

Specifications

Conditions of Sale

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

SPECIAL TO THIS PRODUCT:

INCLUSIONS: S&C CS Line Post Current Sensors provide the current-sensing input for S&C IntelliCap® Automatic Capacitor Controls and IntelliCap® 2000 Automatic Capacitor Controls. CSV Line Post Current/Voltage Sensors provide both current- and voltage-sensing inputs for these controls.

Available in ratings of 14.4 kV, 25 kV, and 34.5 kV, CS and CSV sensors are vertically mounted with a hot stick; sensor calibration is unnecessary. Current- and voltage-signal calibration is virtually unaffected by conductor material or size, temperature, armor rod, adjacent phases, line angle, or insulator contamination. The two-sided keeper is made of galvanized ductile iron and can accommodate aluminum or copper conductors ¼-inch (6.4-mm) to 1¼-inch (32-mm) diameter. These molded polymeric sensors are less susceptible to damage than porcelain sensors.

For CS and CSV Line Post Sensors, the current sensor output is 1 VRMS/60 Amps. The CSV Line Post Voltage Divider Ratio is 10000:1.

How to Order

STEP 1. Select the catalog number of the desired sensor from Table 1 on page 2. Then, based on specific needs and layout.

Catalog Number:

STEP 2. Select the appropriate sensor cables that run from the control to the current sensor from Table 4 on page 3.

Catalog Number:

STEP 3. (Optional) Select the appropriate sensor cables that run from the junction box to the current sensor from Table 3 on page 3.

Catalog Number:

STEP 4. (Optional) Select the S&C CSV cable from Table 5 on page 3.

Catalog Number:

Example: The catalog numbers for an order that includes a CS line post current sensor with 35-foot cable is:

9	0	4	0	0	1	1	2	6	0	0
0	0	7	0	0	0	9	7	3	0	3



CS Line Post Current Sensors and CSV Line Post Current/Voltage Sensors

Table 1. S&C CS and CSV Line Post Sensors

Item	Nominal Voltage Rating, kV	Catalog Number	Page Reference for Dimensional Drawings	Net Wt. Lbs., (Kg.)
CS Line Post Current Sensor	14.4	904-001124-00	4	44 (20)
	25	904-001125-00	5	54 (24.5)
	34.5	904-001126-00	6	64 (29)
		904-001126-01●	7	64 (29)
CSV Line Post Current/Voltage Sensor①	14.4	904-001128-01	4	44 (20)
	25	904-001129-01	5	54 (24.5)

① CSV sensors can be used with capacitor controls, in place of the recommended CS sensors, by using cable catalog number 904-001155-01 to connect the CSV sensor to the junction box. Sensor power is not available for S&C Capacitor Controls, so control power is required with CSV sensors.

● Requires trunnion clamp catalog number 904-001118-01 for wire diameter 0.25 to 0.8 inch (6.4 to 20.3 mm), or 904-001117-01 for wire diameter 0.8 to 1.06 inch (20.3 to 27 mm); and vertical clamp adapter catalog number 904-002417-01.

Table 2. S&C Electrical Ratings

Insulation Class①	14.4 kV	25 kV	34.5 kV
Impulse (BIL)	110 kV	150 kV	200 kV
Withstand (60 Hz, 1 minute)	34 kV	40 kV	50 kV
Corona (extinction)	11 kV	19 kV	26 kV
Low frequency dry flashover	80 kV	110 kV	125 kV
Low frequency wet flashover	60 kV	85 kV	100 kV
Leakage distance	16.4 inches (417 mm)	24.5 inches (622 mm)	35.3 inches (897 mm)
Dry arc distance	8.8 inches (224 mm)	12.6 inches (320 mm)	16.3 inches (414 mm)
Overall height	13.2 inches (335 mm)	16.7 inches (424 mm)	20.8 inches (528 mm)

① 14.4-kV and 34.5-kV sensor ratings are minimum design values. Exact values may vary slightly.

Mechanical

- For vertical mounting only
- Cantilever strength (ultimate) 2,800 lbs. (1270 kg.)

Insulation Class	14.4 kV	25 kV	34.5 kV
Weight, lbs. (kg.)	39 (18)	49 (22)	59 (27)
Shipping Weight, lbs. (kg.)	44 (20)	54 (24)	64 (29)

Current Signal Output

- Ratio: 600 amperes: 10-Volt output
- Output burden/load: output is matched to 10,000 ohm or greater
- Accuracy: $\pm 2\%$
- Phase shift: 0 (nominal) $\pm 1.5^\circ$
- Open circuit voltage: 10 Volts at 600 amperes line current
- No calibration needed (unaffected by aluminum, copper, armor rod, conductor size, adjacent phases, line angle, or insulator contamination)

Voltage Signal Output (optional)

- Ratio: 10,000: 1 for 14.4-kV and 25-kV sensors
- Consult S&C for 34.5-kV ratio

Operating Environmental Characteristics

- Temperature: -40°C (-40°F) to $+70^\circ\text{C}$ (158°F)
- Conductor Diameter Range
- Two-sided keeper made of galvanized ductile iron can accommodate a 0.25-inch (6-mm) to 1.25-inch (32-mm) aluminum or copper conductor

Basic Construction

- CS Series Sensor molded from Polysil®, a high-dielectric-strength, anti-tracking polymer concrete developed under EPRI (Electric Power Research Institute)

CS Line Post Current Sensors and CSV Line Post Current/Voltage Sensors

Table 3. S&C Sensor Cables—For Junction Box to Current Sensor

For Use with IntelliCap and IntelliCap 2000 Catalog Numbers ^①	Length, Feet (cm)	End One Connector	End Two Connector	Catalog Number
240160	20 (610)	None	None	007-000973-04
			2-Pin	007-000767-03
	30 (914)	None	2-Pin	007-000767-04
			None	007-000973-03
	35 (1067)	None	2-Pin	007-000767-05
			None	007-000973-01
	40 (1219)	None	2-Pin	007-000767-01
			None	007-000973-02
	50 (1524)	None	2-Pin	007-000767-02

^① Refer to Specification Bulletin 1024-31 for IntelliCap 2000 Automatic Capacitor Controls.

Table 4. S&C Sensor Cables—For Control to Current Sensor

For Use with IntelliCap 2000 Catalog Number ^①	Length, Feet (cm)	End One Connector	End Two Connector	Catalog Number
240160	20 (610)	3-Pin	2-Pin	007-000261-04
	35 (1067)			007-000261-05
	40 (1219)			007-000261-01
	50 (1524)			007-000261-03
	60 (1829)			007-000261-02

^① Refer to Specification Bulletin 1024-31 for IntelliCap 2000 Automatic Capacitor Controls.

Table 5. S&C CSV Cable—For Connecting CSV Sensor to Junction Box

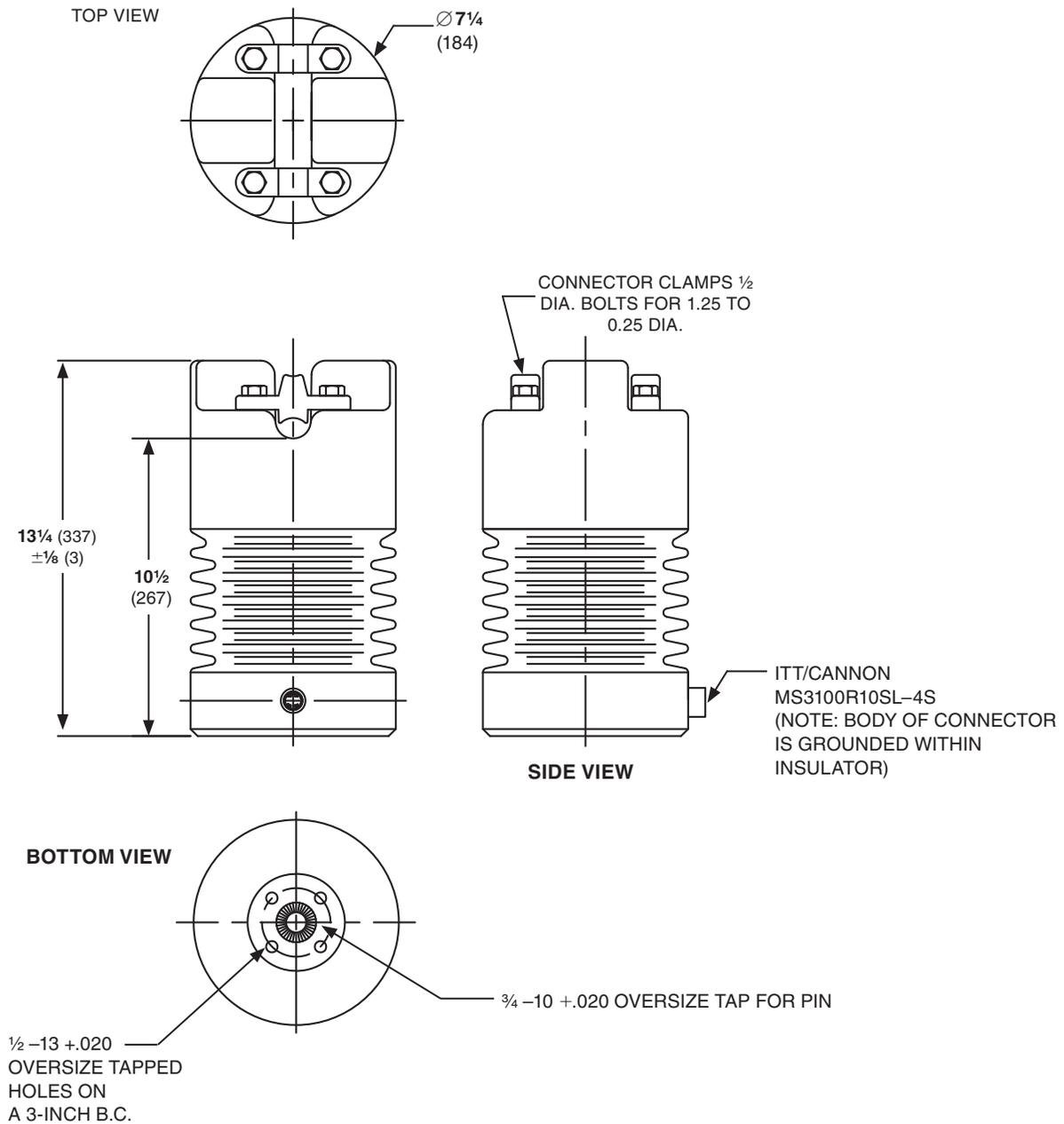
Length, Feet (cm)	End One Connector	End Two Connector	Catalog Number
20 (610)	4-Pin	None	904-001155-01

CS Line Post Current Sensors and CSV Line Post Current/Voltage Sensors

14.4-kV Line Post Current Sensor

Line post current/voltage sensor is similar

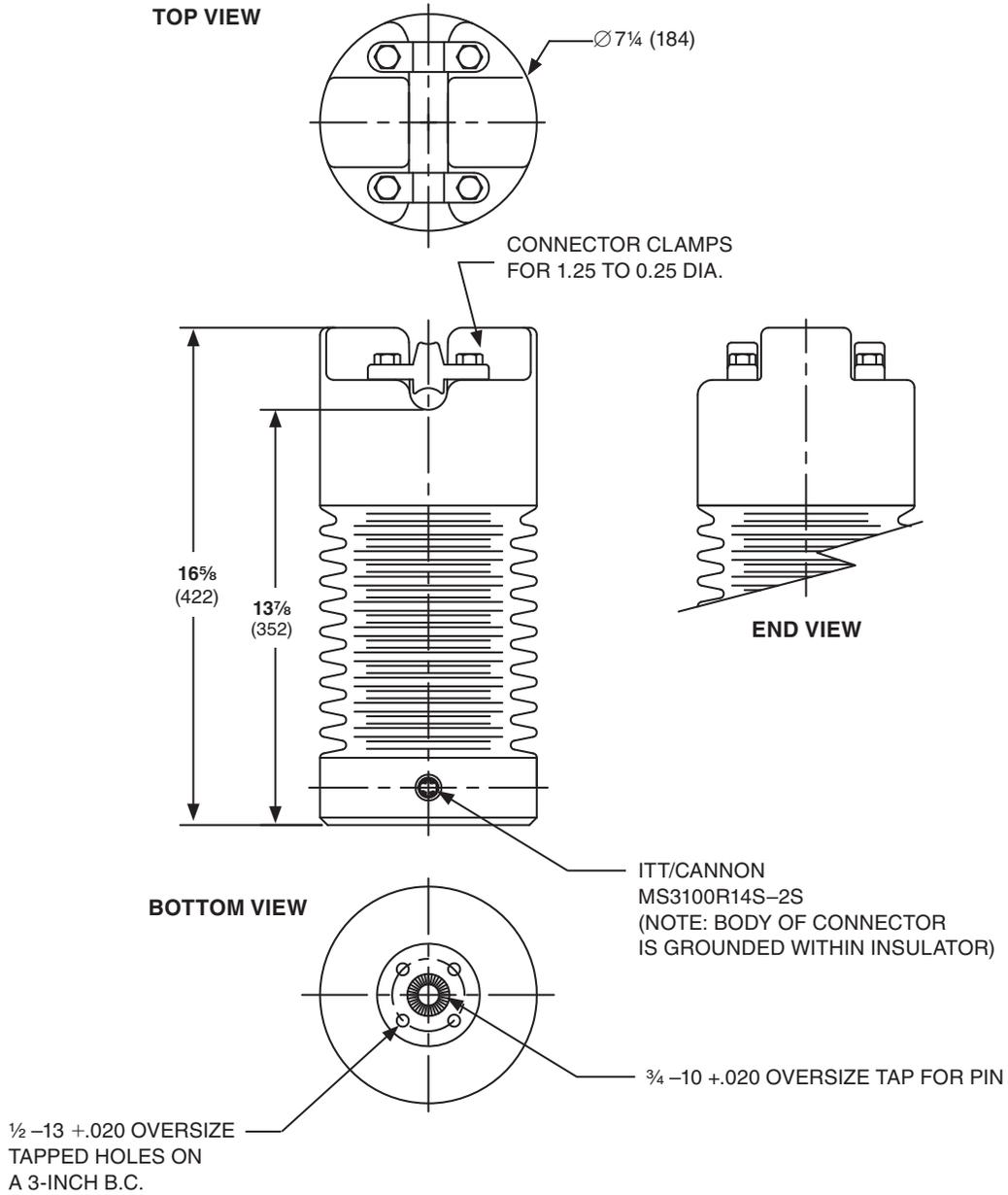
Dimensions in inches (mm)



25-kV Line Post Current Sensor

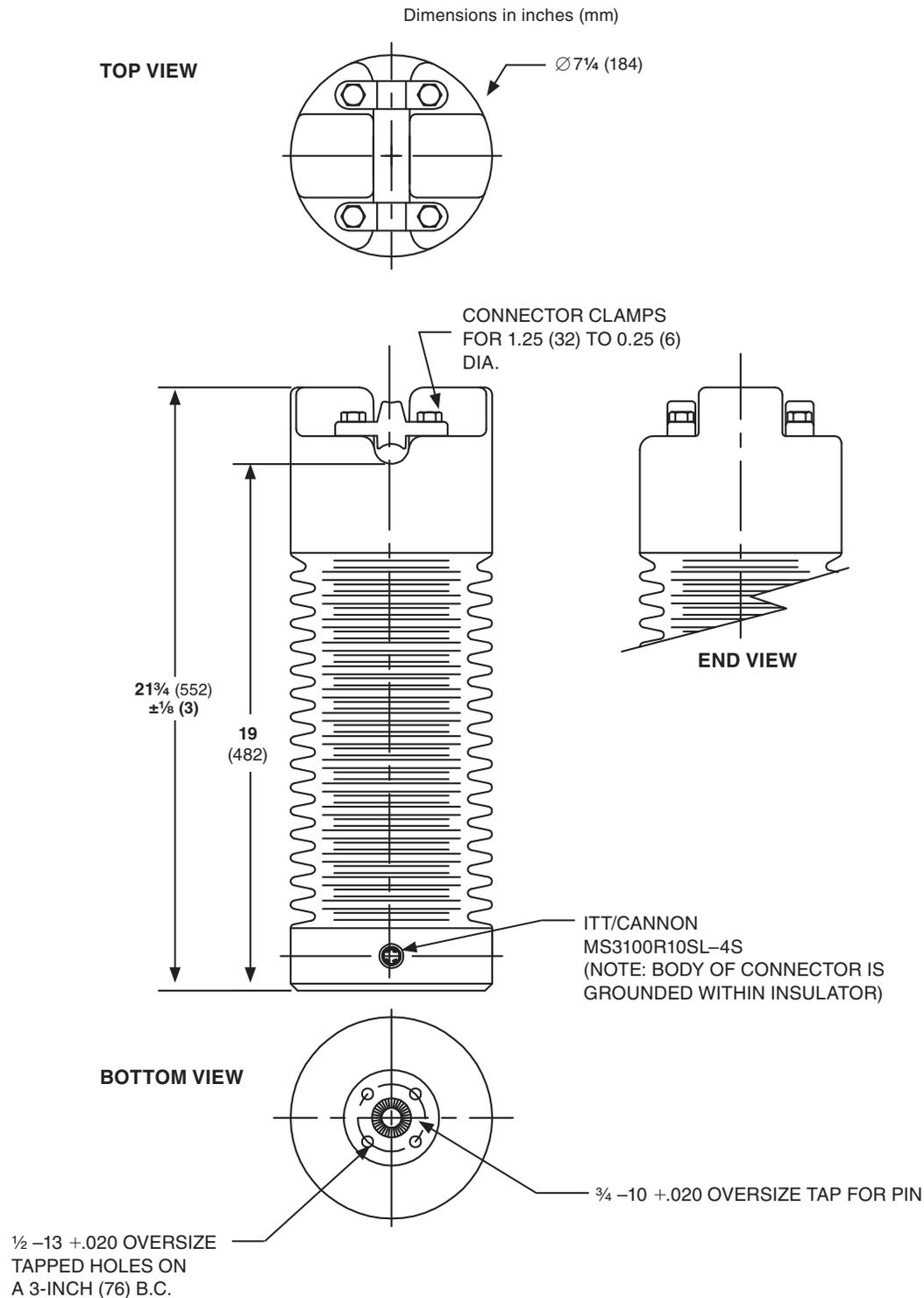
Line post current/voltage sensor is similar

Dimensions in inches (mm)



34.5-kV Multi-Core Line Post Current Sensor

Line post current/voltage sensor is similar



34.5-kV Line Post Current Sensor

Line post current/voltage sensor is similar.

