

Harmony™ 9001K/SK/KX 30 mm push buttons



Introduction

Schneider Electric's Harmony™ 9001 30 mm push buttons, pilot lights, selector switches and mushroom head operators provide robust and reliable solutions for a wide range of heavy industry applications.

- **9001K** operators are rugged and include chrome-plated bezels. (See page 5.)
- **9001SK** operators include black plastic bezels for corrosion-resistant applications. (See page 36.)
- **9001KX** operators include chrome-plated square bezels and provide multi-function operation. (See page 66.)

Product features:

- Heavy duty, oil-tight, dust-tight, and water-tight without boots. Most units are IP66 rated and are UL types 4, 4X and 13.
- FINGERSAFE™ contact blocks and light modules for improved safety
- Interchangeable light modules, contact blocks, color caps, pilot light lenses and mushroom heads reduce inventory
- Integrated earth ground connection (no ground wires required)
- Easy installation with octagonal ring nut
- Metal or plastic legend plates

Contact block features:

- Clear window for status of contact operation and troubleshooting
- Color coded for easy identification
- Single screw mounting for quick installation
- Side-by-side and/or stacked mounting to minimize enclosure space requirements

Light module features:

- Low-cost incandescent lamps or energy-efficient, long-life LED lamps
- Wide range of voltages from 24V to 600V





All products are:

- UL listed and CSA certified
- CE declaration of conformity
- RoHS compliant

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK

Environmental specifications			
Conforming to standards	 		EN/IEC 60947-1, EN/IEC 60947-5-1, EN/IEC 60947-5-4, JIS C 4520 and 852, UL 508, CSA C22-2 n° 14, CE marked, RoHS compliant
Product certifications	 File E78403 CCN NKCR  File LR25490 Class 3211-03		UL File E78403, CCN NKCR and CSA File LR25490, Class 3211-03
Protective treatment standard version			"TC"
Ambient air temperature around the device	Storage	°F (°C)	-40 to +158 (-40 to +70)
	Operation	°F (°C)	-13 to +158 (-25 to +70)
Vibration resistance	Conforming to IEC 60068-2-6		Frequency: 2 to 500 Hz: 7gn Ford Standard EA-1
Shock resistance	Conforming to IEC 60068-2-27		Half sine wave: 50 gn
Electric shock protection	Conforming to IEC 61140		Class II
Degree of protection	Conforming to EN/IEC 60529		IP 66
	Conforming to NEMA		Types 1, 2, 3, 3R, 4, 12 and 13
Mechanical life (in millions of operating cycles)	Push buttons, spring return		5
	Illuminated push buttons		5
	Selector switches and key switches		0.5
Mounting position			All positions

Electrical characteristics of contact blocks			
Rated operational characteristics	~ AC-15		3 A, 240 V
	--- DC-13		0.55 A, 125 V
Rated insulation voltage	Conforming to EN/IEC 60947-1	V	U _i = 250 degree of pollution 3 (except pilot lights with incandescent bulb: degree of pollution 2)
Rated impulse withstand voltage	Conforming to EN/IEC 60947-1	kV	U _{imp} = 2.5
Contact material	Normal environment and usage		Silver alloy
Contact operation	"N/C" ou "N/O"		Slow break
Positive operation	Conforming to EN/IEC 60947-5-1	N	N/C contact(s) with positive opening operation
Short-circuit protection	Conforming to EN/IEC 60947-5-1	A	Cartridge fuse mounted upstream: 10
Cabling capacity (9001KA contact blocks and 9001KM light modules)	Conforming to EN/IEC 60947-1	mm² mm²	Screw clamp terminals (cross headed/slotted screw) Mini: 1 x 0.22 Maxi: 2 x 1.5 Recommended tightening torque: 0.8 N.m (10 in-lbs)
Thermal current	I _{th}	A	10
Maximum operation current	a.c. supply: utilization category AC-15 NEMA A600	V	Contact making capacity
		A	120 240 480 600
		VA	60 30 15 12
	d.c. supply: utilization category DC-13 NEMA Q600	VA	7200 7200 7200 7200
		V	Breaking capacity
		A	120 240 480 600
VA	6 3 1.5 1.2		
VA	720 720 720 720		
		V	Contact making capacity and breaking capacity
		A	125 250 600 0.1
		A	0.55 0.27

Basic Operators

(For Color Caps, Mushroom Buttons, Knobs, Selector Switch Cams, Contact Blocks, Light Modules and Legend Plates, see page 51.)

Description	UL Types/NEMA Types
	4, 4X, 13
Non Illuminated Push Button (Full Guard)	9001SKR1
Non Illuminated Push Button (Extended Guard)	9001SKR2
Non Illuminated Push Button (No Guard)	9001SKR3
Non Illuminated Push Button (Mushroom Button/screw on)	9001SKR20
Non Illuminated Dual Push Button (Momentary)	–
Non Illuminated Dual Push Button (Momentary Interlocked)	–
Non Illuminated Dual Push Button (Maintained Interlocked)	–
Momentary Pull - Maintained Neutral - Momentary Push	9001SKR8 (1)
Maintained Pull - Maintained Push	9001SKR9 (1)
Illuminated Push Button (Full Guard - Plastic Top)	9001SK1L (2)
Illuminated Push Button and Push-to-test (No Guard)	9001SK2L (2) (3)
Illuminated Push Button (Full Guard - Metal Top)	–
Standard Pilot Light	9001SKP
2-Position Selector Switch	9001SKS1 (1), 9001SKS2 (1), 9001SKS3 (1)
3-Position Selector Switch	9001SKS4 (1), 9001SKS5 (1), 9001SKS6 (1), 9001SKS7 (1)
4-Position Selector Switch	9001SKS8 (1)
Trigger-Action Emergency Stop	9001SKR16 (1)

(1) Operator can be converted to an illuminated operator by removing the liner (6509704901) and adding a light module.

(2) Operator can be converted to a non-illuminated operator by adding liner (6509704901).

(3) Operator includes jumper wires for push-to-test conversion.

Non Hazardous Locations:



Hazardous Locations (Reed contact blocks, see page 53):



Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK

9001SK Operator Materials:

Push Button and Push-to-test Pilot Light
(9001SKR and 9001SKT)

- Base – Thermoplastic Polyester
- Stem – Acetal (non-illuminated push button)
Thermoplastic Polyester (illuminated push button
and push-to-test pilot light)
- Seal – Nitrile
- Gasket – Nitrile
- Spring – 302 Stainless Steel
- Spring Support – CRS
- Lock Ring – Nylon
- Trim Washer – Polypropylene
- Locking Thrust Washer – Thermoplastic Polyester
- Ring Nut – Thermoplastic Polyester
- Color Insert – Polyethylene (non-illuminated push button)
- Color Cap – Polycarbonate (illuminated push button and
push-to-test pilot light)
- Mushroom Button – Acetal (non-illuminated push button)
Polycarbonate (illuminated push button)
- Liner – Polypropylene (non-illuminated push button)

Selector Switch (9001SKS)

- Base – Thermoplastic Polyester
- Seal – Nitrile
- Gasket – Nitrile
- Seal Keeper – 302 Stainless Steel
- Spring – 302 Stainless Steel
- Cam Follower – Delrin 100
- Bearing Washer – Polyester Film
- Cam Carrier – Trogamid
- Cam Profile – Delrin 100
- Liner – Polypropylene (non-illuminated only)
- Knob – Polycarbonate
- Trim Washer – Polypropylene
- Locking Thrust Washer – Thermoplastic Polyester
- Spring Support – CRS

Pilot Light (9001SKP)

- Gasket – Nitrile
- Base – Thermoplastic Polyester
- Trim Washer – Polypropylene
- Locking Thrust Washer – Thermoplastic Polyester
- Ring Nut – Thermoplastic Polyester
- Color Cap – Polycarbonate

Contact Block And Light Module Materials:

Contact Block (9001KA)

- Housing – Amorphous Nylon
- Contact Slider – Phenolic, Nylon or Acetal
- Terminal – Steel
- Saddle Clamp – Steel
- Spring – Stainless Steel
- Contacts – Silver and Copper
- Blade – Beryllium Copper
- Mounting Screw – Steel
- Label – Paper

Light Module (9001KM)

- Housing – Thermoplastic Polyester
- Socket – Steel
- Terminal – Steel with Tin Plate
- Saddle Clamp – Steel
- Translating Pin – Polycarbonate
- Transformer – Thermoplastic Polyester, Steel, Copper,
Polyvinyl Chloride, Polytetrafluorethylene,
Acetate, Paper
- Lamp Spring – Tin Plated Music Wire

Harmony™ 9001K/SK/KX


30 mm push buttons

9001SK – Multi-function operators

Note: When ordering, add prefix “9001” to the reference.

30 mm Multi-function Operators — UL Types 4, 4X, 13/NEMA 4, 4X, 13

Non-Illuminated Push-pull Screw-on Mushroom Operators

Description	Color	With 2 N.C. Contacts (1 KA3, 1 KA5)	With 1 N.O. / 1 N.C. Contact (1 KA1)	Without Contacts (6)	
3-Position					
 <p>9001SKR9R Non-Illuminated 1-5/8 in Diameter Knob Includes 9001KN179WP Legend Plate Marked Pull To Start / Push To Stop</p>	Momentary Pull-Maintained Neutral-Momentary Push (2) (7)	Red	SKR8RH25	—	SKR8R
		Green	SKR8GH25	—	SKR8G
		Other	SKR8■H25	—	SKR8■
2-Position (1)					
	Maintained Pull-Maintained Push (2)	Red	—	SKR9RH13	SKR9R
		Green	—	SKR9GH13	SKR9G
		Other	—	SKR9■H13	SKR9■

Positions for 9001SKR8RH1 or H13


	PULL	CTR	PUSH
(KA1)			
KA3	x	O	O
KA2	O	O	x

O = contact open; x = contact closed


Positions for 9001SKR8H25

	PULL	CTR	PUSH
KA3	x	O	O
KA5	x	x	O
KA2	O	O	x

Non-Illuminated Turn-to-release Mushroom Operators

Description	Color	With 1 N.O. Contact (KA1)	With 2 N.O. / 2 N.C. Contacts (2 KA1)	Without Contacts
 <p>9001SKR16H2</p> <p>2-Position Trigger-Action, Turn-to-Release 1-5/8 in. (40 mm) Non-Removal Plastic Mushroom</p> <p>Complies with EN418/ISO13850 standards for Emergency Stop push buttons when used with circular Legend Plate 9001KN8330 (90 mm diameter) or 9001KN9330 (60 mm diameter). See page 56.</p>	Red	SKR16H13	SKR16H2	SKR16

Illuminated Push-pull Mushroom Operators

Description	Voltage	With Red Knob and 2 N.C. Contacts (1 KA3, 1 KA5)	With Other Color Knob and 2 N.C. Contacts	With Other Color Knob Without Contacts (6)	
3-Position					
 <p>9001SKR9P1 1-5/8 in Diameter Knob with "Pull To Start / Push To Stop" 9001KN379 Legend Plate For 1-3/8 in or 2-1/4 in Diameter Knob (1)</p>	Momentary Pull-Maintained Neutral-Momentary Push (2) (3) (7)	110–120 V, 50–60 Hz	SKR8P1RH25	SKR8P1■H25	SKR8P1■
		Other—Transformer, LED, Flashing (4)	SKR8P♦RH25	SKR8P♦■H25	SKR8P♦■
		Other—Full Voltage, Resistor, Neon (5)	SKR8P♦RH25	SKR8P♦■H25	SKR8P♦■
2-Position					
	Maintained Pull-Maintained Push (2) (3) (7)	110–120 V, 50–60 Hz	SKR9P1RH13	SKR9P1■H13	SKR9P1■
		Other—Transformer, L.E.D., Flashing (4)	SKR9P♦RH13	SKR9P♦■H13	SKR9P♦■
		Other—Full Voltage, Resistor, Neon (5)	SKR9P♦RH13	SKR9P♦■H13	SKR9P♦■

- To obtain a red knob with "Push Emergency Stop" printed on the red knob—substitute R05 in place of "R".
- Replace ■ with the color code as chosen from the color code at right. Example: SKR9■ with a yellow knob = SKR9Y
- Replace ♦ with the voltage assembly code as chosen from the tables on page 54. Example: SKR8P♦ with 277 V 50–60 Hz = SKR8P8
- The knob must be the same color as the LED light module chosen; e.g., for green LED, use green knob.
- On neon light modules, use clear knobs only.
- These operators can be ordered complete with contact blocks. For maximum block usage, see page 51. Add the "H" number chosen from page 51 to the end of the operator reference number and add the cost of the "H" number to the operator cost.
- For positions, refer to the two tables below.

Color Codes

Color	SKR11, SKR12	SKR8, SKR9
Black (8)	B	B
Red	R	R
Green	G	G
Blue	L	L
Yellow	Y	Y
White	W	W
Orange (8)	S	S
Clear	—	C
Amber	—	A
Gray	E	—

(8) These colors are not available on illuminated push-pull operators.

To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 50 to 59.

Harmony™ 9001K/SK/KX

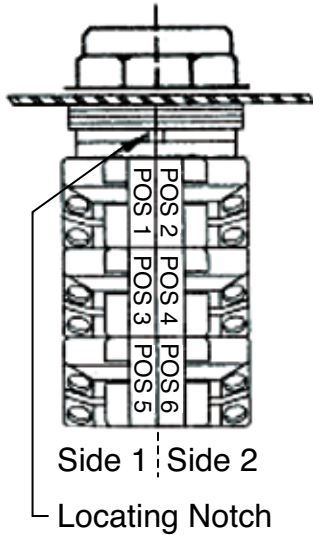
30 mm push buttons

9001SK – Contact blocks

Note: When ordering, add prefix “9001” to the reference.

Contact Block “H” Codes

The design of the 9001KA contact blocks allows them to be mounted side by side and/or in tandem. This enables you to specify an operator and a particular arrangement of contact blocks (shipped completely assembled) with a single reference number. See page 50 for a description of contact blocks.

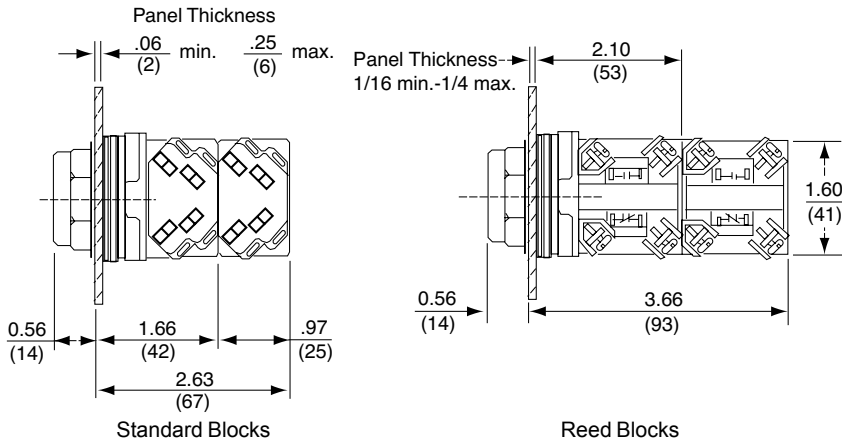


Example: A 9001KR1B push button with 2 9001KA1 contact blocks would be 9001KR1BH2.

Suffix No. (Add to Operator Reference)	Positions					
	1	2	3	4	5	6
H1	KA1					
H2	KA1	KA1				
H3	KA1	KA1	KA1			
H4	KA1	KA1	KA1	KA1		
H5	KA2					
H6	KA3					
H7	KA2	KA2				
H8	KA3	KA3				
H9	KA4	KA1				
H10	KA4	KA5				
H11	KA1	KA1		KA1		
H12	KA2	KA3	KA2	KA3		
H13		KA1				
H14		KA3				
H15	KA2	KA3	KA2			
H16	KA2	KA3		KA3		
H17	KA1	KA1	KA2			
H18	KA3	KA1	KA3		KA3	
H19	KA1	KA1	KA1	KA1	KA1	
H21	KA2	KA3				
H23	KA1	KA1	KA1	KA1	KA1	KA1
H24	KA1	KA2				
H25	KA5	KA3				

Note: For “H” Codes not shown in this table, contact your local Schneider Electric representative.

Dimensions When Using Contact Blocks



Maximum Contact Block Usage:

2 blocks mounted side by side only: Any 2, 3 or 4-Position spring return selector switch (non-illuminated, illuminated or keyed).

2 blocks mounted in tandem on one side only: Any 2 operator interlocked push button.

2 blocks mounted in tandem (total of four blocks): Any selector push button, keyed push button, 2, 3, or 4-Position maintained selector switch (non-illuminated, illuminated or keyed), push pull operators (non-illuminated or illuminated), joy stick, dual push button.

3 blocks mounted in tandem (total of six blocks): Single momentary push buttons (non-illuminated or illuminated).

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Light modules

Note: When ordering, add prefix “9001” to the reference.



Standard Light Modules for 9001SK Control Units (1)					
Voltage	Description	Light Module Reference	Voltage Assembly Code	Rating	Replacement Lamp Reference
All	Full Voltage (without Bayonet Base Lamp)	KM40	40	—	no lamp included
6 Vac/Vdc	Full Voltage	KM31	31	.9 VA	2550101020
6 Vac/Vdc	LED Red	KM31LR	31LR		6508805201
6 Vac/Vdc	LED Green	KM31LG	31LG		6508805203
6 Vac/Vdc	LED Yellow	KM31LY	31LY		6508805202
12–14 Vac/Vdc	Full Voltage	KM32	32	1.2 VA	2550101037
12–14 Vac/Vdc	LED Red	KM32LR	32LR		6508805201
12–14 Vac/Vdc	LED Green	KM32LG	32LG		6508805203
12–14 Vac/Vdc	LED Yellow	KM32LY	32LY		6508805202
18 Vac/Vdc	Resistor	KM33	33	1.4 VA	2550101037
24–28 Vac/Vdc	Full Voltage	KM35	35	1.2 VA	2550101002
24–28 Vac/Vdc	LED Red	KM35LR	35LR	.28 VA	6508805210
24–28 Vac/Vdc	LED Green	KM35LG	35LG	.28 VA	6508805212
24–28 Vac/Vdc	LED Yellow	KM35LY	35LY	.28 VA	6508805211
24–28 Vac/Vdc	LED White	KM35LW	35LW	.28 VA	6508805214
24–28 Vac/Vdc	LED Blue	KM35LL	35LL	.28 VA	6508805213
48 Vac/Vdc	Full Voltage	KM36	36	2.6 VA	2550101025
110–120 V, 50–60 Hz	LED Red	KM1LR	1LR		6508805201
110–120 V, 50–60 Hz	LED Green	KM1LG	1LG		6508805203
110–120 V, 50–60 Hz	LED Yellow	KM1LY	1LY		6508805202
110–120 V, 50–60 Hz	Transformer	KM1	1	2.4 VA	2550101020
110–120 V, 50–60 Hz	Flashing	KMF1	F1	.85 VA	2550101036
120 Vac/Vdc	Resistor	KM38	38	3.0 VA	2550101027
120 Vac/Vdc	Full Voltage	KM38	38	3.0 VA	2550101027
120 Vac/Vdc	Neon	KM11	11	0.2 VA	2550101013
120 Vac/Vdc	LED Red	KM38LR	38LR	1.4 VA	6508805210
120 Vac/Vdc	LED Green	KM38LG	38LG	1.4 VA	6508805212
120 Vac/Vdc	LED Yellow	KM38LY	38LY	1.4 VA	6508805211
120 Vac/Vdc	LED White	KM38LW	38LW	1.4 VA	6508805214
120 Vac/Vdc	LED Blue	KM38LL	38LL	1.4 VA	6508805213
208–220 V, 50–60 Hz	Transformer	KM3	3	2.5 VA	2550101020
208–220 V, 50–60 Hz	LED Red	KM3LR	3LR		6508805201
208–220 V, 50–60 Hz	LED Green	KM3LG	3LG		6508805203
208–220 V, 50–60 Hz	LED Yellow	KM3LY	3LY		6508805202
208–220 V, 50–60 Hz	LED White	KM3LW	3LW		6508805215
208–220 V, 50–60 Hz	LED Blue	KM3LL	3LL		6508805216
220–240 V, 50–60 Hz	Transformer	KM7	7	2.0 VA	2550101020
220–240 V, 50–60 Hz	LED Red	KM7LR	7LR		6508805201
220–240 V, 50–60 Hz	LED Green	KM7LG	7LG		6508805203
220–240 V, 50–60 Hz	LED Yellow	KM7LY	7LY		6508805202
220–240 V, 50–60 Hz	LED White	KM7LW	7LW		6508805215
220–240 V, 50–60 Hz	LED Blue	KM7LL	7LL		6508805216
240 Vac/Vdc	Resistor	KM25	25	6.0 VA	2550101027
240 Vac/Vdc	Neon	KM12	12	0.3 VA	2550101013
277 V, 50–60 Hz	Transformer	KM8	8	2.4 VA	2550101020
380–480 V, 50–60 Hz	Transformer	KM5	5	2.8 VA	2550101020
480 Vac/Vdc	Neon	KM14	14	0.5 VA	2550101013
550–600 V, 50–60 Hz	Transformer	KM6	6	2.5 VA	2550101020

(1) For use with all operators except KX and remote test pilot.

Notes: Light modules are available in other voltages, as shown above. For use in hazardous locations, see page 53. With neon type light modules, use a clear color cap only. With LED light modules, use either a clear color cap or a cap the same color as the LED.



Shallow Depth Light Modules For 9001SK Control Units (2)					
Voltage	Description	Light Module Reference	Voltage Assembly Code	Rating	Replacement Lamp Reference
24–28 Vac/Vdc	Full Voltage	KM55	55	1.2 VA	2550101002
	LED Red	KM55LR	55LR	0.5 VA	6508805204
	LED Green	KM55LG	55LG		6508805206
	LED Yellow	KM55LY	55LY		6508805205
110–120 Vac/Vdc	Full Voltage	KM58	58	3.0 VA	2550101027
	LED Red	KM58LR	58LR	0.5 VA	6508805204
	LED Green	KM58LG	58LG		6508805206
	LED Yellow	KM58LY	58LY		6508805205

(2) For use with all operators except KX and remote test pilot.

Notes: For use in hazardous locations, see page 53. Reduces the depth of illuminated push buttons with contact blocks by over 33%. With LED light modules, use a cap that is the same color as the LED.



File
CCN

E42259
NKCR



File
Class

LR25490
3211 03



marked

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Replacement parts

Ring Nuts	
Used On	Reference
SK1L	9001SK44
—	—
—	—
SK20, SK21, SK22, SK23	9001SK45
SK20, SK21, SK22, SK23 (3)	9001SK46
SK2L	9001SK49
—	—
—	—
SKP, SKTR	9001SK41
SKR1	9001SK41
SKR11	9001SK42
SKR12 (1)	9001SK42
SKR12 (2)	9001SK41
—	—
SKR2	9001SK42
—	—
—	—
SKR25	9001SK49
SKR3	9001SK40
SKR4	9001SK41
SKR5	9001SK41
—	—
—	—
—	—
SKR8	6509704401
SKR9	9001SK41
SKS	9001SK45
SKS (3)	9001SK46
SKRU11	9001SK41
SKRU1,2,3,4,5,10	9001SK40
SKT	9001SK49

(1) Maintained button of two button operator.

(2) Momentary button of two button operator.

(3) Secondary ring nut (holds knob on selector switch or potentiometer).

Replacement Lamps For Series A–F (black) Light Modules

Light Module Reference	Lamp Number (ANSI)	Schneider Electric Replacement Lamp Reference
KM1	GE44 (4)	—
KM2	GE1490	2550101003
KM3	GE44 (4)	—
KM4	GE1490	2550101003
KM5	GE44 (4)	—
KM6	GE44 (4)	—
KM7	GE44 (4)	—
KM8	GE44 (4)	—
KM9	GE755	2550101020
KM11	CMDK1A5	2550105014
KM12	CMDK1A5	2550105014
KM13	CMDK1A5	2550105014
KM14	CMDK1A5	2550105014
KM15	CMDK1A5	2550105014
KM21	SYL12PSB	2550105003
KM22	SYL12PSB	2550105003
KM23	SYL28PSB	2550105008
KM25	SYL120PSB	2550105005
KM31	SYL6PSB	2550105007
KM32	SYL12PSB	2550105003
KM34	SYL24PSB	2550105004
KM35	SYL28PSB	2550105008
KM36	SYL48PSB	2550105009
KM37	SYL60PSB	2550105010
KM38	SYL120PSB	2550105005

(4) GE44 and GE755 are interchangeable (GE755 gives longer life). If a GE44 lamp is ordered, a GE755 (2550101020) will be substituted. For a replacement lamp in a current series light module see the light module listing on page 54.

Product range:
page 36

Specifications:
page 38


Dimensions:
page 60

Mounting:
page 61



Repair Parts	
Description	Reference
E10 Key	2941101100
Gray cap for 9001SKR11, or 9001SKR12	3105217001
Clear plastic top (only) for 9001SK44 Ring Nut	4487D63XI
Gasket for 9001K and 9001SK Push-pull Knob	6509701801
Gasket for Plastic Illuminated Lens	6509701901
Gasket for 9001SK selector switch knob	3105406401
Black Compensating Gasket	6509702001
Liner for Non-Illuminated Operators	6509704901
Locking Thrust Washer	6512231201
Nylon Spacer	6509705001
Locking Thrust Washer (Std. 9001SK Operator)	6512240601
Push-pull Mushroom Adapter (5)	9001K54
Rubber Boot for Joystick	6512243201
Knob on Joysticks without latch	4458D20X3
Knob for SK Potentiometer	3105404408
Fingersafe Cover for 9001KM	6508804101

(5) Allows Type -20 and -21 mushroom color caps to be used on push-pull operators. Use of 9001K54 voids Type 6 rating.

KU Replacement Ring Nuts (Threaded Inside and Out)	
Used On	Reference
KU1 through KU8, KU27, KU37, KU47	3105204101
KU17, KU18	3105205901

Interlock	
	<p>For mechanically interlocking two push buttons so that only one button can be depressed at a time. A K3 attachment is furnished with the 9001SKR11, SKR12, SKRU1 and SKRU11 operators. However, these are maintained operators and the K3 interlock serves to release one of the buttons when the other is depressed. When used with momentary contact buttons, the K3 interlock does not hold the buttons in the depressed position. It simply prevents pushing both buttons at the same time.</p> <p>The K3 interlock is mounted behind the operators. Operators not included.</p>
	Reference
	9001K3

Screwdriver	
Reference	
9001K69	Used to tighten mounting screws on contact blocks and light modules.

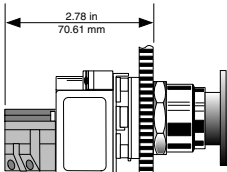
Wrenches	
K95	
K1	

Where Used	Reference
For tightening ring nuts on 22 and 30 mm control units	9001K95
For protective cap kits	9001K1

Push Buttons and Operator Interface - Type K and SK, 30 mm Light Modules Type K, SK, KX, and T

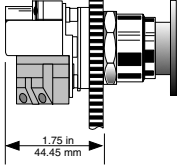
Standard Light Modules for Types K, SK, and KX Control Units ④

- For use in hazardous locations – See page 150.
- Neon type light modules — use CLEAR color caps only.
- LED light modules require the color cap color and the LED color to be the same or use a clear color cap.

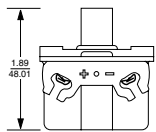


Standard Duty

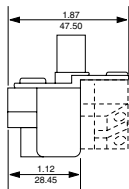
Shallow Depth



Dual Dimensions inches mm



Side View



Side View

Shown with 9001 KA contact block

Voltage	Description	For Use With Single Lamp III. Operators as Indicated ①	Light Module Type No. ⑤	Voltage Assembly Code	Rating	Replacement Lamps ③ ④		
						Lamp Number (ANSI)	Lamp Part Number ⑤	
6 Vac-dc	Full Voltage	All	KM31	31	0.9 VA	755	2550101020	
6 Vac-dc	LED Red	All Except ②	KM31LR	31LR	0.65 VA		6508805201	
6 Vac-dc	LED Green	All Except ②	KM31LG	31LG	0.65 VA		6508805203	
6 Vac-dc	LED Yellow	All Except ②	KM31LY	31LY	0.65 VA		6508805202	
12-14 Vac-dc	Full Voltage	All	KM32	32	1.2 VA	756	2550101037	
12-14 Vac-dc	LED Red	All Except ②	KM32LR	32LR	0.50 VA		6508805201	
12-14 Vac-dc	LED Green	All Except ②	KM32LG	32LG	0.50 VA		6508805203	
12-14 Vac-dc	LED Yellow	All Except ②	KM32LY	32LY	0.50 VA		6508805202	
18 Vac-dc	Resistor	All	KM33	33	1.4 VA	756	2550101037	
24-28 Vac-dc	Full Voltage	All	KM35	35	1.2 VA	757	2550101002	
24-28 Vac-dc	LED Red	All Except ②	KM35LR	35LR	0.50 VA		6508805204	
24-28 Vac-dc	LED Green	All Except ②	KM35LG	35LG	0.50 VA		6508805206	
24-28 Vac-dc	LED Yellow	All Except ②	KM35LY	35LY	0.50 VA		6508805205	
32 Vac-dc	Resistor	All	KM23	23	2.5 VA	757	2550101002	
48 Vac-dc	Full Voltage	All	KM36	36	2.6 VA	48MB	2550101025	
48 Vac-dc	LED Red	All Except ②	KM36LR	36LR	0.50 VA		6508805204	
48 Vac-dc	LED Green	All Except ②	KM36LG	36LG	0.50 VA		6508805206	
48 Vac-dc	LED Yellow	All Except ②	KM36LY	36LY	0.50 VA		6508805205	
60 Vac-dc	Full Voltage	All	KM37	37	3.0 VA	60MB	2550101026	
60 Vac-dc	LED Red	All Except ②	KM37LR	37LR	0.50 VA		6508805204	
60 Vac-dc	LED Green	All Except ②	KM37LG	37LG	0.50 VA		6508805206	
60 Vac-dc	LED Yellow	All Except ②	KM37LY	37LY	0.50 VA		6508805205	
110-120 V, 25-30 Hz	Transformer	All Except ②	KM2	2	2.2 VA	1490	2550101003	
110-120 V, 50-60 Hz	Transformer	All Except ②	KM1	1	2.4 VA		755	2550101020
110-120 V, 50-60 Hz	Flashing	All Except ②	KMF1	F1	0.85 VA		267	2550101036
120 Vac-dc	Resistor	All	KM38	38	3.0 VA	120MB	2550101027	
120 Vac-dc	Full Voltage	All	KM38	38	3.0 VA		120MB	2550101027
120 Vac-dc	Neon	All Except ②	KM11	11	0.2 VA		NE51H	2550101013
120 Vac-dc	LED Red	All Except ②	KM38LR	38LR	4.0 VA		6508805204	6508805206
120 Vac-dc	LED Green	All Except ②	KM38LG	38LG	4.0 VA		6508805206	6508805205
120 Vac-dc	LED Yellow	All Except ②	KM38LY	38LY	4.0 VA		6508805205	6508805205
208-220 V, 50-60 Hz	Transformer	All Except ②	KM3	3	2.5 VA	755	2550101020	
220-240 V, 25-30 Hz	Transformer	All Except ②	KM4	4	2.2 VA	1490	2550101003	
220-240 V, 50-60 Hz	Transformer	All Except ②	KM7	7	2.0 VA		755	2550101020
220-240 V, 50-60 Hz	Flashing	All Except ②	KMF7	F7	2.0 VA		267	2550101036
240 Vac-dc	Resistor	All Except ②	KM25	25	6.0 VA	120MB	2550101027	
240 Vac-dc	Neon	All Except ② and KX	KM12	12	0.3 VA		NE51H	2550101013
277 V, 50-60 Hz	Transformer	All Except ②	KM8	8	2.4 VA	755	2550101020	
380 Vac-dc	Neon	All Except ② and KX	KM13	13	0.4 VA	NE51H	2550101013	
380-480 V, 50-60 Hz	Transformer	All Except ②	KM5	5	2.8 VA	755	2550101020	
480 Vac-dc	Neon	All Except ② and KX	KM14	14	0.5 VA		NE51H	2550101013
550 Vac-dc	Neon	All Except ② and KX	KM15	15	0.6 VA	NE51H	2550101013	
550-600 V, 50-60 Hz	Transformer	All Except ②	KM6	6	2.5 VA	755	2550101020	

Replacement lamps for Series G 120Vac LED Light Modules ③

Voltage	Description	Lamp Part Number
120 Vac Only	LED Red	6508805207
120 Vac Only	LED Green	6508805209
120 Vac Only	LED Yellow	6508805208

Shallow Depth Light Modules For Types K and SK Control Units

For use in hazardous locations – See page 150. Reduces the depth of illuminated push buttons with contact blocks by over 33%.

- LED light modules require the color cap color and the LED color to be the same or use a clear color cap.

Voltage	Description	For Use With Single Lamp III. Operators as Indicated ⑤	Light Module Type No. ⑤	Voltage Assembly Code	Rating	Replacement Lamps ③ ④	
						Lamp Number (ANSI)	Lamp Part Number ⑤
24-28 Vac-dc	Full Voltage	All Except ② and KX	KM55	55	1.2 VA	757	2550101002
24-28 Vac-dc	LED Red	All Except ② and KX	KM55LR	55LR	0.5 VA		6508805204
24-28 Vac-dc	LED Green	All Except ② and KX	KM55LG	55LG	0.5 VA		6508805206
24-28 Vac-dc	LED Yellow	All Except ② and KX	KM55LY	55LY	0.5 VA		6508805205
110-120 Vac-dc	Full Voltage	All Except ② and KX	KM58	58	3.0 VA	120MB	2550101027
110-120 Vac-dc	LED Red	All Except ② and KX	KM58LR	58LR	0.5 VA		6508805204
110-120 Vac-dc	LED Green	All Except ② and KX	KM58LG	58LG	0.5 VA		6508805206
110-120 Vac-dc	LED Yellow	All Except ② and KX	KM58LY	58LY	0.5 VA		6508805205

① 9001 K, SK, KX.

② Do not use on any remote test version pilot light.

③ LED lamps shown here will also function in Class 9001 Type J pilot lights.

④ For Series A through F light modules – see page 158.

⑤ All light modules with a LED above 12 V use a 14 V Bipolar LED.

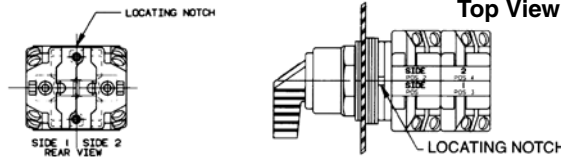
⑥ 9001K, SK, T

Push Buttons and Operator Interface - Type K and SK, 30 mm "H" Numbers

The design of the Class 9001 Type KA contact blocks allows them to be mounted side by side and/or in tandem.

The system illustrated below has been set up to enable an operator and a particular arrangement of contact blocks to be specified by a single type number. Operators and contact blocks will be shipped completely assembled.

EXAMPLE: A Type KR1B push button with 2 Type KA1 contact blocks would be Class 9001 Type KR1BH2.



For Types K and SK

Suffix No. (Add to Operator Type No.)	Positions					
	1	2	3	4	5	6
H1	KA1					
H2	KA1	KA1				
H3	KA1	KA1	KA1			
H4	KA1	KA1	KA1	KA1		
H5	KA2					
H6	KA3					
H7	KA2	KA2				
H8	KA3	KA3				
H9	KA4	KA1				
H10	KA4	KA5				
H11	KA1	KA1		KA1		
H12	KA2	KA3	KA2	KA3		
H13		KA1				
H14		KA3				
H15	KA2	KA3	KA2			
H16	KA2	KA3		KA3		
H17	KA1	KA1	KA2		KA3	
H18	KA3	KA1	KA3		KA1	
H19	KA1	KA1	KA1	KA1	KA1	
H21	KA2	KA3				
H23	KA1	KA1	KA1	KA1	KA1	KA1
H24	KA1	KA2				
H25	KA5	KA3				
H26	KA1	KA1	KA4			
H27	KA3	KA3	KA3			
H28	KA1	KA3				
H29	KA1	KA4	KA1	KA5	KA1	KA3
H31	KA2	KA2	KA1			
H32		KA1		KA1		
H33	KA1	KA3	KA3			
H34	KA5	KA1				
H36		KA2				
H37	KA3	KA2		KA2		
H38	KA3	KA2	KA3	KA3		
H39	KA5	KA1		KA4		
H40	KA1	KA1		KA2		
H41	KA3	KA2		KA2		
H42	KA1	KA1	KA2	KA2		
H43	KA2	KA2	KA2			
H44	KA3	KA2		KA3		
H45	KA1	KA2	KA3	KA2		
H46	KA2	KA2		KA2		
H47	KA5	KA3	KA3	KA5	KA3	KA3
H48	KA1	KA1	KA4	KA4		
H50	KA5	KA3	KA3	KA3		
H51	KA5	KA3		KA4		
H52	KA3	KA1	KA3			
H53	KA4	KA2				
H54	KA4	KA5	KA2			
H55	KA1	KA2	KA2		KA1	
H56	KA2	KA2	KA2	KA2		
H57	KA5	KA4				
H58		KA5				
H59	KA1	KA2	KA1			
H60	KA1	KA2	KA1		KA3	
H61	KA2	KA2	KA5	KA5		
H62	KA1	KA2	KA3			
H63	KA1		KA3			
H64	KA3	KA2	KA2			
H66	KA3	KA1	KA3	KA1		
H71	KA3	KA3	KA3	KA3		
H72	KA3	KA5				
H73	KA1	KA1	KA3			
H74	KA1	KA2	KA5	KA5		
H75	KA1	KA3	KA3	KA3	KA3	
H76	KA1	KA2	KA2	KA2	KA2	
H77	KA1		KA1			

Suffix No. (Add to Operator Type No.)	Positions					
	1	2	3	4	5	6
H78	KA1	KA2		KA5		
H79	KA3	KA3		KA5		
H80	KA4	KA4	KA5	KA5		
H81	KA1	KA1	KA2	KA3		
H82	KA12	KA12	KA13	KA13		
H83	KA35	KA33				
H86	KA3	KA2	KA3			
H87	KA3	KA2	KA3	KA2	KA3	
H89	KA3	KA1				
H90	KA1	KA1	KA3	KA3	KA3	
H91	KA1	KA2	KA1	KA2		
H92	KA1	KA2	KA3	KA2		
H93	KA3	KA2	KA3	KA5	KA3	KA3
H94	KA1	KA1	KA1	KA3		
H95	KA2	KA1				
H97	KA1	KA3		KA2		
H98	KA1	KA1		KA2		
H99	KA2	KA2	KA2	KA2	KA2	KA2
H100	KA1	KA3	KA1	KA2		
H101	KA2	KA2	KA2	KA2	KA2	KA2
H102	KA1	KA3		KA3		
H103	KA1	KA1	KA3	KA3		
H104	KA1	KA1	KA1	KA2	KA2	KA2
H105	KA31					
H106	KA31	KA31				
H107	KA3	KA2	KA5			
H109	KA3	KA3	KA2			
H110	KA3	KA3	KA3	KA3	KA3	KA3
H111	KA4	KA4	KA4	KA5		
H112	KA33	KA33				
H113	KA1	KA1	KA5			
H114	KA21					
H115	KA3	KA1	KA5	KA3		
H116	KA3	KA1	KA3	KA2		
H117	KA2	KA3	KA1	KA2	KA2	
H118	KA1	KA5				
H119	KA1	KA1	KA5	KA3		
H120	KA3	KA4	KA3			
H121	KA3	KA3	KA3	KA5		
H122	KA1	KA3	KA3	KA5		
H124		KA3		KA3		
H125	KA5	KA5	KA3			
H126	KA42					
H127	KA43					
H128	KA41		KA2			
H129	KA2	KA3		KA2		
H130	KA2					
H131	KA2	KA3	KA3	KA2	KA2	
H132	KA2	KA2	KA3	KA3		
H133	KA3		KA2	KA2		
H134	KA3	KA3	KA2	KA2	KA2	
H135	KA3	KA2	KA2	KA2	KA2	
H136	KA3		KA5	KA44		
H137	KA45	KA45				
H138	KA3	KA3		KA2		
H139	KA5	KA5				
H140	KA44					
H141	KA43	KA43				
H142	KA1	KA1	KA41			
H143	KA3	KA1	KA5			
H144		K85		KA4		
H145	KA51					
H146	KA53	KA52				
H147	KA53					
H148	KA51	KA51				
H149	KA71					
H150		KA71				
H151	KA71	KA71				
H152	KA1	KA2		KA2		
H153	KA53	KA52	KA53			
H154	KA4	KA5				
H155	KA42	KA43	KA2			
H156	KA1	KA1	KA1	KA1	KA2	KA2
H157	KA1		KA1	KA1		
H158	KA1	KA2	KA3	KA3	KA3	
H159	KA1	KA1	KA3	KA2		
H161	KA52					
H162	KA2		KA5			
H163	K85		KA4			
H164	K85	K85	KA4	KA4		
H165	KA55					
H166	KA22	KA22				
H167		KA23				
H168		KA22				
H170	KA54	KA51		KA51		
H171	KA53	KA51				
H172	KA23	KA23				
H173	KA54	KA51				
H174	KA1	KA3	KA1	KA3	KA3	
H175	KA6	KA2	KA5			
H176	KA4					
H177	KA3	KA4				
H178	K85		KA3			
H179	KA53	KA55				

"H" Numbers not shown in their sequence are no longer used.