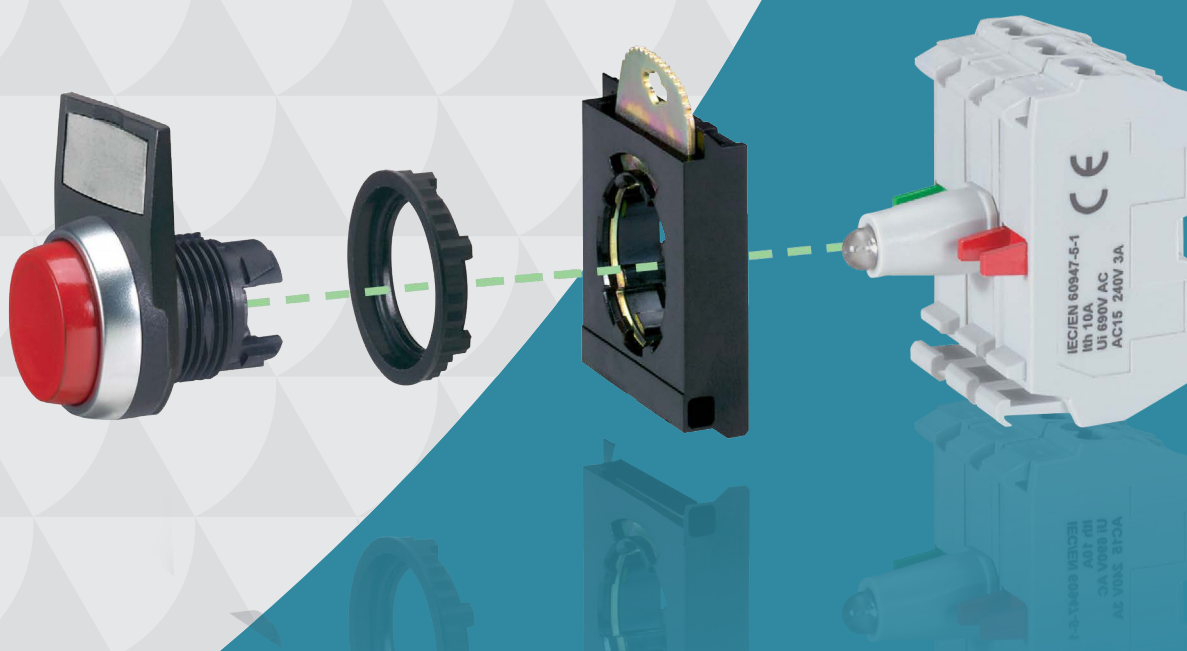




BACO®

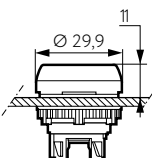
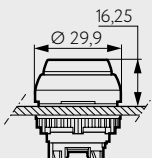
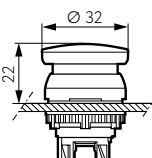
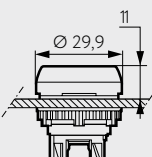
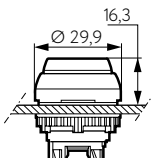
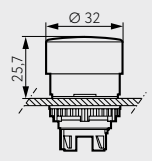
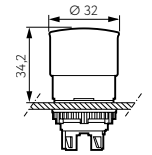


CONTROL AND SIGNALLING UNITS

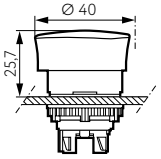
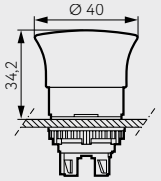
Ø 22 mm
BACO



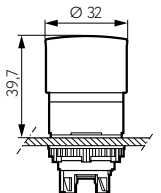
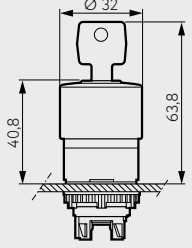
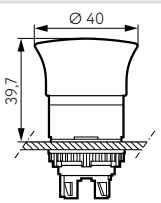
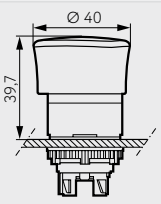
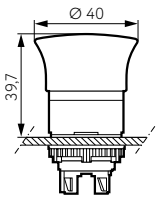
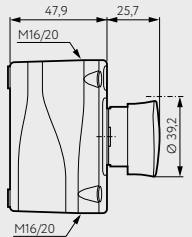
PUSH - BUTTONS · Ø 22 mm

Non illuminated push-buttons			
Without engraving Spring return, flash	 L21AA02		 red L21AA01
	 L21AA81		 green L21AA02
	 L21AA00		 black L21AA03
With engraving (p.9.)			 yellow L21AA04
Without colour plate			 white L21AA05
			 blue L21AA06
		Cover plate is additional without symbol/ with symbol	 red L21AA81
			 green L21AA82
			 black L21AA83
			Versions with other symbols codes can be developed by un order
			 red LT01 / LT21 ---
			 green LT02 / LT22 ---
			 black LT03 / LT23 ---
			 yellow LT04 / LT24 ---
			 white LT05 / LT25 ---
			 blue LT06 / LT26 ---
Spring return, projecting	 L21AB01		 red L21AB01
			 green L21AB02
			 black L21AB03
			 yellow L21AB04
			 white L21AB05
			 blue L21AB06
Mushroom head, spring return, Ø 32 mm	 L21AC03		 red L21AC01
			 green L21AC02
			 black L21AC03
			 yellow L21AC04
Stay put, flash	 L21CA01		 red L21CA01
			 green L21CA02
			 black L21CA03
			 yellow L21CA04
			 white L21CA05
			 blue L21CA06
Stay put, projecting	 L21CB02		 red L21CB01
			 green L21CB02
			 black L21CB03
			 yellow L21CB04
			 white L21CB05
			 blue L21CB06
Mushroom head, push-turn to reset, Ø 32 mm	 L22EC01		 red L22EC01
			 green L22EC02
			 black L22EC03
			 yellow L22EC04
Mushroom head, push-pull to reset, Ø 32 mm	 L22DC01		 red L22DC01

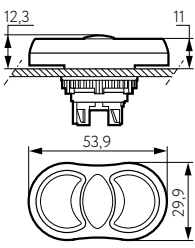
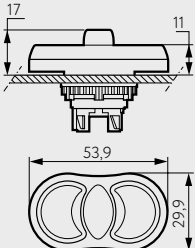
Non illuminated push-buttons

Mushroom head, stay put, push-turn to reset, Ø 40 mm	 L22ED01		● red L22ED01 ● green L22ED02 ● black L22ED03 ● yellow L22ED04
Mushroom head, stay put, push-pull to reset, Ø 40 mm	 L22DD01		● red L22DD01 ● green L22DD02 ● black L22DD03 ● yellow L22DD04

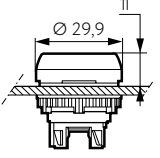
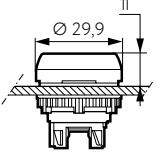
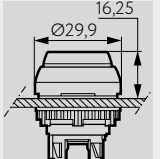
Emergency stop buttons, non illuminated

Mushroom head, stay put, push-pull to reset, Ø 32 mm	 L22DQ01		● red L22DQ01 It suits requirements of standard: EN ISO 13850:2016
Mushroom head, stay put, key to reset, Ø 32 mm	 L22GQ01		● red L22GQ01 It suits requirements of standard: EN ISO 13850:2016
Mushroom head, stay put, push-pull to reset, Ø 40 mm	 L22DR01		● red L22DR01 It suits requirements of standard: EN ISO 13850:2016
Mushroom head, stay put, push-turn to reset, Ø 40 mm	 L22ER01		● red L22ER01 It suits requirements of standard: EN ISO 13850:2016
Mushroom head, push-pull to reset, illuminated, Ø 40 mm	 L22DN10		● red L22DN10 It suits requirements of standard: EN ISO 13850:2016
Enclosed, stay put, push-turn to reset, Ø 40 mm	 LBX10510		LBX10510 1 pc NC contact

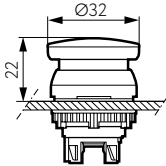
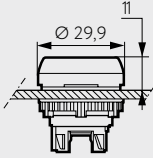
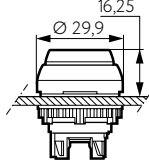
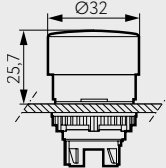
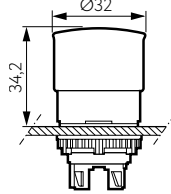
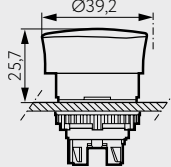
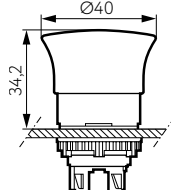
Joining of push-buttons

Double touch push-button, spring return, IP 66  Non Illuminated L61QA21 Illuminated L61QH21 L61QK21		 L61QA21  L61QA22  L61QA22K  L61QA33C 
Threefold touch push-button, spring returning return IP66  Non Illuminated L61BA22		 L61BA22  L61BA22B 

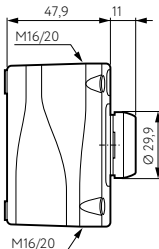
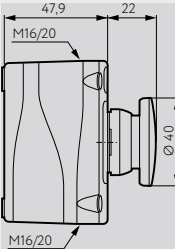
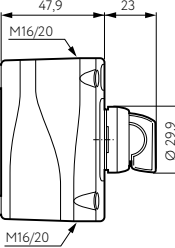
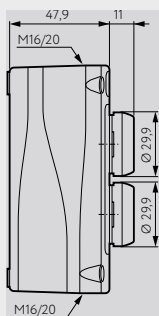
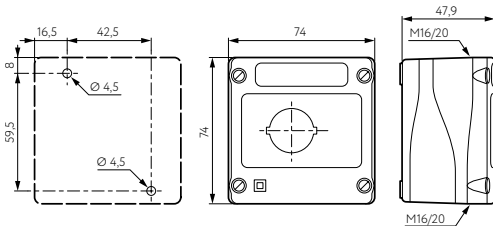
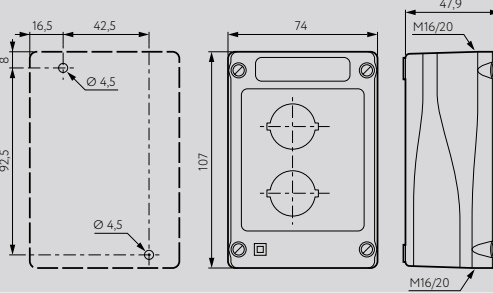
Illuminated push-buttons

Without engraving  L21AH20	 red L21AH10 green L21AH20 yellow L21AH40 white L21AH50 blue L21AH60
Spring return, flush With engraving (p.9.) Symbol code to be attached at the end of the catalogue number	 red L21AH31 ___ green L21AH32 ___ yellow L21AH34 ___ white L21AH35 ___ blue L21AH36 ___
Without colour plate  L21AH00	L21AH00
Cover plate is additional  LT20	Without symbol/ with symbol red LT10 / LT31 ___ green LT20 / LT32 ___ yellow LT40 / LT34 ___ white LT50 / LT35 ___ blue LT60 / LT36 ___
Spring return, projecting  L21AK20	 red L21AK10 green L21AK20 yellow L21AK40 white L21AK50 blue L21AK60

Illuminated push-buttons

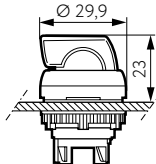
Mushroom head, spring return, Ø 32 mm  L21AL10		● red L21AL10 ● green L21AL20 ● yellow L21AL40 ○ white L21AL50
Stay put flush  L21CH20		● red L21CH10 ● green L21CH20 ● yellow L21CH40 ○ white L21CH50 ● blue L21CH60
Stay put projecting  L21CK20		● red L21CK10 ● green L21CK20 ● yellow L21CK40 ○ white L21CK50 ● blue L21CK60
Mushroom head, stay put, push-turn to reset, Ø 32 mm  L22EL10		● red L22EL10 ● green L22EL20 ● yellow L22EL40
Mushroom head, stay put, push-pull to reset, Ø 32 mm  L22DL10		● red L22DL10
Mushroom head, stay put, push-turn to reset, Ø 40 mm  L22EM10		● red L22EM10 ● green L22EM20 ● yellow L22EM40
Mushroom head, stay put, push-pull to reset, Ø 40 mm  L22DM10		● red L22DM10 ● green L22DM20 ● yellow L22DM40 ○ white L22DM50

Push-buttons and switches in enclosure

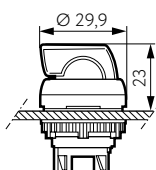
Non illuminated, spring return  LBX10110		● green NO LBX10110 ● red NC LBX10610
Mushroom head, non illuminated, spring return Ø 40 mm  LBX10210		LBX10210
Selector switch  LBX12510		LBX12510
Double touch push-button, spring return, flush  LBX20120		LBX20120
 LBX0100J		Cover (74x74x78 mm) ● gray LBX0100 ● yellow LBX0100 J ● black LBX0100 N ● red LBX0100 RN
Empty enclosure, black vessel  LBX0200		with 2 bores (74×107×48 mm) ● gray LBX0200 ● yellow LBX0200 J with 3 bores (74×140×48 mm) ● gray LBX0300 with 4 bores (74×173×48 mm) ● gray LBX0400 with 5 bores (74×206×48 mm) ● gray LBX0500

SELECTOR SWITCHES · Ø 22 mm

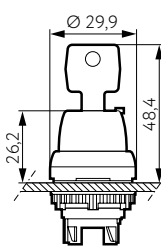
Non illuminated selector switches, two positions

 L21KA03		Stay put 45° 0 1 	 red  green  black  gray	L21KA01 L21KA02 L21KA03 L21KA08	Spring return 45° 0 1 	 red  green  black  gray	L21KD01 L21KD02 L21KD03 L21KD08
		Spring return 45° 0 1 	 red  green  black  gray	L21KB01 L21KB02 L21KB03 L21KB08	Stay put 90° 0 1 	 red  green  black  gray	L21KE01 L21KE02 L21KE03 L21KE08
		Stay put 45° 0 1 	 red  green  black  gray	L21KC01 L21KC02 L21KC03 L21KC08	Stay put 90° 0 1 	 red  green  black  gray	L21KF01 L21KF02 L21KF03 L21KF08

Non illuminated selector switches, three positions

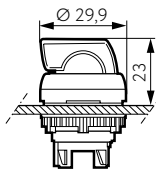
 L21MA03		Stay put 45° 1 0 2 	 red  green  black  gray	L21MA01 L21MA02 L21MA03 L21MA08	Spring return from right 45° 1 0 2 	 red  green  black  gray	L21MC01 L21MC02 L21MC03 L21MC08
		Spring return from left 45° 1 0 2 	 red  green  black  gray	L21MB01 L21MB02 L21MB03 L21MB08	Spring return 45° 1 0 2 	 red  green  black  gray	L21MD01 L21MD02 L21MD03 L21MD08

Non illuminated selector switches, two positions, with key

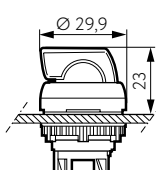
 L21LG00		Stay put 45° 0 1 	 black	L21LA00	Spring return 45° 0 1 	 black	L21LB00
		Stay put 45° 0 1 	 black	L21LC00	Spring return 45° 0 1 	 black	L21LD00
		Stay put 90° 0 1 	 black	L21LF00	Stay put 90° 0 1 	 black	L21LG00
		Stay put 90° 0 1 	 black	L21LH00	Stay put 90° 0 1 	 black	L21LK00

In the pictures the point-marks shows the position of pulling out of key

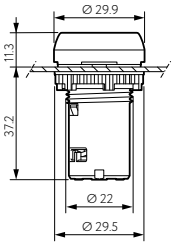
Illuminated selector switches, two positions

 L21KJ30		Stay put 45° 0 1 	red green black L21KG10 L21KG20 L21KG30	Spring return 45° 0 1 	red green black L21KH10 L21KH20 L21KH30
		Stay put 45° 0 1 	red green black L21KJ10 L21KJ20 L21KJ30	Spring return 45° 0 1 	red green black L21KK10 L21KK20 L21KK30
		Stay put 90° 0 1 	red green black L21KL10 L21KL20 L21KL30	Stay put 90° 0 1 	red green black L21KM10 L21KM20 L21KM30

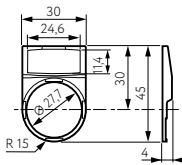
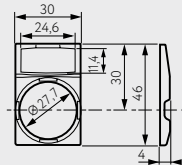
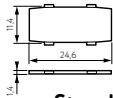
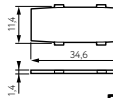
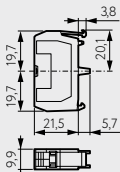
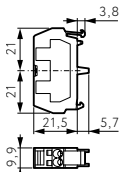
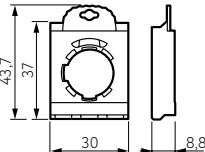
Illuminated selector switches, three positions

 L21ME10		Stay put 45° 1 0 2 	red green black L21ME10 L21ME20 L21ME30	Spring return from left 45° 1 0 2 	red green black L21MF10 L21MF20 L21MF30
		Spring return from right 45° 1 0 2 	red green black L21MG10 L21MG20 L21MG30	Spring return 45° 1 0 2 	red green black L21MH10 L21MH20 L21MH30

PILOT LIGHTS - SEPARATE UNITS

 L20SC20L		AC/DC 24 V without symbol	red green yellow white blue L20SC10L L20SC20L L20SC40L L20SC50L L20SC60L	AC/DC 24 V with symbol (p.9)	red green yellow white blue L20SC31L L20SC32L L20SC34L L20SC35L L20SC36L
		130 V AC without symbol	red green yellow white blue L20SC10M L20SC20M L20SC40M L20SC50M L20SC60M	130 V AC with symbol (p.9)	red green yellow white blue L20SC31M L20SC32M L20SC34M L20SC35M L20SC36M
		230 V AC without symbol	red green yellow white blue L20SC10H L20SC20H L20SC40H L20SC50H L20SC60H	230 V AC with symbol (p.9)	red green yellow white blue L20SC31H L20SC32H L20SC34H L20SC35H L20SC36H

ACCESSORIES

Black frame unassembled, round shape	 LWP31		○ white LWP35 ● red LWP31 ● alu LWP39 ● black LWP33
Black frame square	 LWP4		● black LWP4
Frames	 LIA1  Standard	 LIB3  Big	○ white LIA5 / LIB5 ● red LIA1 / LIB1 ● alu LIA3 / LIB3 ● black LIA9 / LIB9 Standard/ Big
Contact blocks with screw terminals to enclosure	 33E10		● green NO 33E10 / 33S10 ● red NC 33E01 / 33S01
Contact blocks with plug-in terminals	 33R01		● green NO 33R10 ● red NC 33R01
Clips for connection	 LWA0230	For fastening of button's and lamp's heads and contact blocks.	● black LWA0230 1 position new: 3331
	 333E		333E 3 positions

		Colour	24 V AC/DC	130 V AC	230 V AC
Electrical blocks for illu- minated heads (LED) with screw terminals to enclosure	 33EARL	○ white	33EAWL 33SAWL	33EAWM 33SAWM	33EAWH 33SAWH
		● red	33EARL 33SARL	33EARM 33SARM	33EARH 33SARH
		● green	33EAGL 33SAGL	33EAGM 33SAGM	33EAGH 33SAGH
		● blue	33EABL 33SABL	33EABM 33SABM	33EABH 33SABH
		● yellow	33EAYL 33SAYL	33EAYM 33SAYM	33EAYH 33SAYH
		At the versions with plug-in terminals instead of E character changes to R . (for example: 33RAWL)			

TECHNICAL DATA

General data

Ambient temperature	operating	-25 °C ...+70 °C
	storage	-40 °C ...+70 °C
Climatic resistance		by EN 60068
Degree of protection (generally)		IP 65 (by EN 60529)
Degree of protection of contact blocks and LED-lamps		IP 20
Degree of protection of push-buttons, emergency-stop buttons, selector switches		IP 69K
Protection against mechanical impacts of heads		IK 05 (by EN 62262)
Electrical insulation (heads and enclosures)		II.
Tightening torque of locking rings		3 Nm
Tightening torque of terminal screws		1,2 Nm
Withstand vibration	2 g	to 25 Hz, 1,6 mm
	4 g	25...100 Hz

Contact blocks (with screw- and plug-in terminals)

Rated insulation voltage [U _i]		690 V AC
Impulse withstand voltage [U _{imp}]		6 kV
Pollution degree		3
Conventional free air thermal current [I _{th}]		10 A (AC-15); 2,5 A (DC-13)
Rated operational current [A]	AC-15	DC-13
	6 A (U _e = 120 V)	0,55 A (U _e = 125 V)
	3 A (U _e = 240 V)	0,27 A (U _e = 250 V)
	1,9 A (U _e = 380 V)	0,15 A (U _e = 400 V)
	1,4 A (U _e = 500 V)	0,13 A (U _e = 500 V)
Cross-section of connecting wires [mm ²]	rigid and flexible	0,5...2×2,5
	with ferrule	0,5...2×1,5
Electrical endurance [c]		10 ⁶

Pilot lamps (LED) to illuminated heads

Rated insulation voltage [U _i]		300 V AC
Impulse withstand voltage [U _{imp}]		6 kV
Pollution degree		3
Control voltage (AC, 50 Hz or 60 Hz)		12...24 V AC/DC; 48 V AC/DC; 110 V DC; 130 V AC; 230 V AC (±10 %)
Operational current [mA]		16...25
Endurance	red and yellow	10 ⁵ hours at 25 °C
	other colours	5×10 ⁴ hours at 25 °C

LED lamps (different from previous data)

Control voltage AC/DC		24 V AC/DC; 130 V AC; 230 V AC (±10 %)
Operational current [A]		4,6 at 24 V
		5,2 at 130 V
		4,6 at 230 V
Endurance	red and yellow	10 ⁵ hours at 25 °C
	other colours	5×10 ⁴ hours at 25 °C

The most frequent designations, symbols							
Symbol	Code	Symbol	Code	Symbol	Code	Symbol	Code
0 - 1	081		A01		A69		B62
I - II	082		A05		A70		E62
I - 0 - II	091		A07		A71		F62
I - II - III	092		B07		B01		003
0 - I - START	093		A28		E01		004
0 - I - II	094		A29		F01		005

In the order must be written the code after the catalogue-number.

The cooperation between **GANZ Switchgear and Appliance Manufacturing Ltd.** and **BACO** started more than of two decades ago. In our new catalogue we introduce you the BACO Control and signalling units Ø 22 mm, the brand which is known of its high quality, countless variations, operational reliability and attractive aesthetic appearance. In addition, BACO products have been proven to be durable, and they can safely guarantee 10-year warranty period, which is unique in this industrial sector. So we are proud to take back BACO products in our product range.

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Limoges
28th of February 2019


Laurent Robert
BACO Export Sales Manager

OUR COMMITMENT MAKES THE DIFFERENCE **BACO®**





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