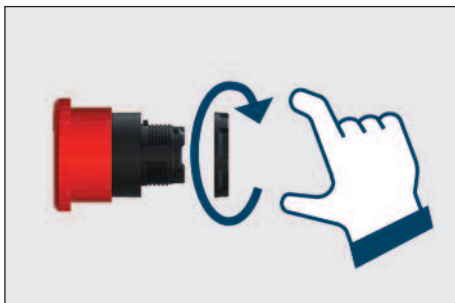
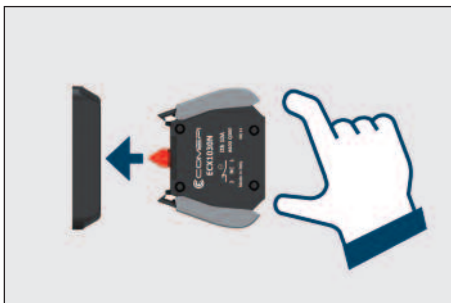


Control units Plastic Series

Main features



Installation of **4000 SERIES** is easier and faster thanks to the new **THREADED RING** and **SUPPORT BASE WITHOUT SCREWS**.



CONTACT BLOCKS and the **LED LAMP-HOLDER** can be easily installed on the support base by side levers **WITHOUT TOOLS**.



CONTACT BLOCKS must be installed either in the lateral positions of the support base or in the central position (max **TWO** contact blocks stacked on each position). LED lamp-holder must be fixed in the central position.



The support base fixing system allows **FAST** and **ACCURATE LATCHING** ensuring maximum **SAFETY** and long-term **RELIABILITY**.



Ambient temperature
- operating **-25 ... + 70 °C**
- storage **-40 ... + 80 °C**



Devices certified according to International standards:
EN 60947-5-1 and **UL 508**.

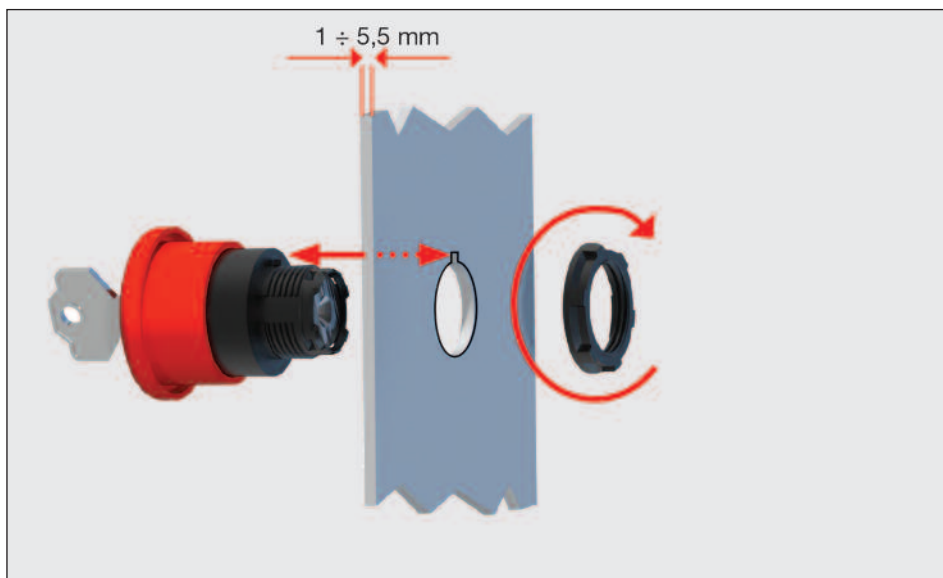


Comepi supports **SAFETY AND ENVIRONMENTAL PROTECTION**, according to European standards and directives.



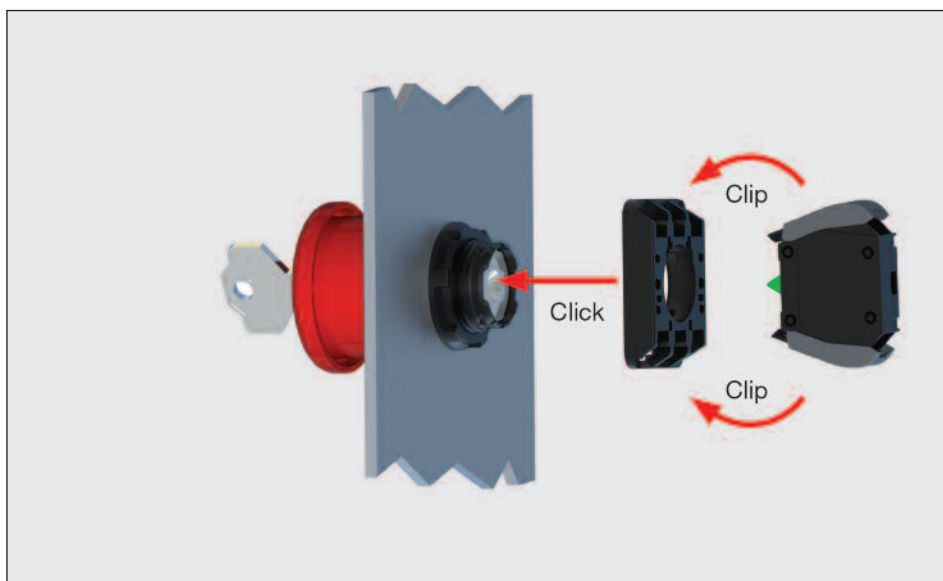
Control units Plastic Series

4000 SERIES: FAST movements and INTUITIVE assembling



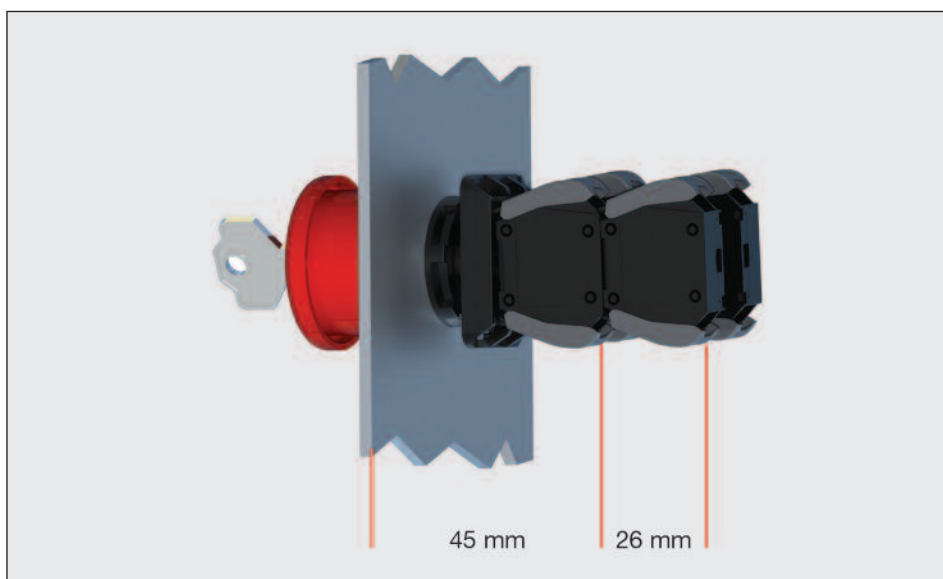
ANTI-ROTATION NOTCH on the body of the control unit.

Threaded ring easily mounted on the control unit.

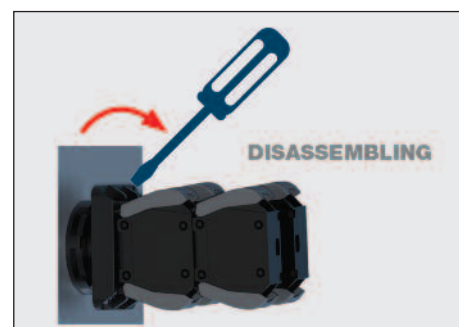


Support base with alignment notches to facilitate installation. **NO NEED OF TOOLS.**

Contact blocks and LED lamp-holders equipped with **SIDE LEVERS** to allow fast assembling and removal.

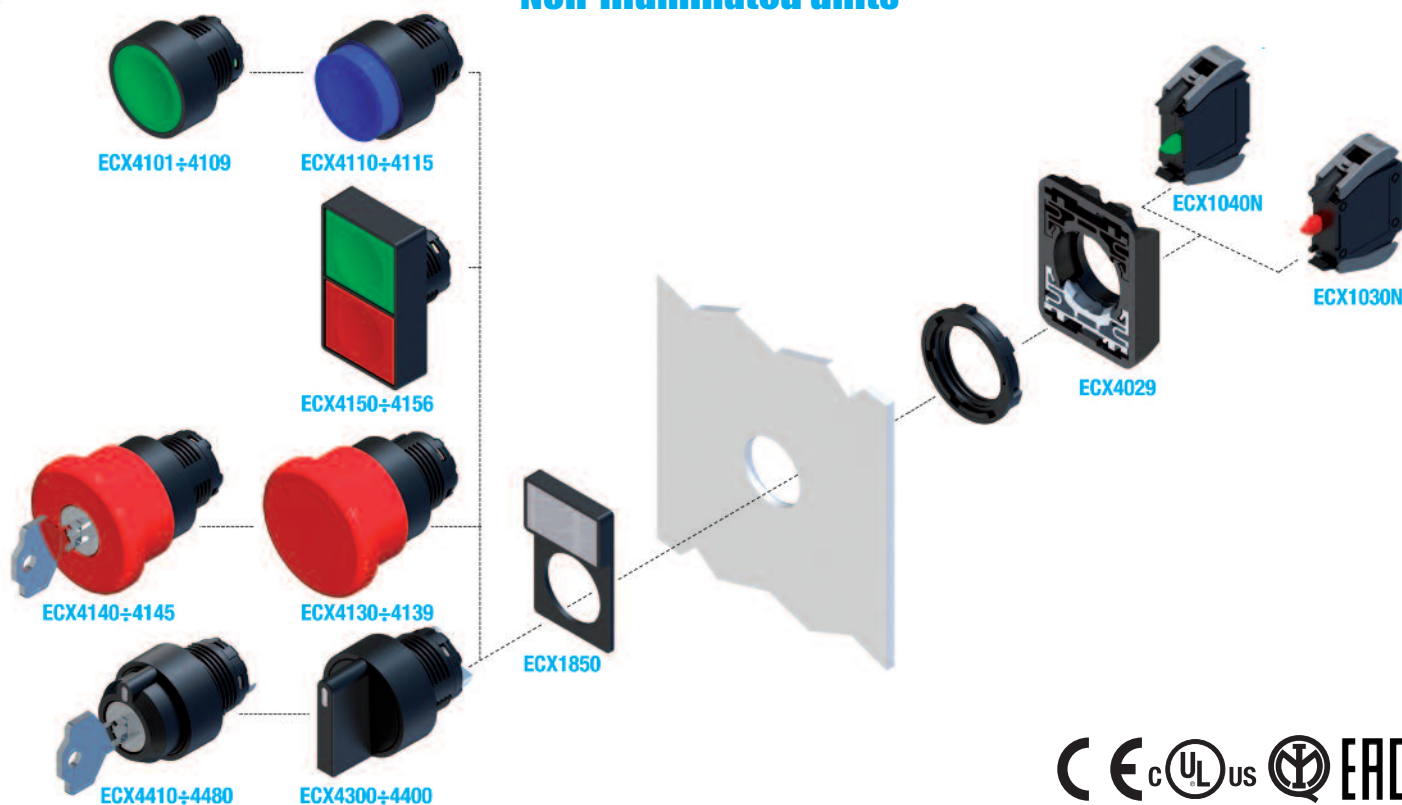


Overall dimensions:
45MM depth from panel only.

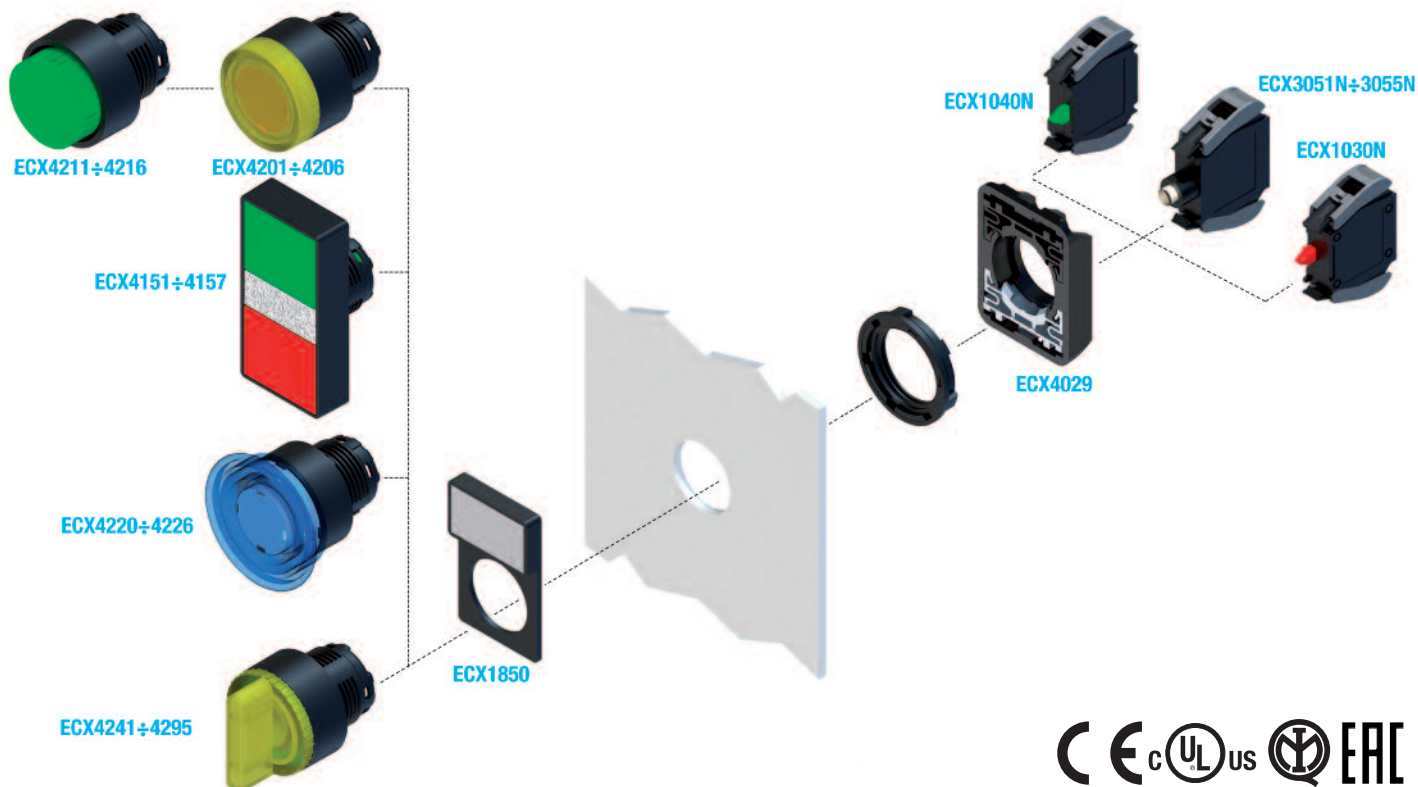


Control units Plastic Series

Non-illuminated units



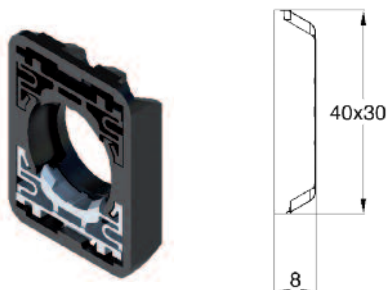
Illuminated units



Plastic Series

Support base, contact blocks and LED units

Support base



Description

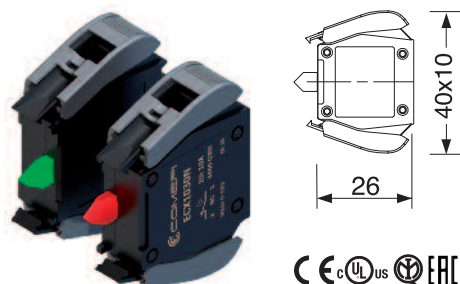
Support base for thermoplastic units ECX...

Code

ECX 4029N

Implementation and utilization precautions: see page 32

Quick coupling contact blocks (IP20)



Description

Operation diagram

Actuating force
Positive opening

Code

Red		2,1N / 15N	ECX 1030N
Green		2,6N	ECX 1040N
Grey		1,9N / 15N	ECX 1041N*
Brown		2,2N	ECX 1042N**

* Only use on Joy Stick4 positions - ** Only use on illuminated push/push button

Positive opening (according to IEC 60947-5-1)

Rated insulation voltage U_i

– according to IEC 60947-1 and EN 60947-1

– according to UL 508 and CSA C22-2 n° 14

Rated impulse withstand voltage U_{imp} U_{imp} (according to IEC 60947-1 and EN 60947-1)

Conditional short-circuit current (according to IEC 60947-1 and EN 60947-1)

Conventional free air thermal current I_{th} (IEC 60947-5-1 e EN 60947-5-1) $\theta < 40^\circ\text{C}$ Short-circuit protection $U_e < 500\text{ V a.c.}$ – fusibili tipo gG (gl)

Rated operational current

 I_e / AC-15 (according to IEC 60947-5-1) I_e / DC-13 (according to IEC 60947-5-1)

Switching frequency

Resistance between contacts

Protection degree (according to IEC 60529 and EN 60529)

Connecting terminals

Positive opening on all NC contacts

690V (degree of pollution 3)

A600, Q300

8 kV

1 kA

10 A

10 A

10 A

6 A

4 A

2,8 A

0,55 A

0,27 A

3600 cycles/h

 $\leq 25\text{ m}\Omega$

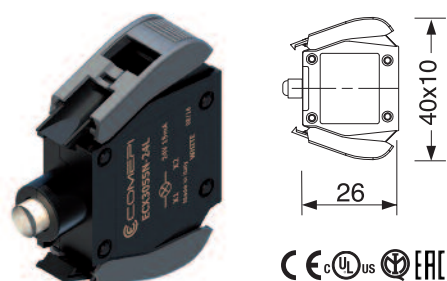
IP 20

On screw with non losable plate clamp

1 or 2 conductors - 0,5 ...2,5 mm²

IMQ listed values

Quick coupling LED units (IP20)



Colour

12V AC/DC

24V AC/DC

110V AC/DC

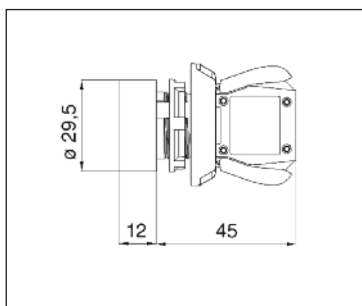
230V AC

Red	ECX 3051N-12L	ECX 3051N-24L	ECX 3051N-110L	ECX 3051N-230L
Green	ECX 3052N-12L	ECX 3052N-24L	ECX 3052N-110L	ECX 3052N-230L
Yellow	ECX 3053N-12L	ECX 3053N-24L	ECX 3053N-110L	ECX 3053N-230L
Blue	ECX 3054N-12L	ECX 3054N-24L	ECX 3054N-110L	ECX 3054N-230L
White	ECX 3055N-12L	ECX 3055N-24L	ECX 3055N-110L	ECX 3055N-230L

Plastic Series

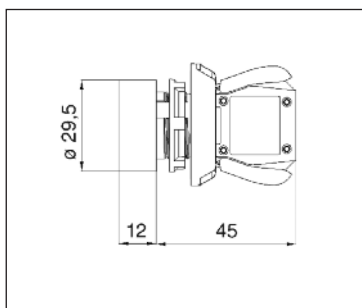
Non-illuminated momentary pushbuttons

Plastic flush pushbutton $\varnothing$ 30



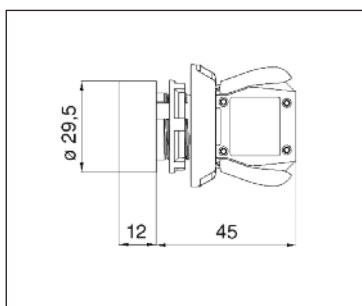
Colour	Code
Black	ECX 4100
Red	ECX 4101
Green	ECX 4102
Yellow	ECX 4103
Blue	ECX 4104
White	ECX 4105

Plastic flush pushbutton - on/off



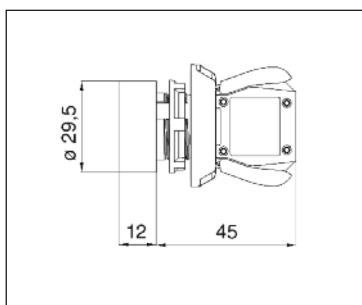
Version	Colour	Code
	Red	ECX 4106
	Green	ECX 4307
	Black	ECX 4106/N
	White	ECX 4107/B

Plastic flush pushbutton - with arrow



Version	Colour	Code
White horizontal arrow	Black	ECX 4108
White vertical arrow	Black	ECX 4109

Pushbutton Start / On

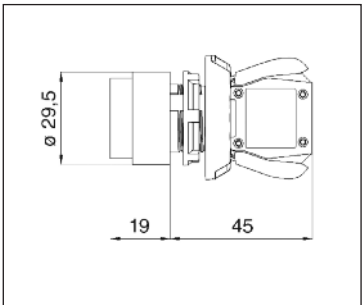


Version	Colour	Code
(flush)	White	ECX 4105-01
(flush)	White	ECX 4105-03

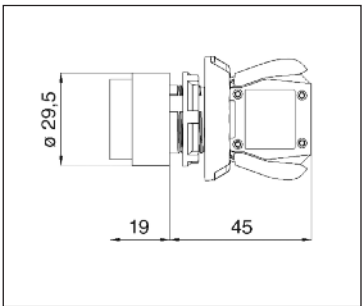
Plastic Series

Non-illuminated momentary pushbuttons

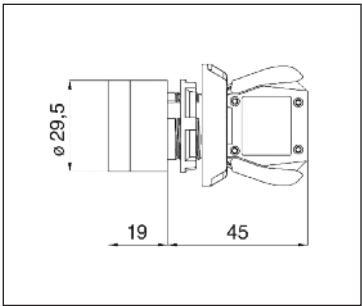
Pushbutton Stop / Off	Version	Colour	Code
	 (extended)	Black	ECX 4110-01
	 (extended)	Black	ECX 4110-03



Extended pushbutton	Colour	Code
	Black	ECX 4110
	Red	ECX 4111
	Green	ECX 4112
	Yellow	ECX 4113
	Blue	ECX 4114
	White	ECX 4115



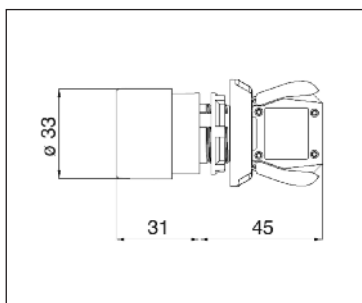
Plastic ring shrouded	Colour	Code
	Black	ECX 4000
	Red	ECX 4001
	Green	ECX 4002
	Yellow	ECX 4003
	Blue	ECX 4004
	White	ECX 4005



Plastic Series

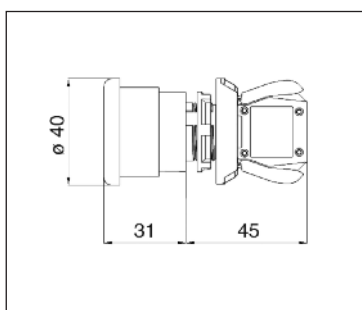
Mushroom pushbuttons

Mushroom pushbutton $\varnothing$ 33



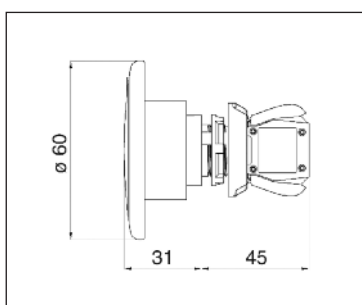
Version	Colour	Code
With latch - twist to release	Black	ECX 4160
	Red	ECX 4161
	Yellow	ECX 4168
Without latch	Black	ECX 4164
	Red	ECX 4165
	Yellow	ECX 4169

Mushroom pushbutton $\varnothing$ 40



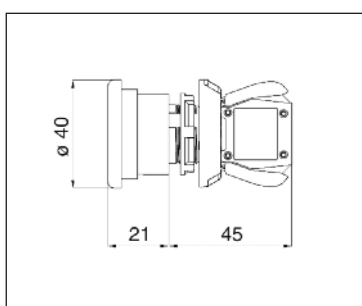
Version	Colour	Code
With latch - twist to release	Black	ECX 4130
	Red	ECX 4131
	Yellow	ECX 4138
Without latch	Black	ECX 4134
	Red	ECX 4135
	Yellow	ECX 4139

Mushroom pushbutton $\varnothing$ 60



Version	Colour	Code
With latch - twist to release	Black	ECX 4132
	Red	ECX 4136
Without latch	Black	ECX 4133
	Red	ECX 4137

Illuminated mushroom pushbutton $\varnothing$ 40

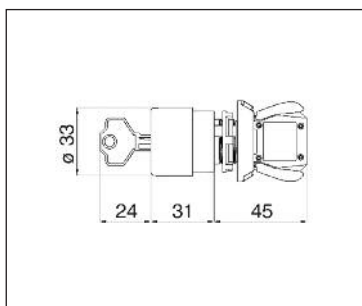


Version	Colour	Code
Without latch	White	ECX 4220
	Red	ECX 4221
	Green	ECX 4222
	Yellow	ECX 4223
	Blue	ECX 4224
	Transparent	ECX 4225
With latch - twist to release	Red	ECX 4226

Plastic Series

Mushroom key operated pushbuttons - Pilot lights

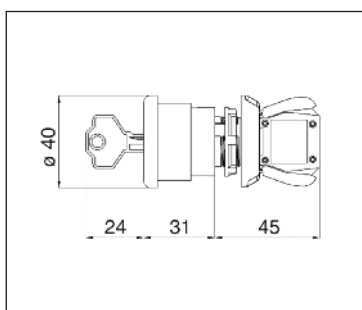
Mushroom key operated pushbutton (key n° G.513) $\varnothing$ 33



Version	Colour	Code
With latch - turn key to release	Black	ECX 4170
	Red	ECX 4171
Without latch	Black	ECX 4174
	Red	ECX 4175

Replacement keys: see page 35

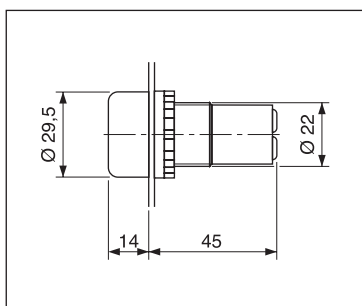
Mushroom key operated pushbutton (key n° G.513) $\varnothing$ 40



Version	Colour	Code
With latch - turn key to release	Black	ECX 4140
	Red	ECX 4141
Without latch	Black	ECX 4144
	Red	ECX 4145

Replacement keys: see page 35

Pilot light (IP 20, IP 65 after installation)



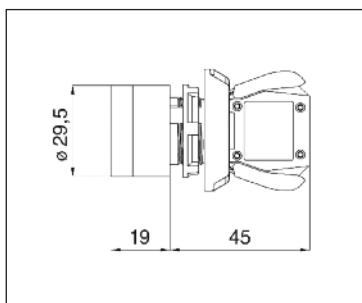
Version	Colour	Code
For Ba9s lamps	Red	ECX 1051
	Green	ECX 1052
	Yellow	ECX 1053
	Blue	ECX 1054
	Transparent	ECX 1055
	White	ECX 1056



Plastic Series

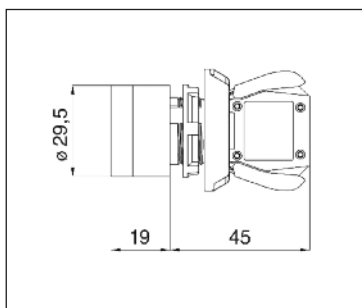
Illuminated momentary and push pushbuttons

Illuminated flush pushbutton



Colour	Code
Red	ECX 4201
Green	ECX 4202
Yellow	ECX 4203
Blue	ECX 4204
Transparent	ECX 4205
White	ECX 4206

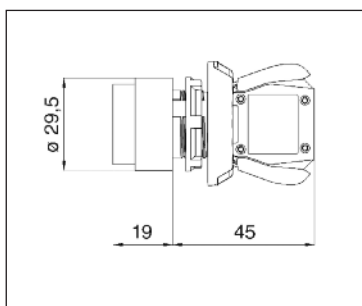
Illuminated flush push/push button



Version	Colour	Code
	Red	ECX 4191
	Green	ECX 4192
	Yellow	ECX 4193
	Blue	ECX 4194
	Transparent	ECX 4195
	White	ECX 4196
Not illuminated	Black	ECX 4190

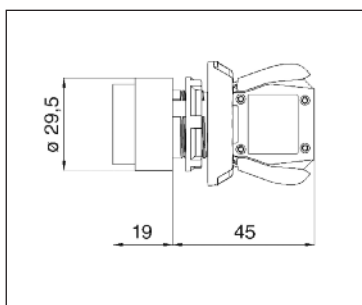
Attention: to be used with NO contact block ECX 1042 (brown colour)

Illuminated pushbutton - extended type



Colour	Code
Red	ECX 4211
Green	ECX 4212
Yellow	ECX 3213
Blue	ECX 4214
Transparent	ECX 4215
White	ECX 4216

Illuminated push/push button - extended type



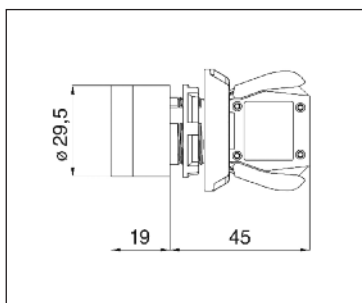
Version	Colour	Code
	Red	ECX 4181
	Green	ECX 4182
	Yellow	ECX 4183
	Blue	ECX 4184
	Transparent	ECX 4185
	White	ECX 4186
Not illuminated	Black	ECX 4180

Attention: to be used with NO contact block ECX 1042 (brown colour)

Plastic Series

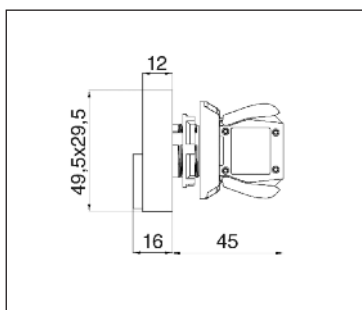
Illuminated momentary pushbuttons - two-way pushbuttons

Illuminated shrouded pushbutton



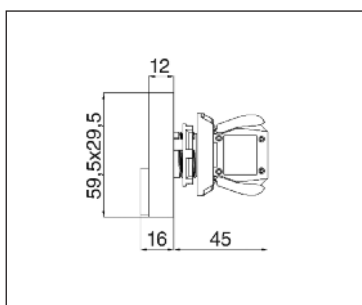
Colour	Code
Black	ECX 4011
Red	ECX 4012
Green	ECX 4013
Yellow	ECX 4014
Blue	ECX 4015
White	ECX 4016

Two - way pushbutton



Version	Code
Flush pushbutton	ECX 4150
Same as above with symbols	ECX 4152
Extended red Button	ECX 4154
Same as above with symbols	ECX 4156
Upon request with black and white buttons	ECX /BN

Two - way pushbutton with pilot light (IP40)



Version	Code
Flush pushbutton	ECX 4151
Same as above with symbols	ECX 4153
Extended red Button	ECX 4155
Same as above with symbols	ECX 4157
Upon request with black and white buttons	ECX /BN

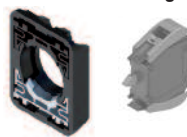
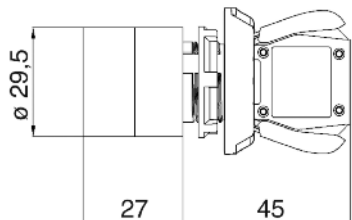
Plastic Series

Selector switches

Type of selector		Description	2 POS.			3 POS.			3 POS.		
	• Contacts on the left side	 ECX 1030N 1 2	X			X	X	—	—	—	
	 X = Closed contact	 ECX 1040N 3 4		X	X					X	
		 ECX 1041N 1 2	—	—	—	—	—		X		
		 ECX 1030N 1 2	X		X	X		—	—	—	
		 ECX 1040N 3 4		X			X			X	
	 ECX 1041N 1 2	—	—	—	—	—	X				
Short lever selector switch		 ECX 4300									
 ECX 4310 ø 29,5 27 45		 ECX 4320				ECX 4320			GCX 4320S*		
		 ECX 4330				ECX 4330			GCX 4330S*		
		 ECX 4340				ECX 4340					
		 ECX 4345				ECX 4345					
		 ECX 4350									
		 ECX 4360									
Long lever selector switch		 ECX 4350									
 ECX 4360 39 27 45		 ECX 4370				ECX 4370			GCX 4370S*		
		 ECX 4380				ECX 4380			GCX 4380S*		
		 ECX 4390				ECX 4390					
		 ECX 4400				ECX 4400					
		 ECX 4410									
		 ECX 4420									
Key selector switch (key n° G. 513)		 ECX 4430									
 ECX 4440 ø 29,5 24 24 45		 ECX 4450									
		 ECX 4460				ECX 4460			GCX 4440S*		
		 ECX 4470				ECX 4470			GCX 4470S*		
		 ECX 4480				ECX 4480			GCX 4480S*		
		 ECX 4490									
		 ECX 4500									
		 ECX 4510									
		 ECX 4520									

Plastic Series

Selector switches

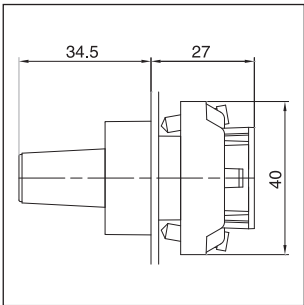
Type of selector		Description	2 POS.		3 POS.			3 POS.			
											
	• Contacts on the left side	 ECX 1030N 1 2	X			X	X				
	 X = Closed contact	 ECX 1040N 3 4		X	X						
		 ECX 1041N 1 2	–	–	–	–	–				
		• Contacts on the right side	 ECX 1030N 1 2	X		X	X				
		 X = Closed contact	 ECX 1040N 3 4		X			X			
	 ECX 1041N 1 2	–	–	–	–	–					
Illuminated selector switch (1)				ECX 424•							
 			ECX 425•								
					ECX 426•						
					ECX 427•						
					ECX 428•						
					ECX 429•						

(1) Replace the symbol • with the number of the desired color:
1: Red 2: Green 3: Yellow 4: Blue 5: Transparent

-  Maintened positions
-  Spring Return positions
-  Key extraction positions

Other versions are available on request: please contact our commercial department.

Potentiometer knob



Description

Code

Suitable for Ø 6 shaft potentiometers

With graduated scale ECX 3560

With variable index ECX 3561

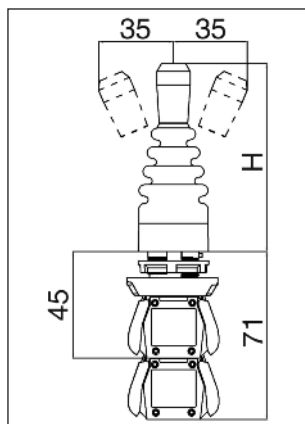
Suitable for Ø 6,3 shaft potentiometers

With graduated scale ECX 3562

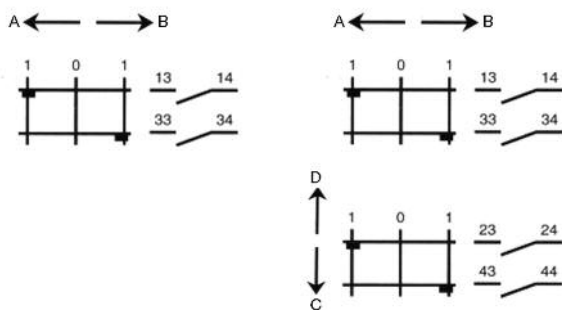
With variable index ECX 3563

Support base included - Shaft lenght 44...51 mm

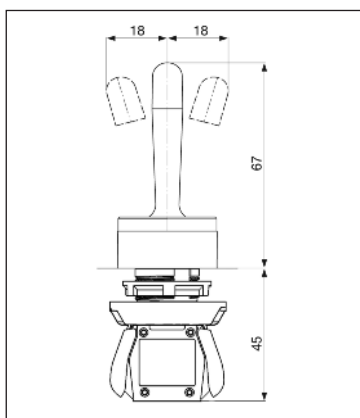
Plastic Series



Operation diagrams



Upon request Joysticks are available in other additional settings.
These items are supplied with contact blocks.



Joystick - Wobble Joystick and Mushroom

1 position Joystick

Code	Code	Description
H = 79	H = 55	
ECX 4515N	ECX 4545N	A unstable
ECX 4516N	ECX 4546N	A stable

2 positions Joystick

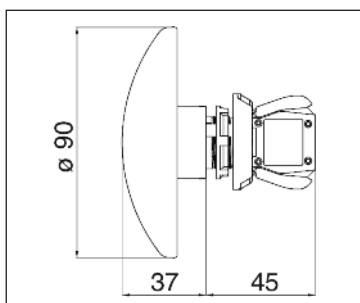
Code	Code	Description
H = 79	H = 55	
ECX 4510N	ECX 4540N	A-B unstable
ECX 4511N	ECX 4541N	A stable / B unstable
ECX 4512N	ECX 4542N	A-B stable

4 positions Joystick

Code	Code	Description
H = 79	H = 55	
ECX 4520N	ECX 4550N	A-B-C-D unstable
ECX 4521N	ECX 4551N	A stable / B-C-D unstable
ECX 4522N	ECX 4552N	A-B stable / C-D unstable
ECX 4523N	ECX 4553N	A-B-C stable / D unstable
ECX 4524N	ECX 4554N	A-B-C-D stable

Wobble Joystick

Code	Description
ECX 4530	Contacts (supplied separately) are actuated by a lever movement in any direction.

 $\varnothing$ 90 Wobble mushroom

Version	Colour	Code
Contacts (supplied separately) are actuated by wobble movement in any direction.	Black	ECX 4570
	Red	ECX 4571
	Green	ECX 4572

Led pilot light - Buzzers

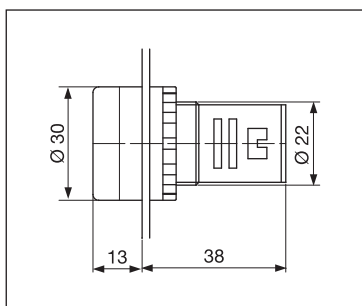
Applications

These products series ECX 205•, thanks to the Led illumination device, are characterized by long service life and low power consumption.

Main Technical Data

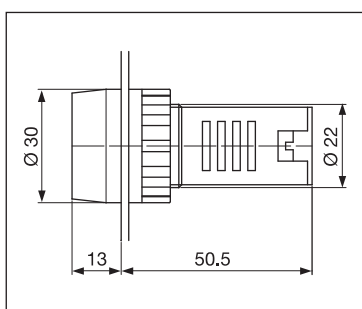
Rated Current: 12mA~140mA
Insulation Resistance: > 2 M Ω
Service Life: > 30.000 h
Luminous Flux: > 60 cd/m ²
Protection Degree: IP20 (IP65 after installation, except ECX 207• : IP64)
Pollution Degree: 3

Led pilot light Led $\varnothing$ 22



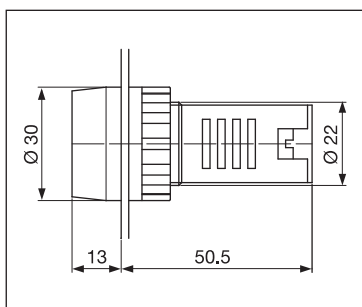
Version	Colour	Code
12 V AC/DC	Red	ECX 2051-12L
24 V AC/DC	Red	ECX 2051-24L
127 V AC/DC	Red	ECX 2051-127L
220 V AC	Red	ECX 2051-220L
12 V AC/DC	Green	ECX 2052-12L
24 V AC/DC	Green	ECX 2052-24L
127 V AC/DC	Green	ECX 2052-127L
220 V AC	Green	ECX 2052-220L
12 V AC/DC	Yellow	ECX 2053-12L
24 V AC/DC	Yellow	ECX 2053-24L
127 V AC/DC	Yellow	ECX 2053-127L
220 V AC	Yellow	ECX 2053-220L
12 V AC/DC	Blue	ECX 2054-12L
24 V AC/DC	Blue	ECX 2054-24L
127 V AC/DC	Blue	ECX 2054-127L
220 V AC	Blue	ECX 2054-220L
12 V AC/DC	White	ECX 2055-12L
24 V AC/DC	White	ECX 2055-24L
127 V AC/DC	White	ECX 2055-127L
220 V AC	White	ECX 2055-220L

Non-illuminated buzzer $\varnothing$ 22



Version	Colour	Code
12 V AC/DC	Black	ECX 2070-12
24 V AC/DC	Black	ECX 2070-24
127 V AC/DC	Black	ECX 2070-127
220 V AC	Black	ECX 2070-220

Illuminated flashing buzzer $\varnothing$ 22



Version	Colour	Code
12 V AC/DC	Red	ECX 2071-12R
24 V AC/DC	Red	ECX 2071-24R
127 V AC/DC	Red	ECX 2071-127R
220 V AC	Red	ECX 2071-220R