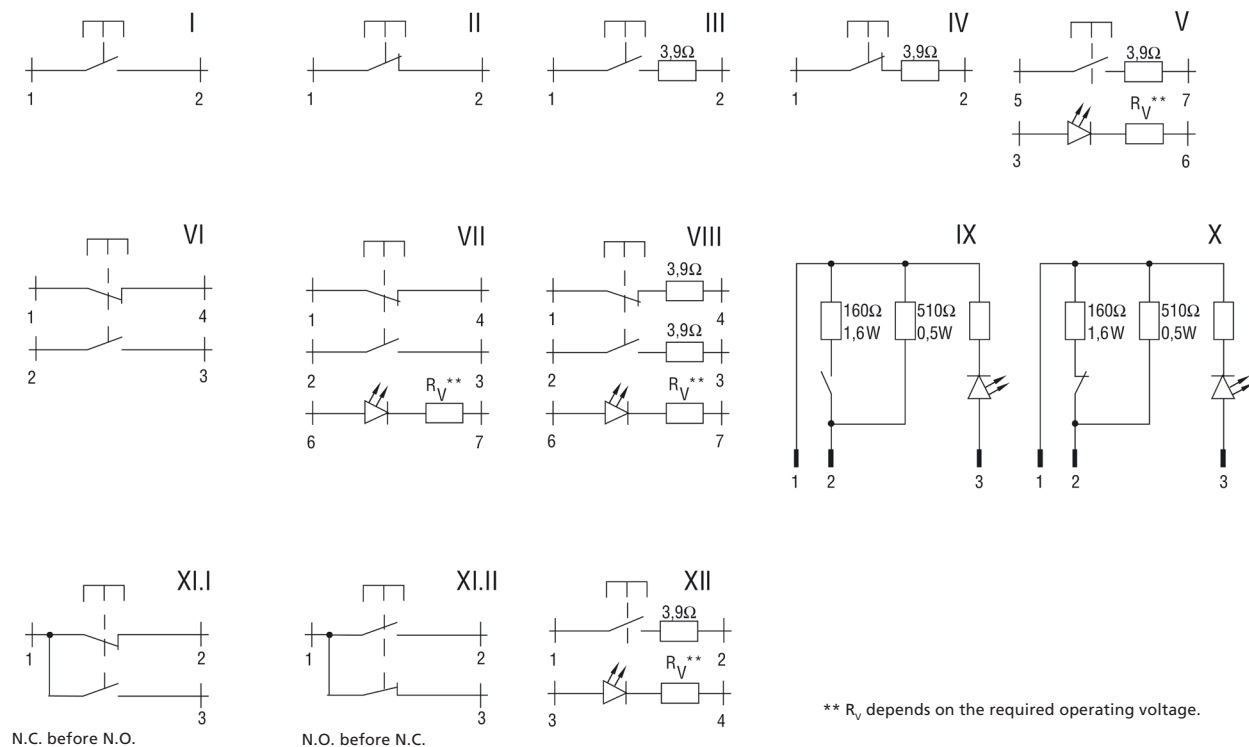
Type	LED	Series resistor	Type of contact	Switching voltage	Switching current	Switching capacity	Circuit diagram*
145 000 AB	no	no	N.O.	max. 48 V	max. 0.5 A	max. 10 W/VA	I
145 010 AB	no	no	N.C.	max. 48 V	max. 0.5 A	max. 10 W/VA	II
145 040 AB	no	no	N.O. + N.C.	max. 48 V	max. 0.5 A	max. 10 W/VA	XI
145 100 AB	no	yes	N.O.	max. 48 V	max. 0.3 A	max. 10 W/VA	III
145 105 AB	yes ($U_{B,LED} = 16V$)	yes	N.O.	max. 16 V	max. 0.1 A	-	IX
145 110 AB	no	yes	N.C.	max. 48 V	max. 0.3 A	max. 10 W/VA	IV
145 115 AB	yes ($U_{B,LED} = 16V$)	yes	N.C.	max. 16 V	max. 0.1 A	-	X

Version 145...AE with Deutsch connector:

Type	LED	Series resistor	Type of contact	Switching voltage	Switching current	Switching capacity	Circuit diagram*
145 000 AE	no	no	N.O.	max. 48 V	max. 0.5 A	max. 10 W/VA	I
145 010 AE	no	no	N.C.	max. 48 V	max. 0.5 A	max. 10 W/VA	II
145 040 AE	no	no	N.O. + N. C.	max. 48 V	max. 0.5 A	max. 10 W/VA	VI
145 100 AE	no	yes	N.O.	max. 48 V	max. 0.3 A	max. 10 W/VA	III
145 101 AE	yes ($U_{B,LED} = 16V$)	yes	N.O.	max. 48 V	max. 0.3 A	max. 10 W/VA	XII
145 105 AE	yes ($U_{B,LED} = 16V$)	yes	N.O.	max. 16 V	max. 0.1 A	-	IX
145 110 AE	no	yes	N.C.	max. 48 V	max. 0.3 A	max. 10 W/VA	IV
145 115 AE	yes ($U_{B,LED} = 16V$)	yes	N.C.	max. 16 V	max. 0.1 A	-	X

Connection

Circuit diagrams:



Connection type

Type 145 ... AA	spade terminals 6.3 mm, max. 7-pole
Type 145 ... AB	AMP Superseal connector, 3-pole
Type 145 ... AE	deutsch connector DT-04, 4-pole



Chemical resistance

+ transmission oil	+ engine oil	+ diesel (limited)
+ biodiesel (limited)	+ battery acid (limited)	+ cleaning agent
+ petrol	+ coolant	+ common drinks

Technical data and content subject to change without notice.

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Specifications of your M30 push button

Actuation cap colour

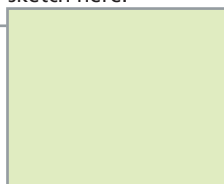
Colour	Colour number
 ☐ saffron yellow	RAL1017
 ☐ zinc yellow	RAL1018
 ☐ blood orange	RAL2002
 ☐ pastel orange	RAL2003
 ☐ pure orange	RAL2004
 ☐ fire red	RAL3000
 ☐ traffic red	RAL3020
 ☐ light blue	RAL5012
 ☐ capri blue	RAL5019
 ☐ may green	RAL6017
 ☐ signal brown	RAL8002
☐ pure white	RAL9010
 ☐ green	pantone green
 ☐ black	
☐ stainless steel	



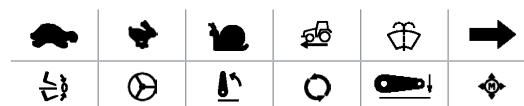
Symbol

- ☐ no symbol
- ☐ with symbol

sketch here:



Examples:



file available in .dxf format

- ☐ yes
- ☐ no

☐ embossing

☐ laser engraving*

* only for black caps

Illumination

☐ without																							
☐ with LED	<table border="0"> <tr> <th colspan="4">Colour LED</th> </tr> <tr> <td></td> <td>☐</td> <td>red</td> <td></td> <td>☐</td> <td>yellow</td> </tr> <tr> <td></td> <td>☐</td> <td>blue</td> <td></td> <td>☐</td> <td>white</td> </tr> <tr> <td></td> <td>☐</td> <td>green</td> <td></td> <td></td> <td></td> </tr> </table>	Colour LED					☐	red		☐	yellow		☐	blue		☐	white		☐	green			
Colour LED																							
	☐	red		☐	yellow																		
	☐	blue		☐	white																		
	☐	green																					



Type of contact and connector version

with spade terminals:

	Type	Type of contact
☐	145 000 AA	N.O.
☐	145 010 AA	N.C.
☐	145 100 AA	N.O.
☐	145 110 AA	N.C.
☐	145 101 AA	N.O.
☐	145 040 AA	N.O. + N.C.
☐	145 041 AA	N.O. + N.C.
☐	145 141 AA	N.O. + N.C.
☐	145 105 AA	N.O.
☐	145 115 AA	N.C.
☐	145 300 AA	N.O.

with AMP Superseal connector:

	Type	Type of contact
☐	145 000 AB	N.O.
☐	145 010 AB	N.C.
☐	145 040 AB	N.O. + N.C.
☐	145 100 AB	N.O.
☐	145 105 AB	N.O.
☐	145 110 AB	N.C.
☐	145 115 AB	N.C.

with Deutsch connector:

	Type	Type of contact
☐	145 000 AE	N.O.
☐	145 010 AE	N.C.
☐	145 040 AE	N.O. + N.C.
☐	145 100 AE	N.O.
☐	145 101 AE	N.O.
☐	145 105 AE	N.O.
☐	145 110 AE	N.C.
☐	145 115 AE	N.C.

