

EAT•N

Commercial Controls

Sealed Vehicle Rocker (SVR)



SEALED VEHICLE ROCKER – SVR

SVR Series

DESCRIPTION

Eaton is excited to present the Sealed Vehicle Rocker (SVR) – the latest innovation in switch design that meets the rigorous design and aesthetic demands of our customers. The SVR switch platform offers design flexibility to users by providing a wide range of circuits and actuator types as well as the distinct quality feel and look typical of Eaton's rocker switches.

Designed to meet severe environmental requirements of Construction and Agricultural Vehicle markets, the SVR switch is sealed at the front and back and meets the rigorous sealing requirements of IP67. In low current switching applications this feature is especially valuable by preventing contamination of the internal switching mechanism.

This already field-proven line of full-sized rocker switches

initially developed for Construction and Agricultural Vehicles is now found in a variety of applications. The SVR offers both European styling and ergonomic design while providing the solid durability that you have come to expect from Eaton switches. LED illuminated versions for either 12 or 24V applications are available in either dependent or independent circuits. The SVR also offers a variety of rocker buttons and indicators with laser etched and pad printed icons.

SPECIFICATIONS

Electrical Ratings:

Standard Plating:
50,000 operations @ 12A at either 12 or 24VDC. Life cycle testing conducted using both inductive and resistive loads.

Gold Plating:

50,000 operations @ 10mA at either 12 or 24VDC.

Dielectric Strength:

1500V RMS, minimum.

Circuits:

Up to 2-pole, 3-position, with momentary and maintained capabilities.

Standard Circuit Options:

ON(MOM) – ON
ON – ON – ON
ON(MOM) – ON – ON(MOM)
ON – ON – ON(MOM)
ON(MOM) – OFF – ON(MOM)
ON – ON
ON – OFF – ON
ON – OFF – ON(MOM)

Contact Mechanism:

Slow-make/slow-break contact mechanism.

Standard Contact Material:

– **Movable:**
Copper alloy with silver alloy contact surface.

– **Stationary:**
Silver-plated copper alloy with silver alloy contact surface.

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HOW TO ORDER — Series SVR

To determine your **Complete Catalog Number**, you must start with appropriate **Series Prefix** and add the appropriate **Code Letters** and/or **Numbers** as in the example below:

Add each appropriate Number or Letter...

Switch Series	Circuit	Frame	Plating	Top Light Source	Bottom Light Source
S	1548	S	N	3	1 –

SELECTION TABLE

Switch Series	Circuit	Frame	Code	Plating	Code	Top Light Source	Code	Bottom Light Source	Code
S	See Table Page 4-5	Standard ① Palm Guard Top Palm Guard Bottom Full Palm Guard	S T B F	Standard Gold	N G	None 14V Red 14V Green 14V Amber 28V Red 28V Green 28V Amber	0 1 2 3 4 5 6	None 14V Red 14V Green 14V Amber 28V Red 28V Green 28V Amber	0- 1- 2- 3- 4- 5- 6-

① Use standard frame option S for indicators.

② Standard color for pad printing red and green lens will be white.
Standard color for pad printing amber and white lens will be black.

Mechanical Life:
250,000 operations minimum.

Terminal Type:
Standard 0.110"(2.8mm)
tin-plated copper alloy spade
terminal. Mates to AMP
Junior Power Timer Terminals
– Catalog Numbers 927766-3
(14-16 gauge) and 927770-3
(18-20 gauge). When sealing
the wire to the connector use
AMP wire seal Catalog
Numbers 828905-1 (14-16
gauge) or 828904-1 (18-20
gauge). In an application
where a connector cavity is
not being used it can be
sealed with AMP sealing plug
Catalog Number 828922-1.

**Plastic Component UL
File Numbers:**

– **Base Material:**
UL94 V-0

– **Frame Material:**
UL94 H-B

– **Sub-Actuator Material:**
UL94 V-0

– **Rocker Material:**
UL94 V-2

Operating Temperature Range:
-40°C to +85°C.

Storage Temperature Range:
-40°C to +85°C.

Mounting Means:
Snap-in mounting with
plastic bezel.

Mounting Hole:
Standard panel cutout of
36.85mm x 21.08mm
(1.45" x 0.83").

Panel Thickness:
100mm to 4.00mm
(.040" to .156").

Best results obtained
between 1.5 and 3.0mm
(0.060" to 0.118").

Sealing:
Standard switch provides
dust and water resistance
to IP67.

Rocker:

The standard actuator for the
SVR is a European styled two
face rocker made of high
quality thermoplastic material.
The rocker is replaceable and
snaps on and off the switch.
Both the rocker and bezel are
supplied with an aesthetically
pleasing matte finish.
Different colors are also
available but black is
standard. Rockers can be
ordered separately.

Lighting:

Each switch is capable of
accommodating two LEDs
which can be connected to
be either circuit dependent
or independent. Standard
colors are red, green, and
amber however special
colors and voltages are
available. Contact your
Eaton Sales Representative
for this information.



Example of Complete Number: S1548SN31-4CBLAABEA

Actuator Style	Top Lens/Icon Color ④	Top Icon ③	Top Icon Orientation ⑤	Bottom Lens/Icon Color ④	Bottom Icon ③	Bottom Icon Orientation ⑤
4	C	BL	A	A	BE	A

Actuator Style	Code	Top Lens/Icon Color	Code	Top Icon	Top Icon Orientation	Code	Bottom Lens/Icon Color	Code	Bottom Icon	Bottom Icon Orientation	Code
Rocker – No Lens	1	Lens Color					Lens Color				
Lens at Top	2	None	0	See Table on Back Cover of Brochure			None	0	See Table on Back Cover of Brochure		
Lens at Bottom	3	Red	A ②				Red	A ②			
Lens at Top and Bottom	4	Green	B ②		None	0	Green	B ②		None	0
Paddle – None Lighted	5	Amber	C ②		Standard	A	Amber	C ②		Standard	A
Indicator – with Top Lens	6	White	F ②		90 degrees	B	White	F ②		90 degrees	B
Indicator – with Bottom Lens	7			Use Code 00 to indicate no icon	180 degrees	C			Use Code 00 to indicate no icon	180 degrees	C
Indicator with Top and Bottom Lens	8	Legend Color			270 degrees	D	Legend Color			270 degrees	D
Decorative Rocker	A	None	0				None	0			
Decorative Rocker – Red	B	Daylight White	1				Daylight White	1			
		Deadfront	2				Deadfront	2			

③ See SVR Icon Selection Table on back cover of brochure.

⑤ Refer to page 5 for example of icon orientation.

④ Refer to page 5 for example of deadfront and daylight white.

SEALED VEHICLE ROCKER – SVR

SPECIFICATIONS (continued)

Legends:

Examples of standard legends/icons are found on back cover of brochure. One legend area is provided on each end of the rocker. Legends may be illuminated or non-illuminated. The SVR offers two styles of illuminated legends.

– Single Piece Back-Lit:

Back-lighting is a high quality automotive/truck industry lighting technique. The legend can appear to be Daylight White or Deadfront, but will change to the color of the chosen light source when illuminated.

– Snap-In Lenses:

The rocker will have either one or two snap-in lenses in the legend areas. Legends are pad-printed on the lens in either black or white.

Snap-in lenses are available in four standard colors: white, amber, green, and red.

OPTIONS

- Additional colors of rockers, mounting bezels and lenses are available.
- Special circuits.
- Special ratings.
- Pad-printed legends on lens, rocker and bezel.
- Low current capabilities.
- Custom back-lit legends available.
- Gang mount system includes the end bezel Catalog Number 17-22146 and the center bezel Catalog Number 17-22152.
- Palm guard frame with guard at either end or both ends of the frame.




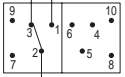
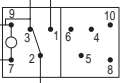
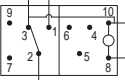
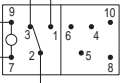
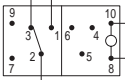
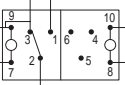
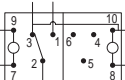
- Indicators with insertable lenses.
- Polarized lock-on connector Catalog Number 25-13936.
- Panel plug with connector retention feature Catalog Number 17-22145.
- Non-illuminated paddle rocker Catalog Number 500000000.




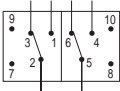
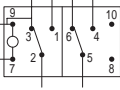
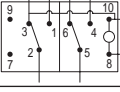

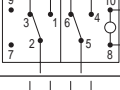
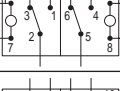

Contact your Eaton Sales Representative for additional information on options.

Catalog Number Selection:




The catalog number selection system is based on the existing NGR catalog number system. Please note that this catalog number system enables one to order a completely assembled switch and rocker or to order those items separately if desired. See catalog number selection system on pages 2-3.




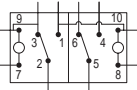
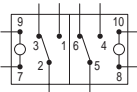
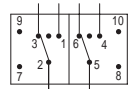
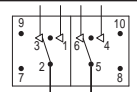
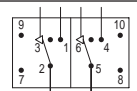
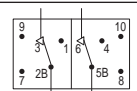
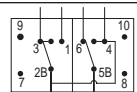
SVR CIRCUIT DESCRIPTIONS

Circuit Number	Schematic (Shown in UP Position)	Circuit w/Rocker in		
		 DOWN Position	 CENTER Position	 UP Position
SINGLE POLE				
Please use SPDT (1003) and DPDT (2003) circuits for your SPST and DPST applications respectively. Contact your Eaton Sales Representative for more specific information about SVR standard and custom circuit options.				
1003		ON	NONE	ON
		2-1	—	2-3
1541		ON	NONE	ON
		2-1	—	2-3-9
1542		ON	NONE	ON
		2-1	—	2B-3-10
1543		ON	NONE	ON
		2-1	—	2B-3
1544		ON	NONE	ON
		2-1	—	2-3
1545		ON	NONE	ON
		2-1	—	2-3-9
1546		ON	NONE	ON
		2-1	—	2-3-10

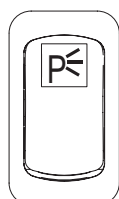
Circuit Number	Schematic (Shown in UP Position)	Circuit w/Rocker in		
		 DOWN Position	 CENTER Position	 UP Position
DOUBLE POLE				
Please use SPDT (1003) and DPDT (2003) circuits for your SPST and DPST applications respectively. Contact your Eaton Sales Representative for more specific information about SVR standard and custom circuit options.				
2003		ON	NONE	ON
		2-1 5-4	—	2-3 5-6
2541		ON	NONE	ON
		2-1 5-4	—	2-3-9 5-6
2542		ON	NONE	ON
		2-1 5-4	—	2-3-10 5-6
2543		ON	NONE	ON
		2-1 5-4	—	2-3 5-6
2544		ON	NONE	ON
		2-1 5-4	—	2-3 5-6
2545		ON	NONE	ON
		2-1 5-4	—	2-3-9 5-6
2546		ON	NONE	ON
		2-1 5-4	—	2-3-10 5-6

SVR Circuit Descriptions

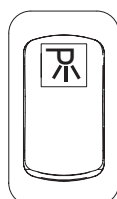
Circuit Number	Schematic (Shown in UP Position)	Circuit w/Rocker in		
		 DOWN Position	 CENTER Position	 UP Position
SINGLE POLE				
<p>Please use SPDT (1003) and DPDT (2003) circuits for your SPST and DPST applications respectively.</p> <p>Contact your Eaton Sales Representative for more specific information about SVR standard and custom circuit options.</p>				
1547		ON	NONE	ON
		2-1-10	—	2-3-9
1548		ON	NONE	ON
		2-1	—	2-3
1004		ON	OFF	ON
		2-1	—	2-3
1005		MOM ON	OFF	MOM ON
		2-1	—	2-3
1006		ON	OFF	MOM ON
		2-1	—	2-3
1007		ON	NONE	MOM ON
		2B-3-9	—	2B-1
3001		ON	ON	ON
		5-4-2-1	5-4-2-3	2-3 5-6

Circuit Number	Schematic (Shown in UP Position)	Circuit w/Rocker in		
		 DOWN Position	 CENTER Position	 UP Position
DOUBLE POLE				
Please use SPDT (1003) and DPDT (2003) circuits for your SPST and DPST applications respectively.				
Contact your Eaton Sales Representative for more specific information about SVR standard and custom circuit options.				
2547		ON	NONE	ON
		2-1-10 5-4	—	2-3-9 5-6
2548		ON	NONE	ON
		2-1 5-4	—	2-3 5-6
2004		ON	OFF	ON
		2-1 5-4	—	2-3 5-6
2005		MOM ON	OFF	MOM ON
		2-1 5-4	—	2-3 5-6
2006		ON	OFF	MOM ON
		2-1 5-4	—	2-3 5-6
2007		ON	NONE	MOM ON
		2-1 5-4	—	2-3 5-6
2008		MOM ON	ON	MOM ON
		5-4-2-1	5-4-2-3	2-3 5-6

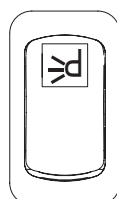
ICON ORIENTATION EXAMPLES



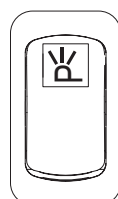
Rocker with
Standard Orientation
(Code A)



Rocker with
Icon at 90° Clockwise
(Code B)



Rocker with
Icon at 180° Clockwise
(Code C)



Rocker with
Icon at 270° Clockwise
(Code D)

LEGEND COLOR EXAMPLES

NON-ILLUMINATED



ILLUMINATED



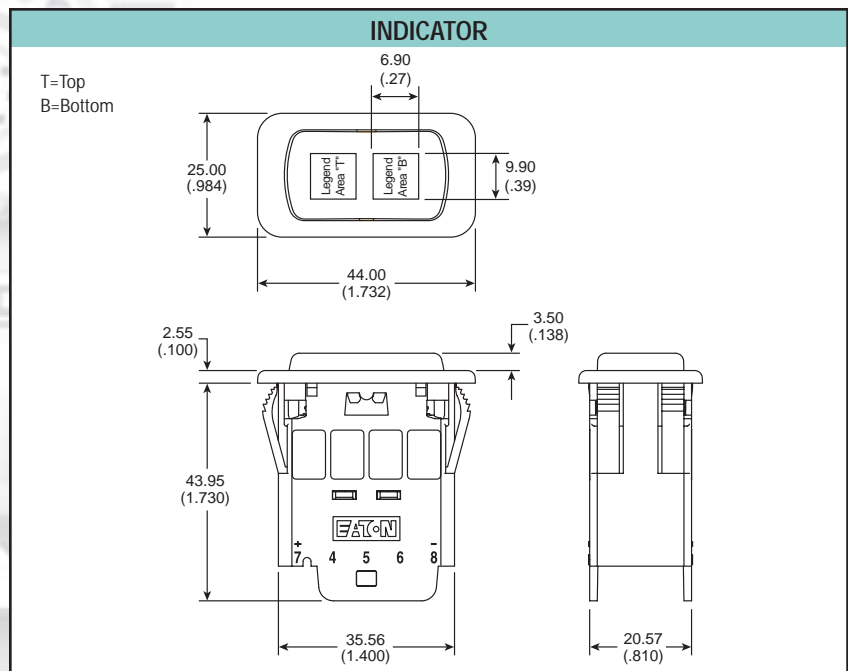
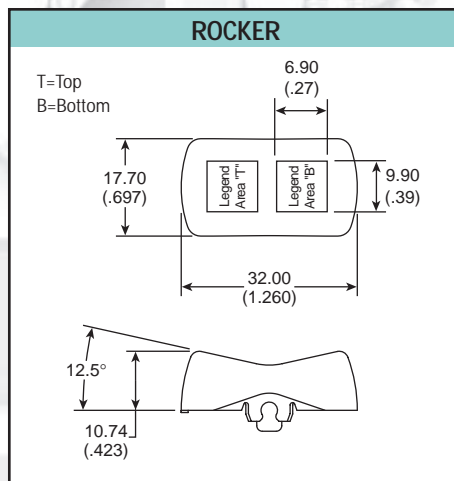
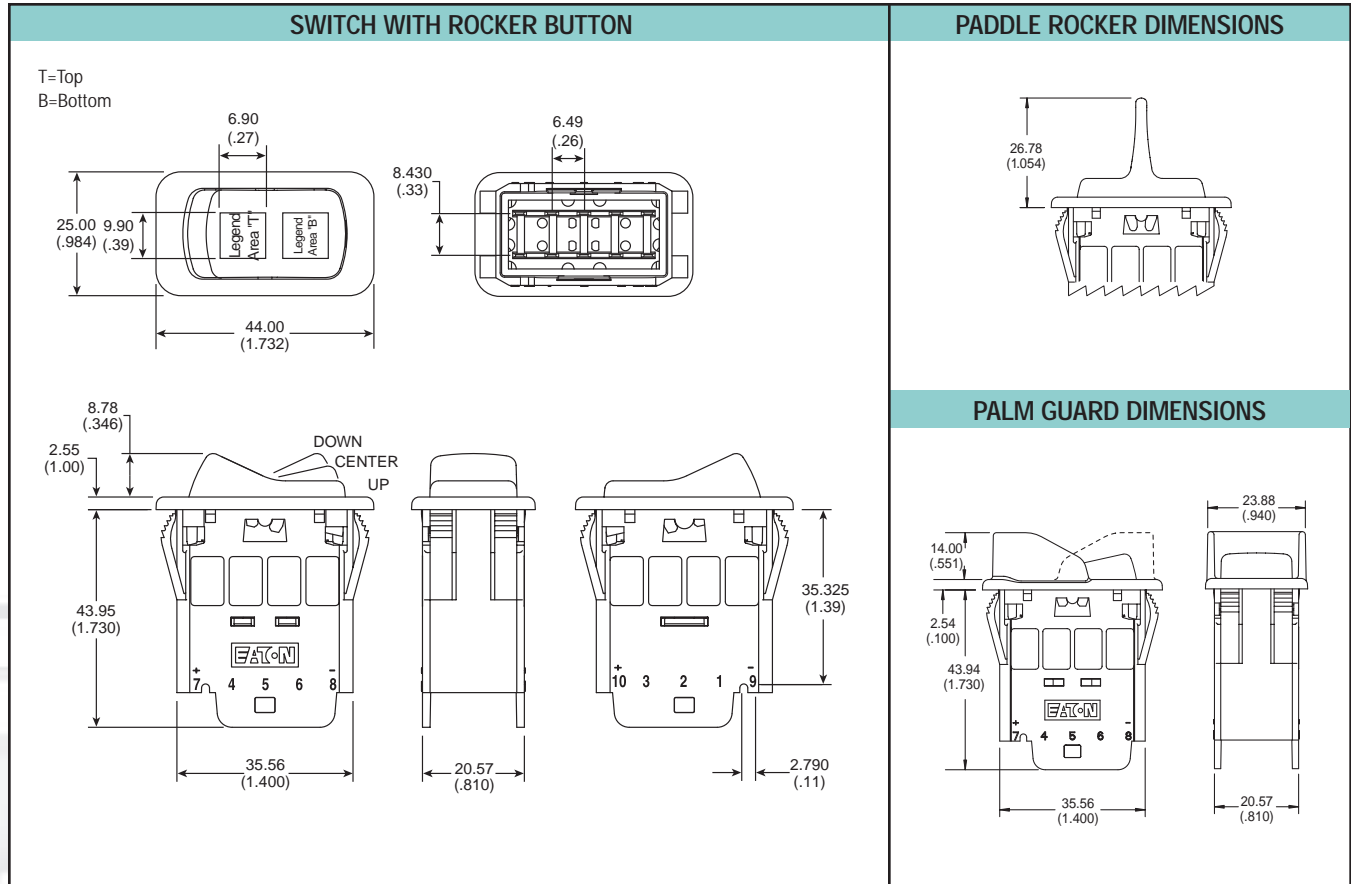
Deadfront

Daylight
White

SEALED VEHICLE ROCKER – SVR

SVR Dimensions

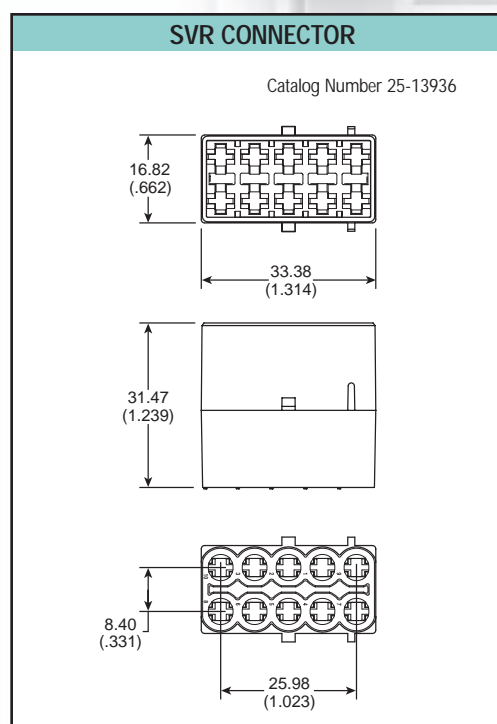
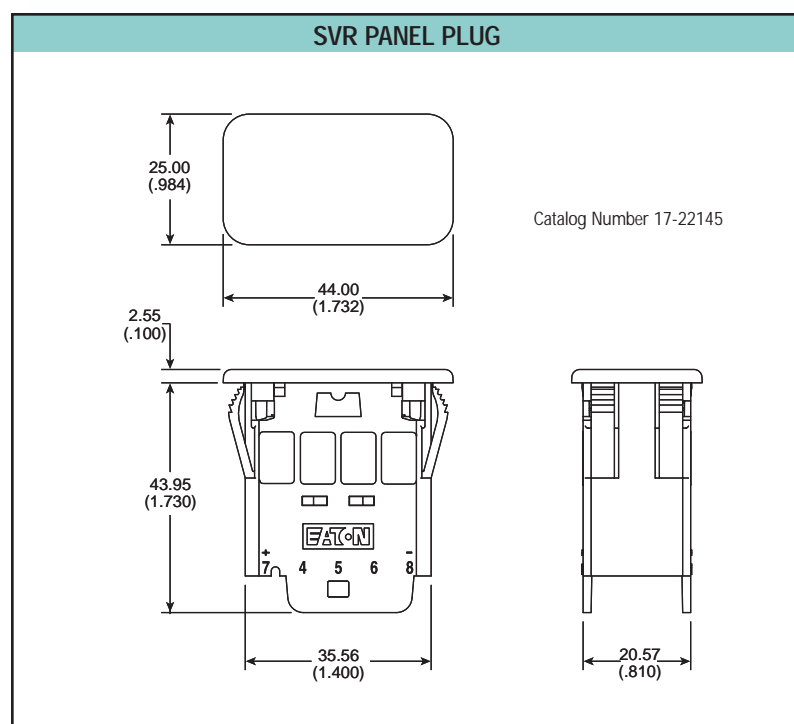
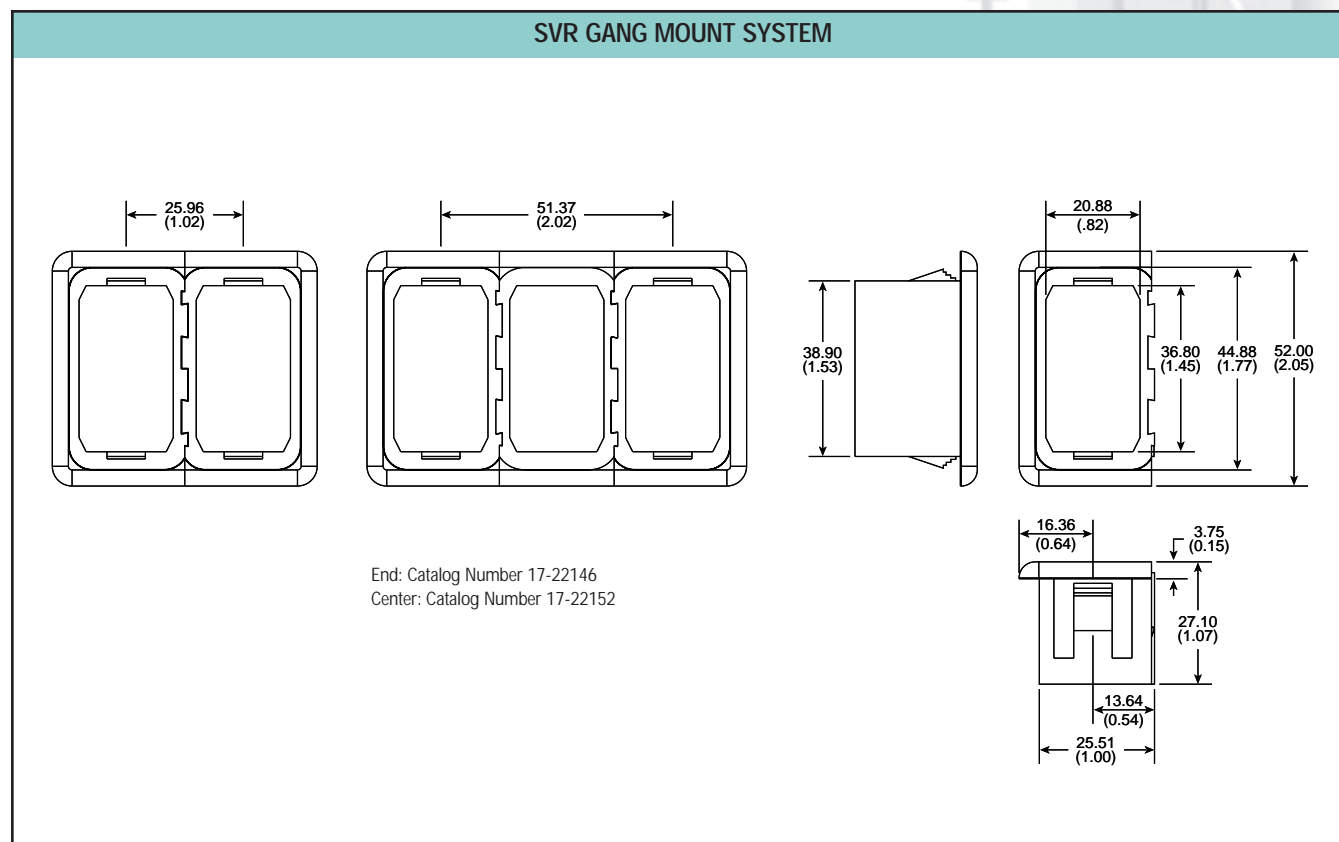
APPROXIMATE IN MM (INCHES)







































SVR Dimensions – Accessories



APPROXIMATE IN MM (INCHES)



SVR Icon Selection Table

Icon	Description	Code	Icon	Description	Code	Icon	Description	Code
	Horn	AA		Work Light	AT		All Wheel Drive	CW
	Battery	AB		Hazard Lights	AV		Start	DX
	Fast	AC		Headlights – High/Upper Beam	AW		Stop	DY
	Slow	AD		Rear Window Demister/Defroster	AX		Fluid Level	FC
	Lock	AE		Interior Dome Lights	BB		Instrument Lighting	FF
	Unlock	AF		Electrical Power Accessories	BC		Window Up	GH
	Windshield – Wiper	AK		Turn Signal	BJ		Cable Winch	HA
	Windshield – Washer	AL		Rear Windshield Wiper	BK		Cross Axle Lock	HM
	Windshield – Washer and Wiper	AM		Heated Mirror	BL		Inter Axle Lock	HN
	Windshield – Demister/Defroster	AN		Beacon	BR		Engine Speed	HY
	Air Conditioning/Cooling System	AP		PTO	BS		Traction Control	KR
	Ventilating Air Circulating Fan	AQ		Differential Lock	BT		P.T.O.2	LX

Additional icons are available. Contact your Eaton Sales Representative.

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