

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

Catalog
2011



Harmony™ 9001K/SK/KX

30 mm push buttons

Introduction	4
------------------------	---

9001K heavy-duty operators with chrome-plated bezels:

Product range	5
-------------------------	---

Specifications	7
--------------------------	---

References

□ Push buttons and mushroom operators	10
□ Multi-function operators	12
□ Selector switches	13
□ Pilot lights	17
□ Specialty operators	18
□ Contact blocks	20
□ Light modules	24
□ Legend plates	25
□ Accessories	27
□ Replacement parts	29

Dimensions	30
----------------------	----

9001SK corrosion-resistant operators with black plastic bezels:

Product range	36
-------------------------	----

Specifications	38
--------------------------	----

References

□ Push buttons and mushroom operators	41
□ Multi-function operators	43
□ Selector switches	44
□ Pilot lights	48
□ Specialty operators	49
□ Contact blocks	50
□ Light modules	54
□ Legend plates	55
□ Accessories	57
□ Replacement parts	59

Dimensions	60
----------------------	----

9001KX multi-function operators with chrome-plated square-head bezels:

Product range	66
-------------------------	----

Specifications	67
--------------------------	----

References

□ Push buttons with contacts	70
□ Push buttons without contacts	71
□ Selector switches	72
□ Contact blocks	72
□ Pilot lights	73
□ Legend plates	74
□ Accessories	75

Dimensions	76
----------------------	----

Index	78
-----------------	----

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

Complete units

Contact functions

Push buttons, spring return



Full guard

9001KR1●●● See page 10



No guard

9001KR3●●● See page 10



Extended guard

9001KR2●●● See page 10

Mushroom head push buttons



Spring return 1-3/8 or 2-1/4 in (35 or 57 mm)

9001KR2●●H13 See page 10



Push-pull 1-5/8 in (41 mm)

9001KR●●● See page 10



Turn-to-release, trigger action

9001KR16 (1) See page 12

Selector switches, key switches and joystick controllers



Selector switches

9001KS●●FBH●● See pages 13 to 15



Key switches

9001KS●●KH●● See pages 13 to 15



Joystick controllers

9001K●●H● See page 18

Light functions

Pilot lights



BA 9s base mounted super bright LED

9001KP●●● See page 17



BA 9s incandescent bulb

9001KP●●● See page 17

(1) 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 26.

Complete units

Combined contact and light functions

Illuminated push buttons, spring return



Full guard, super bright LED

9001K●L●● See page 11



No guard

9001K2L●● See page 11



Push-to-test, no guard, super bright LED

9001KT●●●31 See page 11

1-5/8 in (41 mm) mushroom head illuminated push buttons, super bright LED



2-Position, push-pull

9001KR9P●● See page 12



3-Position, push-pull

9001KR8P●● See page 12

Separate components and accessories



Complete units are composed of:

- 1 - Contact block
- 2 - Light module with lamp
- 3 - Black compensation gaskets
- 4 - Legend plate
- 5 - Locking thrust washer (for electrical grounding)
- 6 - Ring nut
- 7 - Color cap
- 8 - Color insert

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K

Environmental specifications

Conforming to standards		 Marked			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	Ui = 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	Uimp = 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	mm ² mm ²	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	Ith	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		7200	7200	7200	7200
		V	Breaking capacity			
		A	120	240	480	600
	6	3	1.5	1.2		
	720	720	720	720		
	d.c. supply: utilization category DC-13 NEMA Q600	V	Contact making capacity and breaking capacity			
A		125	250	600		
			0.55	0.27	0.1	

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K

Basic Operators

(For Color Caps, Mushroom Buttons, Knobs, Selector Switch Cams, Contact Blocks, Light Modules and Legend Plates, see page 21.)

Description	UL Types/NEMA Types 4, 13
Non Illuminated Push Button (Full Guard)	9001KR1
Non Illuminated Push Button (Extended Guard)	9001KR2
Non Illuminated Push Button (No Guard)	9001KR3
Non Illuminated Push Button (Mushroom Button/screw on)	9001KR20
Non Illuminated Dual Push Button (Momentary)	9001KR6
Non Illuminated Dual Push Button (Momentary Interlocked)	9001KR67
Non Illuminated Dual Push Button (Maintained Interlocked)	9001KR7
Momentary Pull - Maintained Neutral - Momentary Push	9001KR8 (1) (4)
Maintained Pull - Maintained Push	9001KR9 (1) (4)
Illuminated Push Button (Full Guard - Plastic Top)	9001K1L (2)
Illuminated Push Button and Push-to-test (No Guard)	9001K2L (2) (3)
Illuminated Push Button (Full Guard - Metal Top)	9001K3L (2)
Standard Pilot Light	9001KP
2-Position Selector Switch	9001KS1 (1), 9001KS2 (1), 9001KS3 (1)
3-Position Selector Switch	9001KS4 (1), 9001KS5 (1), 9001KS6 (1), 9001KS7 (1)
4-Position Selector Switch	9001KS8 (1)
Trigger-Action Emergency Stop	9001KR16 (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.

(4) These operators can be supplied with 1-3/8" or 2-1/4" dia. mushroom buttons. For 1-3/8" Add •20 to reference number. The • refers to the color chosen - see page 10. For 2-1/4": Add •21 to reference number. The • refers to the color chosen - see page 10. Voids UL and NEMA Type 6 Rating.

Non Hazardous Locations:



File
CCN E42259
NKCR



File
Class LR25490
3211 03



Marking

Hazardous Locations (Reed contact blocks, see page 23):



File
CCN E10054
NOIV



File
Class LR26817
3218 02



Marking

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K

9001K Operator Materials:

Push Button and Push-to-test Pilot Light
(9001KR and 9001KT)

Gasket – Nitrile
Seal – Nitrile
Seal Cap – Amorphous Acetal
Decorative Ring – Polyester Film
Compensating Washer – Polypropylene
Lock Ring – Amorphous Nylon
Stem – Thermoplastic Polyester
Base Cap – Thermoplastic Polyester
Knob – Polycarbonate
Liner – Polypropylene
Hold Down Spring for 9001K-15 – Neoprene
Operator Base – Zinc
Operator Base (9001KR8) – Polyester
Return Spring – Music Wire or Stainless Steel (9001KT only)
Ring Nuts – Aluminum or Zinc
Springkeeper – Steel
Locking Thrust Washer – Zinc
Color Insert – Polyethylene
Boots – Silicone

Selector Switch (9001KS)

Gasket – Nitrile
Seal – Nitrile
Bearing Washer – Polyester Film
Compensating Washer – Polypropylene
Cam Follower – Delrin 100
Liner – Polypropylene
Knob – Polycarbonate
Cam Carrier – Amorphous Nylon
Cam Rotor – Celenex 3300
Cam Profile– Delrin 100
Operator Base – Zinc
Detent Spring – Stainless Steel
Ring Nuts – Aluminum or Zinc
Seal keeper – Stainless Steel
Locking Thrust Washer – Zinc

Pilot Light (9001KP)

Gasket – Nitrile
Compensating Washer – Polypropylene
Lens – Glass or Polycarbonate
Light Module Housing – Thermoplastic Polyester
Operator Base – Zinc
Glass Lens Ring – Anodized Aluminum

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

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

Non-Illuminated Momentary Push Button Operators

For use in hazardous locations, see page 23.

Contact blocks and legend plate not included unless otherwise noted.

Description		Color	Operator with 1 N.O. and 1 N.C. Contact (KA1)	Operator with 1 N.O. Contact (KA2)	Operator with 1 N.C. Contact (KA3)	Operator Only with No Contacts
 9001KR1B	Full Guard	Black	KR1BH13	KR1BH5	KR1BH6	KR1B
		Red	KR1RH13	KR1RH5	KR1RH6	KR1R
		Green	KR1GH13	KR1GH5	KR1GH6	KR1G
		Universal (1)	KR1UH13	KR1UH5	KR1UH6	KR1U
		Other (2)	KR1■H13	KR1■H5	KR1■H6	KR1■
 9001KR3B	No Guard	Black	KR3BH13	KR3BH5	KR3BH6	KR3B
		Red	KR3RH13	KR3RH5	KR3RH6	KR3R
		Green	KR3GH13	KR3GH5	KR3GH6	KR3G
		Universal (1)	KR3UH13	KR3UH5	KR3UH6	KR3U
		Other (2)	KR3■H13	KR3■H5	KR3■H6	KR3■
 9001KR2B	Extended Guard	Black	KR2BH13	KR2BH5	KR2BH6	KR2B
		Red	KR2RH13	KR2RH5	KR2RH6	KR2R
		Green	KR2GH13	KR2GH5	KR2GH6	KR2G
		Universal (1)	KR2UH13	KR2UH5	KR2UH6	KR2U
		Other (2)	KR2■H13	KR2■H5	KR2■H6	KR2■
 9001KR4B	1-3/8 in (35 mm) Diameter Mushroom Button	Snap-In Plastic Mushroom Button				
		Black	KR4BH13	KR4BH5	KR4BH6	KR4B
		Red	KR4RH13	KR4RH5	KR4RH6	KR4R
		Red (3)	KR4R05H13	KR4R05H5	KR4R05H6	KR4R05
		Green	KR4GH13	KR4GH5	KR4GH6	KR4G
		Other (4)	KR4★H13	KR4★H5	KR4★H6	KR4★
		Screw-On Plastic Mushroom Button with Set Screw				
		Black	KR24BH13	KR24BH5	KR24BH6	KR24B
		Red	KR24RH13	KR24RH5	KR24RH6	KR24R
		Green	KR24GH13	KR24GH5	KR24GH6	KR24G
		Other (4)	KR24★H13	KR24★H5	KR24★H6	KR24★
		Screw-in Metal Mushroom Button with Set Screw				
		Black	—	—	—	KR24BM
		Red	—	—	—	KR24RM
		Green	—	—	—	KR24GM
 9001KR5B	2-1/4 in (57 mm) Diameter Mushroom Button	Snap-In Plastic Mushroom Button				
		Black	KR5BH13	KR5BH5	KR5BH6	KR5B
		Red	KR5RH13	KR5RH5	KR5RH6	KR5R
		Red (3)	KR5R05H13	KR5R05H5	KR5R05H6	KR5R05
		Green	KR5GH13	KR5GH5	KR5GH6	KR5G
		Other (4)	KR5★H13	KR5★H5	KR5★H6	KR5★
		Screw-On Plastic Mushroom Button with Set Screw				
		Black	KR25BH13	KR25BH5	KR25BH6	KR25B
		Red	KR25RH13	KR25RH5	KR25RH6	KR25R
		Green	KR25GH13	KR25GH5	KR25GH6	KR25G
		Other (4)	KR25★H13	KR25★H5	KR25★H6	KR25★
		Screw-in Metal Mushroom Button with Set Screw				
		Black	—	—	—	KR25BM
		Red	—	—	—	KR25RM
		Green	—	—	—	KR25GM
 9001KR25BM	2-3/8 in (60 mm) Diameter Mushroom Button	Screw-in Metal Mushroom Button with Set Screw				
		Black	—	—	—	KR25BM
		Red	—	—	—	KR25RM
		Green	—	—	—	KR25GM

(1) The universal push button operators contain one each of the following color inserts: black, red, green, yellow, orange, blue and white.

(2) Replace ■ with the color code as chosen from the color code table below.

(3) Knob has the words “Emergency Stop” in raised letters highlighted in white for readability.

(4) Replace ★ with the color code as chosen from the color code table below.

Color Codes

Color	KR1, 2, 3 Place Color Code in Reference ■	KR4, 5, 24, 25 Place Color Code in Reference ★
Blue	L	L
Yellow	Y	Y
White	W	—
Orange	S	S
Gray	E	—

To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 20 to 29.

Product range:
page 5

Specifications:
page 7

Dimensions:
page 30

Mounting:
page 31

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Push buttons and mushroom operators

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

Illuminated Momentary Push Button Operators

For use in hazardous locations, see page 23.

Legend plate and contact block not included unless otherwise noted.

Description	Voltage and Frequency	Style	With Red Color Cap and 1 N.O. and 1 N.C. Contact (KA1) (2)	With Green Color Cap and 1 N.O. and 1 N.C. Contact (KA1) (2)	With Other Color Cap Without Contact Block (1) (2) (5)
 9001K1L1	Full Guard Illuminated Push Button Clear Plastic Top	110–120 V, 50–60 Hz Transformer	K1L1RH13	K1L1GH13	K1L1▼
		220–240 V, 50–60 Hz Transformer	K1L7RH13	K1L7GH13	K1L7▼
		24–28 Vac/Vdc Full Voltage	K1L35RH13	K1L35GH13	K1L35▼
		For other voltages (2) Transformer or Flashing	K1L■RH13	K1L■GH13	K1L■▼
		Full Voltage	K1L■RH13	K1L■GH13	K1L■▼
		Resistor or Neon (3)	K1L■RH13	K1L■GH13	K1L■▼
 9001K3L1	Full Guard Illuminated Push Button Metal Top	110–120 V, 50–60 Hz Transformer	K3L1RH13	K3L1GH13	K3L1▼
		220–240 V, 50–60 Hz Transformer	K3L7RH13	K3L7GH13	K3L7▼
		24–28 Vac/Vdc Full Voltage	K3L35RH13	K3L35GH13	K3L35▼
		For other voltages (2) Transformer or Flashing	K3L■RH13	K3L■GH13	K3L■▼
		Full Voltage	K3L■RH13	K3L■GH13	K3L■▼
		Resistor or Neon (3)	K3L■RH13	K3L■GH13	K3L■▼
 9001K2L1	No Guard Illuminated Push Button	110–120 V, 50–60 Hz Transformer	K2L1RH13	K2L1GH13	K2L1▼
		220–240 V, 50–60 Hz Transformer	K2L7RH13	K2L7GH13	K2L7▼
		24–28 Vac/Vdc Full Voltage	K2L35RH13	K2L35GH13	K2L35▼
		For other voltages (2) Transformer or Flashing	K2L■RH13	K2L■GH13	K2L■▼
		Full Voltage	K2L■RH13	K2L■GH13	K2L■▼
		Resistor or Neon (3)	K2L■RH13	K2L■GH13	K2L■▼
 9001K2LR20	1-3/8 in (35 mm) Illuminated Screw-On Plastic Mushroom (no Set Screw)	110–120 V, 50–60 Hz Transformer	K2L1R20H13	K2L1G20H13	Order K2L■▼ above (6)
		220–240 V, 50–60 Hz Transformer	K2L7R20H13	K2L7G20H13	
		24–28 Vac/Vdc Full Voltage	K2L35R20H13	K2L35G20H13	
		For other voltages (2) Transformer or Flashing	K2L■R20H13	K2L■G20H13	
		Full Voltage	K2L■R20H13	K2L■G20H13	
		Resistor or Neon (3)	K2L■R20H13	K2L■G20H13	
 9001K2LR21	2-1/4 in (57 mm) Illuminated Screw-On Plastic Mushroom (no Set Screw)	110–120 V, 50–60 Hz Transformer	K2L1R21H13	K2L1G21H13	Order K2L■▼ above (6)
		220–240 V, 50–60 Hz Transformer	K2L7R21H13	K2L7G21H13	
		24–28 Vac/Vdc Full Voltage	K2L35R21H13	K2L35G21H13	
		For other voltages (2) Transformer or Flashing	K2L■R21H13	K2L■G21H13	
		Full Voltage	K2L■R21H13	K2L■G21H13	
		Resistor or Neon (3)	K2L■R21H13	K2L■G21H13	
		LED (4)	K2L■R21H13	K2L■G21H13	

(1) These operators can be ordered complete with contact blocks. For maximum block usage, see page 22. Add the “H” number chosen from page 22 to the end of the operator reference number and add the cost of the “H” number to the operator cost.

(2) Replace ■ with the voltage assembly code as chosen from the tables on page 24. Example: K2L■ with 240 Vac/Vdc = K2L25

(3) On neon light modules, use clear color caps only.

(4) The cap must be the same color as the LED light module chosen, e.g., for red LED, use red color cap.

(5) Replace ▼ with the color code as chosen from the color cap table below. Example: K2L25▼ with a blue 13/8 mushroom button = K2L25L20

(6) The only difference between a no guard (K2L) operator and mushroom button operator is the color cap.

Color Caps			
Color	Color Codes		
	▼ K1L, K2L, K3L	▼ 1-3/8 in Mushroom	▼ 2-1/4 in Mushroom
Red	R	R20	R21
Green	G	G20	G21
Blue	L	L20	L21
Yellow	Y	Y20	Y21
White	W	W20	W21
Clear	C	C20	C21
Amber	A	A20	A21

To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 20 to 29.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Multi-function operators

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

30 mm Multi-function Operators

Non-Illuminated Push-Pull Mushroom Operators

Description (1)	Color	With 2 N.C. Contacts (1 KA3, 1 KA5) (2)	With 1 N.O. & 1 N.C. Contact (1 KA1) (2)	Without Contacts (2) (6)
 9001KR9R94H13 Set Screw Style	3-Position Momentary Pull, Maintained Neutral, Momentary Push 1-5/8 in (40 mm) Screw-On Plastic Mushroom (no Set Screw) (8)	Red Green Other	— — —	KR8R KR8G KR8▲
	2-Position, Maintained Pull, Maintained Push, 1-5/8 in (40 mm) Screw-On Plastic Mushroom (no Set Screw) (9)	Red (7) Green Other	— — —	KR9R KR9G KR9▲
	2-Position, Maintained Pull, Maintained Push, 1-5/8 in (40 mm) Screw-On Plastic Mushroom (with Set Screw) (9)	Red	KR9R94H13	KR9R94
 9001KR9RM94	2-Position Maintained Pull, Maintained Push 1-5/8 in (40 mm) Screw-On Metal Mushroom (with Set Screw)	Black Red Green	— — —	KR9BM94 KR9RM94 KR9GM94
	2-Position Maintained Pull, Maintained Push 2-3/8 in (60 mm) Screw-On Metal Mushroom (with Set Screw)	Black Red Green	— — —	KR9BM95 KR9RM95 KR9GM95
 9001KR9RM95				

Non-Illuminated Turn-To-Release Mushroom Operators

Description	Color	With 1 N.O. & 1 N.C. Contact (KA1)	With 2 N.O. & 2 N.C. Contacts (KA2)	Without Contacts
 9001KR16H2 Trigger Action	2-Position Trigger-Action, Turn-to-Release 1-5/8 in. (40 mm) Non-Removal Plastic Mushroom 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 26.	Red KR16H13	KR16H2	KR16

Illuminated Push-Pull Mushroom Operators

Description (1)	Voltage	With Red Knob and 2 N.C. Contacts (1 KA3, 1 KA5) (3)	With Other Color Knob and 2 N.C. Contacts (1 KA3, 1 KA5) (2) (3)	With Other Color Knob Without Contacts (2) (3) (6)
 9001KR9P1 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)	3-Position Illuminated Momentary Pull Maintained Neutral Momentary Push (8)	110–120 V, 50–60 Hz Other - Transformer, LED, Flashing (4) Other - Full Voltage, Resistor, Neon (5)	KR8P1RH25 KR8P■RH25 KR8P■RH25	KR8P1▲ KR8P■▲ KR8P■▲
	2-Position Illuminated Maintained Pull Maintained Push (9)	110–120 V, 50–60 Hz Other - Transformer, LED, Flashing (4) Other - Full Voltage, Resistor, Neon (5)	KR9P1RH13 KR9P■RH13 KR9P■RH13	KR9P1▲ KR9P■▲ KR9P■▲

(1) For 1-3/8 in or 2-1/4 in dia. knob:

- a) Order Type -20 or -21 knob from page 28.
 b) Order 9001K54 adapter (no charge)—allows Type -20 or -21 knob to fit on push pull operators. Voids UL and NEMA 6 rating.
 c) Can order assembled operator by adding color code to Type -20 or -21. Example: 9001KR9R would be 9001KR9R20 or 9001KR9R21.
 (2) Replace ▲ with the color code as chosen from the color code table below.
 Example: KR9▲ with a yellow knob = KR9Y
 (3) Replace ■ with the voltage assembly code as chosen from the tables on page 24.
 Example: KR8P ■ with a 277 V 50–60 Hz voltage = KR8P8

(4) The knob must be the same color as the LED light module chosen, for example, for a green LED, use a green knob.

(5) On neon light modules, use clear knobs only.

(6) These operators can be ordered complete with contact blocks. For maximum block usage, see page 22. Add the "H" number chosen from page 22 to the end of the operator reference number.

(7) To obtain a red knob with "Push Emergency Stop" printed on the red knob, substitute "R05" in place of "R".

(8) See page 16 for contact sequences.

(9) See table below.

Other Color Code Selection

Color	KR6, KR7, KR67	KR11, KR12	KR8, KR9	Color	KR6, KR7, KR67	KR11, KR12	KR8, KR9
Black (1) B	B	B	White	—	W	W	
Red R	R	R	Orange (1) —	—	S	S	
Green G	G	G	Clear	—	—	C	
Blue	—	L	Amber	—	—	A	
Yellow	—	Y	Gray	—	E	—	

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

To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 20 to 29.

Contact Sequences

9001KR8RH1 or H13				
		Pull	Ctr	Push
(KA1)	KA3	x	O	O
	KA2	O	O	x
9001KR8RH25				
KA3		x	O	O
KA5		x	x	O
KA2		O	O	x

O = contact open; x = contact closed

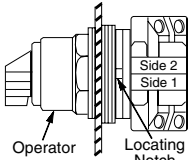
Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Selector switches

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

2-Position Selector Switches

Contact Block Required						1 — Contact Closed		0 — Contact Open		
Contact Block Position	Quantity and Type KA1 or KA2 or KA3		Mount on Side KA1 or KA2 or KA3			 Left	 Right	 Left	 Right	
	KA1	or	KA3	KA1 #2	or	KA3 #2	1	0	0	1
			KA2			KA2 #2	0	1	1	0
	KA1	or	KA3	KA1 #1	or	KA3 #1	1	0	0	1
			KA2			KA2 #1	0	1	1	0
Cam (see page 16)						E		D		

Non-Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob	KS11	KS12
With Knob (select style and color from table below)	KS11	KS12
Key Operated with E10 Key (Code 1,2,3)	KS11K	KS12K
Operator with Contact Blocks and Standard black knob	Reference	Reference
With 1 KA1 on Side #2	KS11BH13	—
With 1 KA1 on Side #1	KS11BH1	—
With 1 KA1 on Side #1 and 1 KA1 on side #2	KS11BH2	—
Spring Return from Left (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob	KS25	—
With Knob (select style and color from table below)	KS25	—
Key Operated with E10 Key (Code 2 only) (4)	KS25K2★	—
Spring Return from Right (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob	—	KS34
With Knob (select style and color from table below)	—	KS34
Key Operated with E10 Key (Code 1 only)	—	KS34K1

Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob, 110-120V 50-60 Hz Transformer	K11J1	K12J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	K11J1R	K12J1R
With Other Color Knob and other voltage Light Module (2) (3)	K11J■◆	K12J■◆
Spring Return from Left (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob, 110-120V 50-60 Hz Transformer	K25J1	—
With Standard Red Knob, 110-120V 50-60 Hz Transformer	K25J1R	—
With Other Color Knob and other voltage Light Module (2) (3)	K25J■◆	—
Spring Return from Right (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob, 110-120V 50-60 Hz Transformer	—	K34J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	—	K34J1R
With Other Color Knob and other voltage Light Module (2) (3)	—	K34J■◆

(1) These operators can be ordered complete with contact blocks. Add the “H code” from page 21 as needed for your application.

(2) Replace ■ with the voltage assembly code as chosen from the tables on page 24. Example: K25J■ with 208 Vac = K25J3.

(3) Replace ◆ with the knob color code as chosen from the table below. For LED, knob color must match LED.

(4) Replace ★ with the key withdrawal code from the table below right.

Selector Switch Assembly Code and Knob Cat. No.

Color	Standard Knob		Gloved Hand Knob	
	◆ Knob Code	Reference	◆ Knob Code	Reference
Black	B	B11	FB	B25
Red	R	R8	FR	R24
Green	G	G8	FG	G24
Yellow	Y	Y8	FY	Y24
Blue	L	L8	FL	L24
White	W	W8	FW	W24
Amber	A	A8	FA	A24
Clear	C	C8	FC	C24

To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 20 to 29.

Key Withdrawal Codes

★ Code	Position
1	Left Only
2	Right Only
3	Left and Right



Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Selector switches

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

3-Position Selector Switches

Contact Block Required			1 — Contact Closed 0 — Contact Open											
Contact Block Position	Quantity and Type	Mount on Side	Center		Center		Center		Center		Center		Center	
			Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
 Top View	KA1 or KA3	KA1 or KA3 #2	1	0	0	1	0	0	0	0	1	0	0	0
	KA2	KA2 #2	0	1	1	0	0	1	0	1	0	0	1	0
	KA1 or KA3	KA1 or KA3 #1	0	0	1	1	0	0	0	0	1	0	0	1
	KA2	KA2 #1	1	1	0	0	0	1	0	1	0	0	0	1
Cam (see page 16)			B	C	D	E	F	G	J	L	M			

Non-Illuminated Operators

Manual Return, Operator Only (without contact blocks) (1)									
Without Knob	KS42	KS43	KS44	KS45	KS46	KS47	KS49	KS401	KS402
With Knob (3)	KS42♦	KS43♦	KS44♦	KS45♦	KS46♦	KS47♦	KS49♦	KS401♦	KS402♦
Key Operated with E10 Key (Code 4 through 10) (5)	KS42K▼	KS43K▼	KS44K▼	KS45K▼	KS46K▼	KS47K▼	KS49K▼	KS401K▼	KS402K▼
Operator with Contact Blocks and Standard black knob (4)									
With 1 KA1 on Side #2 (H13)	KS42BH13	KS43BH13	KS44BH13	KS45BH13	KS46BH13	KS47BH13	KS49BH13	KS401BH13	KS402BH13
With 1 KA1 on Side #1 (H1)	KS42BH1	KS43BH1	KS44BH1	KS45BH1	KS46BH1	KS47BH1	KS49BH1	KS401BH1	KS402BH1
With 1 KA1 on Side #1 and 1 KA1 on side #2 (H2)	KS42BH2	KS43BH2	KS44BH2	KS45BH2	KS46BH2	KS47BH2	KS49BH2	KS401BH2	KS402BH2
Spring Return from Left to Center, Operator Only (without contact blocks) (1)									
Without Knob	KS62	KS63	KS64	KS65	KS66	KS67	KS69	KS601	KS602
With Knob (3)	KS62♦	KS63♦	KS64♦	KS65♦	KS66♦	KS67♦	KS69♦	KS601♦	KS602♦
Key Operated with E10 Key (Code 5, 6 or 9 only) (5)	KS62K▼	KS63K▼	KS64K▼	KS65K▼	KS66K▼	KS67K▼	KS69K▼	KS601K▼	KS602K▼
Spring Return from Right to Center, Operator Only (without contact blocks) (1)									
Without Knob	KS72	KS73	KS74	KS75	KS76	KS77	KS79	KS701	KS702
With Knob (3)	KS72♦	KS73♦	KS74♦	KS75♦	KS76♦	KS77♦	KS79♦	KS701♦	KS702♦
Key Operated with E10 Key (Code 4, 5 or 7 only) (5)	KS72K▼	KS73K▼	KS74K▼	KS75K▼	KS76K▼	KS77K▼	KS79K▼	KS701K▼	KS702K▼
Spring Return from Both Sides to Center, Operator Only (without contact blocks) (1)									
Without Knob	KS52	KS53	KS54	KS55	KS56	KS57	KS59	KS501	KS502
With Knob (3)	KS52♦	KS53♦	KS54♦	KS55♦	KS56♦	KS57♦	KS59♦	KS501♦	KS502♦
Key Operated with E10 Key (Code 4, 5 or 7 only) (5)	KS52K▼	KS53K▼	KS54K▼	KS55K▼	KS56K▼	KS57K▼	KS59K▼	KS501K▼	KS502K▼

Illuminated Operators

Manual Return, Operator Only (without contact blocks) (1)									
Without Knob, 110-120V 50-60 Hz Transformer	K42J1	K43J1	K44J1	K45J1	K46J1	K47J1	K49J1	K401J1	K402J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	K42J1R	K43J1R	K44J1R	K45J1R	K46J1R	K47J1R	K49J1R	K401J1R	K402J1R
With Other Color Knob and other voltage Light Module (2) (3)	K42J■♦	K43J■♦	K44J■♦	K45J■♦	K46J■♦	K47J■♦	K49J■♦	K401J■♦	K402J■♦
Spring Return from Left to Center, Operator Only (without contact blocks) (1)									
Without Knob, 110-120V 50-60 Hz Transformer	K62J1	K63J1	K64J1	K65J1	K66J1	K67J1	K69J1	K601J1	K602J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	K62J1R	K63J1R	K64J1R	K65J1R	K66J1R	K67J1R	K69J1R	K601J1R	K602J1R
With Other Color Knob and other voltage Light Module (2) (3)	K62J■♦	K63J■♦	K64J■♦	K65J■♦	K66J■♦	K67J■♦	K69J■♦	K601J■♦	K602J■♦
Spring Return from Right to Center, Operator Only (without contact blocks) (1)									
Without Knob, 110-120V 50-60 Hz Transformer	K72J1	K73J1	K74J1	K75J1	K76J1	K77J1	K79J1	K701J1	K702J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	K72J1R	K73J1R	K74J1R	K75J1R	K76J1R	K77J1R	K79J1R	K701J1R	K702J1R
With Other Color Knob and other voltage Light Module (2) (3)	K72J■♦	K73J■♦	K74J■♦	K75J■♦	K76J■♦	K77J■♦	K79J■♦	K701J■♦	K702J■♦
Spring Return from Both Sides to Center, Operator Only (without contact blocks) (1)									
Without Knob, 110-120V 50-60 Hz Transformer	K52J1	K53J1	K54J1	K55J1	K56J1	K57J1	K59J1	K501J1	K502J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	K52J1R	K53J1R	K54J1R	K55J1R	K56J1R	K57J1R	K59J1R	K501J1R	K502J1R
With Other Color Knob and other voltage Light Module (2) (3)	K52J■♦	K53J■♦	K54J■♦	K55J■♦	K56J■♦	K57J■♦	K59J■♦	K501J■♦	K502J■♦

(1) These operators can be ordered complete with contact blocks. Add the "H code" from page 21 as needed for your application.

(2) Replace ■ with the voltage assembly code as chosen from the tables on page 24. Example: K25J■ with 208 Vac = K25J3.

(3) Replace ♦ with the knob color code as chosen from the table below. For LED, knob color must match LED.

(4) For other color knobs replace the B with knob color code from table below.

(5) Replace ▼ with the key withdrawal code from table below right. Example: KS43K▼ with key withdrawal in the right position only = KS43K6.

Selector Switch Assembly Code and Knob Cat. No.

Color	Standard Knob		Gloved Hand Knob	
	♦ Knob Code	Reference	♦ Knob Code	Reference
Black	B	B11	FB	B25
Red	R	R8	FR	R24
Green	G	G8	FG	G24
Yellow	Y	Y8	FY	Y24
Blue	L	L8	FL	L24
White	W	W8	FW	W24
Amber	A	A8	FA	A24
Clear	C	C8	FC	C24

Key Withdrawal Codes

▼ Code	Position
4	Left Only
5	Center Only
6	Right Only
7	Left and Center
8	Left and Right
9	Center and Right
10	Left, Center, and Right

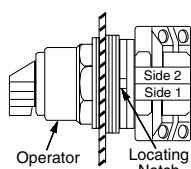
To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 20 to 29.



3 Position

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

4-Position Selector Switches

Contact Block Required						1 — Contact Closed	0 — Contact Open
Contact Block Position	Quantity and Type KA1 or KA2 or KA3		Mount on Side KA1 or KA2 or KA3				
 Top View	KA1	or	KA3	KA1 #2	KA3 #2	1	0
						0	0
			KA2		KA2 #2	0	0
						1	0
	KA1	or	KA3	KA1 #1	KA3 #1	0	0
						0	0
			KA2		KA2 #1	0	1
						0	0

Cam (see page 16)

H

Non-Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference
Without Knob	KS88
With Knob (3)	KS88♦
Key Operated with E10 Key (Codes 11, 12, 13, 14, 15) (4)	KS88K★

Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference
Without Knob, 110-120V 50-60 Hz Transformer	KS88J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	KS88J1R
With Other Color Knob and other voltage Light Module (2) (3)	KS88J■♦

(1) These operators can be ordered complete with contact blocks. Add the “H code” from page 21 as needed for your application.

(2) Replace ■ with the voltage assembly code as chosen from the tables on page 24. Example: K25Jb with 208Vac = K25J3.

(3) Replace ♦ with the knob color code as chosen from the table below. For LED, knob color must match LED.

(4) Replace ★ with the key withdrawal code from the table below right.

Selector Switch Assembly Code and Knob Cat. No.

Color	Standard Knob		Gloved Hand Knob	
	♦ Knob Code	Reference	♦ Knob Code	Reference
Black	B	B11	FB	B25
Red	R	R8	FR	R24
Green	G	G8	FG	G24
Yellow	Y	Y8	FY	Y24
Blue	L	L8	FL	L24
White	W	W8	FW	W24
Amber	A	A8	FA	A24
Clear	C	C8	FC	C24

Key Withdrawal Codes

★ Code	Position
11	1 and 4
12	4 only
13	1 only
14	1, 2, 3 and 4
15	2, 3, and 4



Potentiometers with Dial Plate (not UL listed)—Maximum Voltage 300 Vac

Power	Description	Ratings	Reference
2 W	Operator Only, for Single Potentiometer	NEMA 4, 13	K20
	Operator with Single Potentiometer		K21
	Operator Only, for Tandem Potentiometer		K22
	Operator with Tandem Potentiometer		K23



Potentiometer Suffixes

Single Potentiometer			
Suffix (5)	Resistance	Suffix (5)	Resistance
01	50 Ω	07	5 kΩ
02	100 Ω	08	10 kΩ
04	500 Ω	09	25 kΩ
05	1 kΩ	13	500 kΩ
39	2 kΩ	37	750 kΩ
06	2.5 kΩ	14	1 MΩ
Tandem Potentiometer			
Suffix (5)	Resistance Front		Resistance Rear
82	1 kΩ		1 kΩ

(5) For the complete reference, add the suffix from Suffix column to the reference from Reference column in “Potentiometer with Dial Plate” table above. Example: 9001 K21 05.

Any potentiometer with a shaft 7/8" long and 1/4" diameter may be used with these operators. To select and order Contact Blocks, Light Modules, Knobs, and Accessories, see pages 20 to 29.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Selector switch guide

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

Shown below is a simplified method of selecting a selector switch to meet almost any combination of contact sequences.

Step No. 1

Determine the contact sequence(s) required. Set up a target table like the one shown for the example below.

Contact Sequence	0—contact open	1—contact closed			
A		1	0	0	
B		0	1	0	
C		0	0		1

Step No. 2

Look for a cam type common to all sequences in the three tables to the right. For the example above, the “3-Position Selector Switch” table would be used. For the contact sequences A (1 0 0), B (0 1 0) and C (0 0 1) of the example above, cam types F and L are common to all three sequences.

Step No. 3

Next, use the cam type common to all the sequences (if several cam types are common, choose one) to find the operator reference number. Go to the proper page number as indicated in the table below:

Number of Positions	Push Button Line	Page Number
2	9001KS	13
3	9001KS	14
4	9001KS	15

If for the example above a manual return operator with a standard black knob is required and:

The F cam type is chosen, the operator reference number is:

■ 9001K—Class 9001 Reference KS46B (from page 14)

The L cam type is chosen, the operator reference number is:

■ 9001K—Class 9001 Reference KS401B (from page 14)

Step No. 4

Determine the contact blocks required by using the same table in Step No. 2.

If, for the example above, the F cam type is chosen:

- Use a 9001KA3 mounted on side no. 2 for sequence A (1 0 0).
- Use a 9001KA3 mounted on side no. 1 for sequence B (0 1 0).
- Use a 9001KA2 mounted on side no. 1 or 2 for sequence C (0 0 1).

If, for the example above, the L cam type is chosen:

- Use a 9001KA2 mounted on side no. 2 for sequence A (1 0 0).
- Use a 9001KA2 mounted on side no. 1 or a 9001KA3 mounted on side no. 2 for sequence B (0 1 0).
- Use a 9001KA3 mounted on side no. 1 for sequence C (0 0 1).

One 9001KA1 double circuit block can be used in place of one 9001KA2 single circuit block plus one 9001KA3 single circuit block mounted on the same side.

2-Position Selector Switch

If you require contact sequence—	Use Cam Type	Use Contact Block Reference	Mount on side no. (See page 21)
1 0	E	KA3	1 or 2
	D	KA2	1 or 2
0 1	E	KA2	1 or 2
	D	KA3	1 or 2

3-Position Selector Switch

If you require contact sequence—	Use Cam Type	Use Contact Block Reference	Mount on side no. (See page 21)
1 0 0	G	KA2	1
	L	KA2	2
	C	KA3	1
	B	KA3	2
	B	KA5 (1)	2
0 1 0	D	KA2	1
	D	KA2	2
	F	KA3	1
	L	KA3	2
0 0 1	C	KA2	1 or 2
	B	KA3	1
	D	KA3	2
	B	KA5 (1)	1
1 1 0	B	KA2	2
	C	KA2	1
	F	KA5 (1)	1 or 2
	M	KA3	2
0 1 1	B	KA2	2
	G	KA5 (1)	1
	L	KA5 (1)	2
	M	KA3	1
1 0 1	J	KA3	1
	D	KA5 (1)	1
	D	KA5 (1)	2

4-Position Selector Switch

If you require contact sequence—	Use Cam Type	Use Contact Block Reference	Mount on side no. (See page 21)
1 0 0 0	H	(A) KA3	2
0 1 0 0	H	(B) KA2	1
0 0 1 0	H	(C) KA2	2
0 0 0 1	H	(D) KA3	1
1 0 0 1	H	A & D Wired in Parallel	
1 1 0 0	H	A & B Wired in Parallel	
0 1 1 0	H	B & C Wired in Parallel	
0 0 1 1	H	C & D Wired in Parallel	
1 1 1 0	H	A, B & C Wired in Parallel	
0 1 1 1	H	B, C & D Wired in Parallel	
1 0 1 0	H	A & C Wired in Parallel	
0 1 0 1	H	B & D Wired in Parallel	
1 1 0 1	H	KA5 (1)	2
1 0 1 1	H	KA5 (1)	1

(1) 9001KA5 must be the last block on either side.

$$KA1 = KA3 + KA2$$

$$\text{Block Diagram} = \text{Block Diagram} + \text{Block Diagram}$$

When ordering, please specify:

- Quantity
- Class Number
- Type or Reference

For “H” Numbers, see page 22.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Pilot lights

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

Pilot Lights—UL Types 4, 13/NEMA 4 & 13

For use in hazardous locations, see page 23.
Legend plates not included.

Description	Voltage	Style	With Red Fresnel Color Cap (1)	With Green Fresnel Color Cap (1)	With Other Color Cap (1) (2)	Without Color Cap (1)
 Standard Pilot Light (Plastic Fresnel Color Cap Shown)	110–120 V, 50–60 Hz 220–240 V, 50–60 Hz 24–28 Vac/Vdc	Transformer Transformer Full Voltage	KP1R31 KP7R31 KP35R31	KP1G31 KP7G31 KP35G31	KP1■ KP7■ KP35■	KP1 KP7 KP35
	For other voltages see page 24.	Transformer, Flashing or LED (3) Full Voltage, Neon or Resistor (4)	KP▲R31 KP▲R31	KP▲G31 KP▲G31	KP▲■ KP▲■	KP▲ KP▲
 Push-To-Test Pilot Light (Glass Color Cap Shown)	110–120 V, 50–60 Hz 220–240 V, 50–60 Hz 24–28 Vac/Vdc	Transformer Transformer Full Voltage	KT1R31 KT7R31 KT35R31	KT1G31 KT7G31 KT35G31	KT1■ KT7■ KT35■	KT1 KT7 KT35
	For other voltages see page 24.	Transformer, Flashing or LED (3) Full Voltage, Neon or Resistor (4)	KT▲R31 KT▲R31	KT▲G31 KT▲G31	KT▲■ KT▲■	KT▲ KT▲
 Remote Test Pilot Light (Glass Color Cap Shown)	120 Vac Only 24–28 Vac Only for other voltages	Resistor (5) Full Voltage (5)	KTR38R31 KTR35R31	KTR38G31 KTR35G31	KTR38■ KTR35■	KTR38 KTR35
	For other voltages see page 24.	Full Voltage or Resistor (5)	KTR▲R31	KTR▲G31	KTR▲■	KTR▲

(1) Replace ▲ with the voltage assembly code as chosen from the tables on page 24. Example: KT▲R31 with 208 Vac red LED = KT37LRR31

(2) Replace ■ with the color code as chosen from the color code table below. Example: KP1■ with a blue fresnel cap = KP1L31

(3) The cap must be the same color as the LED light module chosen, e.g., for green LED, use green color cap.

(4) On neon light modules, use clear color caps only.

(5) On remote test pilot lights use only full voltage or resistor voltage assembly codes. Do not choose LED, neon or transformer codes. For AC use only.

Color Caps

Color



■ Plastic Fresnel ■ Plastic Domed ■ Glass

Amber	A31	A9	A6
Blue	L31	L9	L6
Clear	C31	C9	C6
Green	G31	G9	G6
Red	R31	R9	R6
White	W31	W9	W6
Yellow	Y31	Y9	Y6

Typical Wiring Diagrams



Push-to-test Pilot Light



Remote Test Pilot Light

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Specialty operators

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



Without Latch



With Latch



Selector Push Button
9001KQ



Key Operated Push Button
9001KR

Joy Stick Operators—UL Types 4, 13/NEMA 4, 13. For use in hazardous locations, see page 23. Contact blocks and legend plate not included unless noted.

Description				Operator With Contacts	Operator Without Contacts (1)
↕	3-Position—Center Off	Momentary Contact—	Without Latch	K71H7	K71
		Spring Return to Center	With Latch	K70H7	K70
		Maintained Contact	Without Latch	K73H7	K73
↔	3-Position—Center Off	Momentary Contact—	Without Latch	K72H7	K72
		Spring Return to Center	With Latch	K31H8	K31
		Maintained Contact	Without Latch	K30H8	K30
⬠	5 Position—Center Off	Momentary Contact—	Without Latch	K33H8	K33
		Spring Return to Center	With Latch	K32H8	K32
		Maintained Contact	Without Latch	K35H2	K35
			With Latch	K34H2	K34
			Without Latch	K37H2	K37
			With Latch	K36H2	K36

(1) These operators can be ordered complete with contact blocks—a total of four (4) contact blocks can be used. Add the “H” number chosen from page 21 to the operator reference number and add the cost of the “H” number to the operator cost.

Contact Arrangements

Operator Positions	Contact Block Reference	Contact Block Location	Contact	Handle position (with reference to Nib)				
				1 ↑	2 →	OFF	3 ↓	4 ←
↔	3	K3 POS 1 (3)	A	—	1	0	—	0
		KA3 POS 2 (4)	A	—	0	0	—	1
↕	3	KA2 POS 1 (3)	B	1	—	0	0	—
		KA2 POS 2 (4)	B	0	—	0	1	—
⬠	5	KA1 POS 1 (3)	A	0	1	0	0	0
			B	1	0	0	0	0
		KA1 POS 2 (4)	A	0	0	0	0	1
			B	0	0	0	1	0

(1) Contact Closed (0) Contact Open

The joy stick operator is ideal for applications where only one circuit is to be energized at one time. The three position joy stick closes one circuit in each Up-Down or Right-Left position with all circuits open in center position. The five position operator closes one circuit in each Up, Down, Left and Right position with all circuits open in center position.

Momentary contact operators are spring return to the center position. Maintained operators remain in position and must be returned manually. Operators with latch cannot be operated until the latch button in center of handle is pressed.

For use in hazardous locations, see page 23. Legend plate and contact block not included. Inserts are field convertible. For colors not listed, order operator without insert, plus separate color insert from page 28. Up to two 9001KA contact blocks can be mounted in tandem (total of four blocks). Selector push buttons cannot be illuminated.

Selector Push Button Operators—UL Types 4, 13/NEMA 4, 13

Contact Block Required (4)		Two Position Operators																			
		0—Contact Open				1—Contact Closed				F—Free				D—Depressed							
Quantity and Type	Mount on Side	Left		Right		Left		Right		Left		Right		Left		Right					
		F	D	F	D	F	D	F	D	F	D	F	D	F	D	F	D				
1 KA1 	#2	0	0	1	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0		
		0	1	0	1	0	1	0	0	0	1	0	0	0	0	1	0	1	0	1	
1 KA1 	#1	0	0	1	1	0	0	1	0	1	1	0	0	1	0	1	1	1	0	0	
		0	1	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1
Cam (3)		P				R				S				T				Y			
Color Insert		Reference				Reference				Reference				Reference				Reference			
Without Insert (2) Black		KQ11				KQ12				KQ13				KQ14				KQ15			
		KQ11B				KQ12B				KQ13B				KQ14B				KQ15B			

(2) Order color inserts from page 28.

(3) Cams are not interchangeable.

(4) To order Contact Blocks, see pages 20 to 23.

For use in hazardous locations, see page 23. Key operated push buttons are used wherever unauthorized use of a push button is discouraged. Examples are locking a Start push button in the extended position or locking a Stop push button in the depressed position. The operator can also be locked in the flush position—holding all contacts open. Up to two 9001KA contact blocks can be mounted in tandem (total of four blocks). Legend Plate and Contact Block Not Included (“x” = locked position).

Key Operated Push Button – UL Types 4, 13/NEMA 4, 13

Description	Lockable Positions			Reference
	Extended	Flush	Depressed	
Push button operable only with key in lock. Key is removable in locked position only.	x	—	—	KR131
	—	x	—	KR132
	—	—	x	KR133
	x	x	x	KR137
Push button operable with or without key in lock. Push button can be locked with key only. Key removable in both locked or unlocked position.	x	—	—	KR141
	—	x	—	KR142
	—	—	x	KR143
	x	x	x	KR147
To lock the unit, rotate the key with the button in the extended position. Then, push the button to lock it in the position indicated at right. Key is removable only in this position.	—	x	—	KR152
	—	—	x	KR153

Note: All key operated push buttons are furnished as standard with Square D no. E10 key change. See catalog 9001CT0001 for other key changes.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Specialty operators

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



9001KR7U



9001KR11U

Illuminated and Non-Illuminated Dual Operators
Meets UL Type 13/NEMA 13 and UL Type 6/NEMA 6, which UL and NEMA consider an equivalent to UL Type 4/NEMA 4. For use in hazardous locations, see page 23.
Legend plate and contact blocks not included unless otherwise noted.

Description	Color	With 2 N.O. Contacts (2 KA2)	With 1 N.O. & 1 N.C. Contact (KA2, KA3)	Without Contacts
Momentary Dual Function	Universal (1) Green-Red Other (2)	KR6UH7 KR6GRH7 KR6■H7	KR6UH37 KR6GRH37 KR6■H37	KR6U KR6GR KR6■
Momentary Interlocked Dual Function	Universal (1) Green-Red Other (2)	KR67UH7 KR67GRH7 KR67■H7	KR67UH37 KR67GRH37 KR67■H37	KR67U KR67GR KR67■
Maintained Interlocked Dual Function	Universal (1) Green-Red Other (2)	KR7UH7 KR7GRH7 KR7■H7	KR7UH37 KR7GRH37 KR7■H37	KR7U KR7GR KR7■
Description	Color	Contacts (KA1)		Without Contacts
Both Buttons Maintained Interlocked Assembly	Universal (3) Other (4)	—		KR11U KR11★
One Button Momentary One Button Maintained Interlocked Assembly	Universal (3) Other (4)	—		KR12U KR12★

(1) Universal for KR6, KR67, KR7 includes 2 inserts each of black, red and green.

(2) Replace ■ with one color for each button. R = red, G = green, B = Black. Example: A KR6 with left button red and right button black = KR6RB

(3) Universal for KR11, KR12 includes 2 each of black, red, green, yellow, orange, blue, white.

(4) Replace ★ with one color for each button. B = black, R = red, G = green, L = blue, Y = yellow, W = white, S = orange, E = gray.

Example: A KR11 with top button gray and bottom button orange = KR11ES



Emergency Break-Glass Operator 9001K15

Emergency Break-Glass Operator—UL 4, 13/NEMA 4, 13

Reference
K15

Operator is held in a depressed position by a glass disc. When the glass disc is broken with the hammer, button returns to a normal extended position. Package of 5 discs included with operator.

9001K15 Replacement Parts

Description	Reference
Yellow bumper	3105211101
Hammer and chain	3105206750
Lower ring nut	6512232801
Top ring nut	9001K40
Package of 5 replacement discs	9001K57
Clip to hold hammer	2540902240



Rocker Arm Operating Lever 9001K50

Rocker Arm Operating Lever

Reference
K50

Allows two standard push buttons to be operated independently of each other. Order push buttons and legend plates from pages 10, 11, 25, and 26 (please specify which marking is to be inverted).

Alternate Action—Push-on, Push-off Module

Reference
K85



Push-on Push-off Module 9001K85

This module can be added to standard 9001K, 9001KX, 9001SK or 9001T momentary push button operators. Contact blocks mounted behind this module (maximum of 2) are held in the depressed position when the operator is pressed once, and released to their normal position when the operator is pressed again. For a N.C. circuit, use a 9001KA3 or the N.C. contact of either a 9001KA1 or 9001KA4. For a N.O. circuit, use the N.O. contact of either a 9001KA4 or 9001KA6.



Wobble stick For easy operation of any standard push button.

Reference
K8



Time Delay Push Button 9001KRD

Time Delay Push Button—UL Types 4, 13/NEMA 4, 13

Description (Off - Delay)	Reference (All Colors)		
	Full Guard	Extended Guard	No Guard
 Timed Contact 1 N.O. and 1 N.C.	KRD1UH1	KRD2UH1	KRD3UH1
 Timed Contact 2 N.O. and 2 N.C.	KRD1UH2	KRD2UH2	KRD3UH2

Timing period is adjustable from 0.1 second to 60 seconds and begins after button has been released. Devices include a pack of seven color inserts for color coding the push button. See page 28 for Universal color insert. Contacts are quick make-quick break. Note: When mounted in top or bottom hole of a 9001K enclosure, device requires one additional space below or above operator. When mounted other than in top or bottom hole, device may require two additional spaces, one above and one below operator. Closing plates must be installed on unused holes.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Contact blocks

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

The 9001KA contact blocks are Fingersafe™ contact blocks (meeting VDE 0106 Part 100). They have one screw mounting and captive (backed out) plus/minus terminal screws. These contact blocks are double-break, direct-acting contacts. Because of the wiping action of these contacts, they are suitable for use with programmable controllers. All contact blocks listed below accept up to 2 #12–#24 AWG solid or stranded wires. Recommended tightening torque for screw terminals is 7 lb-in

Standard Contact Blocks

Description	Symbol	Reference
 (Clear Cover)	 Direct-Acting	KA1
 (Green Cover)		KA2
 (Red Cover)	 Direct-Acting	KA3
 (Clear Cover)	 N.O. Contact Early Closing	KA4
 (Red Cover)	 N.C. Contact Late Opening	KA5
 (Green Cover)	 N.O. Contact Early Closing	KA6

Additional Circuit Arrangements

Sequencing (1) N.O. Contact of KA4 closes before N.O. Contact on KA1		Order One 9001KA4 and One 9001KA1
Overlapping (1) N.O. Contact of KA4 closes before N.C. Contact of KA5 Opens		Order One 9001KA4 and One 9001KA5

(1) For push buttons or two-position selector switches only. For sequencing or overlapping contacts on other operators, refer to catalog 9001CT0001.

Symbol	Contact Blocks with Binder Head Screws (not Fingersafe)	Reference	Quantity (2)	Gold Flashed Contacts with Standard Pressure Wire Terminals	Reference
	KA21	25-Up		KA31	
	KA22	25-Up		KA32	
	KA23	25-Up		KA33	
 N.O. Early Closing	KA24	25-Up		KA34	
 N.C. Contact Late Opening	KA25	25-Up		KA35	

(2) Minimum order quantity is 25.

Contact blocks listed below are not Fingersafe, but provide:

- Terminals that accept ring tongue/fork tongue connectors
- Short single circuit contact blocks (0.75" deep vs. 0.97" deep on the Fingersafe)
- For assembled operators, use form Y238 (add to reference as suffix, for example: 9001KRU1H13Y238)



Contact blocks (not Fingersafe)

Symbol	Reference	Symbol	Reference
	KA1G	 N.O. Contact Early Closing	KA4G
	KA2G	 N.C. Contact Late Opening	KA5G
	KA3G	 N.O. Contact Early Closing	KA6G

Contact blocks with Quick-Connect terminals (not Fingersafe)

Symbol	Reference
	KA12
	KA13

For dimensions, refer to catalog 9001CT0001

Maximum Current Ratings for Control Circuit Contacts—9001KA1–KA6, KA21–KA25, KA31–KA35, KA1G–KA6G

V	AC						V	DC						
	Inductive (NEMA / UL Type A600) 35% Power Factor					Resistive 75% Power Factor Make, Break and Continuous Amperes		Inductive and Resistive (NEMA Q600)						
	Make		Break		Continuous Carrying Amperes			Make and Break				Continuous Carrying Amperes		
	Amperes	VA	Amperes	VA				KA1	KA2 KA3	KA4	KA5 KA6			
120	60	7200	6.0	720	10	10	125	0.55	0.55	—	—	2.5		
240	30						3.0		250	0.27	0.27		—	—
480	15						1.5		600	0.10	0.10		—	—
600	12						1.2							

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

Product range:
page 5

Specifications:
page 7

Dimensions:
page 30

Mounting:
page 31

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 20 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).

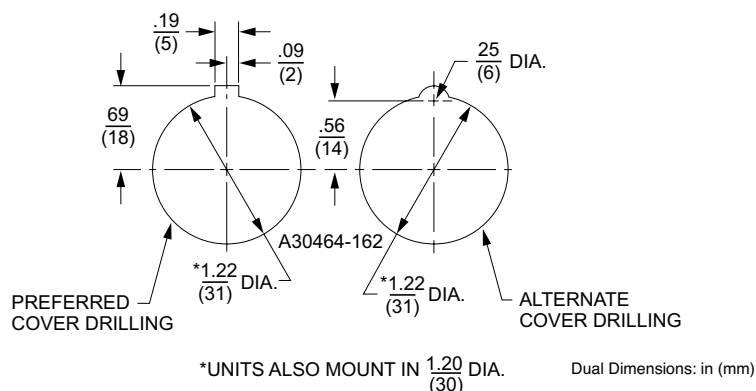
Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Contact blocks

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

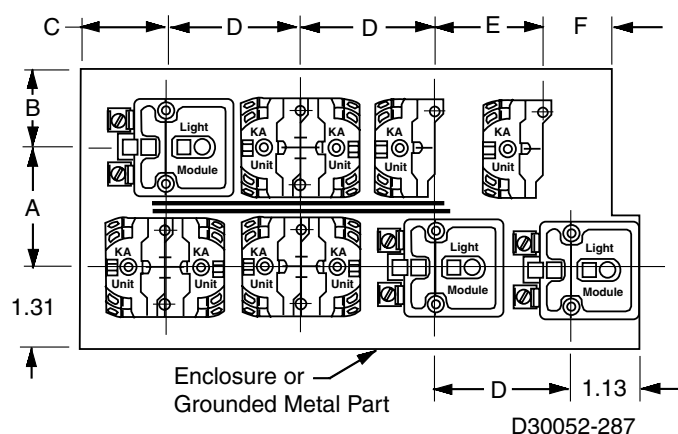
Mounting Hole for All 9001K, -SK, and -KX Control Units



Hole Punch: Use Greenlee Tool #60242 to punch mounting hole and notch.

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).



Min. Centerline Spacing, 9001K Control Units

Legend Plate	Operator	Centerline Spacing (in)					
		A	B	C	D	E	F
Legend Plate Orientation Position #1							
KN2 KN5	Standard Push Button	1.75	1.31	1.44	2.25	1.69	0.88
	1.375 in Dia. Mushroom	1.75	1.31	1.44	2.25	1.69	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.75	1.31	1.44	2.25	1.69	0.88
KN3	Standard Push Button	2.00	1.31	1.44	2.25	1.75	0.88
	1.375 in Dia. Mushroom	2.00	1.31	1.44	2.25	1.75	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	2.00	1.31	1.44	2.25	1.75	0.88
KN4	Standard Push Button	1.94	1.31	1.44	2.25	1.62	0.88
	1.375 in Dia. Mushroom	1.94	1.31	1.44	2.25	1.62	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.74	1.31	1.44	2.25	1.62	0.88
KN6	Standard Push Button	2.38	1.62	1.44	2.25	2.25	1.12
	1.375 in Dia. Mushroom	2.38	1.62	1.44	2.25	2.25	1.12
	2.25 in Dia. Mushroom	2.38	1.62	1.44	2.25	2.25	1.12
	Selector Switch Knobs	2.38	1.62	1.44	2.25	2.25	1.12

Legend Plate	Operator	Centerline Spacing (in)					
		A	B	C	D	E	F
Legend Plate Orientation Position #2							
KN2	Standard Push Button	1.62	1.31	1.44	2.25	1.75	0.88
KN5	1.375 in Dia. Mushroom	1.62	1.31	1.44	2.25	1.75	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.62	1.31	1.44	2.25	1.75	0.88
KN3	Standard Push Button	1.75	1.31	1.44	2.25	2.00	0.88
	1.375 in Dia. Mushroom	1.75	1.31	1.44	2.25	2.00	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.75	1.31	1.44	2.25	2.00	0.88
KN4	Standard Push Button	1.62	1.31	1.44	2.25	1.94	1.00
	1.375 in Dia. Mushroom	1.62	1.31	1.44	2.25	1.94	1.00
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.62	1.31	1.44	2.25	1.94	1.00
KN6	Standard Push Button	2.25	1.31	1.62	2.38	2.38	0.88
	1.375 in Dia. Mushroom	2.25	1.31	1.62	2.38	2.38	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.62	2.38	2.38	1.12
	Selector Switch Knobs	2.25	1.31	1.62	2.38	2.38	0.88

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Contact blocks

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

Hazardous locations do not always require the use of explosion-proof equipment like the 9001BR control stations. Selecting the most appropriate device for the location can save you money. For more information on the types of hazardous locations, contact your local electrical inspector.

Schneider Electric Offering According to Class, Division, and Group

For Class	Division	Use Group(s)	Use
I	1	A	1. Intrinsically Safe System
I	1	B, C, D	1. 9001BR station 2. Intrinsically Safe System
I	2	A	1. 9001K control stations with restrictions (1) 2. Intrinsically Safe System
I	2	B, C, D	1. 9001BR station 2. 9001K control stations with restrictions (1) 3. Intrinsically Safe System
II	1	E, F, G	1. 9001BR station 2. Intrinsically Safe System
II	2	E, F	1. 9001BR station 2. 9001K control stations with restrictions (1) 3. Intrinsically Safe System
II	2	G	1. 9001BR station 2. 9001K control stations with restrictions (2) 3. Intrinsically Safe System
III	1, 2	—	1. 9001BR Station 2. 9001K control stations with restrictions (2) 3. Intrinsically Safe System

Any 9001K operator can be used in an area classified as Class I, Division 2 hazardous locations, if:

- Only logic (KA40 series) or power (KA50 series) reed contact blocks are used.
- All 9001K illuminated operators are UL approved for use in Class I Division 2 areas.
- The operators are mounted in any NEMA 4 & 13 enclosures.

(1) Any 9001K operator mounted in a 9001KY, 9001KYSS, 9001KYAF or 9001SKY enclosure may be used, except potentiometer operators.

(2) Add Form Y243 to single lamp Push-To-Test pilot lights.

Note: For (1) and (2): UL Listed: File E10054(N), CCN NOIV.

Hazardous Locations:



File
CCN E10054(N)
NOIV



File
Class LR26817
3218 02

Hermetically Sealed Logic Reed Contact Blocks Suitable for use on low energy level circuits

Description	Symbol	Reference
		KA41
		KA42
		KA43
		KA44
		KA45

Max. Vac/Vdc	Maximum Load		
	Resistive	Inductive	Continuous
32/30	.25 A	.10 A	.5 A
120/100	8 VA	3 VA	.5 A

The maximum number of logic and/or power reed contact blocks per operator is as indicated on individual selection tables for standard contact blocks, **except**:

- On 3-Position selector switches with cams C, D, E, F, G, L, or M, mount reed blocks on **one side only** (either side), maximum 2 in tandem.
- On 4-Position selector switches, mount reed blocks on **one side only** (either side), maximum 2 in tandem.
- On joysticks or on 9001KR8 push-pull operators, mount reed blocks on **one side only** (either side), maximum 2 in tandem.

Hermetically Sealed Power Reed Contact Blocks (5)

Description	Symbol	Reference
		KA51
		KA52
		KA53
		KA54
		KA55

Volts	AC NEMA C300 (3)				Continuous Carrying Amperes
	Make		Break		
	A	VA	A	VA	
120	10.00	1200	1.000	120	3.0
240	5.00		.500		

Volts	DC NEMA Q150 (4)				Continuous Carrying Amperes
	Make		Break		
	A	VA	A	VA	
115	.50	58	.50	58	3.0

Note: All contact blocks listed above accept #12–18 solid or stranded wire.

The power reed contact blocks can be used with standard industrial relays and starters through NEMA Size 4. Minimum voltage is 5 V and the minimum current is 1 mA.

(3) Inductive Rating—35% Power Factor.

(4) Inductive and Resistive Ratings

(5) Not for use in pendant stations.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Light modules

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



Standard Light Modules for 9001K 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 23. 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 9001K 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 23. 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

9001K – Legend plates

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

Legend Plates—Special Marking

Legend Plate	Description	Reference
KN100●P (Plastic) (1)	Standard Markings	See page 25
2.25 in Square	Special Marking Silver Field, Black Letters	KN199SP
	White Field, Black Letters	KN199WP
	Red Field, Black Letters	KN199RP
	Black Field, White Letters	KN199BP
KN200 Aluminum	Standard Markings	See page 25
(2)	Special Marking Black Field	KN299
	Red Field	KN299R
KN200●P (Plastic) (1)	Standard Markings	See page 25
1.7 in Square	Special Marking Silver Field, Black Letters	KN299SP
	White Field, Black Letters	KN299WP
	Red Field, Black Letters	KN299RP
	Black Field, White Letters	KN299BP
KN300 Aluminum	Standard Markings	See page 25
(2)	Special Marking Black Field	KN399
	Red Field	KN399R
KN400 Aluminum	Blank	KN400
	Any Marking (2)	KN499
KN500 Aluminum	Standard Markings	Select from page 25
	Special Marking Black Field	KN599
(2)	Green Red Field	KN519
KN600 Aluminum	Blank	KN600
	Black Field	KN600R
	Red Field	KN699
	Any Marking (2)	KN699R
KN700●P (Plastic) (1)	Standard Markings	Select from page 25
2.5 in Square	Special Marking Silver Field, Black Letters	KN799SP
	White Field, Black Letters	KN799WP
	Red Field, Black Letters	KN799RP
	Black Field, White Letters	KN799BP
KN800 Aluminum	Standard Markings	Select from page 25
(2)	Special Marking Blue Field	KN899
	Red Field	KN899R
KN900 Aluminum	Blank	KN900
	Any Marking (2)	KN999

(1) Other colors available (see table below).

(2) Specify marking required.

Plastic Legend Plates—Other Colors

	Plate Color	Letter Color	1.7 in Square	2.25 in Square	2.5 in Square
Blank Legend Plates	Yellow	Black	KN200YP	KN100YP	KN700YP
	Green	White	KN200GP	KN100GP	KN700GP
	Blue		KN200LP	KN100LP	KN700LP
	Red		KN200CP	KN100CP	KN700CP
	Orange		KN200AP	KN100AP	KN700AP
	Burnt Orange	Black	KN200HP	KN100HP	KN700HP
Special Engraved Legend Plates	Yellow	Black	KN299YP	KN199YP	KN799YP
	Green	White	KN299GP	KN199GP	KN799GP
	Blue		KN299LP	KN199LP	KN799LP
	Red		KN299CP	KN199CP	KN799CP
	Orange		KN299AP	KN199AP	KN799AP
	Burnt Orange	Black	KN299HP	KN199HP	KN799HP

Maximum Number of Lines and Characters for 9001KN Legend Plates

Reference	KN100	KN200	KN300	KN400	KN500	KN600	KN700	KN800	KN900
Max. No. of Char. per Line	16	14	18	18	8	22	17	18	18
					per field				per pos.
Max. No. of Lines	2	1	3	2	2	4	2	2	1
					per field				per pos.

Note: The maximum number of characters and lines is a practical maximum, based on a minimum size of characters to facilitate easy reading.

Circular Legends for Emergency Stop Mushroom Heads (yellow background)

Diameter	Text	Reference
60 mm	—	KN9100
	EMERGENCY STOP	KN9330
90 mm	—	KN8100
	EMERGENCY STOP	KN8330



Legend Plate Position #1

Min. Centerline Spacing, 9001K Control Units

Legend Plate	Operator	Centerline Spacing (in)					
		A	B	C	D	E	F
Legend Plate Orientation Position #1							
KN2	Standard Push Button	1.75	1.31	1.44	2.25	1.69	0.88
KN5	1.375 in Dia. Mushroom	1.75	1.31	1.44	2.25	1.69	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.75	1.31	1.44	2.25	1.69	0.88
KN3	Standard Push Button	2.00	1.31	1.44	2.25	1.75	0.88
	1.375 in Dia. Mushroom	2.00	1.31	1.44	2.25	1.75	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	2.00	1.31	1.44	2.25	1.75	0.88
KN4	Standard Push Button	1.94	1.31	1.44	2.25	1.62	0.88
	1.375 in Dia. Mushroom	1.94	1.31	1.44	2.25	1.62	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.74	1.31	1.44	2.25	1.62	0.88
KN6	Standard Push Button	2.38	1.62	1.44	2.25	2.25	1.12
	1.375 in Dia. Mushroom	2.38	1.62	1.44	2.25	2.25	1.12
	2.25 in Dia. Mushroom	2.38	1.62	1.44	2.25	2.25	1.12
	Selector Switch Knobs	2.38	1.62	1.44	2.25	2.25	1.12



Legend Plate Position #2

Legend Plate Orientation Position #2

KN2	Standard Push Button	1.62	1.31	1.44	2.25	1.75	0.88
KN5	1.375 in Dia. Mushroom	1.62	1.31	1.44	2.25	1.75	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.62	1.31	1.44	2.25	1.75	0.88
KN3	Standard Push Button	1.75	1.31	1.44	2.25	2.00	0.88
	1.375 in Dia. Mushroom	1.75	1.31	1.44	2.25	2.00	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.75	1.31	1.44	2.25	2.00	0.88
KN4	Standard Push Button	1.62	1.31	1.44	2.25	1.94	1.00
	1.375 in Dia. Mushroom	1.62	1.31	1.44	2.25	1.94	1.00
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.62	1.31	1.44	2.25	1.94	1.00
KN6	Standard Push Button	2.25	1.31	1.62	2.38	2.38	0.88
	1.375 in Dia. Mushroom	2.25	1.31	1.62	2.38	2.38	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.62	2.38	2.38	1.12
	Selector Switch Knobs	2.25	1.31	1.62	2.38	2.38	0.88

Special Legend Plates



9001KN500
(For Use with Dual Function Operators: KR6, KR7 and KR67)
Standard Markings

Reference	Green	Red
KN500	Blank	Blank
KN501	Start	Stop
KN502	On	Off
Reference	Black	Black
KN520	Blank	Blank
KN521	Start	Stop
KN522	On	Off
KN523	Forward	Reverse
KN524	Up	Down
KN525	High	Low
KN526	Open	Close

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Accessories

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

Padlock Attachments			
Image	Used On	Description	Reference
	Non-illuminated push button — Standard or mushroom (KR4, KR5 mushroom buttons only).	Holds button in depressed position and can be padlocked.	K4
	Non-illuminated push buttons with or without protective boots.	Holds button in depressed position when padlocked.	K5
	Non-illuminated push buttons with or without protective boots.	Holds button in depressed position when padlocked.	K97
	Non-illuminated push buttons, cover type attachment. KR, SKR	Attachment can be padlocked. Does not hold button in depressed position.	K6
	Push buttons, cover type attachment.	Spring loaded cover cannot be padlocked. Does not hold button in depressed position.	K60
	Push-pull operator and illuminated push buttons. KR8, KR9	Holds button in depressed position and can be padlocked.	K62
	KR11U and KR12U Interlocked Assembly	Holds maintained button in depressed position and can be padlocked.	K96
	9001KR9 Push-pull operators— Non-Illuminated and Illuminated	Holds button in depressed position. Can be padlocked.	K162

Mushroom Button Guards			
Aluminum Mushroom Guard for 1.375 in Mushroom Button Operator (KR4, KR24)	Yellow Plastic Extended Mushroom Guard for 1.375 in and 1.625 in Mushroom Button Operators	Aluminum Mushroom Guard for 2.25 in Mushroom Button Operator	
Reference	Reference	Used On	Reference
K48	K56▲ (1)	KR4	K68
	K56■M (2)	KR8, KR9	K685

Padlock Attachments			
Image	Used On	Description	Reference
	Selector switches and potentiometers (will not work with gloved-hand knob).	Cover type attachment that can be padlocked to keep unauthorized personnel from tampering with the operator.	K7
	Selector switches and potentiometers (will not work with gloved-hand knob).	Same as 9001K7 but with spring loaded lockout cover.	K107
	Illuminated push buttons (with or without guard) and key operated push buttons.	Cover type attachment that can be padlocked to keep unauthorized personnel from tampering with the operator.	K108
	Illuminated push buttons (with or without guard) and key operated push buttons.	Same as 9001K108 but with spring loaded lockout cover.	K109
	Maintained push-pull operators using 1.375 in dia. mushroom buttons (-20 series as shown on page 28).	Cover type attachment that holds mushroom button in depressed position and can be padlocked.	K110

Protective Boots			
KU1	KU17	KU37	KU27
These 9001KU protective boots are recommended for very dirty environments or severe hose down, but they are not required for UL Type 4 rating on the 9001K operators. The 9001K1 wrench (see page 29) is required for installation of these boots.			
For Non-Illuminated Push Buttons (3)		Clear Color for	Reference
Color	Reference	Standard knob selector switch	KU17
Black	KU1	Gloved-hand cap for use on standard knob selector switch	KU18
Red	KU2		
Blue	KU3		
Brown	KU4	Standard pilot light and maintained contact push buttons	KU27
Green	KU5		
Yellow	KU6		
Clear	KU7	Push-to-test and illuminated push button without guard	KU37
Clear	KU8	Illuminated push button with guard	KU47
(Provides Full Guard)			
(3) Use KU27 for maintained contact push buttons.			

Closing Plates	
	Round (1-1/2 in Dia.)
Description	Reference
Gray	K51 (4)
Black	K52 (4)

(1) Replace ▲ with B=Black, G=Green, R=Red or Y=Yellow.

(2) Replace ■ with R=Red or Y=Yellow. The mushroom guard has finger holes for push-pull operators.

Product range:
page 5

Specifications:
page 7

Dimensions:
page 30

Mounting:
page 31

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K – Replacement parts

Ring Nuts	
Used On	Reference
K1L	9001K44
K30-K37	9001K45
K70-K73	9001K45
K20, K21, K22, K23	9001K45
K20, K21, K22, K23 (1)	9001K46
K2L	9001K49
K3L (complete)	9001K111
K3L (metal top only)	6515802701
KP, KTR	9001K41
KR1	9001K41
KR11	9001K42
KR12 (1)	9001K42
KR12 (2)	9001K41
KR13, 14, 15	9001K55
KR2	9001K42
KR20	9001K49
KR24	9001K49
KR25	9001K49
KR3	9001K40
KR4	9001K41
KR5	9001K41
KR6	9001K47
KR67	9001K47
KR7	9001K47
KR8	9001K58
KR9	9001K41
KS	9001K45
KS (3)	9001K46
KT	9001K49

(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 24.

Product range:
page 5Specifications:
page 7Dimensions:
page 30Mounting:
page 31

Repair Parts

Description	Reference
E10 Key	2941101100
Gray cap for KR11 or KR12	3105217001
Clear plastic top (only) for 9001K44 Ring Nut	4487D63XI
Gasket for 9001K Push-pull Knob	6509701801
Gasket for Plastic Illuminated Lens	6509701901
Gasket for 9001K selector switch knob	3105406401
Black Compensating Gasket (9001K Operators)	6509702001
Liner for Non-Illuminated Operators	6509704901
Locking Thrust Washer	6512231201
Nylon Spacer	6509705001
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



For mechanically interlocking two push buttons so that only one button can be depressed at a time. A K3 attachment is furnished with the 9001KR11 and KR12 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.

The K3 interlock is mounted behind the operators. Operators not included.

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

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

Dimensions

Push buttons



e: panel thickness 1 to 6 mm

Full guard 9001KR1●●●



No guard 9001KR3●●●



No guard with extended guard 9001KR2●●●



Mushroom head push buttons

Spring return 35 mm: 9001KR24●H13, 9001KR4RH6, 9001KR9R20H6

Spring return 57 mm: 9001KR25●H13, 9001KR5RH6 Spring return 60 mm: 9001KR25●M

Push-pull 35 mm: 9001KR9R20H6 Push-pull 40 mm: 9001KR24●M 9001KR9●M94 Push-pull 41 mm: 9001KR9●H13, 9001KR9R94H13 9001KR9RH6 9001KR8●H25 Push-pull 57 mm: 9001KR9R21H6 Push-pull 60 mm: 9001KR9●M95

Spring return 35, 57 and 60 mm a = 28 mm

Push-pull 35 to 60 mm a = 32 mm



e: panel thickness 1 to 6 mm



Turn-to-release 9001KR16H13, 9001KR16H2 and 9001KR16



e: panel thickness 1 to 6 mm



Selector switches

Gloved handle 9001KS●●FBH●●



e: panel thickness 1 to 6 mm



Dual Dimensions: in (mm)

Dimensions (continued)

Selector switches (continued)

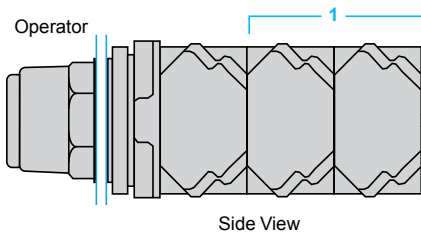
Key switches 9001KS●●K●●● (for the chromium metal bezel range only)



e: panel thickness 1 to 6 mm

Mounting

Contact block mounting position



1 For Maximum Contact Block Usage, see page 22.

Panel cut-out



Individual cut-outs detail

2 alternatives



Preferred Cut-Out



Alternate Cut-Out

Use Greenlee Tool #60242 for punching hole and notch.

Type of 9001K unit	Legend plate	a: in (mm)	b: in (mm)
All units except 57 mm mushroom head push buttons	9001KN2●●	2.25 (57.2)	1.75 (44.5)
	9001KN3●●	2.25 (57.2)	2.00 (50.8)
57 mm mushroom head push buttons	9001KN2●●	2.25 (57.2)	2.25 (57.2)
	9001KN3●●	2.25 (57.2)	2.25 (57.2)

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K

Dimensions (continued)

Pilot lights

With BA 9s bulb 9001KP●●●



e: panel thickness 1 to 6 mm

Illuminated mushroom head push buttons

9001KR●P●●●



e: panel thickness 1 to 6 mm

Illuminated push buttons, spring return

Full guard 9001K3L●●●●H13



e: panel thickness 1 to 6 mm

Joystick controllers (for the chromium metal bezel range only)

9001K●●H●



e: panel thickness 1 to 6 mm

No guard 9001K2L●●●●H13



e: panel thickness 1 to 6 mm

Heads for spring return push buttons

9001KR●U



Push-to-test, no guard 9001KT●●●●31



e: panel thickness 1 to 6 mm

Boots for push buttons

9001KU●



Dual Dimensions: in (mm)

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

Dimensions (continued)

Rod for wobble stick

9001K8



Light blocks for pilot lights and illuminated push buttons

9001KM●



e: panel thickness 1 to 6 mm

Contact blocks for push buttons (including illuminated)

9001KA●



e: panel thickness 1 to 6 mm

It is not possible to mount complementary contact blocks 9001KA4 to KA6.

Legend plates

Aluminium plates 9001KN1●●, 9001KN2●●, 9001KN7●●



Legend plate	a: in (mm)	b: in (mm)
9001KN2●●	1.625 (41)	0.969 (24)
9001KN3●●	1.750 (45)	1.234 (31)

Plastic plates 9001KN1●●P, 9001KN2●●P, 9001KN7●●P



Legend plate	a: in (mm)	b: in (mm)
9001KN1●●P	2.25 (57)	2.25 (57)
9001KN2●●P	1.75 (45)	1.75 (45)
9001KN7●●P	2.50 (63)	2.50 (63)

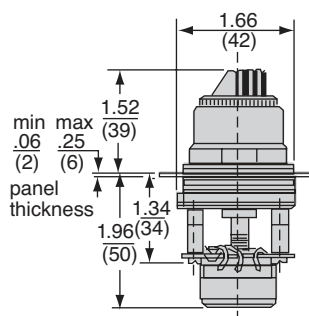
Interlocked push buttons

9001KR11, 9001KR12, and 9001K3 interlock



Potentiometer

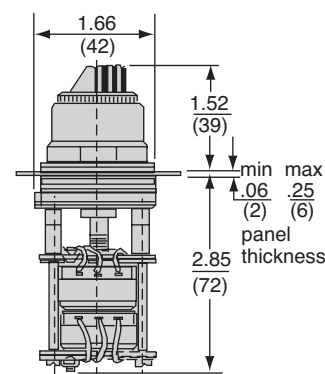
9001K20 (1), 9001K21 (2)



(1) Without potentiometer

(2) With potentiometer

9001K22 (1), 9001K23 (2)



(1) Without potentiometer

(2) With potentiometer

Dual Dimensions: in (mm)

Harmony™ 9001K/SK/KX

30 mm push buttons

9001K

Dimensions (continued)

Time delay push button

9001KRD



	a	b
9001KRD1UH●	Full guard 9/16	2-1/2
9001KRD2UH●	Extended guard 11/16	2-1/2
9001KRD3UH●	No guard 9/16	2-1/2

Alternate action—Push-on, push-off module

9001K85



Emergency break glass operator

9001K15



Rocker arm operating lever

9001K50



Dual Dimensions: in (mm)

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

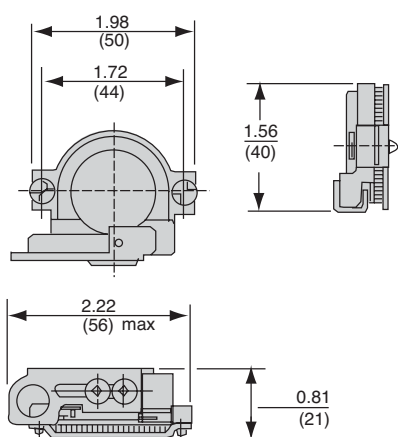
Dimensions (continued)

Padlock attachments

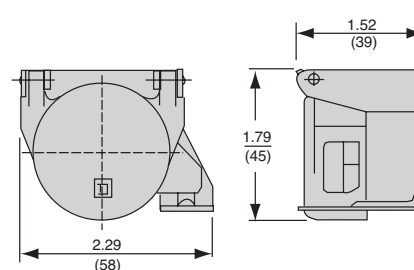
9001K4



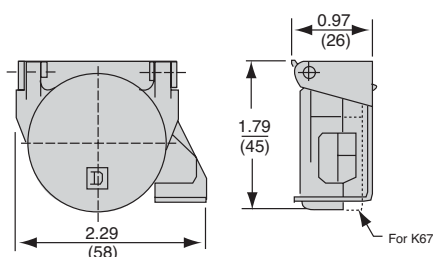
9001K96



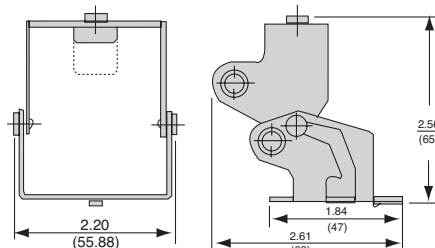
9001K7, 9001K107, 9001K108, 9001K109, 9001K113



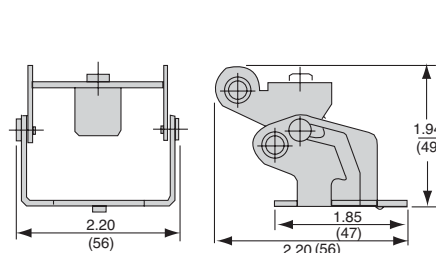
9001K6, 9001K60, 9001K97



9001K62



9001K5



Mushroom button guards

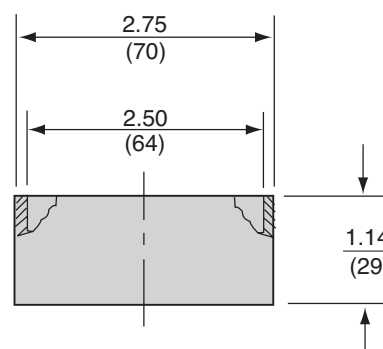
9001K48



9001K56Y, 9001K56YM (1)



9001K68



(1) 9001K56YM includes finger holes.

Dual Dimensions: in (mm)

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Complete units

Complete units

Contact functions

Push buttons, spring return



Full guard

9001SKR1●●● See page 41



No guard

9001SKR3●●● See page 41



Extended guard

9001SKR2●●● See page 41

Mushroom head push buttons



Spring return 1-3/8 or 2-1/4 in (35 or 57 mm)

9001SKR2●●H13 See page 41



Push-pull 1-3/8, 1-5/8 or 2-1/4 in (35, 41 or 57 mm)

9001SKR●●● See page 41



Turn-to-release, trigger action

9001SKR16 (1) See page 43

Selector switches



Selector switches

9001SKS●●FBH●● See page 44

Light functions

Pilot lights



BA 9s base mounted super bright LED

9001SKP●●● See page 48



BA 9s incandescent bulb

9001SKP●●● See page 48

(1) 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.

Complete units

Combined contact and light functions

Illuminated push buttons, spring return



Full guard

9001SK1L●●● See page 42



No guard

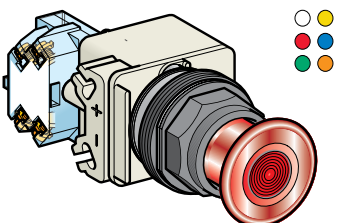
9001SK2L●●● See page 42



Push-to-test, no guard

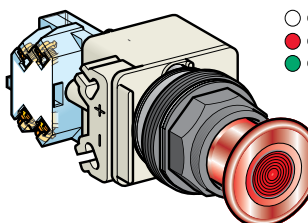
9001SKT●●●31 See page 48

1-5/8 in (41 mm) mushroom head illuminated push buttons



2-Position, push-pull

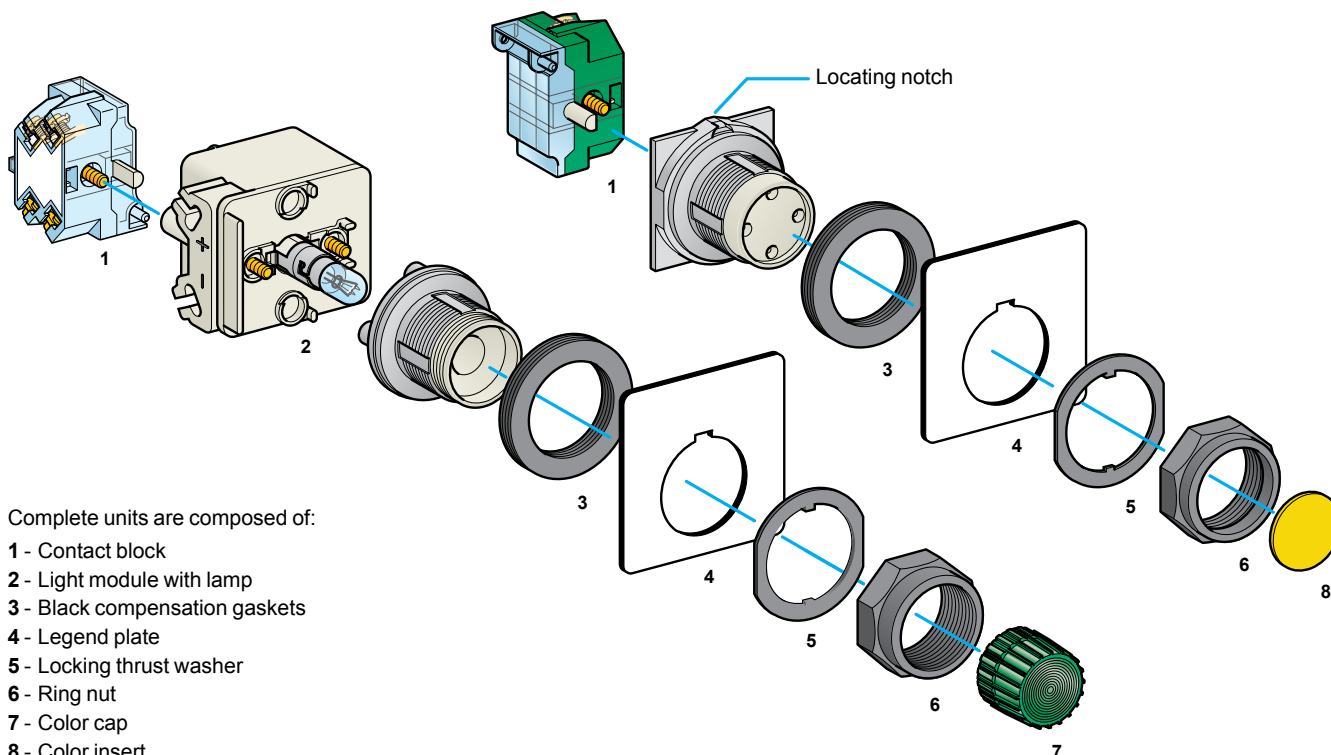
9001SKR9P●●● See page 43



3-Position, push-pull

9001SKR8P●●● See page 43

Separate components and accessories



Complete units are composed of:

- 1 - Contact block
- 2 - Light module with lamp
- 3 - Black compensation gaskets
- 4 - Legend plate
- 5 - Locking thrust washer
- 6 - Ring nut
- 7 - Color cap
- 8 - Color insert

Specifications:
page 38

References:
page 41

Dimensions:
page 60

Mounting:
page 61

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK

Environmental specifications

Conforming to standards	CE Marked 		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	Ui = 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	Uimp = 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	Ith	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 7200 7200 7200 7200
	d.c. supply: utilization category DC-13 NEMA Q600	V	Breaking capacity
		A	120 240 480 600
		VA	6 3 1.5 1.2 720 720 720 720
		V	Contact making capacity and breaking capacity
		A	125 250 600 0.1 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 – Push buttons and mushroom operators

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

Non-Illuminated Momentary Push Button Operators—UL Types 4, 4X, 13/NEMA 4, 4X, 13
For use in hazardous locations, see page 53.
Contact blocks and legend plate not included unless otherwise noted.

Description	Color	Operator with 1 N.O. and 1 N.C. Contact (KA1)	Operator with 1 N.O. Contact (KA2)	Operator with 1 N.C. Contact (KA3)	Operator Only No Contacts (5)
 9001SKR1B Full Guard	Black	SKR1BH13	SKR1BH5	SKR1BH6	SKR1B
	Red	SKR1RH13	SKR1RH5	SKR1RH6	SKR1R
	Green	SKR1GH13	SKR1GH5	SKR1GH6	SKR1G
	Universal (1)	SKR1UH13	SKR1UH5	SKR1UH6	SKR1U
	Other (2)	SKR1■H13	SKR1■H5	SKR1■H6	SKR1■
 9001SKR3B No Guard	Black	SKR3BH13	SKR3BH5	SKR3BH6	SKR3B
	Red	SKR3RH13	SKR3RH5	SKR3RH6	SKR3R
	Green	SKR3GH13	SKR3GH5	SKR3GH6	SKR3G
	Universal (1)	SKR3UH13	SKR3UH5	SKR3UH6	SKR3U
	Other (2)	SKR3■H13	SKR3■H5	SKR3■H6	SKR3■
 9001SKR2B Extended Guard	Black	SKR2BH13	SKR2BH5	SKR2BH6	SKR2B
	Red	SKR2RH13	SKR2RH5	SKR2RH6	SKR2R
	Green	SKR2GH13	SKR2GH5	SKR2GH6	SKR2G
	Universal (1)	SKR2UH13	SKR2UH5	SKR2UH6	SKR2U
	Other (2)	SKR2■	SKR2■H5	SKR2■H6	SKR2■
Snap-In Mushroom Button					
 9001SKR4B 1-3/8 in (35 mm) Mushroom Button	Black	SKR4BH13	SKR4BH5	SKR4BH6	SKR4B
	Red	SKR4RH13	SKR4RH5	SKR4RH6	SKR4R
	Red (3)	SKR4R05H13	SKR4R05H5	SKR4R05H6	SKR4R05
	Green	SKR4GH13	SKR4GH5	SKR4GH6	SKR4G
	Other (4)	SKR4★H13	SKR4★H5	SKR4★H6	SKR4★
Screw-On Mushroom Button with Set Screw Security					
 9001SKR5 2-1/4 in (57 mm) Mushroom Button	Black	SKR24BH13	SKR24BH5	SKR24BH6	SKR24B
	Red	SKR24RH13	SKR24RH5	SKR24RH6	SKR24R
	Green	SKR24GH13	SKR24GH5	SKR24GH6	SKR24G
	Other (4)	SKR24★H13	SKR24★H5	SKR24★H6	SKR24★
	Snap-In Mushroom Button				
 9001SKR5 2-1/4 in (57 mm) Mushroom Button	Black	SKR5BH13	SKR5BH5	SKR5BH6	SKR5B
	Red	SKR5RH13	SKR5RH5	SKR5RH6	SKR5R
	Red (3)	SKR5R05H13	SKR5R05H5	SKR5R05H6	SKR5R05
	Green	SKR5GH13	SKR5GH5	SKR5GH6	SKR5G
	Other (4)	SKR5★H13	SKR5★H5	SKR5★H6	SKR5★
Screw-On Mushroom Button with Set Screw Security					
 9001SKR5 2-1/4 in (57 mm) Mushroom Button	Black	SKR25BH13	SKR25BH5	SKR25BH6	SKR25B
	Red	SKR25RH13	SKR25RH5	SKR25RH6	SKR25R
	Green	SKR25GH13	SKR25GH5	SKR25GH6	SKR25G
	Other (4)	SKR25★H13	SKR25★H5	SKR25★H6	SKR25★

Color Codes

Color	■ SKR1, 2, 3 Place Color Code in Reference	★ SKR4, 5, 24, 25 Place Color Code in Reference
Blue	L	L
Yellow	Y	Y
White	W	—
Orange	S	S
Gray	E	—

(1) The universal push button operators contain one each of the following color inserts: black, red, green, yellow, orange, blue and white.

(2) Replace ■ with the color code as chosen from the color code table above.

(3) Knob has the words “Emergency Stop” in raised letters highlighted in white for readability.

(4) Replace ★ with the color code as chosen from the color code table above.

(5) 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.

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 – Push buttons and mushroom operators

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

Illuminated Push Button Operators—UL Types 4, 4X, 13/NEMA 4, 4X, 13

For use in hazardous locations, see page 53.

Legend plate not included unless otherwise noted.

Description	Voltage and Frequency	Style	With Red Color Cap and 1 N.O. and 1 N.C. Contact (KA1)	With Green Color Cap and 1 N.O. and 1 N.C. Contact (KA1)	With Other Color Cap Without Contact Blocks (1) (5)
 Full Guard Illuminated Push Button 9001SK1L1	110–120 V, 50–60 Hz	Transformer	SK1L1RH13	SK1L1GH13	SK1L1
	220–240 V, 50–60 Hz	Transformer	SK1L7RH13	SK1L7GH13	SK1L7
	24–28 Vac/Vdc	Full Voltage	SK1L35RH13	SK1L35GH13	SK1L35
	For other voltages (2)	Transformer, Flashing	SK1L■RH13	SK1L■GH13	SK1L▼
		Full Voltage	SK1L■RH13	SK1L■GH13	SK1L▼
		Resistor, Neon (3)	SK1L■RH13	SK1L■GH13	SK1L▼
		LED	SK1L■RH13	SK1L■GH13	SK1L▼ (4)
 No Guard Illuminated Push Button 9001SK2L1	110–120 V, 50–60 Hz	Transformer	SK2L1RH13	SK2L1GH13	SK2L1
	220–240 V, 50–60 Hz	Transformer	SK2L7RH13	SK2L7GH13	SK2L7
	24–28 Vac/Vdc	Full Voltage	SK2L35RH13	SK2L35GH13	SK2L35
	For other voltages (2)	Transformer, Flashing	SK2L■RH13	SK2L■GH13	SK2L▼
		Full Voltage	SK2L■RH13	SK2L■GH13	SK2L▼
		Resistor, Neon (3)	SK2L■RH13	SK2L■GH13	SK2L▼
		LED	SK2L■RH13	SK2L■GH13	SK2L▼ (4)
 1-3/8 in (35 mm) Illuminated Mushroom 9001SK2L1R20	110–120 V, 50–60 Hz	Transformer	SK2L1R20H13	SK2L1G20H13	Order SK2L▼ (4) (6)
	220–240 V, 50–60 Hz	Transformer	SK2L7R20H13	SK2L7G20H13	
	24–28 Vac/Vdc	Full Voltage	SK2L35R20H13	SK2L35G20H13	
	For other voltages (2)	Transformer, Flashing	SK2L■R20H13	SK2L■G20H13	
		Full Voltage	SK2L■R20H13	SK2L■G20H13	
		Resistor, Neon (3)	SK2L■R20H13	SK2L■G20H13	
 2-1/4 in (57 mm) Illuminated Mushroom 9001SK2L1R21	110–120 V, 50–60 Hz	Transformer	SK2L1R21H13	SK2L1G21H13	Order SK2L▼ (4) (6)
	220–240 V, 50–60 Hz	Transformer	SK2L7R21H13	SK2L7G21H13	
	24–28 Vac/Vdc	Full Voltage	SK2L35R21H13	SK2L35G21H13	
	For other voltages (2)	Transformer, Flashing	SK2L■R21H13	SK2L■G21H13	
		Full Voltage	SK2L■R21H13	SK2L■G21H13	
		Resistor, Neon (3)	SK2L■R21H13	SK2L■G21H13	
		LED	SK2L■R21H13	SK2L■G21H13	

(1) 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.

(2) Replace ■ with the voltage assembly code as chosen from the tables on page 54. EXAMPLE: SK2L■ with 240 Vac/Vdc = SK2L25.

(3) On neon light modules, use clear color caps only.

(4) The cap must be the same color as the LED light module chosen e.g., for red LED, use red color cap.

(5) Replace ▼ with the color code as chosen from the color code table below. EXAMPLE: SK2L35▼ with a blue 1-3/8 in mushroom button = SK2L35L20.

(6) The only difference between a no guard (SK2L) operator and mushroom button operator is the color cap.

Color Caps

Color	Color Codes		
	SK1L/SK2L	1-3/8 in (35 mm) Mushroom	2-1/4 in (57 mm) Mushroom
Red	R	R20	R21
Green	G	G20	G21
Blue	L	L20	L21
Yellow	Y	Y20	Y21
White	W	W20	W21
Clear	C	C20	C21
Amber	A	A20	A21

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 – 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

Even Illuminated Push Pull Switch on Machine 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)	
 9001SKR9R Non-Illuminated 1-5/8 in Diameter Knob Includes 9001KN179WP Legend Plate Marked Pull To Start / Push To Stop	3-Position				
	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
 9001SKR16H2 2-Position Trigger-Action, Turn-to-Release 1-5/8 in. (40 mm) Non-Removal Plastic Mushroom 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.	Red	SKR16H13	SKR16H2	SKR16

Illuminated Push-pull Mushroom Operators



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)

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				
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♦■
Description	Voltage	With Red ▲ Knob and 1 N.O. & 1 N.C. Contact (KA1)	With Other Color Knob and 1 N.O. & 1 N.C. Contact (KA1)	With Other Color Knob Without Contacts
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♦■

- (1) To obtain a red knob with "Push Emergency Stop" printed on the red knob—substitute R05 in place of "R".
- (2) Replace ■ with the color code as chosen from the color code at right. Example: SKR9■ with a yellow knob = SKR9Y
- (3) Replace ♦ with the voltage assembly code as chosen from the tables on page 54. Example: SKR8P♦ with 277 V 50–60 Hz = SKR8P8
- (4) The knob must be the same color as the LED light module chosen; e.g., for green LED, use green knob.
- (5) On neon light modules, use clear knobs only.
- (6) 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.
- (7) 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 – Selector switches

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

2-Position Selector Switches											
Contact Block Required					1—Contact Closed		0—Contact Open				
Contact Block Position	Quantity and Type KA1 or KA2 or KA3		Mount on Side KA1 or KA2 or KA3								
					Left	Right	Left	Right			
		or		KA1 #2	or	KA3 #2	1	0	0	1	
					KA2 #2	0	1	1	0		
		or		KA1 #1	or	KA3 #1	1	0	0	1	
					KA2 #1	0	1	1	0		
Cam (see page 47)					E		D				

Non-Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob	SKS11	SKS12
With Knob (3)	SKS11♦	SKS12♦
Operator with Contact Blocks and Standard black knob	Reference	Reference
With 1 KA1 on Side #2	SKS11BH13	—
With 1 KA1 on Side #1	SKS11BH1	—
With 1 KA1 on Side #1 and 1 KA1 on side #2	SKS11BH2	—
Spring Return from Left (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob	SKS25	—
With Knob (3)	SKS25♦	—
Spring Return from Right (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob	—	SKS34
With Knob (3)	—	SKS34♦

Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob, 110-120V 50-60 Hz Transformer	SK11J1	SK12J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	SK11J1R	SK12J1R
With Other Color Knob and other voltage Light Module (2) (3)	SK11J■♦	SK12J■♦
Spring Return from Left (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob, 110-120V 50-60 Hz Transformer	SK25J1	—
With Standard Red Knob, 110-120V 50-60 Hz Transformer	SK25J1R	—
With Other Color Knob and other voltage Light Module (2) (3)	SK25J■♦	—
Spring Return from Right (1), Operator Only (without contact blocks)	Reference	Reference
Without Knob, 110-120V 50-60 Hz Transformer	—	SK34J1
With Standard Red Knob, 110-120V 50-60 Hz Transformer	—	SK34J1R
With Other Color Knob and other voltage Light Module (2) (3)	—	SK34J■♦

(1) These operators can be ordered complete with contact blocks. Add the “H code” from page 51 as needed for your application.

(2) Replace ■ with the voltage assembly code as chosen from the tables on page 54. Example: K25J■ with 208Vac = K25J3

(3) Replace ♦ with the color code as chosen from the color code table below. For LED, knob color must match LED.

Selector Switch Assembly Code and Knob Cat. No.

Color	Standard Knob		Gloved Hand Knob	
	♦ Knob Code	Reference	♦ Knob Code	Reference
Black	B	B11	FB	B25
Red	R	R8	FR	R24
Green	G	G8	FG	G24
Yellow	Y	Y8	FY	Y24
Blue	L	L8	FL	L24
White	W	W8	FW	W24
Amber	A	A8	FA	A24
Clear	C	C8	FC	C24

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 – Selector switches

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

3-Position Selector Switches

Contact Block Required			1 — Contact Closed		0 — Contact Open									
Contact Block Position	Quantity and Type	Mount on Side	Center	Center	Center	Center	Center	Center	Center	Center	Center	Center	Center	Center
 Top View	KA1 or KA3	KA1 or KA3 #2	1 0 0	1 0 0	0 0 1	1 0 0	1 0 0	1 0 0	1 0 0	1 0 0	0 1 0	1 1 0		
	KA2	KA2 #2	0 1 1	0 0 1	0 1 0	0 1 0	0 0 1	0 1 1	0 1 1	0 1 1	1 0 0	0 0 1		
	KA1 or KA3	KA1 or KA3 #1	0 0 1	1 0 0	0 0 1	1 0 0	0 1 0	0 0 1	1 0 1	0 0 1	0 0 1	0 1 1		
	KA2	KA2 #1	1 1 0	0 0 1	0 1 0	0 1 0	0 0 1	1 0 0	0 1 0	0 1 0	0 1 0	1 0 0		
Cam (see page 47)			B	C	D	E	F	G	J	L	M			

Non-Illuminated Operators

Manual Return, Operator Only (without contact blocks) (1)										
Without Knob	SKS42	SKS43	SKS44	SKS45	SKS46	SKS47	SKS49	SKS401	SKS402	
With Knob (select style and color from table below)	SKS42♦	SKS43♦	SKS44♦	SKS45♦	SKS46♦	SKS47♦	SKS49♦	SKS401♦	SKS402♦	
Operator with Contact Blocks and Standard black knob (4)										
With 1 KA1 on Side #2 (H13)	SKS42BH13	SKS43BH13	SKS44BH13	SKS45BH13	SKS46BH13	SKS47BH13	SKS49BH13	SKS401BH13	SKS402BH13	
With 1 KA1 on Side #1 (H1)	SKS42BH1	SKS43BH1	SKS44BH1	SKS45BH1	SKS46BH1	SKS47BH1	SKS49BH1	SKS401BH1	SKS402BH1	
With 1 KA1 on Side #1 and 1 KA1 on side #2 (H2)	SKS42BH2	SKS43BH2	SKS44BH2	SKS45BH2	SKS46BH2	SKS47BH2	SKS49BH2	SKS401BH2	SKS402BH2	
Spring Return from Left to Center, Operator Only (without contact blocks) (1)										
Without Knob	SKS62	SKS63	SKS64	SKS65	SKS66	SKS67	SKS69	SKS601	SKS602	
With Knob (select style and color from table below)	SKS62♦	SKS63♦	SKS64♦	SKS65♦	SKS66♦	SKS67♦	SKS69♦	SKS601♦	SKS602♦	
Spring Return from Right to Center, Operator Only (without contact blocks) (1)										
Without Knob	SKS72	SKS73	SKS74	SKS75	SKS76	SKS77	SKS79	SKS701	SKS702	
With Knob (select style and color from table below)	SKS72♦	SKS73♦	SKS74♦	SKS75♦	SKS76♦	SKS77♦	SKS79♦	SKS701♦	SKS702♦	
Spring Return from Both Sides to Center, Operator Only (without contact blocks) (1)										
Without Knob	SKS52	SKS53	SKS54	SKS55	SKS56	SKS57	SKS59	SKS501	SKS502	
With Knob (select style and color from table below)	SKS52♦	SKS53♦	SKS54♦	SKS55♦	SKS56♦	SKS57♦	SKS59♦	SKS501♦	SKS502♦	

Illuminated Operators

Manual Return, Operator Only (without contact blocks) (1)										
Without Knob, 110-120V 50-60 Hz Transformer	SK42J1	SK43J1	SK44J1	SK45J1	SK46J1	SK47J1	SK49J1	SK401J1	SK402J1	
With Standard Red Knob, 110-120V 50-60 Hz Transformer	SK42J1R	SK43J1R	SK44J1R	SK45J1R	SK46J1R	SK47J1R	SK49J1R	SK401J1R	SK402J1R	
With Other Color Knob and other voltage Light Module (2) (3)	SK42J■♦	SK43J■♦	SK44J■♦	SK45J■♦	SK46J■♦	SK47J■♦	SK49J■♦	SK401J■♦	SK402J■♦	
Spring Return from Left to Center, Operator Only (without contact blocks) (1)										
Without Knob, 110-120V 50-60 Hz Transformer	SK62J1	SK63J1	SK64J1	SK65J1	SK66J1	SK67J1	SK69J1	SK601J1	SK602J1	
With Standard Red Knob, 110-120V 50-60 Hz Transformer	SK62J1R	SK63J1R	SK64J1R	SK65J1R	SK66J1R	SK67J1R	SK69J1R	SK601J1R	SK602J1R	
With Other Color Knob and other voltage Light Module (2) (3)	SK62J■♦	SK63J■♦	SK64J■♦	SK65J■♦	SK66J■♦	SK67J■♦	SK69J■♦	SK601J■♦	SK602J■♦	
Spring Return from Right to Center, Operator Only (without contact blocks) (1)										
Without Knob, 110-120V 50-60 Hz Transformer	SK72J1	SK73J1	SK74J1	SK75J1	SK76J1	SK77J1	SK79J1	SK701J1	SK702J1	
With Standard Red Knob, 110-120V 50-60 Hz Transformer	SK72J1R	SK73J1R	SK74J1R	SK75J1R	SK76J1R	SK77J1R	SK79J1R	SK701J1R	SK702J1R	
With Other Color Knob and other voltage Light Module (2) (3)	SK72J■♦	SK73J■♦	SK74J■♦	SK75J■♦	SK76J■♦	SK77J■♦	SK79J■♦	SK701J■♦	SK702J■♦	
Spring Return from Both Sides to Center, Operator Only (without contact blocks) (1)										
Without Knob, 110-120V 50-60 Hz Transformer	SK52J1	SK53J1	SK54J1	SK55J1	SK56J1	SK57J1	SK59J1	SK501J1	SK502J1	
With Standard Red Knob, 110-120V 50-60 Hz Transformer	SK52J1R	SK53J1R	SK54J1R	SK55J1R	SK56J1R	SK57J1R	SK59J1R	SK501J1R	SK502J1R	
With Other Color Knob and other voltage Light Module (2) (3)	SK52J■♦	SK53J■♦	SK54J■♦	SK55J■♦	SK56J■♦	SK57J■♦	SK59J■♦	SK501J■♦	SK502J■♦	

▲ These operators can be ordered complete with contact blocks. Add the "H code" from page 51 as needed for your application.

■ Replace ■ with the voltage assembly code as chosen from the tables on page 54. Example: K25J■ with 208Vac = K25J3.

♦ Replace ♦ with the color code as chosen from the color code table below. For LED, knob color must match LED.

★ For other color knobs replace the B with knob color code from table below.

Selector Switch Assembly Code and Knob Cat. No.

Color	Standard Knob		Gloved Hand Knob	
	♦ Knob Code	Reference	♦ Knob Code	Reference
Black	B	B11	FB	B25
Red	R	R8	FR	R24
Green	G	G8	FG	G24
Yellow	Y	Y8	FY	Y24
Blue	L	L8	FL	L24
White	W	W8	FW	W24
Amber	A	A8	FA	A24
Clear	C	C8	FC	C24

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

Product range:
page 36

Specifications:
page 38

Dimensions:
page 60

Mounting:
page 61



Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Selector switches

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

4-Position Selector Switches

Contact Block Required and Position	Quantity and Type	Mount on Side	1 — Contact Closed 0 — Contact Open
 Top View	KA1	KA1 #2	1 0 0 0
	or KA3	or KA3 #2	
	KA2	KA2 #2	0 0 1 0
	or KA2		
	KA1	KA1 #1	0 0 0 1
	or KA3	or KA3 #1	
	KA2	KA2 #1	0 1 0 0
	or KA2		

Cam (see page 47)

H

Non-Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference
Without Knob	SKS88
With Knob (3)	SKS88♦

Illuminated Operators

Manual Return (1), Operator Only (without contact blocks)	Reference
Without Knob, 110–120V 50–60 Hz Transformer	SK88J1
With Standard Red Knob, 110–120V 50–60 Hz Transformer	SK88J1R
With Other Color Knob and other voltage Light Module (2) (3)	SK88J■♦

(1) These operators can be ordered complete with contact blocks. Add the “H code” from page 51 as needed for your application.
 (2) Replace ■ with the voltage assembly code as chosen from the tables on page 54. Example: K25J■ with 208Vac = K25J3
 (3) Replace ♦ with the color code as chosen from the color code table below. For LED, knob color must match LED.

Selector Switch Assembly Code and Knob Cat. No.

Color	Standard Knob ♦ Knob Code	Reference	Gloved Hand Knob ♦ Knob Code	Reference
Black	B	B11	FB	B25
Red	R	R8	FR	R24
Green	G	G8	FG	G24
Yellow	Y	Y8	FY	Y24
Blue	L	L8	FL	L24
White	W	W8	FW	W24
Amber	A	A8	FA	A24
Clear	C	C8	FC	C24



Potentiometer with Dial Plate (not UL listed)—Maximum Voltage 300 Vac



Power	Description	Ratings	Reference
2 W	Operator Only, for Single Potentiometer	NEMA 4, 13	SK20
	Operator with Single Potentiometer		SK21
	Operator Only, for Tandem Potentiometer		SK22
	Operator with Tandem Potentiometer		SK23

Potentiometer Suffixes

Single Potentiometer			
Suffix (4)	Resistance	Suffix (4)	Resistance
01	50 Ω	07	5 kΩ
02	100 Ω	08	10 kΩ
04	500 Ω	09	25 kΩ
05	1 kΩ	13	500 kΩ
39	2 kΩ	37	750 kΩ
06	2.5 kΩ	14	1 MΩ
Tandem Potentiometer			
Suffix (4)	Resistance		
	Front	Rear	
82	1 kΩ	1 kΩ	

(4) For the complete reference, add the suffix from Suffix column to the reference from Reference column in “Potentiometer with Dial Plate” table above. Example: 9001 SK21 05.

Note: Any potentiometer with a shaft 7/8" long and 1/4" diameter may be used with these operators

Note: 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 – Selector switch guide

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

Shown below is a simplified method of selecting a selector switch to meet almost any combination of contact sequences.

Step No. 1

Determine the contact sequence(s) required. Set up a target table like the one shown for the example below.

Contact Sequence	0—contact open	1—contact closed			
A			↖	↑	↗
B					
C					

Step No. 2

Look for a cam type common to all sequences in the three tables to the right. For the example above, the “3-Position Selector Switch” table would be used. For the contact sequences A (1 0 0), B (0 1 0) and C (0 0 1) of the example above, cam types F and L are common to all three sequences.

Step No. 3

Next, use the cam type common to all the sequences (if several cam types are common, choose one) to find the operator reference number. Go to the proper page number as indicated in the table below:

Number of Positions	Push Button Line	Page Number
2	9001SKS	44
3	9001SKS	45
4	9001SKS	46

If for the example above a manual return operator with a standard black knob is required and:

The F cam type is chosen, the operator reference number is:

■ 9001SK—9001SKS46B (from page 45)

The L cam type is chosen, the operator reference number is:

■ 9001SK—9001SKS401B (from page 45)

Step No. 4

Determine the contact blocks required by using the same table in Step No. 2.

If, for the example above, the F cam type is chosen:

- Use a 9001KA3 mounted on side no. 2 for sequence A (1 0 0).
- Use a 9001KA3 mounted on side no. 1 for sequence B (0 1 0).
- Use a 9001KA2 mounted on side no. 1 or 2 for sequence C (0 0 1).

If, for the example above, the L cam type is chosen:

- Use a 9001KA2 mounted on side no. 2 for sequence A (1 0 0).
- Use a 9001KA2 mounted on side no. 1 or a 9001KA3 mounted on side no. 2 for sequence B (0 1 0).
- Use a 9001KA3 mounted on side no. 1 for sequence C (0 0 1).

One 9001KA1 double circuit block can be used in place of one 9001KA2 single circuit block plus one 9001KA3 single circuit block mounted on the same side.

2-Position Selector Switch

If you require contact sequence—	Use Cam Type	Use Contact Block Reference	Mount on side no. (See page 51)
1 0	E	KA3	1 or 2
	D	KA2	1 or 2
0 1	E	KA2	1 or 2
	D	KA3	1 or 2

3-Position Selector Switch

If you require contact sequence—	Use Cam Type	Use Contact Block Reference	Mount on side no. (See page 51)
1 0 0	G	KA2	1
	L	KA2	2
	C	KA3	1
	B	KA3	2
	B	KA5 (1)	2
0 1 0	D	KA2	1
	D	KA2	2
	F	KA3	1
	L	KA3	2
0 0 1	C	KA2	1 or 2
	B	KA3	1
	D	KA3	2
	B	KA5 (1)	1
1 1 0	B	KA2	2
	C	KA2	1
	F	KA5 (1)	1 or 2
0 1 1	B	KA3	2
	G	KA5 (1)	1
	L	KA5 (1)	2
	M	KA3	1
1 0 1	J	KA3	1
	D	KA5 (1)	1
	D	KA5 (1)	2

4-Position Selector Switch

If you require contact sequence—	Use Cam Type	Use Contact Block Reference	Mount on side no. (See page 51)
1 0 0 0	H	(A) KA3	2
0 1 0 0	H	(B) KA2	1
0 0 1 0	H	(C) KA2	2
0 0 0 1	H	(D) KA3	1
1 0 0 1	H	A & D Wired in Parallel	
1 1 0 0	H	A & B Wired in Parallel	
0 1 1 0	H	B & C Wired in Parallel	
0 0 1 1	H	C & D Wired in Parallel	
1 1 1 0	H	A, B & C Wired in Parallel	
0 1 1 1	H	B, C & D Wired in Parallel	
1 0 1 0	H	A & C Wired in Parallel	
0 1 0 1	H	B & D Wired in Parallel	
1 1 0 1	H	KA5 (1)	2
1 0 1 1	H	KA5 (1)	1

(1) 9001KA5 must be the last block on either side.

$$KA1 = KA3 + KA2$$

When ordering, please specify:

- Quantity
- Class Number
- Type or Reference

For “H” Numbers, see page 51.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Pilot lights

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

Pilot Lights—UL Types 4, 4X, 13/NEMA 4, 4X, 13

For use in hazardous locations, see page 53. Legend plate not included.

Description	Voltage	Style	With Red Fresnel Color Cap	With Green Fresnel Color Cap	With Other Color Cap (2)	Without Color Cap
 Standard Pilot Light (Fresnel color cap shown) 9001SKP1	110–120 V, 50–60 Hz Transformer		SKP1R31	SKP1G31	SKP1■	SKP1
	220–240 V, 50–60 Hz Transformer		SKP7R31	SKP7G31	SKP7■	SKP7
	24–28 Vac/Vdc	Full Voltage	SKP35R31	SKP35G31	SKP35■	SKP35
	For other voltages (1)	Transformer, Flashing or LED (3)	SKP▲R31	SKP▲G31	SKP▲■	SKP▲
 Push-To-Test Pilot Light (Fresnel color cap shown) 9001SKT1	110–120 V, 50–60 Hz Transformer		SKT1R31	SKT1G31	SKT1■	SKT1
	220–240 V, 50–60 Hz Transformer		SKT7R31	SKT7G31	SKT7■	SKT7
	24–28 Vac/Vdc	Full Voltage	SKT35R31	SKT35G31	SKT35■	SKT35
	For other voltages (1)	92% Full Voltage, Neon or Resistor (4)	SKT▲R31	SKT▲G31	SKT▲■	SKT▲
 Remote Test Pilot Light (Fresnel color cap shown) 9001SKTR38	120 Vac Only	Resistor	SKTR38R31	SKTR38G31	SKTR38■	SKTR38
	24–28 Vac Only	Full Voltage	SKTR35R31	SKTR35G31	SKTR35■	SKTR35
	For other voltages (1)	Full Voltage or Resistor (5)	SKTR▲R31	SKTR▲G31	SKTR▲■	SKTR▲

(1) Replace ▲ with the voltage assembly code as chosen from the tables on page 54.

Example: SKT▲R31 with 208 Vac red LED voltage = SKT37LRR31.

(2) Replace ■ with the color code as chosen from the color code table below.

Example: SKP1■ with a blue fresnel cap = SKP1L31.

(3) The cap must be the same color as the LED light module chosen, e.g., for a green LED, use a green color cap.

(4) On neon light modules, use clear color caps only.

(5) Use only full voltage or resistor voltage assembly codes on remote test pilot lights. Do not choose LED, neon or transformer codes. For AC use only.

Color Caps

Color	■ Plastic Fresnel	■ Plastic Domed
Amber	A31	A9
Blue	L31	L9
Clear	C31	C9
Green	G31	G9
Red	R31	R9
White	W31	W9
Yellow	Y31	Y9

Typical Wiring Diagrams



Push-to-test Pilot Light



Remote Test Pilot Light

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 – Specialty operators

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

Specialty Operators—UL Types 4, 4X, 13/NEMA 4, 4X, 13

For use in hazardous locations, see page 53.

Legend plate and contact blocks not included unless otherwise noted.

Interlocked Assembly	Description	Color	Contacts	Without Contacts
	Interlocked Assembly	Universal (1)	SKR11UH1	SKR11U
	Both Buttons Maintained	Other (2)	SKR11■H1	SKR11■
	Interlocked Assembly	Universal (1)	SKR12UH1H1	SKR12U
	One Button Momentary			
	Interlocked Assembly	Other (2)	SKR12■H1H1	SKR12■
	One Button Maintained			

9001SKR11U

(1) Universal for SKR11, 12 includes 2 each of black, red, green, yellow, orange, blue, white.

(2) Replace ■ with the color code as chosen from the following: B = black, R = red, G = green, L = blue, Y = yellow, W = white, S = orange, E = gray.
Example: An SKR11 with top button gray and bottom button orange = SKR11ES

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Contact blocks

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

The 9001KA contact blocks are Fingersafe™ contact blocks (meeting VDE 0106 Part 100 Standard). They have one screw mounting and captive (backed out) plus/minus terminal screws. These contact blocks are double-break, direct-acting contacts. Because of the wiping action of these contacts, they are suitable for use with programmable controllers. All contact blocks listed below accept up to 2 #12–#24 AWG solid or stranded wires. Recommended tightening torque for screw terminals is 7 lb-in.

Standard Contact Blocks

Description	Symbol	Reference
 (Clear Cover)	 Direct-Acting	KA1
 (Green Cover)		KA2
 (Red Cover)	 Direct-Acting	KA3
 (Clear Cover)	 N.O. Contact Early Closing	KA4
 (Red Cover)	 N.C. Contact Late Opening	KA5
 (Green Cover)	 N.O. Contact Early Closing	KA6

Additional Circuit Arrangements

Sequencing (1) N.O. Contact of KA4 closes before N.O. Contact on KA1			Order One 9001KA4 and One 9001KA1
Overlapping (1) N.O. Contact of KA4 closes before N.C. Contact of KA5 opens			Order One 9001KA4 and One 9001KA5

(1) For push buttons or two-position selector switches only. For sequencing or overlapping contacts on other operators, refer to catalog 9001CT0001.

Symbol	Contact Blocks with Binder Head Screws (not Fingersafe) Reference	Quantity (2)	Gold Flashed Contacts with Standard Pressure Wire Terminals Reference
	KA21	25-Up	KA31
	KA22	25-Up	KA32
	KA23	25-Up	KA33
 N.O. Early Closing	KA24	25-Up	KA34
 N.C. Contact Late Opening	KA25	25-Up	KA35

(2) Minimum order quantity is 25.

Contact blocks listed below are not Fingersafe, but provide:

- Terminals that accept ring tongue/fork tongue connectors
- Short single circuit contact blocks (0.75" deep vs. 0.97" deep on the Fingersafe)
- For assembled operators, use form Y238 (add to reference as suffix, for example: 9001KRU1H13Y238)



Contact blocks (not Fingersafe)

Symbol	Reference	Symbol	Reference
	KA1G	 N.O. Contact Early Closing	KA4G
	KA2G	 N.C. Contact Late Opening	KA5G
	KA3G	 N.O. Contact Early Closing	KA6G

Contact blocks with Quick-Connect terminals (not Fingersafe)

Symbol	Reference
	KA12
	KA13

For dimensions, refer to catalog 9001CT0001

Maximum Current Ratings for Control Circuit Contacts—9001KA1–KA6, KA21–KA25, KA31–KA35, KA1G–KA6G

V	AC						V	DC					
	Inductive (NEMA / UL Type A600) 35% Power Factor					Resistive 75% Power Factor Make, Break and Continuous Amperes		Inductive and Resistive (NEMA Q600)					
	Make		Break		Continuous Carrying Amperes			Make and Break				Continuous Carrying Amperes	
	Amperes	VA	Amperes	VA				KA1	KA2 KA3	KA4	KA5 KA6		
120	60	7200	6.0	720	10	10	125	0.55	0.55	—	—	2.5	
240	30		3.0				250	0.27	0.27	—	—		
480	15		1.5				600	0.10	0.10	—	—		
600	12		1.2										

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

Product range:
page 36

Specifications:
page 38

Dimensions:
page 60

Mounting:
page 61

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.

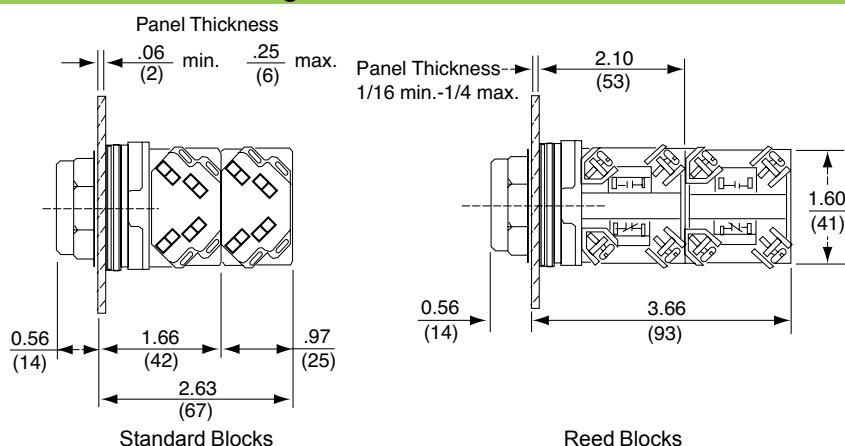


Example: A 9001KR1B push button with 2 9001KA1 contact blocks would be 9001KR1BH2.

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 – Contact blocks

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

Mounting Hole for All 9001SK Control Units



Hole Punch: Use Greenlee Tool #60242 to punch mounting hole and notch.

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).



Min. Centerline Spacing, 9001SK Control Units

Legend Plate	Operator	Centerline Spacing (in)					
		A	B	C	D	E	F
Legend Plate Orientation Position #1							
KN2 KN5	Standard Push Button	1.75	1.31	1.44	2.25	1.69	0.88
	1.375 in Dia. Mushroom	1.75	1.31	1.44	2.25	1.69	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.75	1.31	1.44	2.25	1.69	0.88
KN3	Standard Push Button	2.00	1.31	1.44	2.25	1.75	0.88
	1.375 in Dia. Mushroom	2.00	1.31	1.44	2.25	1.75	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	2.00	1.31	1.44	2.25	1.75	0.88
KN4	Standard Push Button	1.94	1.31	1.44	2.25	1.62	0.88
	1.375 in Dia. Mushroom	1.94	1.31	1.44	2.25	1.62	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.74	1.31	1.44	2.25	1.62	0.88
KN6	Standard Push Button	2.38	1.62	1.44	2.25	2.25	1.12
	1.375 in Dia. Mushroom	2.38	1.62	1.44	2.25	2.25	1.12
	2.25 in Dia. Mushroom	2.38	1.62	1.44	2.25	2.25	1.12
	Selector Switch Knobs	2.38	1.62	1.44	2.25	2.25	1.12

Legend Plate	Operator	Centerline Spacing (in)					
		A	B	C	D	E	F
Legend Plate Orientation Position #2							
KN2 KN5	Standard Push Button	1.62	1.31	1.44	2.25	1.75	0.88
	1.375 in Dia. Mushroom	1.62	1.31	1.44	2.25	1.75	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.62	1.31	1.44	2.25	1.75	0.88
KN3	Standard Push Button	1.75	1.31	1.44	2.25	2.00	0.88
	1.375 in Dia. Mushroom	1.75	1.31	1.44	2.25	2.00	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.75	1.31	1.44	2.25	2.00	0.88
KN4	Standard Push Button	1.62	1.31	1.44	2.25	1.94	1.00
	1.375 in Dia. Mushroom	1.62	1.31	1.44	2.25	1.94	1.00
	2.25 in Dia. Mushroom	2.25	1.31	1.44	2.25	2.25	1.12
	Selector Switch Knobs	1.62	1.31	1.44	2.25	1.94	1.00
KN6	Standard Push Button	2.25	1.31	1.62	2.38	2.38	0.88
	1.375 in Dia. Mushroom	2.25	1.31	1.62	2.38	2.38	0.88
	2.25 in Dia. Mushroom	2.25	1.31	1.62	2.38	2.38	1.12
	Selector Switch Knobs	2.25	1.31	1.62	2.38	2.38	0.88

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK – Contact blocks

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

Hazardous locations do not always require the use of explosion-proof equipment like the 9001BR control stations. Selecting the most appropriate device for the location can save you money. For more information on the types of hazardous locations, contact your local electrical inspector.

Schneider Electric Offering According to Class, Division, and Group

For Class	Division	Group(s)	Use
I	1	A	1. Intrinsically Safe System
I	1	B, C, D	1. 9001BR station 2. Intrinsically Safe System
I	2	A	1. 9001SK control stations with restrictions (1) 2. Intrinsically Safe System
I	2	B, C, D	1. 9001BR station 2. 9001SK control stations with restrictions (1) 3. Intrinsically Safe System
II	1	E, F, G	1. 9001BR station 2. Intrinsically Safe System
II	2	E, F	1. 9001BR station 2. 9001SK control stations with restrictions (1) 3. Intrinsically Safe System
II	2	G	1. 9001BR station 2. 9001SK control stations with restrictions (2) 3. Intrinsically Safe System
III	1, 2	—	1. 9001BR Station 2. 9001SK control stations with restrictions (2) 3. Intrinsically Safe System

Any 9001SK operator can be used in an area classified as Class I, Division 2 hazardous locations, if:

- Only logic (KA40 series) or power (KA50 series) reed contact blocks are used.
- All 9001SK illuminated operators are UL approved for use in Class I Division 2 areas.
- The operators are mounted in any NEMA 4 & 13 enclosures.

(1) Any 9001SK operator mounted in a 9001KY, 9001KYSS, 9001KYAF or 9001SKY enclosure may be used, except potentiometer operators.

(2) Add Form Y243 to single lamp Push-To-Test pilot lights.

Note: For (1) and (2): UL Listed: File E10054(N), CCN NOIV.

Hazardous Locations:



File
CCN E10054(N)
NOIV



File
Class LR26817
3218 02

Hermetically Sealed Logic Reed Contact Blocks Suitable for use on low energy level circuits

Description	Symbol	Reference
		KA41
		KA42
		KA43
		KA44
		KA45

Max. Vac/Vdc	Maximum Load		
	Resistive	Inductive	Continuous
32/30	.25 A	.10 A	.5 A
120/100	8 VA	3 VA	.5 A

The maximum number of logic and/or power reed contact blocks per operator is as indicated on individual selection tables for standard contact blocks, **except**:

- On 3-Position selector switches with cams C, D, E, F, G, L, or M, mount reed blocks on **one side only** (either side), maximum 2 in tandem.
- On 4-Position selector switches, mount reed blocks on **one side only** (either side), maximum 2 in tandem.
- On joysticks or on 9001SKR8 push-pull operators, mount reed blocks on **one side only** (either side), maximum 2 in tandem.

Hermetically Sealed Power Reed Contact Blocks (5)

Description	Symbol	Reference
		KA51
		KA52
		KA53
		KA54
		KA55

Volts	AC NEMA C300 (3)				Continuous Carrying Amperes
	Make		Break		
	A	VA	A	VA	
120	10.00	1200	1.000	120	3.0
240	5.00		500		

Volts	DC NEMA Q150 (4)				Continuous Carrying Amperes
	Make		Break		
	A	VA	A	VA	
115	.50	58	.50	58	3.0

Note: All contact blocks listed above accept #12–18 solid or stranded wire.

The power reed contact blocks can be used with standard industrial relays and starters through NEMA Size 4. Minimum voltage is 5 V and the minimum current is 1 mA.

(3) Inductive Rating—35% Power Factor.

(4) Inductive and Resistive Ratings

(5) Not for use in pendant stations.

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 – Accessories

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

Padlock Attachments			
	Used On	Description	Reference
	Non-illuminated push button — Standard or mushroom (KR4, KR5 mushroom buttons only).	Holds button in depressed position and can be padlocked.	K4
	Non-illuminated push buttons with or without protective boots.	Holds button in depressed position when padlocked.	K5
	Non-illuminated push buttons with or without protective boots.	Holds button in depressed position when padlocked.	K97
	Non-illuminated push buttons, cover type attachment. KR, SKR	Attachment can be padlocked. Does not hold button in depressed position.	K6
	Push buttons, cover type attachment.	Spring loaded cover cannot be padlocked. Does not hold button in depressed position.	K60
	Push-pull operator and illuminated push buttons. KR8, KR9	Holds button in depressed position and can be padlocked.	K62
	KR11U and KR12U Interlocked Assembly	Holds maintained button in depressed position and can be padlocked.	K96
	9001SKR9 Push-pull operators— Non-Illuminated and Illuminated	Holds button in depressed position. Can be padlocked.	K162

Mushroom Button Guards			
			
Aluminum Mushroom Guard for 1.375 in Mushroom Button Operator (KR4, KR24)	Yellow Plastic Extended Mushroom Guard for 1.375 in and 1.625 in Mushroom Button Operators	Aluminum Mushroom Guard for 2.25 in Mushroom Button Operator	
Reference	Reference	Used On	
K48	K56▲ (1)	SKR4	
	K56■M (2)	SKR8, SKR9	

Padlock Attachments			
	Used On	Description	Reference
	Selector switches and potentiometers (will not work with gloved-hand knob).	Cover type attachment that can be padlocked to keep unauthorized personnel from tampering with the operator.	K7
	Selector switches and potentiometers (will not work with gloved-hand knob).	Same as 9001K7 but with spring loaded lockout cover.	K107
	Illuminated push buttons (with or without guard) and key operated push buttons.	Cover type attachment that can be padlocked to keep unauthorized personnel from tampering with the operator.	K108
	Illuminated push buttons (with or without guard) and key operated push buttons.	Same as 9001K108 but with spring loaded lockout cover.	K109
	Maintained push-pull operators using 1.375 in dia. mushroom buttons (-20 series as shown on page 58).	Cover type attachment that holds mushroom button in depressed position and can be padlocked.	K110

Protective Boots			
			
KU1	KU17	KU37	KU27
These 9001KU protective boots are recommended for very dirty environments or severe hose down, but they are not required for UL Type 4 or 4X rating on the 9001SK operators. The 9001K1 wrench (see page 59) is required for installation of these boots.			
For Non-Illuminated Push Buttons (3)		Clear Color for	Reference
Color	Reference	Standard knob selector switch	KU17
Black	KU1	Gloved-hand cap for use on standard knob selector switch	KU18
Red	KU2		
Blue	KU3		
Brown	KU4	Standard pilot light and maintained contact push buttons	KU27
Green	KU5		
Yellow	KU6		
Clear	KU7	Push-to-test and illuminated push button without guard	KU37
Clear	KU8	Illuminated push button with guard	KU47
(Provides Full Guard)			
(3) Use KU27 for maintained contact push buttons.			

Closing Plates	
	Round (1-1/2 in Dia.)
Description	Reference
Gray	K51 (4)
Black	K52 (4)

(1) Replace ▲ with B=Black, G=Green, R=Red or Y=Yellow.

(2) Replace ■ with R=Red or Y=Yellow. The mushroom guard has finger holes for push-pull operators.

Product range:
page 36

Specifications:
page 38

Dimensions:
page 60

Mounting:
page 61

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 36Specifications:
page 38Dimensions:
page 60Mounting:
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



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.

The K3 interlock is mounted behind the operators. Operators not included.

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

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

Dimensions

Push buttons



e: panel thickness 1 to 6 mm

Full guard 9001SKR1●●●



No guard 9001SKR3●●●



No guard with extended guard 9001SKR2●●●



Mushroom head push buttons

Spring return 35 mm: 9001SKR24●H13, 9001SKR4RH6, 9001SKR9R20H6

Spring return 57 mm: 9001SKR25●H13, 9001SKR5RH6

Push-pull 35 mm: 9001SKR9R20H6 Push-pull 41 mm: 9001SKR9●H13, 9001SKR9RH6 9001SKR8●H25 Push-pull 57 mm: 9001SKR9R21H6

Spring return 35, 57 and 60 mm a = 28 mm

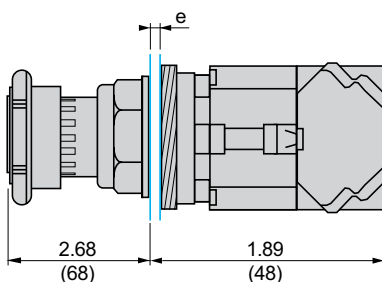
Push-pull 35 to 60 mm a = 32 mm



e: panel thickness 1 to 6 mm



Turn-to-release 9001SKR16H13, 9001SKR16H2 and 9001SKR16

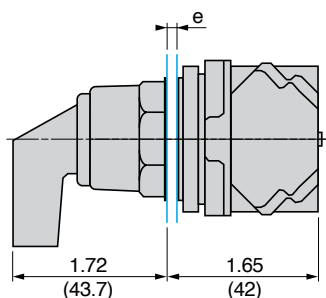


e: panel thickness 1 to 6 mm



Selector switches

Gloved handle 9001SKS●●FBH●●



e: panel thickness 1 to 6 mm



Dual Dimensions: in (mm)

Mounting

Contact block mounting position



- 1 It is possible to mount up to 3 levels of contacts blocks (maximum of 6 contacts blocks) on 9001SK references. For Maximum Contact Block usage, see Page 50.

Panel cut-out

Individual cut-outs detail

2 alternatives



Preferred Cut-Out

Alternate Cut-Out

Use Greenlee Tool #60242 for punching hole and notch.

Type of 9001K unit	Legend plate	a: in (mm)	b: in (mm)
All units except 57 mm mushroom head push buttons	9001KN2●●	2.25 (57.2)	1.75 (44.5)
	9001KN3●●	2.25 (57.2)	2.00 (50.8)
57 mm mushroom head push buttons	9001KN2●●	2.25 (57.2)	2.25 (57.2)
	9001KN3●●	2.25 (57.2)	2.25 (57.2)

Harmony™ 9001K/SK/KX

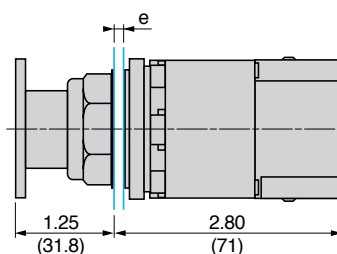
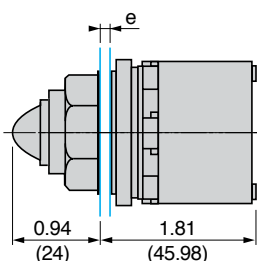
30 mm push buttons

9001SK

Dimensions (continued)

Pilot lights

With BA 9s bulb 9001SKP●●●

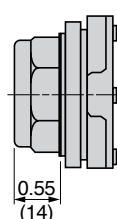
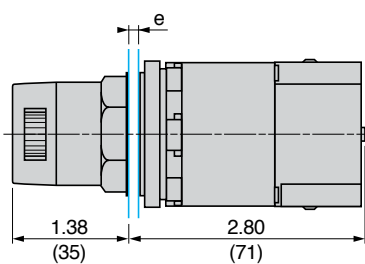


e: panel thickness 1 to 6 mm

e: panel thickness 1 to 6 mm

Illuminated push buttons, spring return

Full guard 9001SK3L●●●●H13

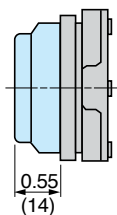
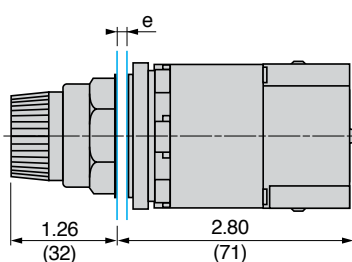


e: panel thickness 1 to 6 mm

Heads for spring return push buttons

9001SKR●U

No guard 9001SK2L●●●●H13

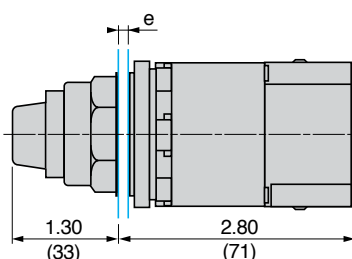


e: panel thickness 1 to 6 mm

Boots for push buttons

9001KU●

Push-to-test, no guard 9001SKT●●●●31



e: panel thickness 1 to 6 mm

Dual Dimensions: in (mm)

Dimensions (continued)

Rod for wobble stick

9001K8



Light blocks for pilot lights and illuminated push buttons

9001KM●



e: panel thickness 1 to 6 mm

Contact blocks for push buttons (including illuminated)

9001KA●



e: panel thickness 1 to 6 mm

It is not possible to mount complementary contact blocks 9001KA4 to KA6.

Legend plates

Aluminium plates 9001KN1●●, 9001KN2●●, 9001KN7●●



Legend plate	a: in (mm)	b: in (mm)
9001KN2●●	1.625 (41)	0.969 (24)
9001KN3●●	1.750 (45)	1.234 (31)

Plastic plates 9001KN1●●P, 9001KN2●●P, 9001KN7●●P



Legend plate	a: in (mm)	b: in (mm)
9001KN1●●P	2.25 (57)	2.25 (57)
9001KN2●●P	1.75 (45)	1.75 (45)
9001KN7●●P	2.50 (63)	2.50 (63)

Interlocked push buttons

9001SKR11, 9001SKR12



Potentiometer

9001SK20 (1), 9001SK21 (2)


(1) Without potentiometer
(2) With potentiometer

9001SK22 (1), 9001SK23 (2)


(1) Without potentiometer
(2) With potentiometer

Dual Dimensions: in (mm)

Harmony™ 9001K/SK/KX

30 mm push buttons

9001SK

Dimensions (continued)

Time delay push button

9001KRD



	a	b
9001KRD1UH●	Full guard 9/16	2-1/2
9001KRD2UH●	Extended guard 11/16	2-1/2
9001KRD3UH●	No guard 9/16	2-1/2

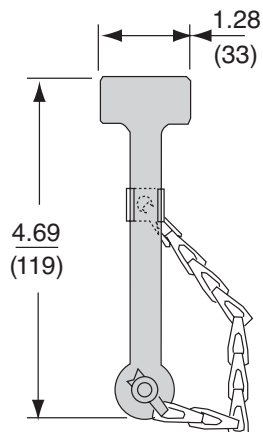
Alternate action—Push-on, push-off module

9001K85



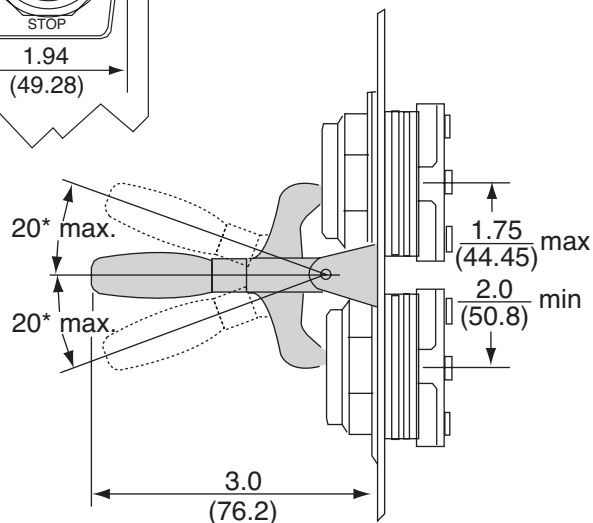
Emergency break glass operator

9001K15



Rocker arm operating lever

9001K50



Dual Dimensions: in (mm)

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

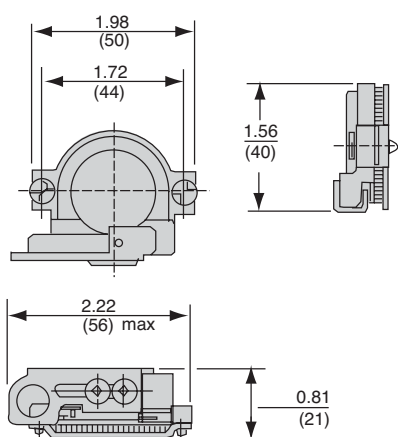
Dimensions (continued)

Padlock attachments

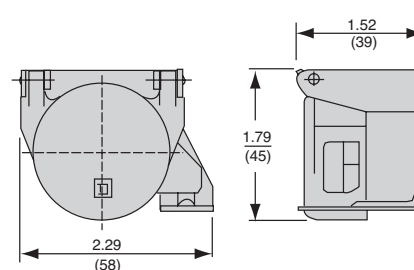
9001K4



9001K96



9001K7, 9001K107, 9001K108, 9001K109, 9001K113



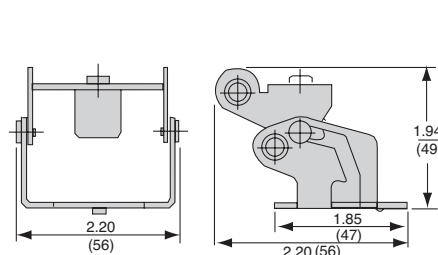
9001K6, 9001K60, 9001K97



9001K62



9001K5

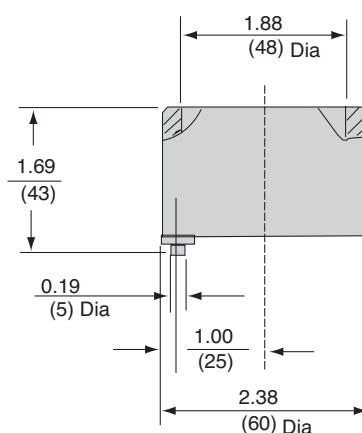


Mushroom button guards

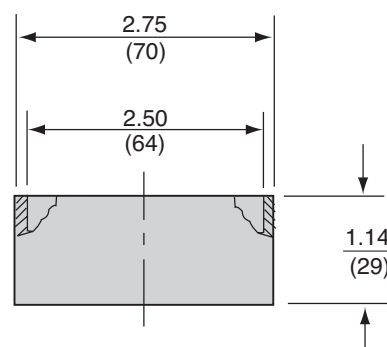
9001K48



9001K56Y, 9001K56YM (1)



9001K68



(1) 9001K56YM includes finger holes.

Dual Dimensions: in (mm)

Complete units

Non-illuminated push buttons



Non-illuminated single push button with contacts
9001KXRA133 See page 70



Non-illuminated dual push button with contacts
9001KXRC136 See page 70

Illuminated push buttons



Illuminated single push button with contacts
9001KXRB1RH1 See page 70



Dual push button with 1 pilot light and contacts
9001KXRG137 See page 70



Dual push button with 2 pilot light and contacts
9001KXRL138 See page 70

Selector switches



Selector switch
9001KXSA139 See page 71

Pilot lights



Pilot light
9001KXPA1R See page 71

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX

Environmental specifications						
Conforming to standards		 		UL 508, CSA C22-2 n° 14, CE marked, RoHS compliant		
Product certifications		 File E78403 CCN NKCR  File LR25490C Class 3211 03		UL File E78403, CSA File LR25490C, Guide 184N13-1U		
Protective treatment standard version				"TC"		
Ambient air temperature around the device	Storage	°F (°C)	-40 to +158 (-40 to +70)			
	Operation	°F (°C)	-22 to +140 at 50% relative humidity (-30 to +60)			
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	Ui = 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	Uimp = 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	Ith	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
			7200	7200	7200	7200
		V	120	240	480	600
		A	6	3	1.5	1.2
		VA	720	720	720	720
		V	Breaking capacity			
		A	120	240	480	600
		VA	6	3	1.5	1.2
	d.c. supply: utilization category DC-13 NEMA Q600	V	Contact making capacity and breaking capacity			
		A	125	250	600	
			0.55	0.27	0.1	

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

Basic Operators

Description	UL Types/NEMA Types
	4, 4X, 13
Single Push Buttons	9001KXRA, 9001KXRB
Dual Push Buttons	9001KXRC, 9001KXRD, 9001KXRE
Dual Push Buttons with One Pilot Light	9001KXRG, 9001KXRJ
Dual Push Buttons with Two Pilot Light	9001KXRL
Selector Switches	9001KXS
Potentiometers	9001KXB

Non Hazardous Locations:



File
CCN E42259
NKCR



File
Class LR25490
3211 03



Marking

The KX operators are rated UL Types 1, 2, 3, 3R, 4, 4X, 6, 12, 13/ NEMA Types 1, 2, 3, 3R, 4X, 6, 12, 13 without the use of protective boots. Boots are recommended for dirty environments or areas that are hosed down with water under very high pressure.

Mounting

Panel cut-out



Individual cut-outs detail

2 alternatives



Preferred Cut-Out

Alternate Cut-Out

Use Greenlee Tool #60242 for punching hole and notch.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX

9001KX Operator Materials

Single Push Button (KXRA, KXRB, KXRN, KXRP, KXTA)

Gasket – Nitrile
Locking Head – ZAMAC #3
Screws – Steel
Terminals – Steel
Button – Polycarbonate
Seal – Nitrile
Seal Retainer – Steel
Bezel – Zinc
Stem – Polycarbonate
Stem Cover – Polycarbonate
Legend Insert – Polyester
Return-Spring – Music Wire
Ring Nut – Zinc or Aluminum
Adaptor – Zinc
Adaptor Mounting Clip – Music Wire
Liner – Nylon

Dual Push Button
(Non-Illuminated and Illuminated)
(KXRC, KXRD, KXRE, KXRF, KXRG, KXRH, KXRJ, KXRK, KXRL, KXRM, KXTC)

Gasket – Nitrile
Seal – Nitrile
Seal Retainer – Brass
Bezel – Zinc
Button Stem – Stainless Steel
Button – Polycarbonate
Button Cover – Polycarbonate
Legend Insert – Polyester
Lamp Cover – Polycarbonate
Lens Retainer – Polycarbonate
Lens – Polycarbonate
Return-Spring – Music Wire
Ring Nut – Zinc or Aluminum
Adaptor – Zinc
Adaptor Mounting Clip – Music Wire
Liner – Nylon
Retainer Ring – Steel
Interlock Pad – Polyester
Interlock – Sintered Steel
Interlock – Nylon (KXRD)
Pin – Steel (KXRE, KXRF)
Detent Bearing – Steel (KXRE, KXRF)
Detent Spring – Music Wire (KXRE, KXRF)
Interlock – Steel (KXRM)
Baffle – Steel
Locking Head – ZAMAC #3
Screws – Steel
Stem – Polycarbonate
Stem Cover – Polycarbonate
Terminals – Steel

Selector Switch
(Non-Illuminated and Illuminated) (KXS)

Gasket – Nitrile
Seal – Nitrile
Seal Retainer – Steel
Return Spring – Music Wire
Cam Rotor – Celenex 3300
Cam Follower – Delrin 100
Cam Carrier – Trogamid
Cam Profile – Delrin 100
Bearing – Polyester
Bezel – Zinc
Knob – Polycarbonate or Nylon
Knob Ring Nut – Polycarbonate
Knob Seal – Nitrile
Legend Plate – ABS
Plug Insert – Polyester
Key Plug – Zinc, Brass, Music Wire
Key – Brass
Locking Head – Zinc
Locking Head Seal – Nitrile
Insert – Zinc
Adaptor – Zinc
Adaptor Mounting Clip – Music Wire
Liner – Nylon
Ring Nut – Zinc or Aluminum
Terminals – Steel
Screws – Steel

Contact Block (9001KA)

Housing – Amorphous Nylon
Contact Slider – Nylon or Acetal
Terminal – Steel
Saddle Clamp – Steel
Spring – Steel
Contacts – Silver and Copper
Blade – Beryllium Copper
Label – Paper
Shrouds – Delrin 507
Lockout – 410 Stainless Steel
Closing Plate – ZAMAC #3
Boots – Neoprene

Potentiometer (KXBA, KXBB, KXBC, KXBD):

Pot – Clarostat Types J and EJ
Operator – ZAMAC #3
Legend Plate – ABS
Knob – Polycarbonate
Printed circuit board – Phenolic
Cam Rotor – Polyester
Cam – Acetal
Cam Carrier – Nylon
Adaptor – ZAMAC #3
Adaptor Spring – Square Music Wire
Spacer – Fiber Board
Gasket – Buna N
Terminal – Brass
Screws – Steel
Bezel – Zinc
Locking Head – ZAMAC #3
Legend Inserts (KXN100, KXN200, KXN300, KXN400, KXN500)
– 0.005 Thk. Matte Polyester
Legend Plates (KXN-600, KXN-700) – ABS

Pilot Light (KXPA, KXPB, KXPC, KXTE)

O-Ring – Nitrile
Bezel – Zinc
Button – Polycarbonate
Button Cover – Polycarbonate
Button Stem – Polycarbonate
Screws – Steel
Terminals – Steel
Lens Assembly – Polycarbonate
Baffle – Steel
Ring Nut – Zinc or Aluminum
Adaptor – Zinc
Adaptor Mounting Clip – Music Wire

Light Module (Single Lamp KM)

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

Light Module (2 Lamp KXAKM2)

Adaptor Screw – Steel
Housing – Thermoplastic Polyester
Lamp Terminal – Copper
Terminal – Steel
Saddle Clamp – Steel
Contact Spring – Copper
Translating Pin – Polycarbonate
Transformer – Thermoplastic Polyester, Steel, Copper, Polyvinyl
Chloride, Polytetrafluoroethylene, Acetate, Paper

Light Module (4 Lamp KXAKM4)

Housing – Thermoplastic Polyester
Lamp Terminal – Copper
Adaptor Screw – Steel
Terminal – Steel
Saddle Clamp – Steel
Transformer – Nylon, Steel, Copper, Polyvinyl Chloride,
Polytetrafluoroethylene, Acetate, Paper

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



Push Buttons—Single, with Contacts

Description	Button Color	Legend Marking	Contacts	Voltage	Reference
Non-Illuminated	Green	Start	1 N/O	—	KXRA133
	Red	Stop	1 N/C	—	KXRA134
	Amber	blank	2 N/O + 2 N/C	—	KXRAAH2
	Green	blank	2 N/O + 2 N/C	—	KXRAGH2
	Blue	blank	2 N/O + 2 N/C	—	KXRALH2
Illuminated	Amber	blank	1 N/O + 1 N/C	24	KXRB34AH1
	Green	blank	1 N/O + 1 N/C	24	KXRB34GH1
	Red	blank	1 N/O + 1 N/C	24	KXRB34RH1
	Amber	blank	1 N/O + 1 N/C	110/120	KXRB1AH1
	Green	blank	1 N/O + 1 N/C	110/120	KXRB1GH1
	Red	blank	1 N/O + 1 N/C	110/120	KXRB1RH1



Push Buttons—Dual, with Contacts

Description	Top Button (#1)	Lower Button (#2)	Contacts	Reference
Momentary	Start (Green)	Stop (Red)	2 N/O + 2 N/C	KXRC111
Momentary	Start (Green)	Stop (Red)	1 N/O, 1 N/C	KXRC136
Momentary	Up (Green)	Down (Green)	2 N/O	KXRD140
Momentary	blank (Blue)	blank (Blue)	2 N/O	KXRDLLH7
Maintained (1)	Start (Green)	Stop (Red)	1 N/O + 1 N/C	KXRE115
Maintained (1)	On (Blue) (2)	Off (Blue) (2)	3 C/O	KXRELLH3
Maintained (1)	On (Blue) (2)	Off (Blue) (2)	3 C/O	KXRELLH3
Maintained (1)	On (Blue) (2)	Off (Blue) (2)	2 N/O + 2 N/C	KXRELLH2



Pilot Light at
110–120 V, 50–60 Hz
Transformer

Push Buttons—Dual with One Pilot Light and Contacts

Description	Top Button (#1)	Middle Lens (#2)	Lower Button (#3)	Contacts	Voltage	Reference
Momentary	Start (Green)	On (Red)	Stop (Red)	2 N/O + 2 N/C	110/120	KXRG117
Momentary	Start (Green)	On (Red)	Stop (Red)	1 N/O, 1 N/C	110/120	KXRG137
Maintained (1)	Start (Green)	On (Red)	Stop (Red)	1 N/O + 1 N/C	110/120	KXRJ119



Pilot Lights at
110–120 V, 50–60 Hz
Transformer

Push Buttons—Dual with Two Pilot Lights and Contacts

Description	Top Button (#1)	Left Lens (#2)	Right Lens (#3)	Lower Button (#4)	Contacts	Voltage	Reference
Momentary	Start (Green)	On (Red)	Off (Green)	Stop (Red)	2 N/O + 2 N/C	110/120	KXRL121
Momentary	Start (Green)	On (Red)	Off (Green)	Stop (Red)	1 N/O, 1 N/C	110/120	KXRL138
Momentary	Start (Green)	On (Red)	Off (Green)	Stop (Red)	2 N/O + 2 N/C	24	KXRL34GRGRH2
Momentary	Start (Green)	On (Red)	Off (Green)	Stop (Red)	1 N/O, 1 N/C	24	KXRL34GRGRH37

(1) Maintained operators are mechanically interlocked.

(2) Text is vertical.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX – Push buttons without contacts

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



Push Buttons—without Contacts (1)

Push Button	Action	Lens Color (1)	Lens Color (2)	Reference
Single Push Button				
Non-Illuminated	Momentary	Amber	—	KXRAA
		Green	—	KXRAG
		Blue	—	KXRAL
		Red	—	KXRAR
		White	—	KXRAW
Illuminated 24 V	Momentary	Amber	—	KXRB35A
		Green	—	KXRB35G
		Blue	—	KXRB35L
		Red	—	KXRB35R
		White	—	KXRB35W
Illuminated 110/120 V	Momentary	Amber	—	KXRB38A
		Green	—	KXRB38G
		Blue	—	KXRB38L
		Red	—	KXRB38R
		White	—	KXRB38W
Dual Push Button				
Non-Illuminated	Momentary + Interlock	Green	Red	KXRCGR
		White	White	KXRCWW
		Green	Green	KXRCGG
	Maintained + Interlock	Green	Red	KXREGR
		White	White	KXREWW
		Green	Green	KXREGG



Dual Push Button with Pilot Light—without Contacts (1)

Action	Voltage	Lens Color (1)	Lens Color (2)	Lens Color (3)	Lens Color (4)	Reference
With One Pilot Light						
Momentary	24 Vac/dc	Red	White	Green	—	KXRG35RWG
	24 Vac/dc	Green	White	Green	—	KXRG35GWG
	110/120 Vac/dc	Red	White	Green	—	KXRG38RWG
	110/120 Vac/dc	Green	White	Green	—	KXRG38GWG
Momentary + Interlock	24 Vac/dc	Red	White	Green	—	KXRH35RWG
	24 Vac/dc	Green	White	Green	—	KXRH354GWG
	110/120 Vac/dc	Red	White	Green	—	KXRH38RWG
	110/120 Vac/dc	Green	White	Green	—	KXRH38GWG
Maintained + Interlock	24 Vac/dc	Red	White	Green	—	KXRJ35RWG
	24 Vac/dc	Green	White	Green	—	KXRJ35GWG
	110/120 Vac/dc	Red	White	Green	—	KXRJ38RWG
	110/120 Vac/dc	Green	White	Green	—	KXRJ38GWG
With Two Pilot Lights						
Momentary	24 Vac/dc	Red	White	White	Green	KXRL35RWWG
	24 Vac/dc	Red	Red	Green	Green	KXRL35GGRR
	110/120 Vac/dc	Red	White	White	Green	KXRL38RWWG
	110/120 Vac/dc	Red	Red	Green	Green	KXRL38GGRR
Momentary + Interlock	24 Vac/dc	Red	White	White	Green	KXRM35RWWG
	24 Vac/dc	Red	Red	Green	Green	KXRM35RRGG
	110/120 Vac/dc	Red	White	White	Green	KXRM38RWWG
	110/120 Vac/dc	Red	Red	Green	Green	KXRM38RRGG



(1) Order contacts separately (see page 73). For accessories, see page 74.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX – Selector switches, contact blocks

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



Selector Switches—with Contacts

Description	Legend	Knob	Contacts	Reference
2-Position, maintained	Off-On	Black	1 0 0 1	KXSA125
2-Position, maintained	Off-On	Black	1 0	KXSA139
3-Position, maintained	Hand-Off-Auto	Black	1 0 0 0 0 1	KXSD126

Selector Switches—without Contacts (1)

Description		Voltage	Knob Color	Reference
2-Position, Maintained	Non-Illuminated	—	Black	KXSAEB
	Illuminated	24 Vac/dc	Red	KXSJE35R
	Illuminated	24 Vac/dc	Green	KXSJE35G
	Illuminated	24 Vac/dc	White	KXSJE35W
	Illuminated	120 Vac/dc	Red	KXSJE38R
	Illuminated	120 Vac/dc	Green	KXSJE38G
	Illuminated	120 Vac/dc	White	KXSJE38W
	Key (Withdraw L)	—	N/A	KXSRE1
	Key (Withdraw R)	—	N/A	KXSRE2
3-Position, Maintained	Key (Withdraw Both)	—	N/A	KXSRE3
	Non-Illuminated	—	Black	KXSDCB
	Key (Withdraw C)	—	N/A	KXSVC5
	Key (Withdraw All)	—	N/A	KXSVC10
4-Position, Maintained	Non-Illuminated	—	Black	KXSHHB

(1) Order contacts separately (see table below).

Contact Blocks—Purchase Separately

Description	Reference	Description	Reference
 Clear Cover 1 N/O, 1 N/C	KA1	 Clear Cover 1 N/C, 1 N/O (Early Make)	KA4
 Green Cover 1 N/O	KA2	 Red Cover 1 N/C (Late Break)	KA5
 Red Cover 1 N/C	KA3	 Green Cover 1 N/O (Early Make)	KA6

Maximum Contact Block Usage:

2 blocks mounted side by side only: Any 2 or 3-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 or 3-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).



Potentiometers

Description	Power	Resistance	Reference
Single	2 W	3.2 kΩ	KXBB06
Single	2 W	5 kΩ	KXBB07
Single	2 W	10 kΩ	KXBB08
Tandem	2 W	5 kΩ / 5 kΩ	KXBD83

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX – Pilot lights

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



110–120 V,
50–60 Hz
Transformer



110–120 V, 50–60 Hz.
Transformer



110–120 V, 50–60 Hz
Transformer

Pilot Lights

Description	Voltage	Lens 1*	Lens 2*	Lens 3*	Lens 4*	Reference
Single	24	Amber				KXPA35A
Single	24	Red				KXPA35R
Single	24	Green				KXPA35G
Single	24	White				KXPA35W
Single	110/120	Amber				KXPA1A
Single	110/120	Red				KXPA1R
Single	110/120	Green				KXPA1G
Single	110/120	White				KXPA1W
Dual	24	Amber	Amber			KXPB34AA
Dual	24	Red	Red			KXPB34RR
Dual	24	Green	Green			KXPB34GG
Dual	24	White	White			KXPB34WW
Dual	24	Red	Green			KXPB34RG
Dual	110/120	Amber	Amber			KXPB1AA
Dual	110/120	Red	Red			KXPB1RR
Dual	110/120	Green	Green			KXPB1GG
Dual	110/120	White	White			KXPB1WW
Dual	110/120	Red	Green			KXPB1RG
Quad	24	White	Amber	Green	Red	KXPC34WAGR
Quad	110/120	White	Amber	Green	Red	KXPC1WAGR
Quad	110/120	White	Blue	Green	Red	KXPC1WLGR

* Lenses are blank (no markings)

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX – Legend plates

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

Legend Plates for Push Buttons or Pilot Lights

Used On						
A	B	C	D	E	F	
C (vertical)						
A	B	C	D	E	F	
KXRA, KXRB, KXRN, KXRP, KXPA, KXPC, KXTA, KXTB, KXTE	KXRC, KXRD, KXRE, KXRF	KXPB, KXTD (3)	KXRG, KXRH, KXRJ, KXRK (1)	KXRL, KXRM, KXTC (2)	KXRL, KXRM, KXTC (1)	
Blank	KXN100	KXN200	KXN200	KXN300	KXN400	KXN500
Start	KXN101	KXN201	KXN201V	KXN301	KXN401	KXN501
Stop	KXN102	KXN202	KXN202V	KXN302	KXN402	KXN502
On	KXN103	KXN203	KXN203V	KXN303	KXN403	KXN503
Off	KXN104	KXN204	KXN204V	KXN304	KXN404	KXN504
Emerg. Stop	KXN105	KXN205	KXN205V	KXN305	KXN405	KXN505
Forward	KXN106	KXN206	KXN206V	KXN306	KXN406	KXN506
Reverse	KXN107	KXN207	KXN207V	KXN307	KXN407	KXN507
Close	KXN108	KXN208	KXN208V	KXN308	KXN408	KXN508
Open	KXN109	KXN209	KXN209V	KXN309	KXN409	KXN509
Down	KXN110	KXN210	KXN210V	KXN310	KXN410	KXN510
Up	KXN111	KXN211	KXN211V	KXN311	KXN411	KXN511
Jog	KXN118	KXN218	KXN218V	KXN318	KXN418	KXN518
Reset	KXN123	KXN223	KXN223V	KXN323	KXN423	KXN523
Run	KXN124	KXN224	KXN224V	KXN324	KXN424	KXN524
Cycle Start	KXN132	KXN232	KXN232V	KXN332	KXN432	KXN532
Motor Run	KXN136	KXN236	KXN236V	KXN336	KXN436	KXN536
Power On	KXN138	KXN238	KXN238V	KXN338	KXN438	KXN538
Special-Marking	KXN199	KXN299	KXN299V	KXN399	KXN499	KXN599

- (1) These legend inserts are for the pilot lights in the center of the operator.
 (2) These legend inserts are for the push button portion of the operator.
 (3) These legend inserts have vertical printing.

Legend Plates for Selector Switches

Used On		
A	B	C
KXSA, KXSB, KXSC, KXSD, KXSE, KXSF, KXSG, KXSH, KXSJ, KXSK, KXSL, KXSM, KXSN, KXSO, KXSP, KXSQ	KXSR, KXSS, KXST, KXSV, KXSW, KXSX, KXSY, KXSZ	
Blank	KXN600	KXN700
For.-Rev.	KXN639	KXN739
Hand-Auto	KXN640	KXN740
Man-Auto	KXN643	KXN743
Off-On	KXN644	KXN744
On-Off	KXN645	KXN745
Open-Close	KXN646	KXN746
Start-Stop	KXN651	KXN751
Auto-Off-Hand	KXN658	KXN758
Hand-Off-Auto	KXN660	KXN760
Man-Off-Auto	KXN662	KXN762
Special Marking	KXN699	KXN799

Dual Dimensions: in (mm)

KXN100 (Pos. 1)	KXN200 (Pos. 1)	KXN400 (Pos. 1)	KXN400 (Pos. 1)	KXN400 (Pos. 1)
	KXN200 (Pos. 2)	KXN300 (Pos. 2)	KXN-500 (Pos. 2)	KXN-500 (Pos. 3)
		KXN400 (Pos. 3)	KXN400 (Pos. 4)	
KXRA, KXRB, KXRN, KXRP, KXPA, KXPC, KXTA, KXTB	KXRC, KXRD, KXRE, KXRF	KXRG, KXRH, KXRJ, KXRK	KXRL, KXRM, KXTC	KXPB, KXTD

Letter Height For Standard Legends

Reference	in	mm
KXN100	1/4	6
KXN200	3/16	4.75
KXN300	3/16	4.75
KXN400	3/16	4.75
KXN500	3/16	4.75
KXN600	1/8	3
KXN700	1/8	3

Maximum Number of Lines and Characters For 9001KXN Legend Inserts

Letter Height	Number of to	KXN199	KXN299	KXN299	KXN399	KXN499	KXN599
in mm		Horizontal	Vertical				
1/4 6	Characters per Line	7	7	3	7	7	3
	Lines per Legend Insert	4	2	4	1	1	1
3/16 4.75	Characters per Line	9	9	4	9	9	4
	Lines per Legend Insert	5	2	6	2	1	2
1/8 3	Characters per Line	14	14	5	14	14	6
	Lines per Legend Insert	8	4	9	3	2	3

Maximum Number of Lines and Characters for 9001KXN699 and 9001KXN799 Legend Plates

Position	Letter Height	Characters Per Marking Area
	in mm	A and C B
	3/16 4.75	6 6
	1/8 3	8 9
	3/16 4.75	10 5
	1/8 3	13 7

All 9001KX push buttons and pilot lights have a blank insert as standard. These blank inserts can be custom marked using a marking pen, a mechanical lettering set, press letters, or a tape lettering machine that marks a tape which can then be transferred to the blank insert.

To have legend inserts installed into the operators, order the operator as normal and then indicate where to install the legend inserts using the numbered positions shown on the operator ordered.

Example:
 9001KXRL1GRGRH2 with a
 9001KXN 401 in position 1
 9001KXN 503 in position 2
 9001KXN 504 in position 3
 9001KXN 402 in position 4

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX – Accessories

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

Closing Plate



UL Types 4, 13/NEMA 4, 13
Square Closing Plate (Chrome Plated)
Same size as KX bezel

Reference
KXAK52

Boots



For Use On	Reference
All KX** push buttons and pilot lights	KXAKU7
All KX** selector switches and potentiometers	KXAKU17B

Shrouds



Description	For Use On	Color	Reference
Full Shroud	All push buttons and pilot lights	Red	KXAK41R
		Black	KXAK41B
Short Shroud	Any KX operator	Red	KXAK40R
		Black	KXAK40B

Lamp and Lens Removal Kit



Used to remove lamp and lens on all
illuminated operators and pilot lights.

Reference
KXALLRT

Button Covers

Description	For Use On	Color	Reference	Code
 Includes 2-KXN200	KXPB	Red	KXAC28 (1)	R (2)
	KXTD	Green	KXAC28 (1)	G (2)
		Amber	KXAC28 (1)	A (2)
		Blue	KXAC28 (1)	L (2)
		White	KXAC28 (1)	W (2)
 Includes KXN400	KXTC (Position 1 & 4)	Red	KXAR4	R
		Green	KXAG4	G
		Amber	KXAA4	A
		Blue	KXAL4	L
		White	KXAW4	W
 Includes KXN500	KXTC (Position 2 & 3)	Red	KXAR5	R
		Green	KXAG5	G
		Amber	KXAA5	A
		Blue	KXAL5	L
		White	KXAW5	W
 Includes 1–KXN100	KXPC	Red	KXAC48 (3)	R (4)
		Green	KXAC48 (3)	G (4)
		Amber	KXAC48 (3)	A (4)
		Blue	KXAC48 (3)	L (4)
		White	KXAC48 (3)	W (4)
 Includes KXN100	KXRA KXRB	Red	KXAR1	R
		Green	KXAG1	G
		Amber	KXAA1	A
		Blue	KXAL1	L
		White	KXAW1	W
 Includes KXN100	KXRN KXRP	Red	KXARM1	R
		Green	KXAGM1	G
		Amber	KXAA1	A
		Blue	KXALM1	L
		White	KXAWM1	W
 Includes KXN200	(5) KXRC KXRD KXRE KXRF	Red	KXAR2	R
		Green	KXAG2	G
		Amber	KXAA2	A
		Blue	KXAL2	L
		White	KXAW2	W
 Includes KXN300	KXRG (Position 2) KXRH (Position 2) KXRJ (Position 2) KXRK (Position 2)	Red	KXAR3	R
		Green	KXAG3	G
		Amber	KXAA3	A
		Blue	KXAL3	L
		White	KXAW3	W
 Includes KXN400	KXRG (Position 1 & 3) KXRH (Position 1 & 3) KXRJ (Position 1 & 3) KXRK (Position 1 & 3) KXRL (Position 1 & 4) KXRM (Position 1 & 4)	Red	KXAR4	R
		Green	KXAG4	G
		Amber	KXAA4	A
		Blue	KXAL4	L
		White	KXAW4	W
 Includes KXN500	KXRL (Position 2 & 3) KXRM (Position 2 & 3)	Red	KXAR5	R
		Green	KXAG5	G
		Amber	KXAA5	A
		Blue	KXAL5	L
		White	KXAW5	W
 Includes KXN100	KXPA	Red	KXAR8	R
		Green	KXAG8	G
		Amber	KXAA8	A
		Blue	KXAL8	L
		White	KXAW8	W
 Includes KXN100	KXTA KXTB	Red	KXAR1	R
		Green	KXAG1	G
		Amber	KXAA1	A
		Blue	KXAL1	L
		White	KXAW1	W

- (1) Each KXAC28 includes a clear cover and 1 each of all colors. If the same color is required for position #1 and #2 of the KXPB operator, order 2 of reference KXAC28.
- (2) When specifying color codes—the first will be installed in #1 and the second in #2.
- (3) Each KXAC48 includes a clear cover and 1 each of all colors. If the same color is required for position #1 and #2 of the KXPC operator, order 2 of reference KXAC48.
- (4) When specifying color codes—the first will be installed in #1, the second in #2, the third in #3 and the fourth in #4.
- (5) Two required per operator. When ordering an assembled operator—specify two code numbers. The first code will be assembled into #1 and the second code will be assembled into #2.

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX

Dimensions

Single Push Button Operator, Non-Illuminated

9001KXRA, 9001KXRN



Selector Switch Operator, Non-Illuminated

9001KXS●



Single Pilot Light

9001KXPA35●, 9001KXPA1●



Dual Push Button Operator, Non-Illuminated

9001KXRC, 9001KXRD, 9001KXRE, 9001KXRF



Key Operator Selector Switch

9001KXS●



Dual Lamp Pilot Light

9001KXPB34●●, 9001KXPB1●●



Single Push Button Operator, Illuminated

9001KXRB, 9001KXRP, 9001KXTA



Selector Switch Operator, Illuminated

9001KXS●



Dual Dimensions: in (mm)

Minimum Centerline Spacings For 9001KX
2-1/4" Vertically 1-5/8" Horizontally

Harmony™ 9001K/SK/KX

30 mm push buttons

9001KX

Dimensions (continued)

Quad Pilot Light

9001KXPC34WAGR, 9001KXPC1W●GR



Dual Push Button Operator, Illuminated

9001KXRG, 9001KXRH, 9001KXRJ, 9001KXRX



Single Potentiometer Operator

9001KXRBB●●



Tandem Potentiometer Operator

9001KXBD83



Dual Lamp Push Button Operator

9001KXRL, 9001KXRM, 9001KXTC



Shroud

9001KXAK41R, 9001KXAK41B, 9001KXAK40R, 9001KXAK40B



Boot

9001KXAKU7, 9001KXAKU17B



Dual Dimensions: in (mm)

Minimum Centerline Spacings For 9001KX
2-1/4" Vertically 1-5/8" Horizontally

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

#		G		K2L1R20H13	11	K47J●●	14	K701J1	14
2540902240	19	G19	28, 58	K2L1R21H13	11	K47J1	14	K701J1R	14
2550101002	24, 54	G20	28, 58	K2L1RH13	11	K47J1R	14	K702J●●	14
2550101003	29, 59	G21	28, 58	K2L35●	11	K48	27, 57	K702J1	14
2550101013	24, 54	G22	28, 58	K2L35G20H13	11	K49	29	K702J1R	14
2550101020	24, 29, 54, 59	G24	28, 58	K2L35G21H13	11	K49J●●	14	K70H7	18
2550101025	24, 54	G31	28, 58	K2L35GH13	11	K49J1	14	K71	18
2550101027	24, 54	G6	28, 58	K2L35R20H13	11	K49J1R	14	K71H7	18
2550101036	24, 54	G7	28, 58	K2L35R21H13	11	K5	27, 57	K72	18
2550101037	24, 54	G8	28, 58	K2L35RH13	11	K50	19	K72H7	18
2550105003	29, 59	G9	28, 58	K2L7●	11	K501J●●	14	K72J●●	14
2550105004	29, 59	K		K2L7G20H13	11	K501J1	14	K72J1	14
2550105005	29, 59	K1	29, 59	K2L7G21H13	11	K501J1R	14	K72J1R	14
2550105007	29, 59	K107	27, 57	K2L7GH13	11	K502J●●	14	K73	18
2550105008	29, 59	K108	27, 57	K2L7R20H13	11	K502J1	14	K73H7	18
2550105009	29, 59	K109	27, 57	K2L7R21H13	11	K502J1R	14	K73J1	14
2550105010	29, 59	K110	27, 57	K2L7RH13	11	K51	27, 57	K73J1R	14
2550105014	29, 59	K111	29	K3	29, 59	K52	27, 57	K74J●●	14
2941101100	29, 59	K11J●●	13	K30	18	K52J●●	14	K74J1	14
3105204101	29, 59	K11J1	13	K30H8	18	K52J1	14	K74J1R	14
3105205901	29, 59	K11J1R	13	K31	18	K52J1R	14	K75J●●	14
3105206750	19	K12J●●	13	K31H8	18	K53J●●	14	K75J1	14
3105211101	19	K12J1	13	K32	18	K53J1	14	K75J1R	14
3105217001	29, 59	K12J1R	13	K32H8	18	K53J1R	14	K76J●●	14
3105404408	29, 59	K13B	28, 58	K33	18	K54	29, 59	K76J1	14
3105406401	29, 59	K13C	28, 58	K33H8	18	K54J●●	14	K76J1R	14
4458D20X3	29, 59	K13D	28, 58	K34	18	K54J1	14	K77J●●	14
4487D63X1	29, 59	K13E	28, 58	K34H2	18	K54J1R	14	K77J1	14
6508804101	29, 59	K13F	28, 58	K34J●●	13	K55	29	K77J1R	14
6508805201	24, 54	K13G	28, 58	K34J1	13	K55J●●	14	K79J●●	14
6508805202	24, 54	K13H	28, 58	K34J1R	13	K55J1	14	K79J1	14
6508805203	24, 54	K13J	28, 58	K35	18	K55J1R	14	K79J1R	14
6508805204	24, 54	K13L	28, 58	K35H2	18	K56●	27, 57	K8	19
6508805205	24, 54	K13M	28, 58	K36	18	K56●M	27, 57	K85	19
6508805206	24, 54	K15	19	K36H2	18	K56J●●	14	K92B	28, 58
6508805210	24, 54	K162	27, 57	K37	18	K56J1	14	K92BM	28, 58
6508805211	24, 54	K16B	28, 58	K37H2	18	K56J1R	14	K92G	28, 58
6508805212	24, 54	K16G	28, 58	K3L	21	K57J●●	14	K92GM	28, 58
6508805213	24, 54	K16L	28, 58	K3L●●	11	K57J1	14	K92L	28, 58
6508805214	24, 54	K16R	28, 58	K3L●GH13	11	K57J1R	14	K92R	28, 58
6509701801	29, 59	K16R05	28, 58	K3L●RH13	11	K58	29	K92RM	28, 58
6509701901	29, 59	K16S	28, 58	K3L1●	11	K59J●●	1		

Harmony™ 9001K/SK/KX

30 mm push buttons

SKR24GH6	41	SKR5●	41	SKS44	45	SKS77●	45
SKR24R	41	SKR5●H13	41	SKS44●	45	SKS79	45
SKR24RH13	41	SKR5●H5	41	SKS44BH1	45	SKS79●	45
SKR24RH5	41	SKR5●H6	41	SKS44BH13	45	SKS88	46
SKR24RH6	41	SKR5B	41	SKS44BH2	45	SKS88●	46
SKR25●	41	SKR5BH13	41	SKS45	45	SKT●	48
SKR25●H13	41	SKR5BH5	41	SKS45●	45	SKT●●	48
SKR25●H5	41	SKR5BH6	41	SKS45BH1	45	SKT●G31	48
SKR25●H6	41	SKR5G	41	SKS45BH13	45	SKT●R31	48
SKR25B	41	SKR5GH13	41	SKS45BH2	45	SKT1	48
SKR25BH13	41	SKR5GH5	41	SKS46	45	SKT1●	48
SKR25BH5	41	SKR5GH6	41	SKS46●	45	SKT1G31	48
SKR25BH6	41	SKR5R	41	SKS46BH1	45	SKT1R31	48
SKR25G	41	SKR5R05	41	SKS46BH13	45	SKT35	48
SKR25GH13	41	SKR5R05H13	41	SKS47	45	SKT35●	48
SKR25GH5	41	SKR5R05H5	41	SKS47●	45	SKT35G31	48
SKR25GH6	41	SKR5R05H6	41	SKS47BH1	45	SKT35R31	48
SKR25R	41	SKR5RH13	41	SKS47BH13	45	SKT7	48
SKR25RH13	41	SKR5RH5	41	SKS47BH2	45	SKT7●	48
SKR25RH5	41	SKR5RH6	41	SKS49	45	SKT7G31	48
SKR25RH6	41	SKR8	51	SKS49●	45	SKT7R31	48
SKR2B	41	SKR8●	43	SKS49BH1	45	SKTR●	48
SKR2BH13	41	SKR8●H25	43	SKS49BH13	45	SKTR●●	48
SKR2BH5	41	SKR8G	43	SKS49BH2	45	SKTR●G31	48
SKR2BH6	41	SKR8GH25	43	SKS5	51	SKTR●R31	48
SKR2G	41	SKR8P●●	43	SKS501	45	SKTR35	48
SKR2GH13	41	SKR8P●●H25	43	SKS501●	45	SKTR35●	48
SKR2GH5	41	SKR8P●RH25	43	SKS502	45	SKTR35G31	48
SKR2GH6	41	SKR8P1●	43	SKS502●	45	SKTR35R31	48
SKR2R	41	SKR8P1●H25	43	SKS52	45	SKTR38	48
SKR2RH13	41	SKR8P1RH25	43	SKS52●	45	SKTR38●	48
SKR2RH5	41	SKR8R	43	SKS53	45	SKTR38G31	48
SKR2RH6	41	SKR8RH25	43	SKS53●	45	SKTR38R31	48
SKR2U	41	SKR9	51	SKS54	45	SS	
SKR2UH13	41	SKR9●	43	SKS54●	45	SSKS46BH2	45
SKR2UH5	41	SKR9●H13	43	SKS55	45	T	
SKR2UH6	41	SKR9G	43	SKS55●	45	T5BE	28, 58
SKR3	51	SKR9GH13	43	SKS56	45	T5BK	28, 58
SKR3●	41	SKR9P●●	43	SKS56●	45	T5GN	28, 58
SKR3●H13	41	SKR9P●●H13	43	SKS57	45	T5OE	28, 58
SKR3●H5	41	SKR9P●RH13	43	SKS57●	45	T5RD	28, 58
SKR3●H6	41	SKR9P1●	43	SKS59	45	T5WH	28, 58
SKR3B	41	SKR9P1●H13	43	SKS59●	45	T5YW	28, 58
SKR3BH13	41	SKR9P1RH13	43	SKS6	51	T8BE	28, 58
SKR3BH5	41	SKR9R	43	SKS601	45	T8BK	28, 58
SKR3BH6	41	SKR9RH13	43	SKS601●	45	T8GN	28, 58
SKR3G	41	SKS11	44	SKS602	45	T8GY	28, 58
SKR3GH13	41	SKS11●	44	SKS602●	45	T8OE	28, 58
SKR3GH5	41	SKS11BH1	44	SKS62	45	T8RD	28, 58
SKR3GH6	41	SKS11BH13	44	SKS62●	45	T8U	28, 58
SKR3R	41	SKS11BH2	44	SKS63	45	T8WH	28, 58
SKR3RH13	41	SKS12	44	SKS63●	45	T8YW	28, 58
SKR3RH5	41	SKS12●	44	SKS64	45	U	
SKR3RH6	41	SKS25	44	SKS64●	45	U19	28, 58
SKR3U	41	SKS25●	44	SKS65	45	W	
SKR3UH13	41	SKS34	44	SKS65●	45	W20	28, 58
SKR3UH5	41	SKS34●	44	SKS66	45	W21	28, 58
SKR3UH6	41	SKS4	51	SKS66●	45	W22	28, 58
SKR4●	41	SKS401	45	SKS67	45	W24	28, 58
SKR4●H13	41	SKS401●	45	SKS67●	45	W31	28, 58
SKR4●H5	41	SKS401BH1	45	SKS69	45	W6	28, 58
SKR4●H6	41	SKS401BH13	45	SKS69●	45	W7	28, 58
SKR4B	41	SKS401BH2	45	SKS7	51	W8	28, 58
SKR4BH13	41	SKS402	45	SKS701	45	W9	28, 58
SKR4BH5	41	SKS402●	45	SKS701●	45	Y	
SKR4BH6	41	SKS402BH1	45	SKS702	45	Y20	28, 58
SKR4G	41	SKS402BH13	45	SKS702●	45	Y21	28, 58
SKR4GH13	41	SKS402BH2	45	SKS72	45	Y22	28, 58
SKR4GH5	41	SKS42	45	SKS72●	45	Y24	28, 58
SKR4GH6	41	SKS42●	45	SKS73	45	Y31	28, 58
SKR4R	41	SKS42BH1	45	SKS73●	45	Y6	28, 58
SKR4R05	41	SKS42BH13	45	SKS74	45	Y7	28, 58
SKR4R05H13	41	SKS42BH2	45	SKS74●	45	Y8	28, 58
SKR4R05H5	41	SKS43	45	SKS75	45	Y9	28, 58
SKR4R05H6	41	SKS43●	45	SKS75●	45		
SKR4RH13	41	SKS43BH1	45	SKS76	45		
SKR4RH5	41	SKS43BH13	45	SKS76●	45		
SKR4RH6	41	SKS43BH2	45	SKS77	45		

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