Plastic Enclosures for 22mm Pilot Devices

Switch enclosures

Specification Standard	Enclosure Material	Gasket Material	Degree of Protection
CEI EN 60947-5-1	Thermoplastic ABS, conforms to UL94/HB	Caoutchouc (rubber) foam	IP65 according to CEI EN 60529

SA107-40SL   SA105-40SL   SA100SL

Enclosures have molded knock-outs for 1/2" conduit fittings.

Also check out our metal pushbutton enclosures in the Enclosures section.

Important notes about enclosure depth and over-tightening

Switches with two-deep contact blocks require enclosures that are 74mm deep: 51mm-deep enclosures are too shallow and the switch contact block will not fit.

For switches with one-deep contact blocks, either 51mm-deep or 74mm-deep enclosures can be used.

Also, do not over-tighten when securing switch in the enclosure body. Over-tightening will crack the plastic body of the enclosure.

When installing pushbutton, switches, and joysticks with securing screws, ensure that they have good purchase on area away from the perforated keyway slots made for other switch types. Securing screws should be tightened to 4.5 lb·in or less.

Two-deep contact blocks
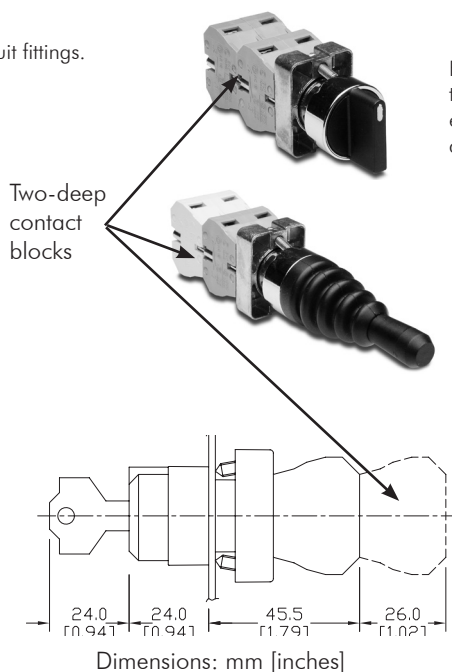
For example: If using a switch having a two-deep contact block with a two-hole enclosure, order a 74mm-deep SA106-40SL, not a 51mm-deep SA105-40SL.

74mm deep

YES!

51mm deep

NO!

24.0 [0.94]   24.0 [0.94]   45.5 [1.79]   26.0 [1.02]

Dimensions: mm [inches]
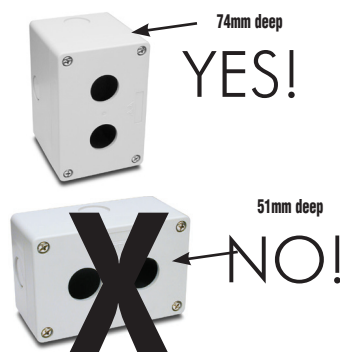
No-hole model

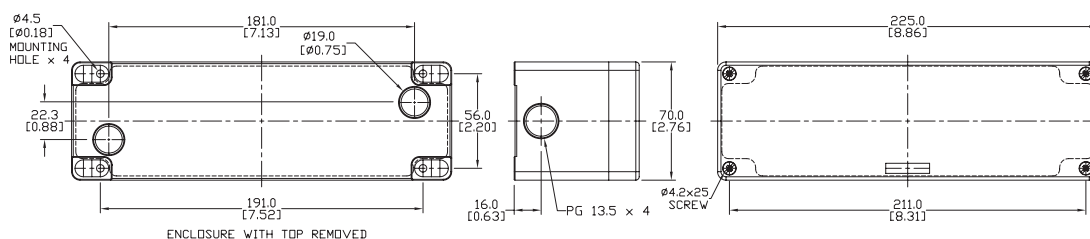| Part Number	Color	Price	Hole Size/Depth	Mounting Instructions
SA111-00	Gray	$13.50	No Holes	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.

Note: This enclosure works with most 22mm pushbuttons but may not work with Cutler-Hammer E22 series push-buttons. Check your pushbutton dimensions before ordering.

74mm deep:

SA111-00

Dimensions: mm [inches]

Ø4.5 [Ø0.18] MOUNTING HOLE × 4   181.0 [7.13]   Ø19.0 [Ø0.75]   56.0 [2.20]   225.0 [8.86]

22.3 [0.88]   70.0 [2.76]

191.0 [7.52]   16.0 [0.63]   PG 13.5 × 4   Ø4.2×25 SCREW   211.0 [8.31]

ENCLOSURE WITH TOP REMOVED

Plastic Enclosures for 22mm Pilot Devices

Single-hole models

51mm deep:
SA100SL
SA101SL

74mm deep:
SA103SL
SA104SL

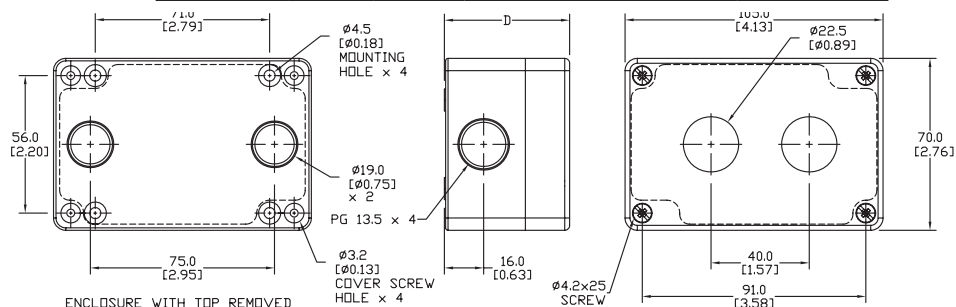| Part Number	Color	Price	Hole Size/Depth	Mounting Instructions
SA100SL	Gray	$7.25	Hole size fits 22mm devices, 51mm depth accommodates **single-deep contact block** switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA101SL	Gray body/yellow top	$7.75		
SA103SL	Gray	$8.25	Hole size fits 22mm devices, 74mm depth accommodates **two-deep contact block** switches	
SA104SL	Gray body/yellow top	$8.50		

Dimensions: mm [inches]
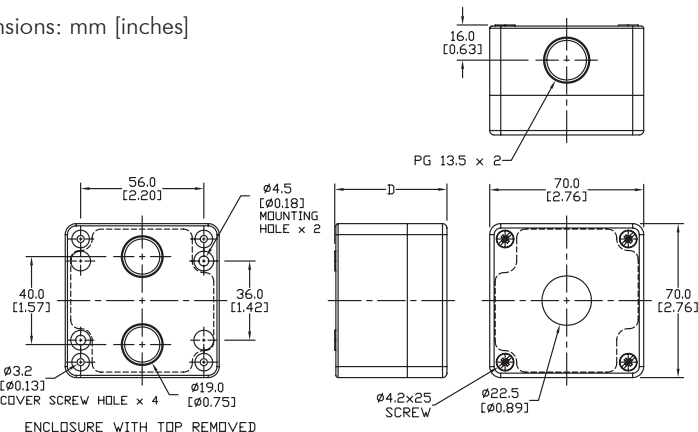
Two-hole models

51mm deep:
SA105-40SL

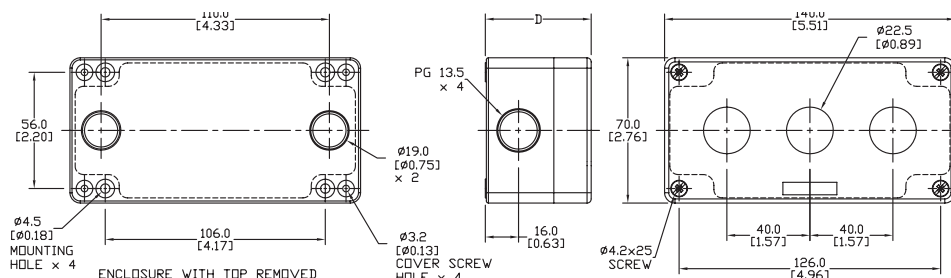| Part Number	Color	Price	Hole Size/Depth	Mounting Instructions
SA105-40SL	Gray	$9.00	Hole size fits 22mm devices, 51mm depth accommodates **single-deep contact block** switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA106-40SL	Gray	$9.75	Hole size fits 22mm devices 74mm depth accommodates **two-deep contact block** switches	

Three-hole models

51mm deep:
SA107-40SL

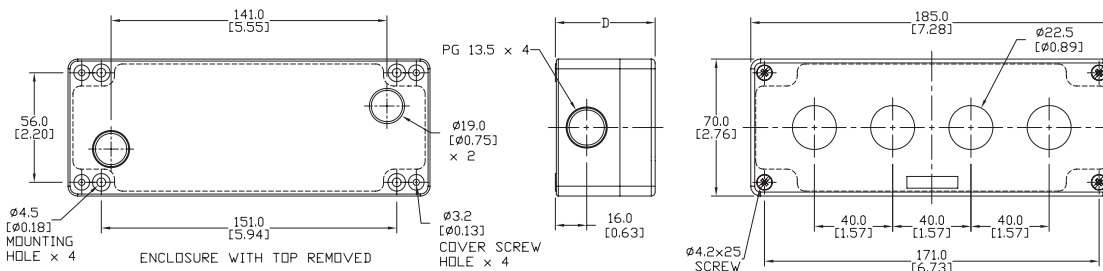| Part Number	Color	Price	Hole Size/Depth	Mounting Instructions
SA107-40SL	Gray	$11.00	Hole size fits 22mm devices, 51mm depth accommodates **single-deep contact block** switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA108-40SL		$12.50	Hole size fits 22mm devices, 74mm depth accommodates **two-deep contact block** switches	

Plastic Enclosures for 22mm Pilot Devices

Four-hole models

51mm deep:

SA109-40SL

Part Number	Color	Price	Hole Size/Depth	Mounting Instructions
SA109-40SL	Gray	$12.50	Hole size fits 22mm devices, 51mm depth accommodates **single-deep contact block** switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA110-40SL		$15.00	Hole size fits 22mm devices, 74mm depth accommodates **two-deep contact block** switches	

Dimensions: mm [inches]


Five-hole and six-hole models

74mm deep:

SA111

74mm deep:

SA112

Part Number	Color	Price	Hole Size/Depth	Mounting Instructions
SA111	Gray	$13.50	Hole size fits 22mm devices, 74mm depth accommodates **two-deep contact block** switches	Tighten 22mm devices only as needed to provide proper sealing. Over-tightening will crack plastic body.
SA112		$14.00	Hole size fits 22mm devices, 74mm depth accommodates **two-deep contact block** switches	

Note: These enclosures work with most 22mm pushbuttons, but may not work with Cutler-Hammer E22 series pushbuttons. Check your pushbutton dimensions before ordering.
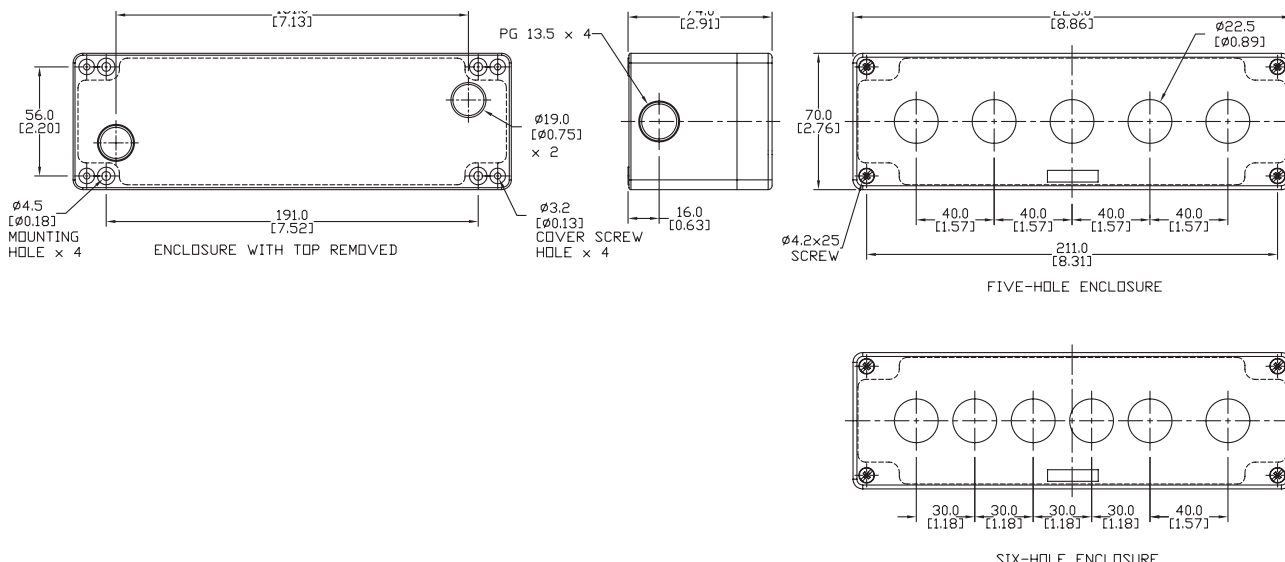
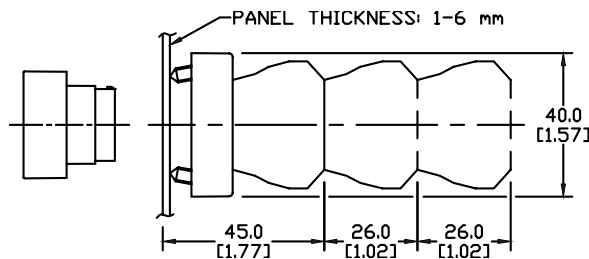# GCX Series 22mm Plastic Pilot Devices Specifications

Assembly information

These pushbuttons and indicator lights are supplied with the appropriate contact blocks, unless otherwise indicated. Use these drawings as a guide to make sure there is adequate clearance behind the panel.
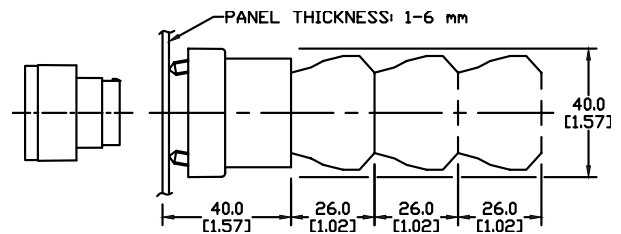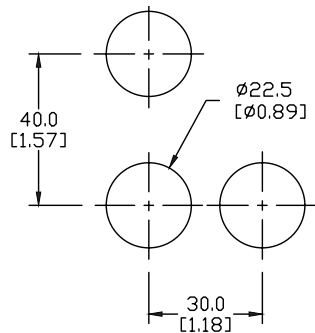
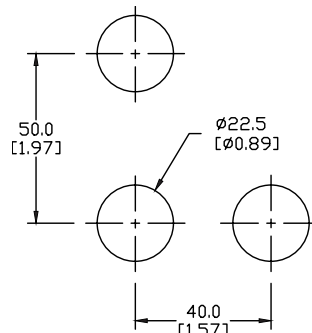## Dimensions
mm
[inches]

Pushbuttons and selector switches

PANEL THICKNESS: 1-6 mm

40.0 [1.57]

45.0 [1.77] 26.0 [1.02] 26.0 [1.02]

Illuminated pushbuttons and selector switches/indicator lights

PANEL THICKNESS: 1-6 mm

40.0 [1.57]

40.0 [1.57] 26.0 [1.02] 26.0 [1.02] 26.0 [1.02]

Mounting

40.0 [1.57]

Ø22.5 [Ø0.89]

30.0 [1.18]

This layout is suitable if all switches are 230V or less and the same polarity.

50.0 [1.97]

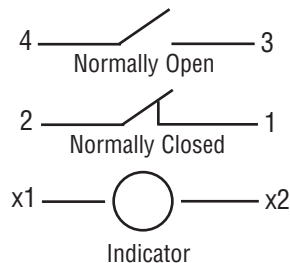Ø22.5 [Ø0.89]

40.0 [1.57]

This layout is suitable if all switches are 400V or less and different polarity.

NOTE: Contact blocks can be arranged up to three deep by two wide.

Typical Wiring

4 ——— 3
Normally Open

2 ——— 1
Normally Closed

x1 ——○—— x2
Indicator

Specifications

These specifications apply to all the GCX and ECX 22mm plastic pushbuttons and switches.

Physical Specifications	
Standards Reference	CEI EN 60947-5-1, CSA C22-2 n.14
Approvals	UL File E189258, IMQ (where specified)
Enclosure Material	Fiberglass reinforced thermoplastic
Contacts Material	Silver
Protection Degree	IP 40 for GCX3151-24, GCX3151-120, GCX3153-24 and GCX3153-120. IP 65 for all others.(See Appendix of this catalog for explanation of IP ratings according to IEC 144 CEI 70-1.)
Electric Shock Protection	IEC 536, Class II
Temperature Ratings	Storage: -40º -to 80ºC (-40º to 176º F) Operating: -25º to +70ºC (-13º to 158º F)
Working Positions	All working positions are allowed
Mechanical Life	Pushbuttons, selector switches, joy stick switches: 1,000,000 operations Emergency mushrooms and push-push pushbuttons: 300,000 operations
Positive Opening Operation	(according to IEC 947-5-1) All functions incorporating an NC contact are positive opening operation

Electrical Specifications	
Rated Thermal Current (contact block)	A300, Q300 (Refer to E22 Series mounting/contact rating section for details)
Rated Insulation Voltage	Ui 660V according to CEI EN 60947-5-1, 300V according to CSA C22-2 n.14 and UL 508
Dielectric Strength	3kV (1 second)
Insulation Resistance	2MΩ min. (500VDC)
Initial Contact Resistance	≤25mΩ
Short-Circuit Protection*	Cartridge fuses gl 10 A-500V 10, 3x38I1 100 KA
Terminal Markings	According to CENELEC EN 50013
Connections	Single screw with non-loosening plate clamp,14AWG max., Tighten to 0.8Nm max
Contacts Operation	Self-cleaning types EN01 (N.C.) EN 10 (N.O.) slow action, positive opening
Operation Frequency	3600 operations per hour max.
Utilization Category	AC15 (Control of AC electromagnetic loads) 24 volts AC at 10 amps 130 volts AC at 6.5 amps DC13 (Control of DC electromagnetic loads) 24 volts DC at 1.5 amps 110 volts DC at 0.5 amps

Note: Recommended, not supplied

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.