Specifications

Conditions of Sale

STANDARD: Seller's standard conditions of sale set forth in Price Sheet 150 apply.

SPECIAL TO THIS PRODUCT:

INCLUSIONS: The S&C Potential Device is a voltage-sensing unit consisting essentially of an oil-insulated high-voltage resistor assembly and a series output transformer, along with a pressure-relief valve for the high-voltage resistor assembly, a protective sparkover gap for the series transformer, and an internal grounding switch with dummy burden.

Models having 15-volt-ampere, 120-volt output, further, have a secondary burden resistor contained within the base of the unit, factory-calibrated to provide the potential device with the applicable voltage ratio listed in the table below. These models are suitable for monitoring neutral-to-ground voltage on ungrounded, wye-connected shunt capacitor banks, for use in conjunction with equipment having high-impedance input circuits, such as the S&C Bankgard™ Relay—Type LUC, and the S&C BankGuard Plus® Control.

S&C Potential Device rated 15-volt-amperes having a system voltage rating as follows:

Nominal Source Voltage, kV	below 23	23	34.5	46	69	115	138	161	230
S&C Potential Device System Voltage Rating, kV, Nom.	23	23	23	23	34.5	69	69	138	138

Models having 30-volt-ampere, 120-volt output do not include a secondary burden resistor. These models are suitable for intermediate-tap-point-to-ground connection on grounded, wye-connected shunt capacitor banks, and for line-to-ground connection in all other applications. When used in conjunction with equipment having high-impedance input circuits, such as the S&C BankGuard Plus® Control, these potential devices must be equipped with a factory-adjusted calibration device (contained within the base of the potential device), Catalog Number Suffix "-T"; see "Optional Features for Potential Devices" table on page 5.

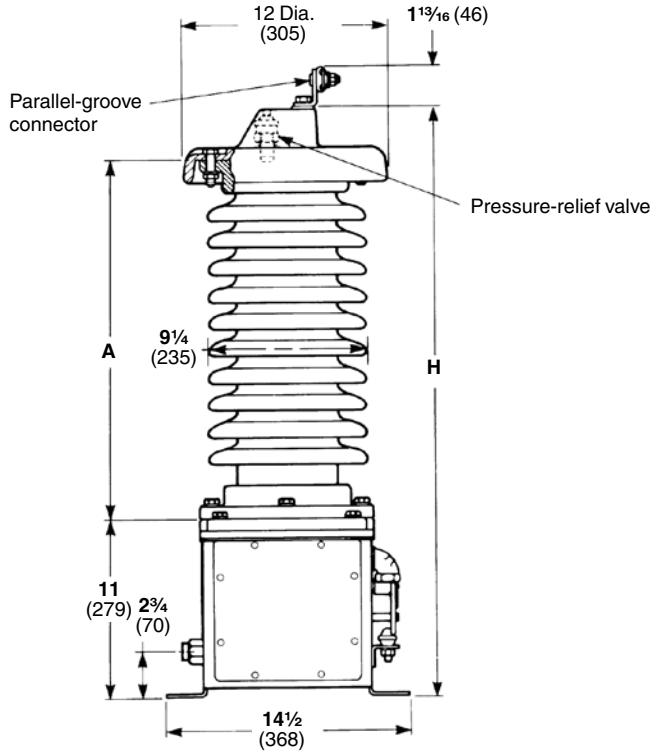
A choice of line terminal arrangements is available; see "Optional Features for Potential Devices" table on page 5.

EXCLUSIONS: Potential devices do not include mounting pedestals. Mounting pedestals are available as listed in this specification bulletin.

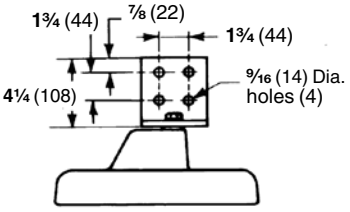
SPECIFICATION NOTE: Potential devices are suitable for upright mounting only. Gray (Munsell Number 5 BG 7.0/0.4) insulators are standard.

Potential Devices—15-Volt-Ampere Output Rating①②

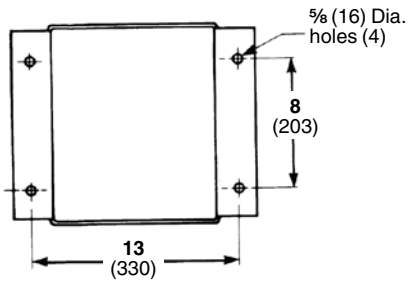
Dimensions in inches (mm)



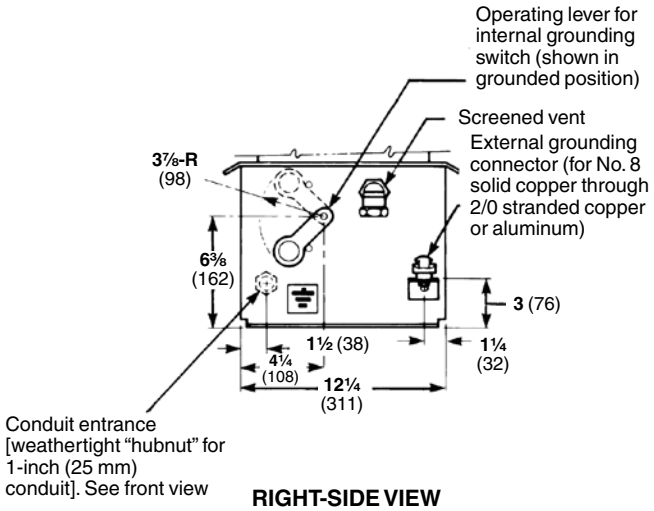
FRONT VIEW



Alternate connector arrangement: vertical-pad line terminal



BASE-ENCLOSURE BOLT PLAN



RIGHT-SIDE VIEW

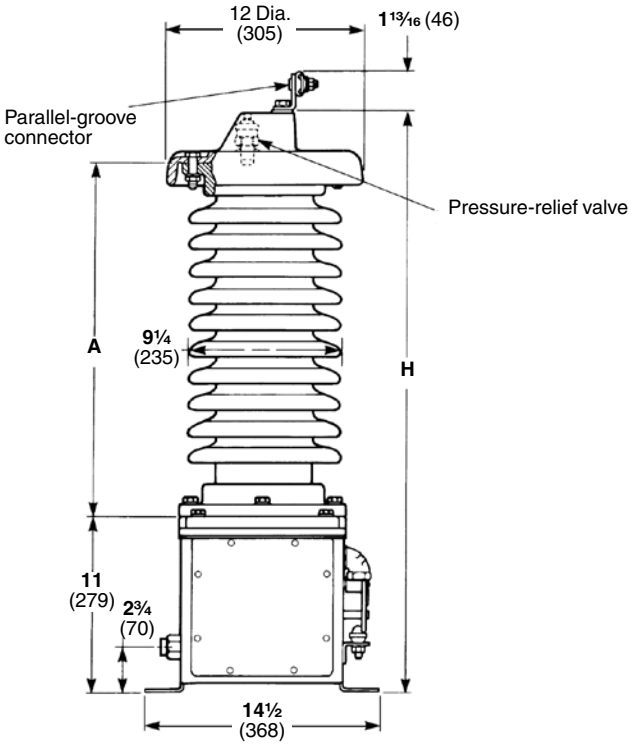
Rating			Catalog Number	Dimensions in Inches (mm)		Net Wt., Lbs. (kg)
kV		Voltage Ratio				
System Voltage, Nom.	Device (BIL)			A	H	
23	150	111:1	81573R1	18 (457)	32 (813)	115 (51.75)
34.5	200	166:1	81574R1	18 (457)	32 (813)	115 (51.75)
69	350	332:1	81576R1	28 (711)	42 (1067)	165 (74.25)
138	650	664:1	81579R1	48 (1219)	62 (1575)	275 (123.75)

① Applicable only for neutral-to-ground connection on ungrounded, wye-connected shunt capacitor banks and reactors. For line-to-ground connection, as well as intermediate-tap-point-to-ground connection on grounded, wye-connected shunt capacitor banks, S&C Potential Devices rated 30 volt-amperes are to be used.

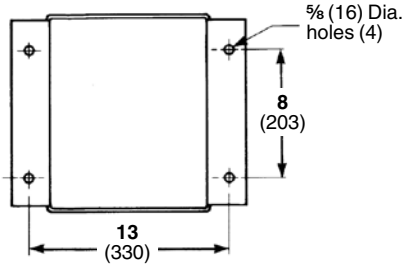
② These potential devices include a factory-adjusted burden resistor which provides the specified input-to-output voltage ratio.

Potential Devices—30-Volt-Ampere Output Rating①②

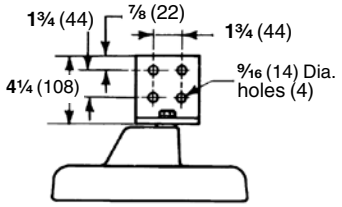
Dimensions in inches (mm)



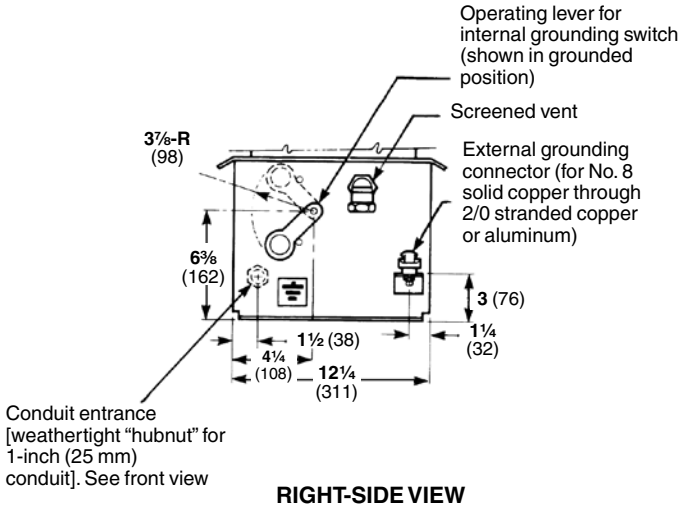
FRONT VIEW



BASE-ENCLOSURE BOLT PLAN



Alternate connector arrangement: vertical-pad line terminal



RIGHT-SIDE VIEW

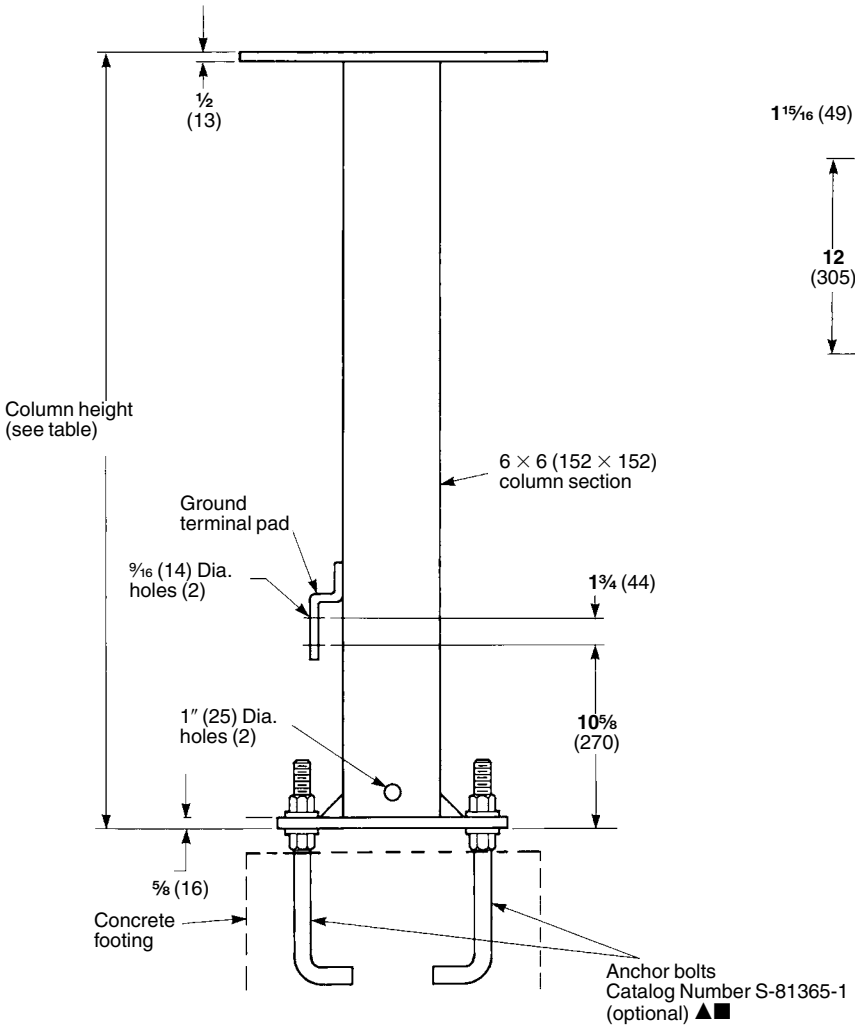
Rating, kV		Applied Line-to-Ground Voltage, kV	Resistance of High-Voltage Resistor Assembly, Megohms	Catalog Number	Dimensions in Inches (mm)		Net Wt., Lbs. (kg)
System Voltage, Nom.	Device (BIL)				A	H	
23	150	13.3	1.5	81473R6	18 (457)	32 (813)	115 (51.75)
34.5	200	19.9	3.0	81344R6	18 (457)	32 (813)	115 (51.75)
46	250	26.6	4.5	81475R6	28 (711)	42 (1067)	165 (74.25)
69	350	39.8	8.0	81346R6	28 (711)	42 (1067)	165 (74.25)
115	550	66.4	15.0	81478R6	48 (1219)	62 (1575)	275 (123.75)
138	650	79.6	17.6	81349R6	48 (1219)	62 (1575)	275 (123.75)

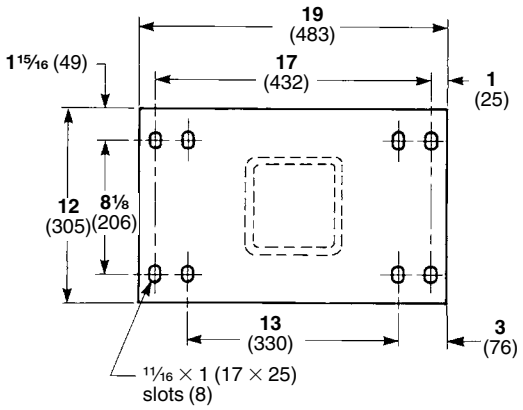
① Applicable for intermediate-tap-point-to-ground connection on grounded, wye-connected shunt capacitor banks, and for line-to-ground connection in all other applications. For neutral-to-ground connection on ungrounded, wye-connected shunt capacitor banks and reactors, S&C Potential Devices rated 15 volt-amperes are to be used.

② The output voltage of an S&C Potential Device rated 30 volt-amperes is nominally 120 volts RMS, with a 480-ohm resistive burden connected across the output terminals and with line-to-ground voltage corresponding to rated system voltage applied to the line terminal.

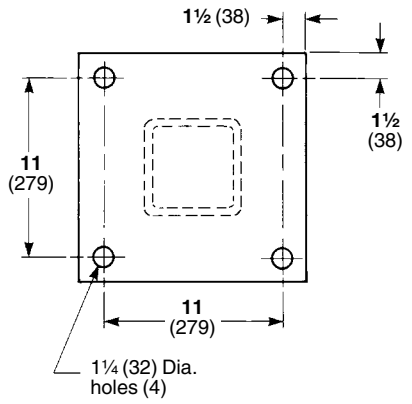
Mounting Pedestals

Dimensions in inches (mm)





TOP PLATE DETAIL



BASE PLATE DETAIL

▲ Each anchor bolt is of galvanized steel and is furnished with two hex nuts and two flat washers to facilitate leveling the mounting pedestals.

■ Nominal size of anchor bolts: 1″× 2′ -9″ (25 mm × 838 mm).

Item	Column Section, Inches (mm)	Column Height, Feet (m)①	Catalog Number
Mounting Pedestal (one per set), square steel tube construction, galvanized finish	6 × 6 (152 × 152)	8 (2.44)	92430R1-G
		9 (2.74)	92431R1-G
		10 (3.05)	92432R1-G
		11 (3.35)	92433R1-G
		12 (3.66)	92424R1-G

① Intermediate heights (less than 12 feet [3658 mm]) are available in 3-inch (76 mm) increments. Specify by adding one of the following suffixes to the catalog number of the mounting pedestal of nearest lower height:

-S3 Three inches (76 mm) additional height
-S6 Six inches (152 mm) additional height
-S9 Nine inches (229 mm) additional height

Note: Maximum available column height is 12′-0″ (3658 mm).

Optional Features for Potential Devices	
Item	**Suffix to be Added to Catalog Number**
Parallel-groove connector①	-D
Vertical-pad line terminal with standard four-hole drilling	-G
Calibration device	-T

① Accommodates conductors from No. 6 through No. 2 stranded copper or aluminum in one groove, No. 2 solid copper through 250 kc mil stranded copper or aluminum or 4/0 ACSR in the other groove.

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