TEKNIC

CE ℞

Control and Signaling Devices Ø 22.5 Metal Clip on Series

C2
1—○—○—2 (NC)

TEKNIC®
IEC/EN
60947-5-1
AC 15: 415V, 4A
DC 13: 110V, 0.5A

℞us TEKNIC® CE
BA9S 4LHB
LED ⊗ 240VAC
240V
IEC60947-5-1   3419

Control and signaling devices Ø22.5 Metallic Clip on series

Salient features
This range of Ø22.5 Metallic Clip on series pushbuttons, selector switches, illuminated switches and pilot lights in engineering plastic construction have been designed to provide the following salient features:
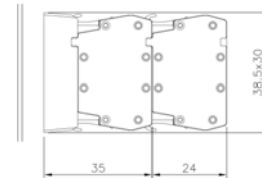
- Economy of space
- Protection against electrical shock
- Robust in materials of construction
- Larger operating surface than Ø30.5 series

- Safe in operation
- Simple to fix-screw driver is all that is required
- Fixing method unaffected by excessive vibration unit does not rotate
- Very good flame resistance

- Aesthetically elegant
- Shrouded terminals
- Resistant to corrosion

Actuators
The circular actuators have metallic bezels and are functionally interchangeable on the different types of contact elements.

Contact elements
The contact elements have double break contacts. The elements are interchangeable and can be stacked without additional hardware. 1 to 6 elements (NO or NC) can be used with non illuminated actuators, whereas 1 t o4 elements (NO or NC) can be used for illuminated actuators. Gold plated NO and NC contact elements for low voltage, low current switching circuits < 25mA are available

Illuminated pushbuttons and pilot lights
Pilot lights and illuminated switches are suitable for direct connection using bayonet cap led bulb type BA9S as follows:
Supply voltage for direct connection without series resistor…………..6V-240V
Bulb…………………………led type Ba9S with OAL max 28mm
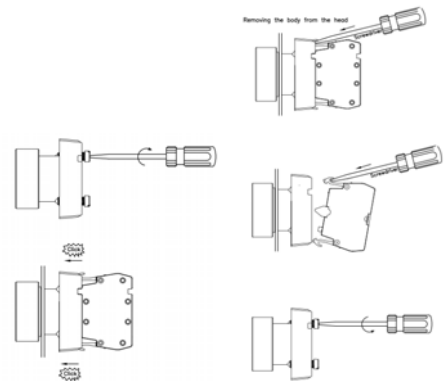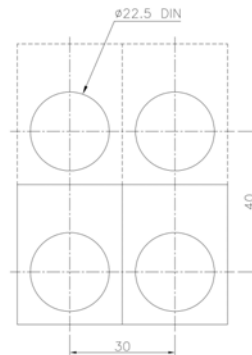
Terminals
Contact elements and pilot lights are designed to have shrouded terminals with combi screws

Fixing
The Ø22.5 4P metallic Clip on series control devices can be fixed in any position on panels of 1 to 5 mm thickness.
We recommend minimum fixing centres of 30mm X 40mm. However, the dimensions and configuration should be decided on the basis of the application.
The actuators, pilot lights bayonet fits & the lense assemblies snap fits on the holding bracket. Details of the assembly shown in the diagram

Electrical and mechanical characteristics
Standards conformity	: UL508, EN 60947-5-1
Approvals	: UL508
Degree of protection	: IP65 as per IEC 60529, NEMA 4X,12 as per UL50
Ambient	: -25°C to +70°C
Operating position	: All positions
Pollution degree	: 3

Contact Block
Rated insulation voltage	: 500V
Rated thermal current	: 10A
Contact operation	: Slow break NO or NC
Make and break capacity	: AC15 4A, 415V AC
As per IEC 60947-5-1	: DC13 0.5A, 110VDC
As per UL 508	: A600 Q600
Terminal Capacity	: Maximum 2X1.5mm², Minimum 1X2.5mm² or minimum 1X0.5mm²
Terminal marking	: 1NC 2 for NC & 3NO 4 for NO
Short circuit protection	: 10A HRC cartridge fuse, rated for resistive loading at 1000A prospective current
Mechanical life	: Over 1 million operations

Electrical rating (for 1 million operation cycles at 3600 cycles per hour, load factor 0.5)

AC15				DC13		
V	24	120	230	V	24	110
A	4	3	2	A	0.5	0.2

Screw clamp tightening torque	: 0.8Nm (nominal recommended)

Modules for pilot lights & illuminated switches with LED bulbs (Ba9S cap)
Current consumption (applicable to all colors)	: max 20mA
Terminal capacity	: Maximum 2X1.5mm², Minimum 1X2.5mm² or minimum 1X0.5mm²
Service life (at nominal voltage and at ambient temperature at 25°C	: 50,000 hours

TEKNIC

Control & Signalling Devices 22.5 Ø

CLIP ON METAL SERIES

MOMENTARY ACTUATORS

	TYPE	COLOUR	ORDERING CODE
	Flush	White	4AF1
		Black	4AF2
		Green	4AF3
		Red	4AF4
		Blue	4AF6
		Yellow	4AF8
	Flush with	White	4AF1BA
	arrow marking	Black	4AF2WA
		White	4AP1
	Projecting	Black	4AP2
		Green	4AP3
		Red	4AP4
		Blue	4AP6
		Yellow	4AP8
		White	4AF1RR
	Flush Relay Reset	Black	4AF2RR
		Green	4AF3RR
		Red	4AF4RR
		Blue	4AF6RR
		Yellow	4AF8RR
		White	4AF1RH
	Recess head	Black	4AF2RH
		Green	4AF3RH
		Red	4AF4RH
		Blue	4AF6RH
		Yellow	4AF8RH
		Black	4AB2
	Booted	Green	4AB3
		Red	4AB4
		Blue	4AB6
		Yellow	4AB8

TEKNIC

Control & Signalling Devices 22.5 Ø

CLIP ON METAL SERIES

MUSHROOM ACTUATORS

	TYPE	COLOUR	ORDERING CODE
	Momentary	Black	4AM2
	Head Ø 40mm	Green	4AM3
		Red	4AM4
		Blue	4AM6
		Yellow	4AM8
	Latching	Black	4AMLS2
	Head Ø 30mm	Red	4AMLS4
	Latching	Black	4AML2
	Head Ø 40mm	Red	4AML4
	Push-Pull	Black	4AMPP2
	Head Ø 40mm	Red	4AMPP4
	Latching	Black	4AMLKB2
	with Key	Red	4AMLKB4
	Head Ø 40mm		

TEKNIC
Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

MUSHROOM ACTUATORS

	TYPE	COLOUR	ORDERING CODE
	Latching Trigger	Black	4AMLT2
	Head Ø 40mm	Red	4AMLT4
	Latching Trigger	Black	4AMLTKB2
	with key Head Ø 40mm	Red	4AMLTKB4
	Latching	Black	4AMLJ2
	Head Ø 60mm	Red	4AMLJ4
	Push-Pull	Black	4AMPPJ2
	Head Ø 60mm	Red	4AMPPJ4
		Black	4AMJ2
	Momentary	Green	4AMJ3
	Head Ø 60mm	Red	4AMJ4
		Blue	4AMJ6
		Yellow	4AMJ8

TEKNIC
Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

SELECTOR ACTUATORS

	TYPE		COLOUR	ORDERING CODE
	SELECTOR			
	2 position		Black	4AS2-2P
	LATCHING			
	2 position		Black	4AS2-2PSR
	MOMENTARY			
	3 position		Black	4AS2-3P
	STAY PUT			
	3 position		Black	4AS2-3PSR
	MOMENTARY,on both sides			
	3 position		Black	4AS2-3PSRR
	MOMENTARY, on right			
	3 position		Black	4AS2-3PSRL
	MOMENTARY, on left			

TEKNIC
Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

SELECTOR ACTUATORS WITH EXTENDED KNOB

	TYPE		COLOUR	ORDERING CODE
	SELECTOR			
	2 position, with extended knob		Black	4AS2E-2P
	LATCHING			
	2 position, with extended knob		Black	4AS2E-2PSR
	MOMENTARY			
	With extended knob			
	3 position, with extended knob		Black	4AS2E-3P
	STAY PUT			
	3 position, with extended knob		Black	4AS2E-3PSR
	MOMENTARY, on both sides			
	3 position, with extended knob		Black	4AS2E-3PSRR
	MOMENTARY on right			
	3 position, with extended knob		Black	4AS2E-3PSRL
	MOMENTARY, on left			

TEKNIC
Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

KEY SELECTOR

	TYPE		COLOUR	ORDERING CODE
	2 POSITION			
	Stayput			
			Black	4AK2-2PB
				4AK2-2PO
				4AK2-2PI
	Spring Return		Black	4AK2-2POSR
	3 POSITION			
	Stayput		Black	4AK2-3PA
				4AK2-3PB
				4AK2-3PC
	Spring Return		Black	4AK2-3PCSR
	Spring Return **right to centre**		Black	4AK2-3PCSRR
	Spring Return **left to centre**		Black	4AK2-3PCSRL
	* X stands for position in which key is removable			

TEKNIC

Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

TWIN ACTUATOR

	TYPE	COLOUR	ORDERING CODE
	Twin Actuator Double Flush, (IO) Mark		
	Flush Button with I mark	Green	4ATF3F4(IO)
	Flush Button with O mark	Red	
	Twin Actuator Flush/Projecting, (IO) Mark		
	Flush Button with I mark	Green	4ATF3P4(IO)
	Projecting Button with O m	Red	

TWIN ILLUMINATED ACTUATORS WITH LED BULB

	TYPE	COLOUR	ORDERING CODE
	Twin Illuminated Double Flush, (IO) Mark		
	LED Bulb, BA9S type	Flush Green Button with I mark	4ATL5LBF3F4 (IO)
	24V AC/DC,	Flush Red Button with O mark	
	110VAC, 110VDC	Amber Lens / Amber LED	
	230VAC, 220VDC		
	Please mention the voltage required after the ordering code		
	Twin Illuminated 1 Flush, 1 Projecting, (IO) Mark		
	LED Bulb, BA9S type	Flush Green Button with I mark	4ATL5LBF3P4 (IO)
	24V AC/DC,	Projecting Red Button with O mark	
	110VAC, 110VDC	Amber Lens / Amber LED	
	230VAC, 220VDC		
	Please mention the voltage required after the ordering code		

TEKNIC
Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

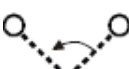## ILLUMINATED MOMENTARY ACTUATORS WITH LED BULB

	Type	Colour of LED / Lens	Ordering Code

Illuminated Flush, Momentary

	Type	Colour of LED / Lens	Ordering Code
	LED Bulb, BA9S type	White LED Bulb / White Lens	4ALF1LB(S)
	24V AC/DC,	Green LED Bulb / Green Lens	4ALF3LB
	110VAC, 110VDC	Red LED Bulb / Red Lens	4ALF4LB
	230VAC, 220VDC	Amber LED Bulb / Amber Lens	4ALF5LB
		Blue LED Bulb / Blue Lens	4ALF6LB
		White LED Bulb/ Clear Lens	4ALF7LB(S)
		Yellow LED Bulb / Yellow Lens	4ALF8LB
	Please mention the voltage required after the ordering code		

Illuminated Projecting, Momentary

	Type	Colour of LED / Lens	Ordering Code
	LED Bulb, BA9S type	White LED Bulb / White Lens	4ALP1LB(S)
	24V AC/DC,	Green LED Bulb / Green Lens	4ALP3LB
	110VAC, 110VDC	Red LED Bulb / Red Lens	4ALP4LB
	230VAC, 220VDC	Amber LED Bulb / Amber Lens	4ALP5LB
		Blue LED Bulb / Blue Lens	4ALP6LB
		White LED Bulb/ Clear Lens	4ALP7LB(S)
		Yellow LED Bulb / Yellow Lens	4ALP8LB
	Please mention the voltage required after the ordering code		

ILLUMINATED SELECTOR ACTUATOR WITH LED BULB

	Type	Colour of LED / Lens	Ordering Code

2 Position illuminated selector actuator

	Type	Colour of LED / Lens	Ordering Code
	LED Bulb BA9S type	White LED Bulb / White Lens	4ASL1LB(S)-2P
	24V AC/DC,	Green LED Bulb / Green Lens	4ASL3LB-2P
	110VAC, 110VDC	Red LED Bulb / Red Lens	4ASL4LB-2P
	230VAC, 220VDC	Amber LED Bulb / Amber Lens	4ASL5LB-2P
		Blue LED Bulb / Blue Lens	4ASL6LB-2P
		White LED Bulb / Clear Lens	4ASL7LB(S)-2P
		Yellow LED Bulb / Yellow Lens	4ASL8LB-2P
	Please mention the voltage required after the ordering code		
	LED Bulb BA9S type	White LED Bulb / White Lens	4ASL1LB(S)-2PSR
	24V AC/DC,	Green LED Bulb / Green Lens	4ASL3LB-2PSR
	110VAC, 110VDC	Red LED Bulb / Red Lens	4ASL4LB-2PSR
	230VAC, 220VDC	Amber LED Bulb / Amber Lens	4ASL5LB-2PSR
		Blue LED Bulb / Blue Lens	4ASL6LB-2PSR
		White LED Bulb / Clear Lens	4ASL7LB(S)-2PSR
		Yellow LED Bulb / Yellow Lens	4ASL8LB-2PSR
	Please mention the voltage required after the ordering code		

TEKNIC

Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

ILLUMINATED SELECTOR WITH LED BULB			
	TYPE	**Colour of LED / Lens**	**ORDERING CODE**
	3 Position Illuminated Selector Actuator		
	Stayput	White LED Bulb / White Lens	4ASL1LB(S)-3P
	LED Bulb BA9S type	Green LED Bulb / Green Lens	4ASL3LB-3P
	24V AC/DC,	Red LED Bulb / Red Lens	4ASL4LB-3P
	110VAC, 110VDC	Amber LED Bulb / Amber Lens	4ASL5LB-3P
	230VAC, 220VDC	Blue LED Bulb / Blue Lens	4ASL6LB-3P
		White LED Bulb/ Clear Lens	4ASL7LB(S)-3P
		Yellow LED Bulb / Yellow Lens	4ASL8LB-3P
	Please mention the voltage required after the ordering code		
	Momentary	White LED Bulb / White Lens	4ASL1LB(S)-3PSR
	LED Bulb BA9S type	Green LED Bulb / Green Lens	4ASL3LB-3PSR
	24V AC/DC,	Red LED Bulb / Red Lens	4ASL4LB-3PSR
	110VAC, 110VDC	Amber LED Bulb / Amber Lens	4ASL5LB-3PSR
	230VAC, 220VDC	Blue LED Bulb / Blue Lens	4ASL6LB-3PSR
		White LED Bulb / Clear Lens	4ASL7LB(S)-3PSR
		Yellow LED Bulb / Yellow Lens	4ASL8LB-3PSR
	Please mention the voltage required after the ordering code		
	Momentary / Stayput	White LED Bulb / White Lens	4ASL1LB(S)-3PSRL
	LED Bulb BA9S type	Green LED Bulb / Green Lens	4ASL3LB-3PSRL
	24V AC/DC,	Red LED Bulb / Red Lens	4ASL4LB-3PSRL
	110VAC, 110VDC	Amber LED Bulb / Amber Lens	4ASL5LB-3PSRL
	230VAC, 220VDC	Blue LED Bulb / Blue Lens	4ASL6LB-3PSRL
		White LED Bulb/ Clear Lens	4ASL7LB(S)-3PSRL
		Yellow LED Bulb / Yellow Lens	4ASL8LB-3PSRL
	Please mention the voltage required after the ordering code		
	Momentary / Stayput	White LED Bulb / White Lens	4ASL1LB(S)-3PSRR
	LED Bulb BA9S type	Green LED Bulb / Green Lens	4ASL3LB-3PSRR
	24V AC/DC,	Red LED Bulb / Red Lens	4ASL4LB-3PSRR
	110VAC, 110VDC	Amber LED Bulb / Amber Lens	4ASL5LB-3PSRR
	230VAC, 220VDC	Blue LED Bulb / Blue Lens	4ASL6LB-3PSRR
		White LED Bulb / Clear Lens	4ASL7LB(S)-3PSRR
		Yellow LED Bulb / Yellow Lens	4ASL8LB-3PSRR
	Please mention the voltage required after the ordering code		

TEKNIC

ILLUMINATED MUSHROOM WITH LED BULB

	TYPE	COLOUR	ORDERING CODE
	Illuminated Mushroom, Momentary		
	LED Bulb, BA9S type		
	24V AC/DC,	Red	4ALM4LB
	110VAC, 110VDC		
	230VAC, 220VDC		
	Please mention the voltage required after the ordering code		
	Illuminated Mushroom, Push Pull		
	LED Bulb, BA9S type		
	24V AC/DC,	Red	4ALMPP4LB
	110VAC, 110VDC		
	230VAC, 220VDC		
	Please mention the voltage required after the ordering code		

PILOT LIGHTS

	TYPE	Colour of LED / Lens	ORDERING CODE
	Pilot Light with LED Bulb		
	LED Bulb, BA9S type	White LED Bulb / White Lens	4PLB1LB(S)
	24V AC/DC,	Green LED Bulb / Green Lens	4PLB3LB
	110VAC, 110VDC	Red LED Bulb / Red Lens	4PLB4LB
	230VAC, 220VDC	Amber LED Bulb / Amber Lens	4PLB5LB
		Blue LED Bulb / Blue Lens	4PLB6LB
		White LED Bulb / Clear Lens	4PLB7LB(S)
		Yellow LED Bulb / Yellow Lens	4PLB8LB
	Please mention the voltage required after the ordering code		

TEKNIC
Control & Signalling Devices 22.5 Ø
CLIP ON METAL SERIES

CONTACT ELEMENTS		
	TYPE	**ORDERING CODE**
	PANEL MOUNTING	
	NORMALLY OPEN (NO) **SILVER CONTACT**	**C1**
	NORMALLY CLOSED (NC) **SILVER CONTACT**	**C2**
	NORMALLY OPEN (NO) **GOLD CONTACT**	**C3**
	NORMALLY CLOSED (NC) **GOLD CONTACT**	**C4**
	BASE MOUNTING	
	NORMALLY OPEN (NO) **SILVER CONTACT**	**C5**
	NORMALLY CLOSED (NC) **SILVER CONTACT**	**C6**
	NORMALLY OPEN (NO) **GOLD CONTACT**	**C7**
	NORMALLY CLOSED (NC) **GOLD CONTACT**	**C8**

Common types of control and signalling devices Ø 22.5 Metallic, Clip on Series

Description	Type of Actuator or Lense Assembly	Colour of Actuator or Lense	Contact elements NO=C1 NC=C2 or Lamp Holder	Type of complete Control or Signalling Device
Flush pushbutton	4AF3	Green	1NO	4PSF310
	4AF8	Yellow	2NO+1NC	4PSF821
Projecting pushbutton	4AP2	Black	2NC	4PSP202
	4AP4	Red	3NO+3NC	4PSF433
Booted Pushbutton	4AF3+2BT7	Green+clear boot	2NO	4PSF320+2BT7
	4AF4+2BT7	Red+clear boot	2NC	4PSF402+2BT7
Mushroom Pushbutton Spring return	4AM2	Black	1NO+1NC	4PSM211
	4AM4	Red	1NC	4PSM401
Mushroom Pushbutton Latching turn to release	4AML2	Black	1NC	4PSML201
	4AML4	Red	2NO+2NC	4PSML422
Mushroom Pushbutton Latching Key to release	4AMLKB4	Red	1NO+1NC	4PSMLKB411
Selector Pushbutton-2P	4AS2-2P	Black	1NO	4PSS210-2P
Selector Pushbutton-3P	4AS2-3P	Black	1NO+1NC	4PSS211-3P
Key Pushbutton (2Pos) key removable in both positions	4AK2-2PB	Black	1NO	4PSK210-2PB
Key Pushbutton (3Pos) key removable in left & right positions	4AK2-3PB	Black	1NO+1NC	4PSK211-3PB
Twin Pushbutton marked "IO" Flush-Flush	4ATF3-F4-IO	Flush-Green Flush-Red	1NO 1NC	4PSTF310-F401-IO
Twin Pushbutton marked "IO" Flush-Projecting	4ATF3-P4-IO	Flush-Green Projecting-Red	1NO 1NC	4PSTF310-P401-IO
Flush illuminated pushbutton with multichip LED bulb direct connection	4ALF3LB24DC	Green	1NO+1NC	4PSLF3LB1124DC
Twin Luminous Pushbutton with "IO" marking Flush-Flush with LED bulb (230VAC)	4ATL5LB-F3 -F4230AC-IO	Lense-Amber Flush-Green Flush-Red	1NO 1NC	4PSTL5LBF310 -F401230AC-IO
Twin Luminous Pushbutton with "IO" marking Flush - Projecting with LED bulb (110VAC)	4ATL5LB-F3 -P4110AC-IO	Lense-Amber Flush-Green Projecting-Red	1NO 1NC	4PSTL5LBF310 -P401110AC-IO
Pilot Light with LED bulb for 24V Bulb:24V	4PLLA5	Amber	4LHB24	4PLB5LB24
Pilot Light with LED bulb for 230VAC Bulb: 230V	4PLLA5	Amber	4LHB230AC	4PLB5LB230AC

CH: MT: 40 REV A