



PUSHBUTTONS & PILOT LIGHTS

8

Experience precise control and clear indications with our Pushbuttons & Pilot Lights. Designed for durability and ease of use, our control devices are essential for managing operations in various industrial settings. Our range ensures reliable performance and easy integration, providing intuitive control and status indication for your systems.

LEGEND PLATES



Plastic Legend Plates - Ø22mm

Description	Code	Description	Code
Blank Legend Plates	MK-100	Reset	MK-110
Start	MK-101	EM Stop	MK-111
Stop	MK-102	Power	MK-112
Forward	MK-103	Up	MK-113
Reverse	MK-104	Down	MK-114
Off-On	MK-105	Pump 1 – Pump 2	MK-115
Hand-Auto	MK-106	Control	MK-116
Hand-Off-Auto	MK-107	Yellow Legend Disc	
Run	MK-108	Emergency Stop 60mmØ	ED-60
Trip	MK-109	Emergency Stop 90mmØ	ED-90



Legend Plates for 22mm Devices

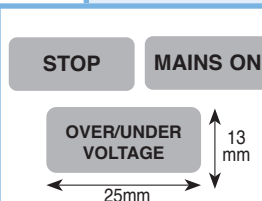
Code	Description	Qty
PTAR22-25	Tag Holder Ø22mm	25
15 x 27mm Cardboard Labels 16 Labels per sheet		
15 x 27mm Cardboard Labels		
Code	Description	
T1527B/16	Tag - White 15 x 27mm	
T1527V/16	Window - Transparent 15 x 27mm	
MK-301	Special printed per card	
Manual Marking or with Printer, Typewriter.		



Special Laser Engraved Legends

Description	Code
Ø22,5mm White Print on Black	MK-200
Ø22,5mm Black Print on Brushed Aluminium	MK-202
Ø30,5mm Black Print on Brushed Aluminium	MK-203

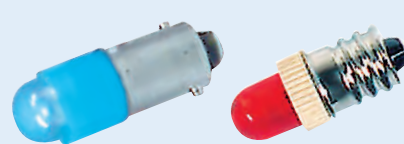
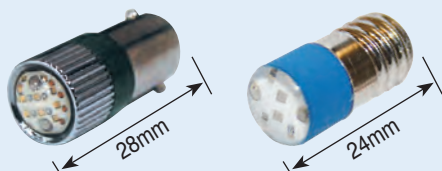
Specify Text & Layout when ordering



Special Printed Aluminium Foil Labels

Description	Code
Label Only (Printed)	MK-201
Blank Legend Plate	MK-100
Modified according to your preference - Sticks on MK-100 Blank Plate	

LAMPS & LED's



Colour	Code 8 Chip BA9S	Code 8 Chip E10	Luminous mcd	Current mA	Code 3 Chip BA9S	Current mA	Code 1 Chip BA9S	Code 1 Chip E10	Luminous mcd	Current mA
Red	● LED8-R*	● E10LED8-R*	80	2.5	● LED3-R*	2.5	● LED1-R*	● E10LED-R*	170	2.8
Green	● LED8-G*	● E10LED8-G*	30	2.5	● LED3-G*	2.5	● LED1-G*	● E10LED-G*	280	2.8
Yellow	● LED8-Y*	● E10LED8-Y*	80	2.5	● LED3-Y*	2.5	● LED1-Y*	● E10LED-Y*	90	2.8
Blue	● LED8-B*	● E10LED8-B*	30	2.5	● LED3-B*	2.5	● LED1-B*	● E10LED-B*	50	2.8
White	—	—	—	—	LED3-W*	2.5	LED1-W*	E10LED-W*	200	2.8

*Add Voltage to code: 12V (12VAC/DC), 24V (24VAC/DC), 48V (48VAC/DC), 110V (110V-130VAC/DC), 230V (200-240VAC/DC)

Current and Luminous Mcd shown for 230V only.



3,000-5,000
Hours
Lamp Life

Filament Lamps 10x28mm Long Life (BA9S)

Voltage	Wattage	Code
6V AC/DC	2W	BA9S-6
12V AC/DC	2W	BA9S-12
14V AC/DC	2W	BA9S-14
18V AC/DC	2W	BA9S-18
24V AC/DC	2W	BA9S-24
30V AC/DC	2W	BA9S-30
48V AC/DC	2W	BA9S-48
130V AC/DC	2W	BA9S-130
240V AC/DC	2.4W*	BA9S-240



25,000
Hours
Lamp Life

Neon Lamps (BA9S)

Lens colour of Pilot Light	Voltage	Code
Red, Yellow, Clear & White	110VAC	BANR-110
Green & Blue	110VAC	BANG-110
Red, Yellow, Clear & White	220VAC	BANR-220
Green & Blue	220VAC	BANG-220
Red, Yellow, Clear & White	380VAC	BANR-380

Midget Grooved LED's

(15mm x 5mØ)



Colour	Volts	Code	Volts	Code	Volts	Code
● Green	6VDC	50-004-16	12VDC	50-004-19	24VDC	50-004-22
● Red	6VDC	50-004-17	12VDC	50-004-20	24VDC	50-004-23
● Yellow	6VDC	-	12VDC	50-004-21	24VDC	50-004-24

Miniature Panel LED Lamps



Code	ØDiameter	Description
AD22C-10*-*	10mm	LED Light
AD22C-16*-*	16mm	LED Light
*Add colour required: ● R, ● GN, ● Y, ○ W, ● B		
*Add voltage required: 12VDC, 24VDC, 110VAC, 230VAC		

NEW

TJ/TS PUSHBUTTON RANGE



22mm Flush



22mm Illuminated



30mm Flush



Twist Release



Push-Pull with Indication



Key Release



22mm Selector



30mm Selector



Double Pushbutton



22mm Key Switch

22mm Push Buttons - Flush Momentary

Colour		Code Complete	Contact	Code Head only
Red	●	TJ2530-0AM10-J01	1NC	TJ2030-0AM10
Green	●	TJ2530-0AM20-J10	1NO	TJ2030-0AM20
Yellow	●	-	-	TJ2030-0AM30
Blue	●	-	-	TJ2030-0AM40
White	○	-	-	TJ2030-0AM50

22mm Push Buttons - Flush Latching

Red	●	TJ2530-0AL10-J01	1NC	TJ2030-0AL10
Green	●	TJ2530-0AL20-J10	1NO	TJ2030-0AL20
Yellow	●	-	-	TJ2030-0AL30
Blue	●	-	-	TJ2030-0AL40
White	○	-	-	TJ2030-0AL50

22mm Illuminated Pushbutton - Flush Momentary

Red	●	-	-	TJ20301- 0AM10
Green	●	-	-	TJ20301- 0AM20
Yellow	●	-	-	TJ20301- 0AM30
Blue	●	-	-	TJ20301- 0AM40
White	○	-	-	TJ20301- 0AM50

30mm Pushbutton - Flush Momentary

Red	●	-	-	TS2020-0CM10
Green	●	-	-	TS2020-0CM20

22mm E-stop Ø 40mm

Function	Code Complete	Contact	Code Head Only
Twist Release	TJ2510-0HL10-J01	1NC	TJ2010-0HL10
Push-Pull with indication	-	-	TS2010-0TL10
Key Release	-	-	TS2010-0KL10

Selector Switches

Type	Function	Code Head only
22mm 2 Position	Spring return from right	TJ2030-1AA60
	Maintained	TJ2030-1AB60
22mm 3 Position	Spring return from right	TJ2030-1AC60
	Maintained	TJ2030-1AF60
30mm 2 Position	Maintained	TS2020-1DB60
30mm 3 Position	Maintained	TS2020-1FB60

22mm Double Pushbutton

Type	Code Head only
Red Flush / Green Flush - Can be illuminated	TS20212-OLM21
Red Flush / Green Extended - Can be illuminated	TS20212-OMM21

22mm Key Switches

Type	Function	Key Removal	Code Head only
2 Position	Spring return from right	Left	TJ2030-2AA60
	Maintained	Left	TJ2030-2AB60
	Maintained	Left/Right	TJ2030-2AC60
3 Position	Spring return from right	Center	TJ2030-2AD60
	Maintained	Center	TJ2030-2AJ60
	Maintained	All	TJ2030-2AM60

Add-on-Contact blocks



Description	Code
1NC	TJ2111-1JA60
1NO	TJ2111-1JB60

Contact Blocks - c/w collar



Description	Code
1NO	TJ2111-EZ10
1NC	TJ2111-EZ01
2NO	TJ2111-EZ20
2NC	TJ2111-EZ02
1NO + 1NC	TJ2111-EZ11

LED Lamp Blocks



Colour	Code
Red ●	TS2101-1A-R *
Green ●	TS2101-1A-GN *
White ○	TS2101-1A-WH *
Yellow ●	TS2101-1A-Y *
Blue ●	TS2101-1A-BL *

*Add Voltage to code: 12V(AC/DC), 24V(AC/DC), 230VAC

Accessories



Description	Code
Spare Fixing Collar	TS290A
Mounting Tool	TS290B

RB2 PUSHBUTTONS & PILOT LIGHTS 22mm Ø

• Fully interchangeable • Uses '455' standard key • Style approved and used by industry world-wide

Pushbutton Heads Only				Illuminated Pushbuttons Heads Only IP65
				
Colour	Flush IP65	Extended IP65	Booted IP66	Flush Illuminated
White	○ RB2-BA1	—	○ RB2-BP1	○ RB2-BW31
Black	● RB2-BA2	● RB2-BL2	● RB2-BP2	—
Green	● RB2-BA3	● RB2-BL3	● RB2-BP3	● RB2-BW33
Red	● RB2-BA4	● RB2-BL4	● RB2-BP4	● RB2-BW34
Amber	—	—	—	● RB2-BW35
Yellow	● RB2-BA5	● RB2-BL5	● RB2-BP5	—
Blue	● RB2-BA6	● RB2-BL6	● RB2-BP6	● RB2-BW36

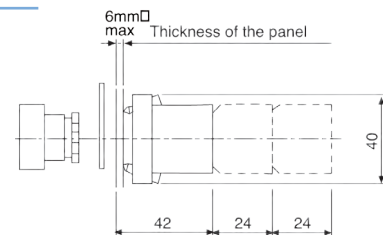
Mushroom Heads Only IP65					
					
Colour	Head	Spring Return	Twist to Release	Push Pull	Key Release (455)
Black	40Ø	● RB2-BC2	—	—	—
Green	40Ø	● RB2-BC3	—	—	—
Red	40Ø	● RB2-BC4	● RB2-BS54	● RB2-BT54	● RB2-BS14
Red	60Ø	● RB2-BR4	● RB2-BS64	—	—

Selector Switch Heads Only IP65					
					
Description	Short Handle	Long Handle	Illuminated	Illuminated	Illuminated
2 Position: Maintained	● RB2-BD2	● RB2-BJ2	● RB2-BK123	● RB2-BK124	● RB2-BK125
Spring Return	● RB2-BDR2	● RB2-BJR2	—	—	—
3 Position: Maintained	● RB2-BD3	● RB2-BJ3	● RB2-BK133	● RB2-BK134	—
Spring Return	● RB2-BDR3	● RB2-BJR3	—	—	—

Key Switch Heads only (Raas 455 key) IP65

Position	Type	Key Removal	Code
2 position	Maintained	Left	● RB2-BG2
		Right	● RB2-BG02
		All	● RB2-BG4
	Spring return to left	Left	● RB2-BG6
3 position	Maintained	Centre	● RB2-BG3
		Left – Right	● RB2-BG5
		All	● RB2-BG0
		Right	● RB2-BG09
	Spring return to centre	Left	● RB2-BG9
		Centre	● RB2-BG7
		Centre	● RB2-BG8
		Centre	● RB2-BG8

Dimensions



General Characteristics – RB2 Pushbuttons

Current rating: 1th 10A. Rated insulation Voltage: Ui 500V
 Mechanical life: Mushroom operators 300,000 ops. All others 1,000,000 ops
 Ambient: -25°C to + 70°C Mounting Matrix: 40H x 30W
 Contacts: self cleaning, slow acting, positive opening
 Conformity: IEC 60947-5-1 Approvals:  



Supplied with 2 keys

RB2 PUSHBUTTONS & PILOT LIGHTS 22mm Ø

Pilot Lights Heads Only IP65



Colour	Code
○ White	RB2-BV01
● Green	RB2-BV03
● Red	RB2-BV04
● Amber	RB2-BV05
● Blue	RB2-BV06



Double Pushbuttons Head Only IP40

Description	Colour	Code
Double Button	● Green ● Red	RB2-BA87
Double Button & Pilot Light	● Green ● Amber ● Red	RB2-BW9

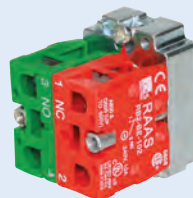
Accessories



Boots for illuminated pushbuttons (RB2-BW)	Clear ○	RB2-RC-L
Spare Silicone rubber boots for booted flush pushbuttons (RB2-BP)	Black ● Green ● Red ● Yellow ● Blue ● Clear ○	RB2-BP002 RB2-BP003 RB2-BP004 RB2-BP005 RB2-BP006 RB2-BP007
Boot for flush pushbutton	Clear ○	RB2-RC-S
Spare fixing collar		RB2-B
Spare keys (455)		RB2-K455
Padlock attachment only for RB2-BL4		EPL-3
Padlock attachment only for RB2-BS54		EPL-5
Reset extended Pushbutton - Hex Type Panel Depth ± 135mm, 13mm Hex		RCB2AL8H-*
Reset extended Pushbutton - Round Type Panel Depth ± 135mm, Ø36mm		RCB2AL8R-*

* For other Colours, Add ● R (Red) or ● B (Blue)

Contact Blocks - c/w Fixing Collar



Description	Code
1N/O	● RB2-BZ101
1N/C	● RB2-BZ102
2N/O	●● RB2-BZ103
2N/C	●● RB2-BZ104
1N/O + N/C	●● RB2-BZ105

Add on Contact Blocks - 10A lth



N/O	● RB2-BE101
N/C	● RB2-BE102

Lamp Blocks

(for both Pilot Lights & Illuminated Pushbutton Heads)



Description	Rated Voltage	Code
Direct Connect 2.6W max (Lamp excluded)	230V max	RB2-BV6
With Resistor (130V BA9s ~ Lamp included)	230VAC	RB2-BV7
With fixed ultra high bright cluster LED	Green ● Red ● Amber ● Blue ●	RB2-BVL73* RB2-BVL74* RB2-BVL75* RB2-BVL76*

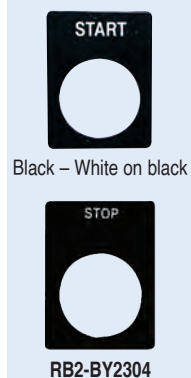
*Specify voltage: 24V, 48V, 110VAC/DC, 240VAC



Spare Contact Actuator	RB2-BV7-ACC
Lamp Extraction Tool	RB2-X13

For Lamps, see Page 193

Aluminium Legend Plates



Description	Code
AUTO-HAND	● RB2-BY2364
AUTO-O-HAND	● RB2-BY2385
BLANK	● RB2-BY2301
DOWN	● RB2-BY2308
STOP	● RB2-BY2304
FORWARD	● RB2-BY2305
INCH	● RB2-BY2321
OFF	● RB2-BY2312
OFF-ON	● RB2-BY2336



Aluminium Legend Plates

Description	Code
ON	● RB2-BY2311
RESET	● RB2-BY2323
REVERSE	● RB2-BY2306
START	● RB2-BY2303
EMERGENCY STOP	● RB2-BY2331
UP	● RB2-BY2307
Yellow Emergency Stop 60mmØ	● ED-60
Yellow Emergency Stop 90mmØ	● ED-90
Laser Engraved with customer specified text	● RB2-BY2301E

PUSHBUTTONS, PILOT LIGHTS & SELECTOR SWITCHES 22mm Ø

Pushbuttons (Heads only)



Colour	Code
Black	● ECX1100
Red	● ECX1101
Green	● ECX1102
Yellow	● ECX1103
Blue	● ECX1104
White	● ECX1105

Extended Pushbuttons



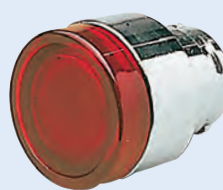
Colour	Code
Black	● ECX1110
Red	● ECX1111
Green	● ECX1112
Yellow	● ECX1113
Blue	● ECX1114

Pilot Lights



Colour	Code
Red	● ECX1231
Green	● ECX1232
Yellow	● ECX1233
Blue	● ECX1234
Clear	● ECX1235

Illuminated Pushbuttons



Colour	Code
Red	● ECX1201
Green	● ECX1202
Yellow	● ECX1203
Blue	● ECX1204
Clear	● ECX1205

Emergency Stops



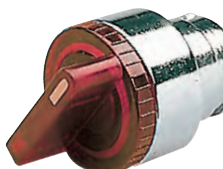
Description	Colour	Code
With latch twist to release	Red Ø 40	ECX1131
	Black Ø 40	ECX1130
	Red Ø 60	ECX1136
Momentary	Red Ø 40	ECX1135
Momentary	Red Ø 60	ECX1137
Push Pull	Red Ø 40	ECX1146

Illuminated Emergency Stops



Description	Colour	Code
With latch twist to release	Red	ECX1226
Momentary	Red	ECX1221

Illuminated Selector Switches



Colour	2 maintained positions	3 maintained positions
Red	ECX1251	● ECX1261
Green	ECX1252	● ECX1262

Selector Switch Short Handle



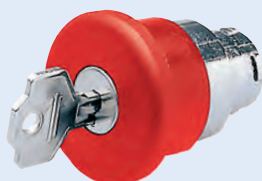
Description	Code
2 position	Maintained ECX1300
	Return from right ECX1310
3 position	Maintained ECX1320
	Return to centre position ECX1330
	Return from left ECX1340
	Return from right ECX1345

Selector Switch Long Handle



Description	Code
2 position	Maintained ECX1350
	Return from right ECX1360
3 position	Maintained ECX1370
	Return to centre position ECX1380
	Return from left ECX1390
	Return from right ECX1400

Emergency Stops with Key



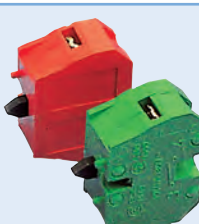
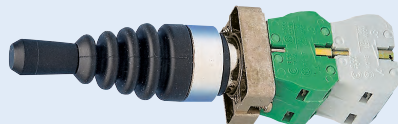
Description	Colour	Code
With latch Key release	Red Ø 40mm	ECX1141
Spare Key		ECX-KEY



Key Switches

Type	Key Removal Position	Code
2 position	Maintained	Left ECX1410
	Spring return from right	Right-Left ECX1420
3 position	Spring return from right	Left ECX1430
	Maintained	Centre ECX1440
		Right-Left ECX1450
		Left ECX1460
		In all positions ECX1470
Spare Key	Spring return to centre position	Centre ECX1480
		ECX-KEY

PUSHBUTTONS, PILOT LIGHTS 22mm Ø IP65

		Contact Blocks with Support Base				Lampholders with Support Base					
Description		Code		Description		Wiring Diagram		Rated Voltage		Code	
1 Contact Block@10A		1N/C		ECX1031				400V ~ (Max)		ECX1050	
		1N/O		ECX1032							
2 Contact Blocks@10A		2N/C		ECX1033		Lampholders with Support Base					
		2N/O		ECX1034							
		1N/O + 1N/C		ECX1035							
Double Button with Light											
Description				Code							
				Head only with flush red button ECX1153							
				Head only with extended red button ECX1157							
Double Button no Light											
				Head only with flush red button ECX1150							
				Head only with extended red button ECX1154							
Add-on Contact Blocks 10A											
Description				Code							
				N/C Red  ECX1030							
				N/O Green  ECX1040							
Boots											
Description		Colour	Material	Code							
		Black	● Neoprene	ECX1700							
		Red	● Neoprene	ECX1701							
		Green	● Neoprene	ECX1702							
		Yellow	● Neoprene	ECX1703							
		Blue	● Neoprene	ECX1704							
		Colourless	● Silicone	ECX1705							
		Colourless	Silicone	ECX1706							
Hole Plugs - 22mmØ											
Description				Colour							
Plug for unused holes				ECX1490							
Supplied with O-ring and mounting screw. For Econo plugs see page 473											
22mm Panel Mount Potentiometers											
Single Turn (Complete with legend plate)											
Description				Code							
				1KΩ Single Turn ECX2300-1K							
				5KΩ Single Turn ECX2300-5K							
				10KΩ Single Turn ECX2300-10K							
				20KΩ Single Turn ECX2300-20K							
Spare Legend				ECX2640							
Joy Sticks (complete with Contact Blocks)											
Description		Code									
2 position	Momentary	ECX1510									
	Maintained	ECX1512									
4 position	Momentary	ECX1520									
	Maintained	ECX1524									
											
Padlock Attachments											
Description		Code									
Padlock attachment only for extended push button ECX1111		EPL-3									
Padlock attachment only for ECX1131/30/36		EPL-6									
											

PLASTIC BEZEL 22mmØ CONTROL DEVICES

	Heads IP65		
	Description		Code
LAY5-EA3	Pushbuttons		
	Flush	Black 	LAY5-EA2
		Green 	LAY5-EA3
		Red 	LAY5-EA4
		Yellow 	LAY5-EA5
		Blue 	LAY5-EA6
	Extended	Red 	LAY5-EL4
LAY5-EW33	Pushbuttons - Illuminated		
		Green 	LAY5-EW33
		Red 	LAY5-EW34
		Yellow 	LAY5-EW35
		Blue 	LAY5-EW36
	Pushbuttons - Booted		
LAY5-EC4		Black 	LAY5-EP2
		Green 	LAY5-EP3
		Red 	LAY5-EP4
		Yellow 	LAY5-EP5
		Blue 	LAY5-EP6
	Pushbuttons - Mushroom Head		
	Momentary Ø40mm 	LAY5-EC4	
	Twist release Ø40mm 	LAY5-ES54	
	Twist release Ø60mm 	LAY5-ES64	
	Key release Ø40mm 	LAY5-ES14	
	Push pull Ø40mm 	LAY5-ET4	
	Push pull Ø40mm 	LAY5-ET442	
LAY5-ET442	(c/w Indication)		
	Twist Release (Green 	XDL22-ESC545	
	Collar) Ø40mm c/w		
XDL22-ESC545	1NO + 1NC Contact Block		




Heads IP65		
Description		Code
Pilot Lights		
Green		LAY5-EV03
Red		LAY5-EV04
Yellow		LAY5-EV05
Blue		LAY5-EV06



Selector Switches – Standard Short Lever		
2 posn maintained		LAY5-ED2
2 posn spring return to left		LAY5-ED4
3 posn maintained		LAY5-ED3

Key Operated	Key removal	
2 posn maintained	Left	LAY5-EG2
Spring return to left	Left	LAY5-EG4
2 posn maintained	All	LAY5-EG6
3 posn maintained	All	LAY5-EG0
3 posn maintained	Centre	LAY5-EG3
Spring return left & right to centre	Centre	LAY5-EG5

Double Pushbutton Head	
Description	Code
With 1N/O + 1N/C contact block and provision for direct connected lamp. BA9s MAX 250VAC	LAY5-EW8325

Contact & Lamp Blocks	
Description	Code
Complete with mounting collar	
1N/O	LAY5-EZ101
1N/C	LAY5-EZ102
2N/O	LAY5-EZ103
2N/C	LAY5-EZ104
1N/O+1N/C	LAY5-EZ105
Add-on	
1N/O	LAY5-BE101
1N/C	LAY5-BE102
Direct connecting Order BA9s lamp separately	X1 X2
Pilot light only	LAY5-EV6
Accepts contact blocks	LAY5-EW06

Accessories	
Description	Code
Re-set Button – 125mm depth Green	R-3

Padlock Attachments	
Description	Code
For Flush Button	EPL-4
For Extended Button	EPL-3
For LAY5-ES54 (Emg. twist release)	EPL-5

E-Stop Protection Shrouds	
Description	Code
Spare Mounting Collar	LAY5-E
Adaptor from 30.5 to 22.5mm	R22/30
E-Stop Protection Shrouds	
Description	Code
Shroud for E-Stop Ø43mm	LAY5-EB43E
Shroud for E-Stop Ø53mm	LAY5-EB54E

Other Accessories: Lamps: page 8.2, Enclosures: page 8.9, Legend Plates pages 8.2 & 8.4. Hole Plugs page 8.6

PUSHBUTTONS & PILOT LIGHTS

Cluster LED lights 16mm hole mounting - IP65

Panel depth: 35mm Shrouded terminals

Code	Description
AD16-R*	Red
AD16-G*	Green
AD16-Y*	Yellow
AD16-W*	White
AD16-B*	Blue



LED

* Specify voltage with order: 12VAC/DC, 24VAC/DC, 48VAC/DC, 110VAC/DC, 230VAC, 400VAC

Cluster LED lights 22mm hole mounting IP65

reduced panel depth – 35mm long body, shrouded terminals

ALED-R*	Red
ALED-G*	Green
ALED-Y*	Yellow
ALED-W*	White
ALED-B*	Blue
ALED-A*	Amber
ALED-R/G*	Red and Green



NEW LED

* Specify voltage with order: 12VAC/DC, 24VAC/DC, 48VAC/DC, 110VAC/DC, 230VAC, 400VAC, M (70-380VAC)

Cluster LED Lights 30mm hole mounting - IP65

Panel depth: 40mm Shrouded terminals

AD30-R*	Red
AD30-G*	Green
AD30-Y*	Yellow
AD30-W*	White
AD30-B*	Blue



LED

* Specify voltage with order: 12VAC/DC, 24VAC/DC, 48VAC/DC, 110VAC/DC, 230VAC, 400VAC

Cluster LED lights dome type

22mm hole mounting, High surge resistance, High-bright, 120,000hrs

CLED-1*	Red
CLED-2*	Green
CLED-3*	Yellow
CLED-4*	Blue



LED

* Specify voltage with order: 12VAC/DC, 24VAC/DC, 48VAC/DC, 115VAC/DC, 230VAC/DC

Economy indicating lights 22mm hole mounting, BA9S fitting

MK/EL-1*	Red
MK/EL-2*	Green
MK/EL-3*	Yellow
MK/EL-4*	Clear
MK/EL-5*	Blue



* Lamp: Filament 12, 24, 48V. Neon 110, 230VAC & No Lamp (Blank)

Neon indicating lights 10mm hole mounting, 25,000hrs, Solder terminals

TE1-1	90-250VAC Red
TE1-2	90-250VAC Green
TE1-3	90-250VAC Yellow
TE1-4	90-250VAC Clear



Economy Pushbuttons & Selector Switches

22mm hole mounting, 10A, IP44

Pushbuttons		Selector Switches	
SB7-EA42	Red 1 N/C pushbutton	SB7-ED21	Black 1 N/O 2 pos. maintained
SB7-EA31	Green 1 N/O pushbutton	SB7-ED33	Black 2 N/O 3 pos. maintained
SB7-EA21	Black 1 N/O pushbutton		



30mm Ø PUSHBUTTONS & PILOT LIGHTS - IP65

Flush Pushbuttons (head only)		Mushroom Pushbuttons		Selector Switches		Key Switch		Pilot Lights (c/w lamp block)		Contact Blocks	
Code	Colour	Code	Colour	Code	Description	Code	Description	Code	Colour	Code	Description
AF3	Green	AM4 (spring return)	Red	AS2-2P	2 posn, maintained	AK-2PB	2 posn, maintained	PLB3	Green	S11	1 N/O + 1 N/C c/w locking plate
AF4	Red	AML4 (twist release)	Red	AS2-3P	3 posn, maintained	AK-3PA	3 posn, maintained	PLB4	Red	S12*	1 N/O + 1 N/C no locking plate
								PLB5	Amber		
Specifications											
Contact blocks to be ordered separately		Contact blocks to be ordered separately		Contact blocks to be ordered separately		Key removable from all positions. Contact blocks to be ordered separately		Lamp BA15D 5W 230V max		500VAC 10 Amp *For 2 N/O + 2 N/C order S11 and S12	

PUSHBUTTON STATIONS

Plastic Pushbutton Control Station Enclosures IP65

No. of holes	Grey Cover	Size H x W x D	Yellow Cover	Size H x W x D
1	● MK27101	82 x 66 x 65	● MK27111	85 x 75 x 65
2	● MK27102	132 x 82 x 65	 	
3	● MK27103	171 x 66 x 65		
2 x 3 (3 x 2)	● MK27104	171 x 132 x 65		
4 x 3 (3 x 4)	● MK27105	264 x 171 x 65		
1	—	85 x 85 x 105	● LAY5-1YB	   
1	—	68 x 68 x 80	● PSAML4	
1	● LAY5-BE01	68 x 68 x 51	● LAY5-JBE01	
2	● LAY5-BE02	104 x 68 x 51	● LAY5-JBE02	
3	● LAY5-BE03	134 x 68 x 51	● LAY5-JBE03	
4	● LAY5-BE04	186 x 68 x 51	● LAY5-JBE04	
5	● LAY5-BE05	222 x 68 x 51	● LAY5-JBE04	

Control Station Enclosures

MK27104

MK27105

LAY5-JBE01

LAY5-1YB

PSAML4

PSAML4 c/w shroud for emergency stop

Die Cast Aluminium Pushbutton Station Enclosures IP65

RAL 7042 grey epoxy powder coated

Size L x W x D	Holes	For 22mm devices	For 30.5mm devices	Plain cover
90 x 78 x 52	1	● RM-1YB	—	—
90 x 78 x 52	1	● RM-1GB	—	—
137 x 78 x 52	2	● RM-2GB	—	—
106 x 106 x 81	1	● SAM103-B	● A3P0909.01	● SAM203-B
126 x 79 x 75	2	● SAM106-B	● A3P0915.02	● SAM206-B
206 x 106 x 81	3	● SAM107-B	● A3P0920.03	● SAM207-B
256 x 91 x 75	4	● SAM109-B	● A3P0925.04	● SAM209-B
256 x 91 x 75	5	● SAM111-A	—	—

RM-1YB

RM-1GB

RM-2GB

Assembled Pushbutton Stations

Description	LAY5 Plastic Enclosure	RB2 Plastic Enclosure	RB2 Die Cast Enclosure
1 Way control stations			
E-stop (mushroom twist to release) with pushbutton protection	● E/ST-10	● R/ST-10	—
E-stop (mushroom spring return)	● E/ST-11	● R/ST-11	● RM/ST-11
E-stop (mushroom twist to release)	● E/ST-12	● R/ST-12*	● RM/ST-12
E-stop (mushroom key release)	● E/ST-13	● R/ST-13	● RM/ST-13
E-Stop (illuminated latching 230V)	● E/ST-14	● R/ST-14	● RM/ST-14
Stop	● E/ST-15	● R/ST-15	● RM/ST-15
Stop padlockable	● E/ST-16	● R/ST-16	● RM/ST-16
Start	● E/ST-17	● R/ST-17	● RM/ST-17
2 posn key selector switch (0-1)	● E/ST-18	● R/ST-18	● RM/ST-18
*Also available white on black			



E/ST-10



E/ST-11



R/ST-12



RM/ST-12



E/ST-16



R/ST-17



RM/ST-17

2 Way control stations

Start/Stop	● E/ST-21	● R/ST-21	● RM/ST-21
Start/Stop padlockable	● E/ST-22	● R/ST-22	● RM/ST-22
Start/E - Stop (mushroom spring return)	● E/ST-23	● R/ST-23	● RM/ST-23
Start/E - Stop (mushroom twist to release)	● E/ST-24	● R/ST-24	● RM/ST-24
Up/Down	● E/ST-25	● R/ST-25	● RM/ST-25
Start/E - Stop (mushroom key release)	● E/ST-26	● R/ST-26	● RM/ST-26



E/ST-22



R/ST-23



RM/ST-21

3 Way control stations

With standard stop pushbutton:			
Start/Stop/Run light (Green 230V neon)	● E/ST-31	● R/ST-31	● RM/ST-31
Fwd/Stop/Rev	● E/ST-32	● R/ST-32	● RM/ST-32
Up/Stop/Down	● E/ST-33	● R/ST-33	● RM/ST-33
Fwd/E-Stop/Rev	● E/ST-35	● R/ST-35	● RM/ST-35

Alternatively, custom assembled control stations can be supplied in horizontal or vertical format with the option of customised engraving.



E/ST-33



R/ST-33



RM/ST-33

Palm Push 90mm Ø



EV90

Plastic Enclosure IP65

16mmØ PUSHBUTTONS & PILOT LIGHTS

	Round Pilot Lights	Square Pilot Lights	Rectangle Pilot Lights
<i>Lamps not included</i>	Bezel 18mmØ 	Bezel 18 x 18mm 	Bezel 18 x 24mm 
Red	D16PL-RR 	D16PL-SR 	D16PL-TR 
Green	D16PL-RG 	D16PL-SG 	D16PL-TG 
Yellow	D16PL-RY 	D16PL-SY 	D16PL-TY 
Amber	D16PL-RA 	D16PL-SA 	D16PL-TA 
Blue	D16PL-RB 	D16PL-SB 	D16PL-TB 
White	D16PL-RW 	D16PL-SW 	D16PL-TW 

	Pushbuttons						Emergency Stop	
<i>Lamps not included</i>							Red only 	
	Illuminated	Non Illuminated	Illuminated	Non Illuminated	Illuminated	Non Illuminated	Illuminated	Non Illuminated
Momentary (Non latching)	D16LM-R*-*	D16PM-R*-*	D16LM-S*-*	D16PM-S*-*	D16LM-T*-*	D16PM-T*-*	D16EC-RR-*	D16EM-RR-*
Alternate (Latching)	D16LA-R*-*	D16PA-R*-*	D16LA-S*-*	D16PA-S*-*	D16LA-T*-*	D16PA-T*-*	D16EB-RR-*	D16EA-RR-*

*Add lens colour: ● R (Red), ● GN (Green), ● Y (Yellow), ● A (Amber), ● BL (Blue), ○ W (White)

*Add number of contact: 1 = 1 NO + 1 NC; 2 = 2 NO + 2 NC; 3 = 3 NO + 3 NC; 4 = 4 NO + 4 NC

Accessories

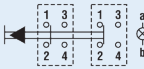
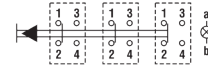
Description	Code		
Lamp Extractor	50-005-01		
Mounting Wrench	50-006-01		
Lens Remover	50-007-01		
Spare Lens	Round	Rectangle	Square
● Blue	50-001-11	50-002-11	50-003-11
● Green	50-001-12	50-002-12	50-003-12
● Orange	50-001-13	50-002-13	50-003-13
● Red	50-001-14	50-002-14	50-003-14
● White	50-001-15	50-002-15	50-003-15
● Yellow	50-001-16	50-002-16	50-003-16
Protection Cap	For square head (90°)	50-011-01	
	For square head (180°)	50-011-11	
	For rectangular head (90°)	50-011-02	
	For rectangular head (180°)	50-011-12	



Lamps

Description	Code		
Incandescent	48V AC/DC	25mA	50-004-06
	28V AC/DC	40mA	50-004-05
	14V AC/DC	40mA	50-004-03
	6V AC/DC	40mA	50-004-01
Neon	110V AC	Green	50-004-11
		Red	50-004-12
	230V AC	Green	50-004-13
		Red	50-004-14
LED	6V DC	Green	50-004-16
		Red	50-004-17
	12V DC	Green	50-004-19
		Red	50-004-20
		Yellow	50-004-21
	24V DC	Green	50-004-22
		Red	50-004-23
		Yellow	50-004-24



Type	Contact block diagram	Mounting depth	Block colour	Specifications IP40
SPST		29mm	Lamp: Black Contact: Red	Minimum mounting matrix: Round 18 x 18mm Square 18 x 18mm Rectangular h18 x w 24mm
DPST		36.5mm	Lamp: Black Contact: Red	Lamp connections (for DC) a -ve, b +ve Contacts: Snap action double break, silver contacts 5A @ 250VAC 8A @ 125VAC 200mA @ 250VDC 6A @ 24VDC
3PST		44mm	Lamp: Black Contact: Red	Maximum panel thickness: 8mm Terminals: Solder type, intended for use with 0.75mm² wire max.
4PST		51.5mm	Lamp: Black Contact: Red	

APPLIANCE CONTROLS

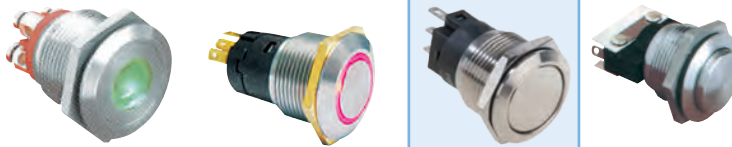
Toggle switches 12mm hole mounting, 16Amps @ 250VAC contacts

Stay Put	Type	Spring Return
T11CS	(On-off) SPST	ST11CS
T12CS	(On-on) SPDT	ST12CS
T13CS	(On-off-on) SPDT	ST13CS
T21CS	(On-off) DPST	ST21CS
T22CS	(On-on) DPDT	ST22CS
T23CS	(On-off-on) DPDT	ST23CS
TR-1	Rubber Boot for Toggle Switches IP65	



Fast-on connections

Stainless Steel Pushbuttons & Pilot Lights 22mmØ **IP66**



Type	Colour	Illuminated Pushbuttons		Latching Pushbutton	
				Low Profile	Protruding
Code	 Red	*MP0001.T.R	MSW1941-R	MP0031	MP0031.2
	 Green	*MP0001.T.GN	MSW1941-GN		
	 Amber	*MP0001.T.A	MSW1941-A		
	 Blue	*MP0001.T.BL	MSW1941-BL		
	 White	—	MSW1941-WH		
Current/Volts		20mA @ 3.6V*	50mA / 9-30VDC	—	—
Size		22mmØ x 32mm(L)	22mmØ x 37.2mm(L)	22mmØ x 30mm(L)	22mmØ x 30mm(L)
Panel Cutout Size		19.2mmØ		19.2mmØ	
Contacts		SPDT 50mA@ 24VDC	SPDT 1A@ 24VDC	SPDT 5A @ 250V	

Miniature Pushbuttons

14mmØ hole mounting



PB-305

Code	Description
PB-305A	● Off (on) 3A 250V Red latching
PB-305B	● Off (on) 3A 250V Green latching
PB-305AN	● On - Off 3A 250V Red N/O
PB-305BN	● Off - On 3A 250V Green N/O
PB-305CN	● On - Off 3A 250V Red N/C

8mmØ hole mounting



PB-101A

Code	Description
PB-101A	● Off - On 1A 250V Black N/O
PB-101B	● On - Off 1A 250V Red N/C

LED's (Rating @ 20mA) & Technical Specifications: MP0001

Colour	Red	Green	Amber	Blue
Luminous Intensity	900mcd	1500mcd	220mcd	1500mcd
Supply voltage*	1.85V	3.0V	2.0V	3.4V

*Resistor Values for MP0001

For all colour push buttons

12V	100Ω	0.5W
24V	220Ω	0.5W

*A resistor in series must be connected by the user

Rocker Switches

16A
@250VAC
Lamp Voltage
230VAC



Type	On/Off SPST No Lamp		On/Off SPST Illuminated		On/Off DPST No Lamp	On/Off DPST Illuminated	On/Off/On SPDT No Lamp
Body Colour	Black	White	Black	White	Black	Black	Black
Code Red	■ R12-2AR	R13-2AR	■ R12-2CR	R13-2CR	■ R9-49AR	■ R9-49ALR	■ R12-3BLR
Code Amber	■ R12-2AO	R13-2AA	■ R12-2CO	R13-2CA	■ R9-49AO	■ R9-49ALO	■ R12-3BLO
Code Green	■ R12-2AG	—	■ R12-2CG	—	■ R9-49AG	■ R9-49ALG	■ R12-3BLG
Code Black	■ R12-2ABK	—	■ R12-2CBK	—	■ R9-49ABK	—	■ R12-3BLBK
Hole Size	30 x 11mm		30 x 11mm		30 x 25mm	30 x 25mm	30 x 11mm

Lamp Voltage
230VAC



Type	On/Off SPST No Lamp	On/Off SPST Illuminated	On/Off DPST No Lamp	On/Off/On SPDT No Lamp	On/Off/On DPDT No Lamp	Lamp only	On/Off SPST Round – No Lamp
Code Red	■ WS1-1R	■ WS1-2R	■ WS3-1R	■ WS3-3R	■ WS3-5R	■ WL03-5R	● JS-606-2R
Code Amber	—	■ WS1-2A	—	—	—	■ WL03-5A	—
Code Green	■ WS1-1G	■ WS1-2G	—	—	—	■ WL03-5G	—
Code Black	■ WS1-1BK	—	■ WS3-1BK	■ WS3-3BK	■ WS3-5BK	—	● JS-606-2A
Code White	—	—	—	—	□ WS-5WH	—	—
Hole Size	19.2 x 12.9mm	19.2 x 12.9mm	19.2 x 21.9mm	19.2 x 12.9mm	19.2 x 21.9mm	30 x 11mm	20.2mmØ