

# 28 kV Cold Shrink R-800

Product Data Sheet

The Cold Shrink R-800 (CS8 Series) is an innovative blend of the Richards CSH Series and R-800. Like the traditional R-800, the CS8 Series is molded with a 200A Loadbreak Tap integral to the Deadbreak Elbow housing. Its cold shrinkable cable entrance eliminates the need for a cable adapter and separate jacket seal kit. By combining so many components into a single housing, the CS8 series is perfectly optimized for simplicity and reliability.

The Cold Shrink R-800 is equipped with a stainless steel fastener, a specialized internal component that is engaged by assembly tool to torque the assembly of the R-800, lug and mating component. These fasteners are available in several types designed to provide configurations to meet every application.

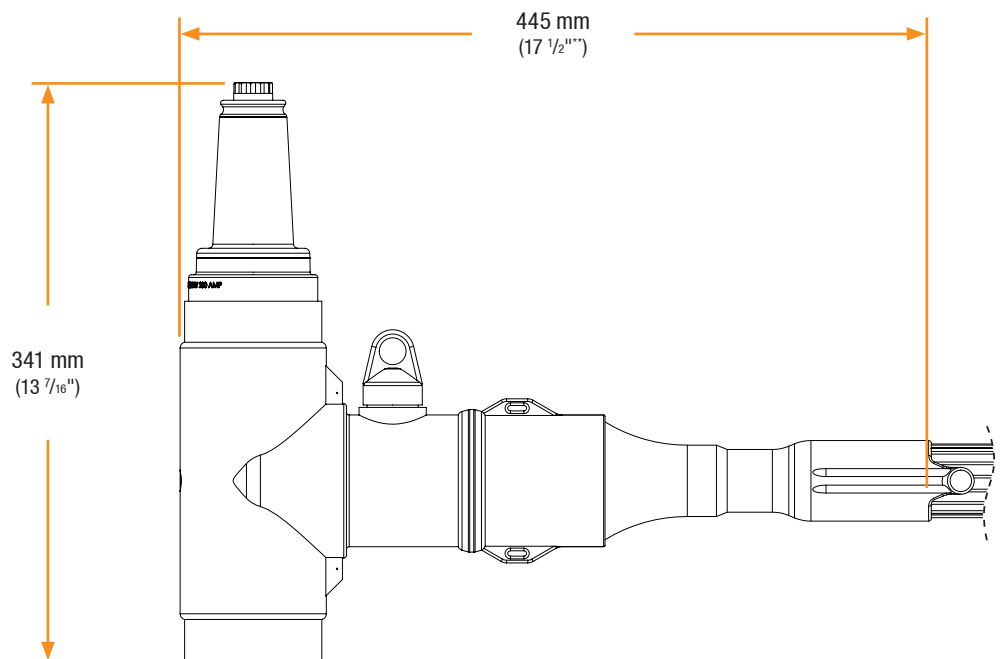


## Features

- Combines 200A Loadbreak Tap and Deadbreak Elbow
- Available in multiple configurations to meet every application
- Includes installation tool that guarantees proper torque\*
- Reduces inventory and installation costs
- Range-taking
- 100% EPDM composition
- Designed, molded, and tested in the USA
- Optional Capacitive Test Point

\*Applies to R-800's with 3/8" fasteners only.

## Basic Dimensions



\*\*Approximate length – varies by cable size.

## 28 kV Cold Shrink R-800

### Product Ratings

Voltage Ratings	
Maximum Voltage Rating – (phase to ground)	16.2 kV
Corona Voltage Level – (partial discharge extinction voltage)	22 kV <sup>1</sup>
AC Withstand – (1 minute)	45 kV
Impulse-Withstand Voltage – (BIL)	125 kV BIL

Current Ratings (Deadbreak Side)	
Continuous – (Aluminum)	600 A
Continuous – (Copper)	900 A
Short-Time Current – (Aluminum)	40 kA, 10c. and 10 kA, 3s. <sup>1</sup>
Short-Time Current – (Copper)	40 kA, 10c. and 10 kA, 3s.

Current Ratings (Loadbreak Side)	
Continuous	200 A
Short-Time Current	10 kA, 10c. and 3.5 kA, 3s.

The 28 kV Class Cold Shrink R-800 is qualified to the following industry standards:

- IEEE Std 386: For separable insulated connector systems
- ANSI C119.4: For electric connectors
- IEEE Std 592: For exposed semiconducting shields

### Production Testing

IEEE requires a Partial discharge test and choice between AC withstand and Impulse.

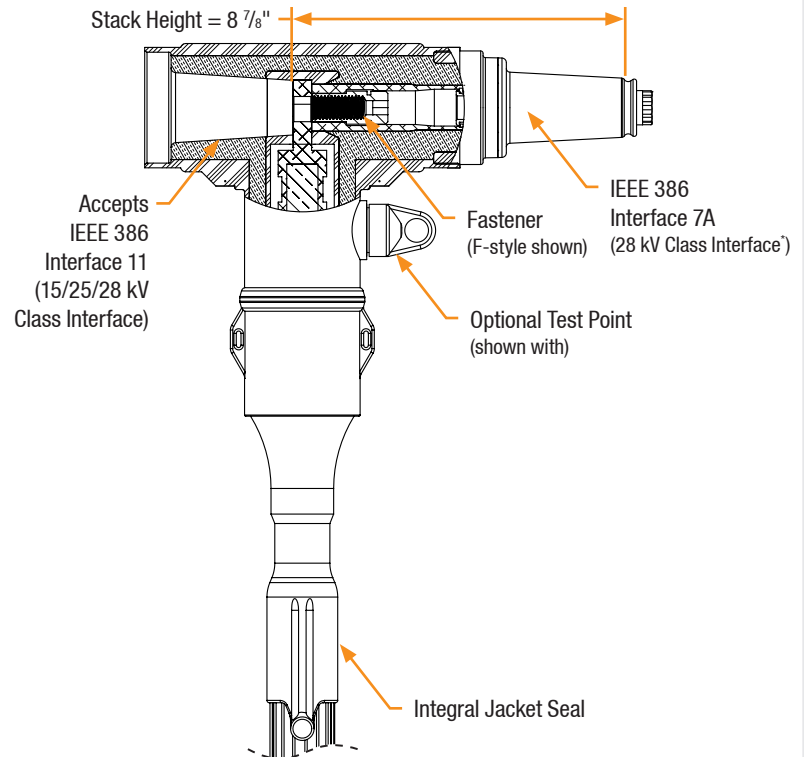
Richards runs 3/3 tests on **all** medium voltage products governed by IEEE 386.<sup>1</sup>

#### 100% Routine Electrical Test:

- Partial discharge
- AC withstand
- Impulse withstand

<sup>1</sup>Exceeds IEEE 386 requirement

### Detail View



**\*Only rated to 28 kV for testing and grounding purposes. For switching and fault-close, this interface is only rated to 25 kV class levels.**

### Related Products

<b>P625HIP-STUD</b> 15/25/28 kV Aluminum Threaded Stud	<b>P925HIP-STUD</b> 15/25/28 kV Copper Threaded Stud
<b>P6AL-X</b> Aluminum Compression Lug	<b>P9CU-X</b> Copper Compression Lug
<b>P6ALR-X</b> Aluminum Range-taking Lug	<b>P7ALCU-X</b> Copper-Top Compression Lug
<b>22LBICG</b> 28 kV Loadbreak-insulating Cap	

## 28 kV Cold Shrink R-800

### Use Range-CS8 Table

The following product sizing information is based on AEIC/ICEA dimensional ranges. The true range of the CS8 Series on a particular cable construction may vary. To confirm sizing on non-standard cables, or to check sizing on cables that fall just outside our min. or max., contact the factory.

Elbow Size	Voltage Class	Conductor Size	
		Minimum	Maximum
O Minimum Insulation Diameter = 0.725"	15 kV (175 mil)	1/0 AWG*	500 kcmil
	15 kV (220 mil)	#2 AWG**	
	25 kV (260 mil)	#4 AWG	
P Minimum Insulation Diameter = 0.990"	15 kV (175/220 mil)	350 kcmil***	750 kcmil
	25 kV (260 mil)	4/0 AWG	
Q Minimum Insulation Diameter = 1.268"	15 kV (175 mil)	750 kcmil	1500 kcmil
	15 kV (220 mil)	600 kcmil	
	25 kV (260 mil)	500 kcmil****	

\* May not fit some 1/0 AWG compressed/compact 100% (175 mil) insulated power cables. Check minimum insulation diameter to confirm.

\*\* May not fit some #2 AWG compact 133% (220 mil) insulated power cables. Check minimum insulation diameter to confirm.

\*\*\* May not fit some 350 kcmil compact 100% (175 mil) insulated power cables. Check minimum insulation diameter to confirm.

\*\*\*\* May not fit some 500 kcmil compact insulated power cables. Check minimum insulation diameter to confirm.

### R-800 Fastener Styles

Currently Using	Upgrade to R-800 Type	Installation Torque	Tool Size	Lug	Stick Operable*	Male or Female**	One-Piece Design
Elbow Tap Plug (ETP) or Bushing Insert + Reducing Tap Well	F or H	55 ft-lb	3/8"	Regular	No	Female	Yes
T-OP II	G	20 ft-lb	5/16"	15/16" Hole	Yes		
Loadbreak-Reducing Tap Plug (LRTP)	M	55 ft-lb	3/8"	Regular		Male	
	N	20 ft-lb	5/16"	15/16" Hole			

\*Stick operability is defined here as the ability to remove the R-800 from the bushing without the assembly of R-800/Cable/Lug being separated.

\*\*Female R-800's come with a loose threaded stud. Male R-800's have the threaded stud built into the fastener.



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