

# Motorized Coaxial Switch Accessories

## Features

- 3 or 4 port configurations
- Three port application require only the addition of a shorting cap
- Non-volatile position memory
- VSWR <1.05:1 typical
- Isolation > 55 dB typical
- Geneva drive mechanism provides precise position control
- Available with 115 Volt or 240 Volt AC motors
- 12 or 24 volts DC control voltage
- Mount in any orientation
- May be operated manually



## FM, VHF, and UHF Motorized Coaxial Switches

ERI motorized coaxial switches are designed for operation within FM, VHF, and UHF broadcast systems. The switches are engineered to provide high capability and long life. A Geneva drive mechanism provides exact 90-degree rotation of the contacts. The switches utilize a unique, flat plane, silver plated, dual contact is designed to provide high power capability and long life. The switch drive can be either 115 VAC or 230 VAC with control voltages of 12 VDC or 24 VDC. Manual operation is provided via a hex drive Tee Wrench through a hole in the switch case. If power to the drive is interrupted, the control circuit provides nonvolatile memory so that the switch either holds its position or continues its transition upon reapplication of AC power.

This coaxial switch series has models for VHF (DC to 250 MHz) and UHF (470 to 806 MHz) applications. The VHF models are broadband and the UHF models are tuned to a specific operating channel. ERI also has switch control panels, floor stands, and wall mounts available for all of its coaxial switch products.

### Part Numbers for AM, FM, and VHF TV Motorized Coaxial Switches

	DC control voltage	115 VAC motor voltage	230 VAC motor voltage
1-5/8"	12 VDC	CS250B-112	CS250B-212
	24 VDC	CS250B-124	CS250B-224
3-1/8"	12 VDC	CS350B-112	CS350B-212
	24 VDC	CS350B-124	CS350B-224
4-1/16"	12 VDC	CS450B-112	CS450B-212
	24 VDC	CS450B-124	CS450B-224
6-1/8"	12 VDC	CS650-112	CS650-212
	24 VDC	CS650-124	CS650-224

### Part Numbers for UHF TV Motorized Coaxial Switches

	DC control voltage	115 VAC motor voltage	230 VAC motor voltage
1-5/8"	12 VDC	CS252B-112	CS252B-212
	24 VDC	CS252B-124	CS252B-224
3-1/8"	12 VDC	CS352B-112	CS352B-212
	24 VDC	CS352B-124	CS352B-224
4-1/16"	12 VDC	CS452B-112	CS452B-212
	24 VDC	CS452B-124	CS452B-224

NOTE: Specify operating channel (or frequency), AC motor voltage (115 or 230 VAC) and DC control voltage (12 or 24 VDC) at time of order.

## Motorized Coaxial Switch Accessories

### CS Series Motorized Coaxial Switch Specifications

#### 1-5/8-inch Motorized Coaxial Switch Specifications

Model:	CS250B	CS252B
Size:	1 5/8-inch	1 5/8"
Impedance:	50 Ohms	50 Ohms
Frequency Range:	DC-250 MHz	470-860 MHz
Power Rating, Peak:	165 kW	165 kW
Power Rating, Average:	140 kW at 1 MHz 30 kW at 25 MHz 15 kW at 108 MHz 9 kW at 250 MHz	6 kW at 470 MHz 4 kW at 806 MHz
Weight:	30 lbm   13.6 kg	35 lbm   15.9 kg
Shorting Cap (for 3 port use):	CS008	CS008
VSWR:	1:03:1 or better	1:05:1 tuned to channel
Insertion Loss:	0.06 dB or less	0.10 dB or less
Isolation:	60 dB or more	60 dB typical
Switching Time:	~ 3 sec	~ 3 sec
RF Connectors:	EIA Flanged*	EIA Flanged*
AC Power Current, 115 VAC:	0.45 A	0.45 A
AC Power Current, 230 VAC:	0.21 A	0.21 A
Control Power Current, 12 VDC:	140 mA	140 mA
Control Power Current, 24 VDC:	70 mA	70 mA

\* Unflanged available.

#### 3-1/8-inch Motorized Coaxial Switch Specifications

Model:	CS350B	CS352B
Size:	3 1/8-inch	3 1/8-inch
Impedance:	50 Ohms	50 Ohms
Frequency Range:	DC-250 MHz	470-806 MHz
Power Rating, Peak:	300 kW	300 kW
Power Rating, Average:	300 kW at 1 MHz 75 kW at 25 MHz 40 kW at 108 MHz 30 kW at 250 MHz	22 kW at 470 MHz 17 kW at 806 MHz
Weight:	52 lbm   23.6 kg	52 lbm   23.6 kg
Shorting Cap (for 3 port use):	CS009	CS009
VSWR:	1:05:1 tuned to channel	1:05:1 tuned to channel
Insertion Loss:	0.06 dB or less	0.10 dB or less
Isolation:	60 dB or more	60 dB typical
Switching Time:	~ 3 sec	~ 3 sec
RF Connectors:	EIA Flanged*	EIA Flanged*
AC Power Current, 115 VAC:	0.45 A	0.45 A
AC Power Current, 230 VAC:	0.21 A	0.21 A
Control Power Current, 12 VDC:	140 mA	140 mA
Control Power Current, , 24 VDC:	70 mA	70 mA

\* Unflanged available.

## Motorized Coaxial Switch Accessories

### CS Series Motorized Coaxial Switch Specifications

#### 4-1/16-inch Motorized Coaxial Switch Specifications

Model:	CS450B	CS452B
Size:	4 1/16-inch	4 1/16-inch
Impedance:	50 Ohms	50 Ohms
Frequency Range:	DC-250 MHz	470-806 MHz
Power Rating, Peak:	500 kW	500 kW
Power Rating, Average:	500 kW at 1 MHz 125 kW at 25 MHz 70 kW at 108 MHz 49 kW at 250 MHz	35 kW at 470 MHz 26 kW at 806 MHz
Weight:	65 lbm   29.5 kg	75 lbm   34.0 kg
Shorting Cap (for 3 port use):	CS011	CS011
VSWR:	1:05:1 or better	1:03:1 or better
Insertion Loss:	0.06 dB or less	0.10 dB or less
Isolation:	60 dB or more	60 dB typical
Switching Time:	~ 3 sec	~ 3 sec
RF Connectors:	Flanged *	Flanged *
AC Power Current, 115 VAC:	0.45 A	0.45 A
AC Power Current, 230 VAC:	0.21 A	0.21 A
Control Power Current, 12 VDC:	140 mA	140 mA
Control Power Current, 24 VDC:	70 mA	70 mA

\* Unflanged available.

#### 6-1/8-inch Motorized Coaxial Switch Specifications

Model:	CS650
Size:	6 1/8-inch
Impedance:	50 Ohms
Frequency Range:	DC-250 MHz
Power Rating, Peak:	1000 kW
Power Rating, Average:	1000 kW at 1 MHz 250 kW at 25 MHz 150 kW at 108 MHz 108 kW at 250 MHz
Weight:	65 lbm   29.5 kg
Shorting Cap (for 3 port use):	CS012
VSWR:	1:03:1 or better
Insertion Loss:	0.06 dB or less
Isolation:	60 dB or more
Switching Time:	~ 3 sec
RF Connectors:	EIA Flanged*
AC Power Current, 115 VAC:	0.45 A
AC Power Current, 230 VAC:	0.21 A
Control Power Current, 12 VDC:	140 mA
Control Power Current, 24 VDC:	70 mA

\* Unflanged available.

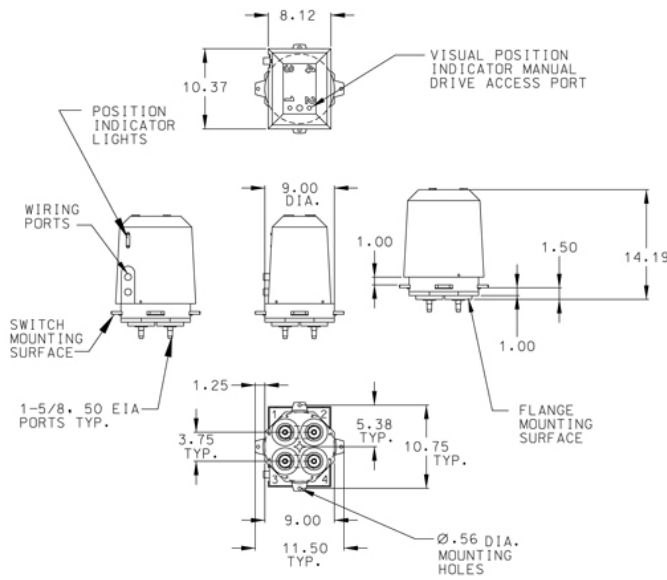
Standard conditions for power ratings are as follows. Attenuation: VSWR 1.0, ambient temperature 20°C (68°F), atmospheric pressure, dry air. Average Power: VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F), atmospheric pressure, dry air, no solar loading.

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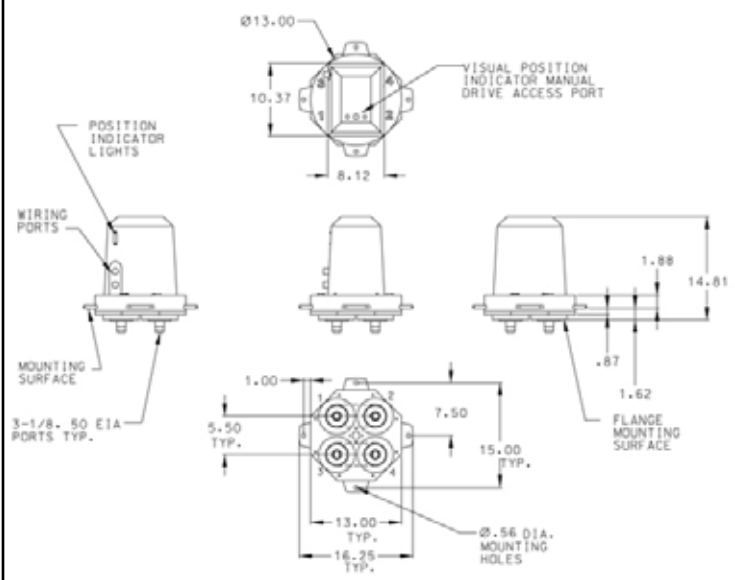
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# Motorized Coaxial Switch Accessories

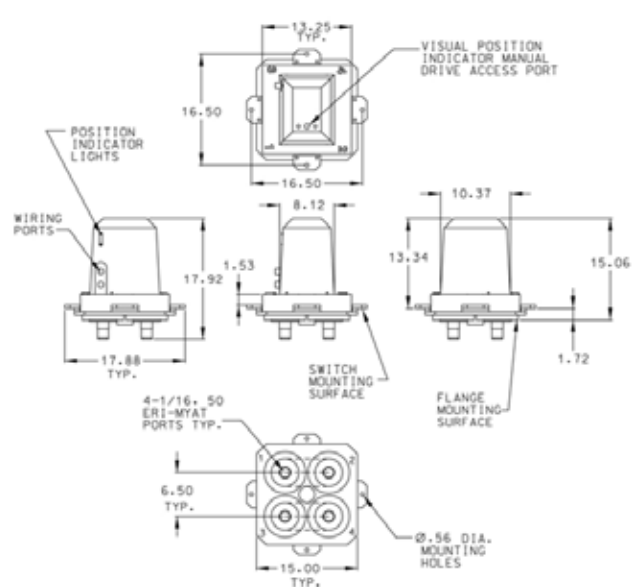
## Motorized Coaxial Switch Specifications



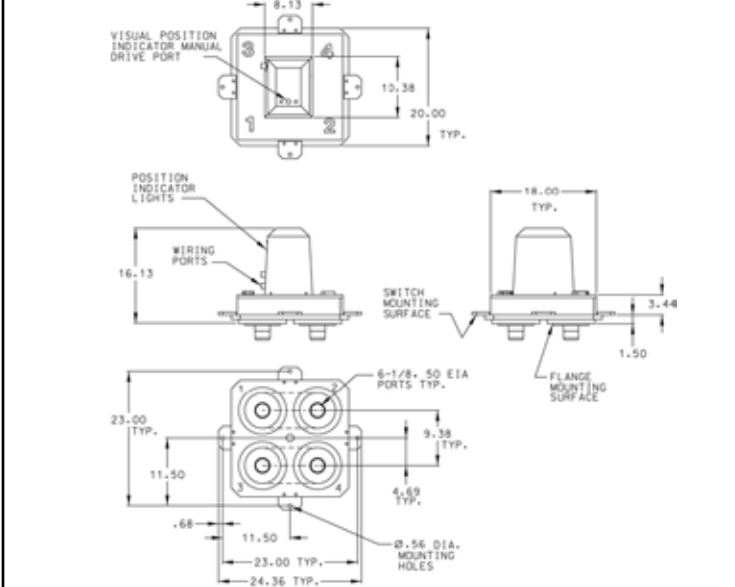
ERI 1-5/8-inch motorized coaxial switch outline drawing (dimensions shown in inches).



ERI 3-1/8-inch motorized coaxial switch outline drawing (dimensions shown in inches).



ERI 4-1/16-inch motorized coaxial switch outline drawing (dimensions shown in inches).

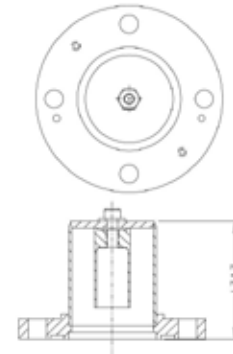


ERI 6-1/8-inch motorized coaxial switch outline drawing (dimensions shown in inches).

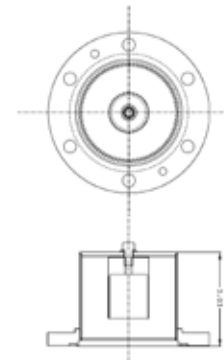
## Motorized Coaxial Switch Accessories

### Motorized Coaxial Switch Accessories

**CS008**      1-5/8-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.



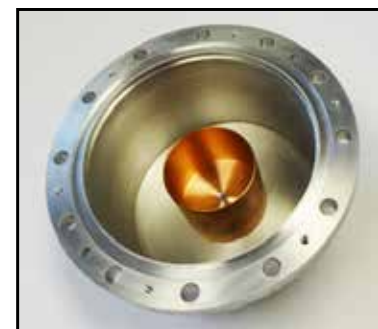
**CS009**      3-1/8-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.



**CS011**      4-1/16-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.

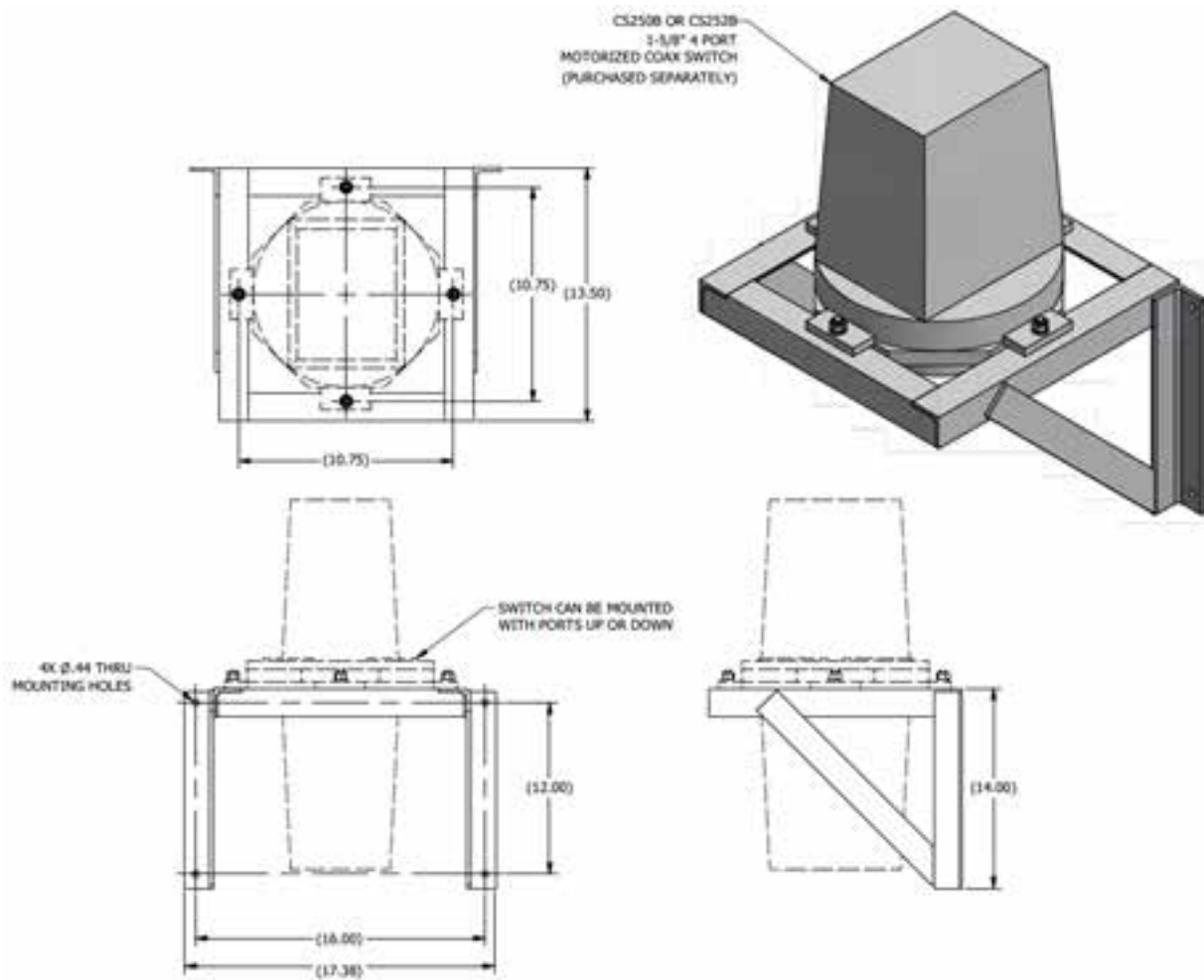


**CS012**      6-1/8-inch shorting cap to convert four port coaxial switch to 3 port coaxial switch.





# Motorized Coaxial Switch Accessories

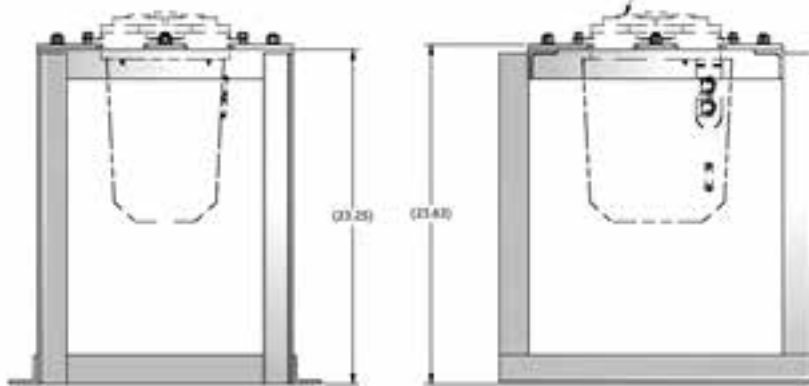
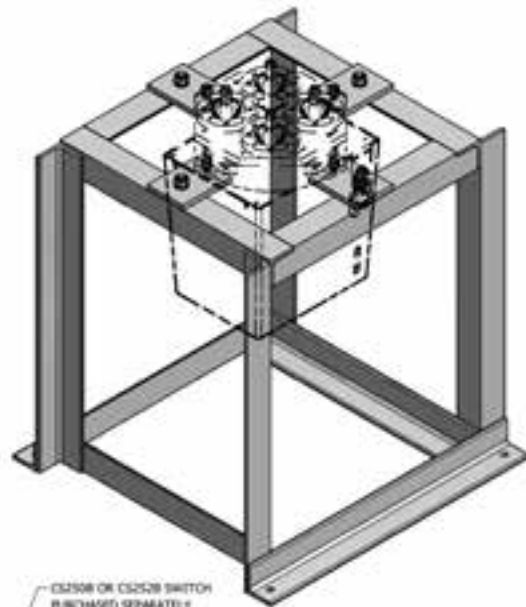
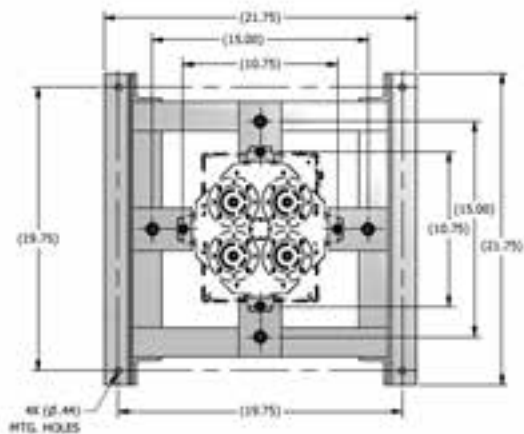


**CS250-AS1** Mounting frame for Wall or Ceiling support of ERI Model CS250B and CS252B 1-5/8-inch Motorized Coaxial Switches. The frame is constructed of steel angle and has a matte black finish. Includes mounting holes for 3/8-inch, customer supplied hardware, to attach wall or ceiling. Frame includes 1/2-inch hardware for mounting switch to frame.

## CS250-AS1 Specifications

Finish:	Black	
Dimensions		
Height:	14.00-inches	(356-millimeters)
Depth:	13.50-inches	(343-millimeters)
Width:	17.38-inches	(441-millimeters)
Weight:	10.2-pounds	(4.63-kilograms)

# Motorized Coaxial Switch Accessories



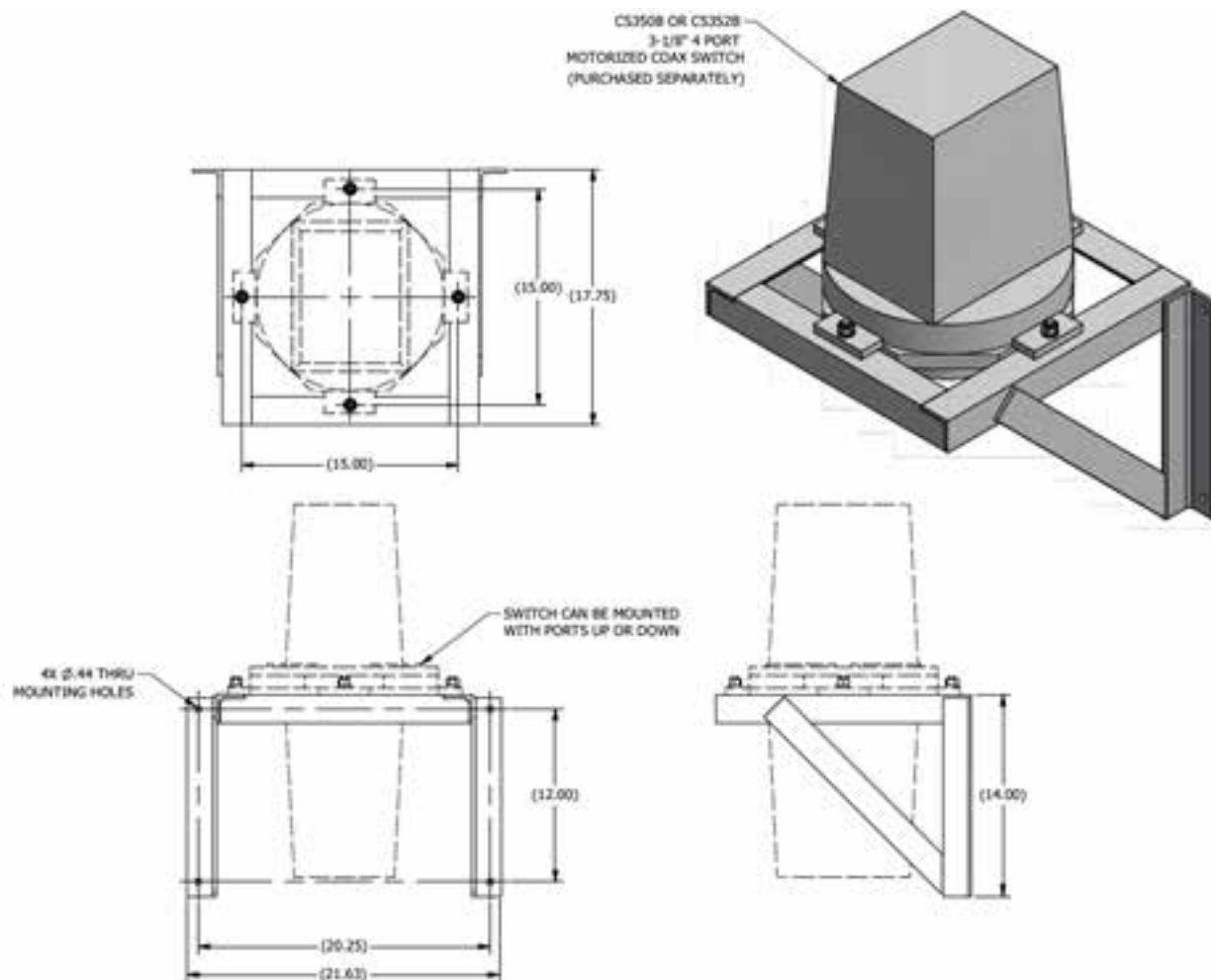
## CS250-FS

Floor stand for CS250B and CS252B 1-5/8-inch Motorized Coaxial Switches. Includes CS350-FS and four (4) CS250-AP. Frame includes four (4) 7/16-inch (11-mm) holes in base to secure frame to floor with customer supplied 3/8-inch hardware. Frame includes 1/2-inch hardware for mounting switch to frame.

### CS250-FS Specifications

Finish:	Black	
Dimensions		
Height:	23.63-inches	(600-millimeters)
Depth:	21.75-inches	(552-millimeters)
Width:	21.75-inches	(552-millimeters)
Weight:	28.2-pounds	(12.81-kilograms)

## Motorized Coaxial Switch Accessories



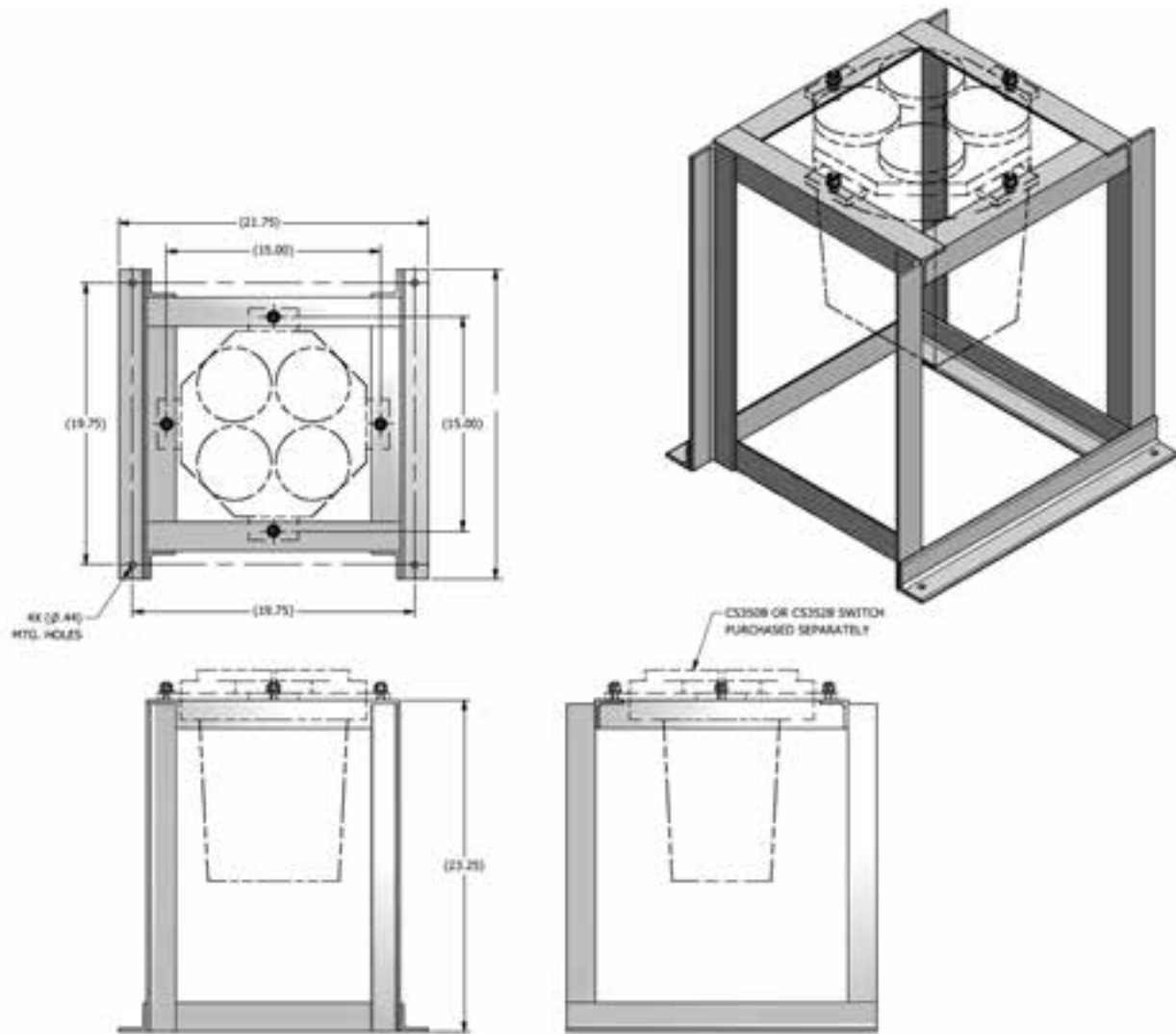
**CS350-AS1** Mounting frame for Wall or Ceiling support of ERI Model CS350B and CS352B 3-1/8-inch Motorized Coaxial Switches. The frame is constructed of steel angle and has a matte black finish. Includes four (4) mounting holes for 3/8-inch customer supplied hardware, to attach wall or ceiling. Frame includes 1/2-inch hardware for mounting switch to frame.

### CS350-AS1 Specifications

Finish:	Black	
Dimensions		
Height:	14.00-inches	(356-millimeters)
Depth:	17.75-inches	(451-millimeters)
Width:	21.63-inches	(549-millimeters)
Weight:	11.0-pounds	(4.98-kilograms)

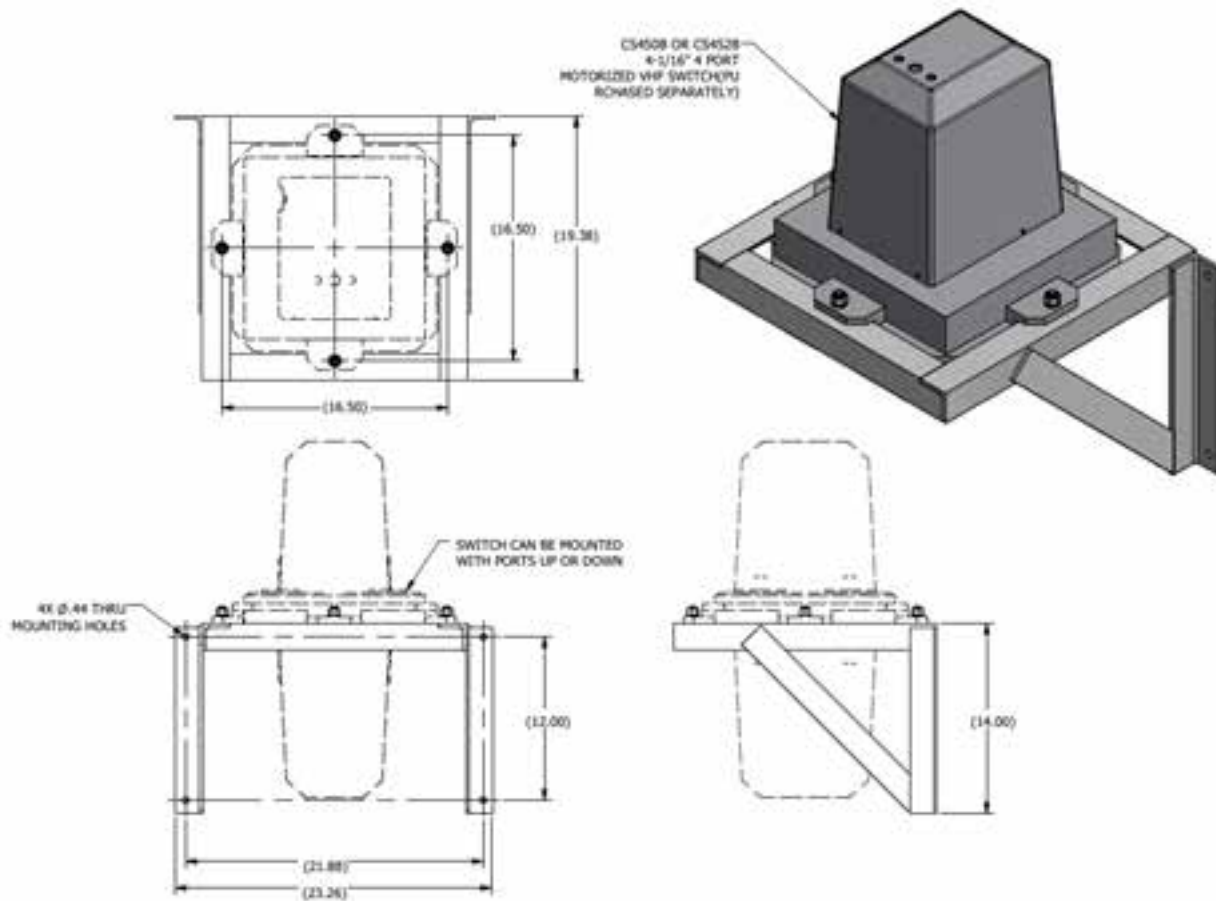


## Motorized Coaxial Switch Accessories



- CS350-FS** Floor stand for ERI Model CS350B, CS352B, CS250B, and CS252B Series Motorized Coaxial Switches. Add a quantity of four (4) CS250-AP support plates for CS250B and CS252B switch. Frame includes four (4) 7/16-inch (11-mm) holes in base to secure frame to floor with customer supplied 3/8-inch hardware. Frame includes 1/2-inch hardware for mounting switch to frame.
- CS250-AP** Support plate to use CS350-FS Floor Stand for CS250B and CS252B Series Motorized Switch. Price shown is for single support plate, quantity of four (4) required. Includes 1/2-inch hardware for mounting switch to frame.

# Motorized Coaxial Switch Accessories

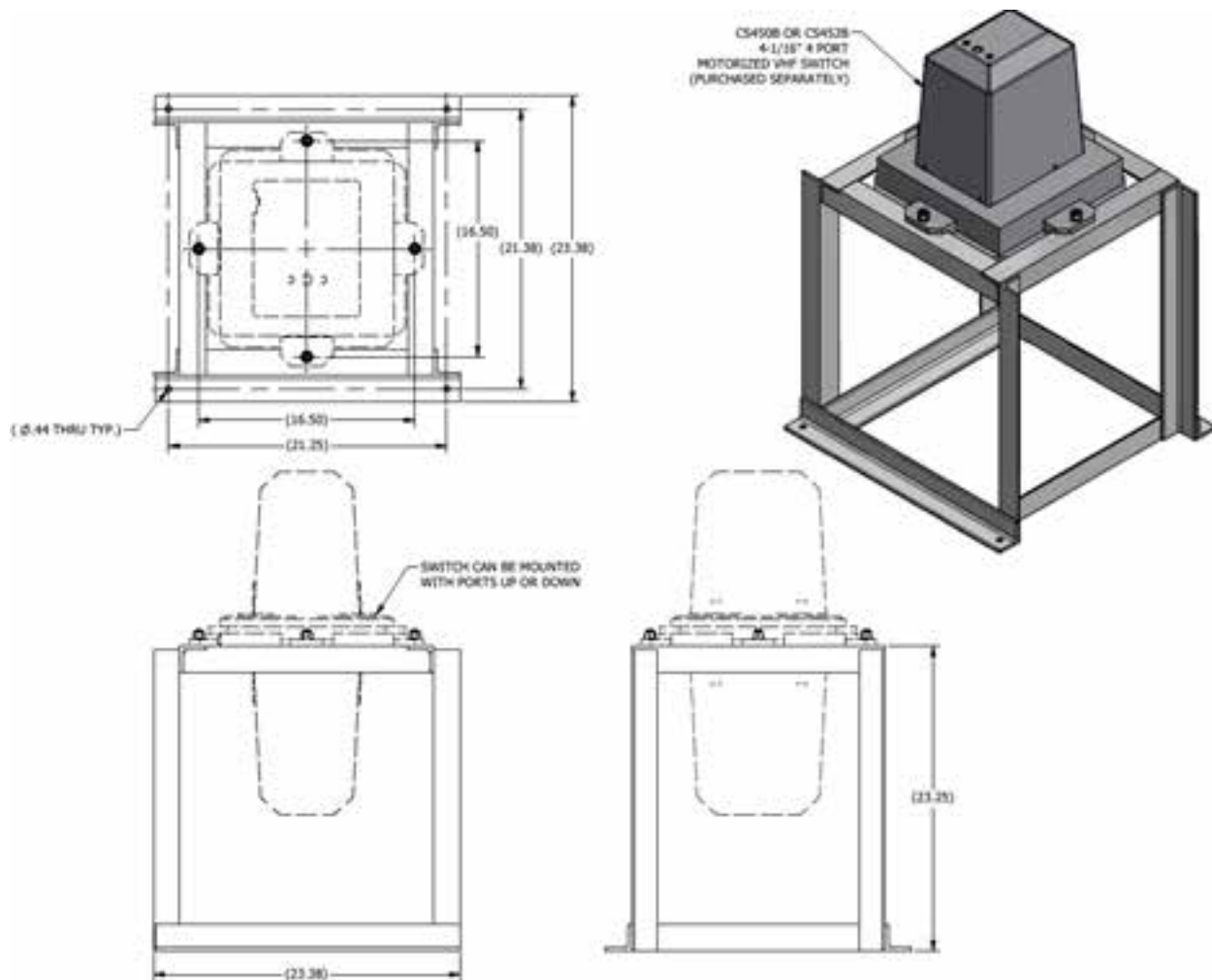


**CS450-AS1** Mounting frame for Wall or Ceiling support of ERI CS450B and CS452B 4-1/16-inch Motorized Coaxial Switches. The frame is constructed of steel angle and has a matte black finish. Includes four (4) mounting holes for 3/8-inch customer supplied hardware, to attach wall or ceiling. Frame includes 1/2-inch hardware for mounting switch to frame.

## CS450-AS1 Specifications

Finish:	Black	
Dimensions		
Height:	14.00-inches	(356-millimeters)
Depth:	19.38-inches	(492-millimeters)
Width:	23.26-inches	(591-millimeters)
Weight:	14.5-pounds	(6.58-kilograms)

# Motorized Coaxial Switch Accessories

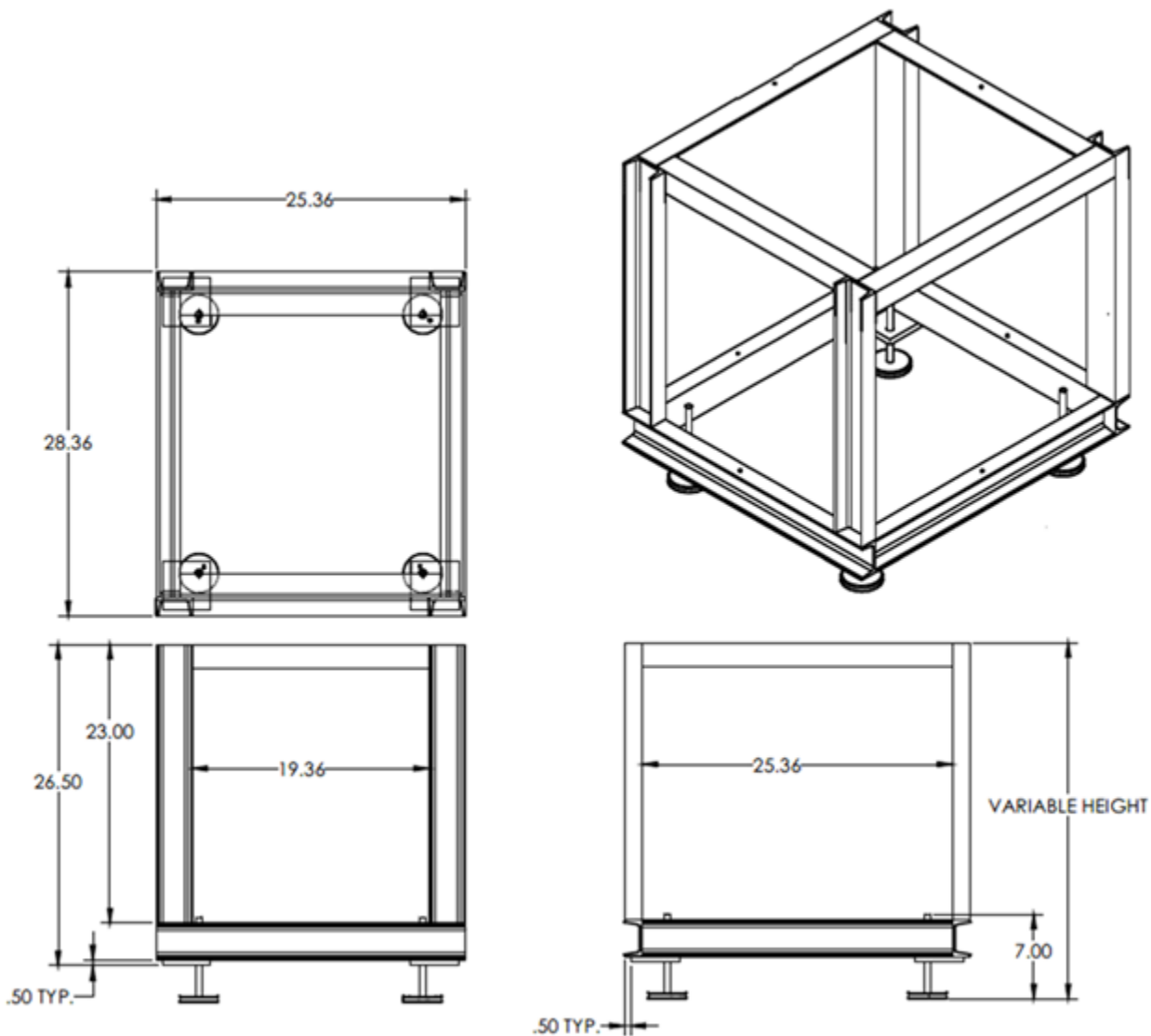


**CS450-AS2** Floor stand for CS450B and CS452B 4-1/16-inch Motorized Coaxial Switches. Frame includes four (4) 7/16-inch (11-mm) holes in base to secure frame to floor with customer supplied 3/8-inch hardware. Frame includes 1/2-inch hardware for mounting switch to frame.

## CS450-AS2 Specifications

Finish:	Black	
Dimensions		
Height:	23.25-inches	(591-millimeters)
Depth:	23.38-inches	(594-millimeters)
Width:	23.38-inches	(594-millimeters)
Weight:	28.5-pounds	(12.93-kilograms)

# Motorized Coaxial Switch Accessories



**CS650-FS** Floor stand for CS650 6-1/8-inch VHF Motorized Coaxial Switches. Frame includes adjustable feet for leveling. Frame includes 1/2-inch hardware for mounting switch to frame.

## CS650-FS Specifications

Finish: Black

Dimensions

Height:	26.50-inches	(673-millimeters)
Depth:	28.36-inches	(720-millimeters)
Width:	25.36-inches	(644-millimeters)
Weight:	75.4-pounds	(34.20-kilograms)