

# Cable to Cable, Rail



nVent ERICO Cadweld applications for railway properties utilize the nVent ERICO Cadweld Plus F80 and the nVent ERICO Cadweld F80 welding material alloys. nVent ERICO Cadweld exothermically welded connections are engineered to provide a permanent, molecular bond that will not loosen or corrode, enabling connection of dissimilar materials. The connections are designed to perform for the life of the conductor and/or installation. The nVent ERICO Cadweld connection has a current carrying capacity equal to or greater than that of the conductor and will withstand repeated fault currents without failing during operation. Once completed, installers can clearly ensure quality by visually inspecting the new connection.

## DIAGRAMS



## FEATURES

- Forms a permanent, low resistance connection
- Provides a molecular bond
- nVent ERICO Cadweld Exothermic Connections are rated with the same current capacity as the conductor
- Portable installation equipment with no external source of power required
- Installers can be easily trained to make nVent ERICO Cadweld Exothermic Connections
- Connections can be visually inspected

## SPECIFICATIONS

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Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal

PB10PA1G1G	PA	#6 Solid	4.11mm	#6 Solid	4.11mm
SB02SS6	SS	#6 Solid	4.11mm	#6 Solid	4.11mm
SB10SS1H1G	SS	#6 Concentric	4.67mm	#6 Solid	4.11mm
PB20TA2Q1H	TA	4/0 Concentric	13.41mm	#6 Concentric	4.67mm
PB20TA2G1H	TA	2/0 Concentric	10.62mm	#6 Concentric	4.67mm
PB10PC2C1H	PC	1/0 Concentric	9.47mm	#6 Concentric	4.67mm
PB10SS2Q1H	SS	4/0 Concentric	13.41mm	#6 Concentric	4.67mm
SB10SS1V3	SS	#2 Concentric	7.42mm	3/16 Signal	4.76mm
PB20TA1L2V	TA	#4 Concentric	5.89mm	250 kcmil Concentric	14.61mm
PB20TA2V1L	TA	250 kcmil Concentric	14.61mm	#4 Concentric	5.89mm
PB10SS2Q1L	SS	4/0 Concentric	13.41mm	#4 Concentric	5.89mm
PB10SS1T	SS	#2 Solid	6.53mm	#2 Solid	6.53mm
PB20TA2Q1V	TA	4/0 Concentric	13.41mm	#2 Concentric	7.42mm
SB10SS1V	SS	#2 Concentric	7.42mm	#2 Concentric	7.42mm
PB10SS1Y	SS	#1 Concentric	8.43mm	#1 Concentric	8.43mm
PB20PAY3Y3	PA	50 mm <sup>2</sup> Concentric	8.99mm	50 mm <sup>2</sup> Concentric	8.99mm
PB20TAT2Y3	TA	10.0 mm Ground Wire	10mm	50 mm <sup>2</sup> Concentric	8.99mm
PB10SS2C	SS	1/0 Concentric	9.47mm	1/0 Concentric	9.47mm
PB10SS2Q2C	SS	4/0 Concentric	13.41mm	1/0 Concentric	9.47mm
PB20PP2CPS	PP	1/0 Concentric	9.47mm	B154A Plug	12.7mm

Table 2/5

Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB20TA2C2C	TA	1/0 Concentric	9.47mm	1/0 Concentric	9.47mm
PB20TA2G2G	TA	2/0 Concentric	10.62mm	2/0 Concentric	10.62mm
PB10SS2G	SS	2/0 Concentric	10.62mm	2/0 Concentric	10.62mm
PB10SS2Q2G	SS	4/0 Concentric	13.41mm	2/0 Concentric	10.62mm
PB10PT2G2G	PT	2/0 Concentric	10.62mm	2/0 Concentric	10.62mm
PB99XB2Q2G	XB	4/0 Concentric	13.41mm	2/0 Concentric	10.62mm
PB20TA2Q2G	TA	4/0 Concentric	13.41mm	2/0 Concentric	10.62mm
PB20PG2G2G	PG	2/0 Concentric	10.62mm	2/0 Concentric	10.62mm
PB20PP2GPS	PP	2/0 Concentric	10.62mm	B154A Plug	12.7mm

Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB10SS2J	SS	2/0 Ropelay	12.19mm	2/0 Ropelay	12.19mm
PB20PPS6PS	PP	3/0 Composite	14.53mm	B154A Plug	12.7mm
PB10PC2Q2S	PC	4/0 Concentric	13.41mm	4/0 Ropelay	15.49mm
PB20TAS5S5	TA	2/0 Composite	13.36mm	2/0 Composite	13.36mm
PB20TA2Q2Q	TA	4/0 Concentric	13.41mm	4/0 Concentric	13.41mm
PB10SS2Q	SS	4/0 Concentric	13.41mm	4/0 Concentric	13.41mm
PB20TA2Q4R	TA	4/0 Concentric	13.41mm	1100/#24 Ropelay	22.4mm
PB99XB2Q2Q	XB	4/0 Concentric	13.41mm	4/0 Concentric	13.41mm
PB13SV2Q	SV	4/0 Concentric	13.41mm	4/0 Concentric	13.41mm
PB10SS2V2Q	SS	250 kcmil Concentric	14.61mm	4/0 Concentric	13.41mm
PB10SS2S2Q	SS	4/0 Ropelay	15.49mm	4/0 Concentric	13.41mm

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Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB10SS2V	SS	250 kcmil Concentric	14.61mm	250 kcmil Concentric	14.61mm
PB20TA2V2V	TA	250 kcmil Concentric	14.61mm	250 kcmil Concentric	14.61mm
PB10SSS6	SS	3/0 Composite	14.53mm	3/0 Composite	14.53mm
PB99XB2V2V	XB	250 kcmil Concentric	14.61mm	250 kcmil Concentric	14.61mm
PB10PTS6S6	PT	3/0 Composite	14.53mm	3/0 Composite	14.53mm
PB99XB2V2VM	XB	250 kcmil Concentric	14.61mm	250 kcmil Concentric	14.61mm
PB10SS2W2V	SS	250 kcmil Ropelay	19.05mm	250 kcmil Concentric	14.61mm
PB10SS2S	SS	4/0 Ropelay	15.49mm	4/0 Ropelay	15.49mm
PB10SS2W3DC	SS	250 kcmil Ropelay	19.05mm	350 kcmil Compact	15.88mm
PB10SSS7	SS	4/0 Composite	16.66mm	4/0 Composite	16.66mm
PB10SS3SS7	SS	500 kcmil Ropelay	26.42mm	4/0 Composite	16.66mm
PB10SS4K2W	SS	650/#24 Ropelay	16.92mm	250 kcmil Ropelay	19.05mm
PB10SS3S3D	SS	500 kcmil Ropelay	26.42mm	350 kcmil Concentric	17.3mm

Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB10SS3Q3D	SS	500 kcmil Concentric	20.65mm	350 kcmil Concentric	17.3mm
PB10SS3D	SS	350 kcmil Concentric	17.3mm	350 kcmil Concentric	17.3mm
PB10SS3S3QC	SS	500 kcmil Ropelay	26.42mm	500 kcmil Compact	18.62mm
PB20TA3QC3QC	TA	500 kcmil Compact	18.62mm	500 kcmil Compact	18.62mm
PB10SS3QC3S	SS	500 kcmil Compact	18.62mm	500 kcmil Ropelay	26.42mm
PB50PC3S2W	PC	500 kcmil Ropelay	26.42mm	250 kcmil Ropelay	19.05mm
PB50PC5A2W	PC	1000 kcmil Ropelay	33.78mm	250 kcmil Ropelay	19.05mm

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Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB20TA2W3S	TA	250 kcmil Ropelay	19.05mm	500 kcmil Ropelay	26.42mm
PB10SS2W	SS	250 kcmil Ropelay	19.05mm	250 kcmil Ropelay	19.05mm
PB50SS5A2W	SS	1000 kcmil Ropelay	33.78mm	250 kcmil Ropelay	19.05mm
PB10SS2W3S	SS	250 kcmil Ropelay	19.05mm	500 kcmil Ropelay	26.42mm
PB10SS3S4M	SS	500 kcmil Ropelay	26.42mm	775 kcmil/#24 Ropelay	19.02mm
PB10SS3B3S	SS	300 kcmil Ropelay	20.32mm	500 kcmil Ropelay	26.42mm
PB20TA3Q3Q	TA	500 kcmil Concentric	20.65mm	500 kcmil Concentric	20.65mm
PB63TA6H3Q	TA	2000 kcmil Concentric	40.94mm	500 kcmil Concentric	20.65mm
PB80PG5T3Q	PG	1500 kcmil Concentric	35.86mm	500 kcmil Concentric	20.65mm
PB10SS3Q	SS	500 kcmil Concentric	20.65mm	500 kcmil Concentric	20.65mm
PB60TA4Y3Q	TA	1000 kcmil Concentric	29.26mm	500 kcmil Concentric	20.65mm
PB10SS3S3Q	SS	500 kcmil Ropelay	26.42mm	500 kcmil Concentric	20.65mm
PB60TA3Q4Y	TA	500 kcmil Concentric	20.65mm	1000 kcmil Concentric	29.26mm

Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB10SS4R	SS	1100/#24 Ropelay	22.4mm	1100/#24 Ropelay	22.4mm
PB20TA4R4R	TA	1100/#24 Ropelay	22.4mm	1100/#24 Ropelay	22.4mm
PB10SS3S3F	SS	500 kcmil Ropelay	26.42mm	350 kcmil Ropelay	22.35mm
PB50SS4L4T	SS	750 kcmil Concentric	25.35mm	1325/#24 Ropelay	24.94mm
PB10SS3S4T	SS	500 kcmil Ropelay	26.42mm	1325/#24 Ropelay	24.94mm
PB31TA4T4T	TA	1325/#24 Ropelay	24.94mm	1325/#24 Ropelay	24.94mm
PB50SS4L3S	SS	750 kcmil Concentric	25.35mm	500 kcmil Ropelay	26.42mm

Table 5/5

Catalog Number	Mold Family	Conductor 1	Conductor 1 Outer Diameter, Nominal	Conductor 2	Conductor 2 Outer Diameter, Nominal
PB10SS4L	SS	750 kcmil Concentric	25.35mm	750 kcmil Concentric	25.35mm
PB80PA5T4L	PA	1500 kcmil Concentric	35.86mm	750 kcmil Concentric	25.35mm
PB20TA3S3S	TA	500 kcmil Ropelay	26.42mm	500 kcmil Ropelay	26.42mm
PB10SS3S	SS	500 kcmil Ropelay	26.42mm	500 kcmil Ropelay	26.42mm
PB50SS3S4N	SS	500 kcmil Ropelay	26.42mm	750 kcmil Ropelay	29.34mm
PB10SS3S4X	SS	500 kcmil Ropelay	26.42mm	1600/#24 Ropelay	27.18mm
PB60TA4N3S	TA	750 kcmil Ropelay	29.34mm	500 kcmil Ropelay	26.42mm
PB50PC3S5A	PC	500 kcmil Ropelay	26.42mm	1000 kcmil Ropelay	33.78mm
PB50SS3S5A	SS	500 kcmil Ropelay	26.42mm	1000 kcmil Ropelay	33.78mm
PB50SS3S4Y	SS	500 kcmil Ropelay	26.42mm	1000 kcmil Concentric	29.26mm
PB60TA4X4X	TA	1600/#24 Ropelay	27.18mm	1600/#24 Ropelay	27.18mm
PB50SS4Y	SS	1000 kcmil Concentric	29.26mm	1000 kcmil Concentric	29.26mm
PB50SS4N	SS	750 kcmil Ropelay	29.34mm	750 kcmil Ropelay	29.34mm
PB50PC5A5A	PC	1000 kcmil Ropelay	33.78mm	1000 kcmil Ropelay	33.78mm
PB50SS5A	SS	1000 kcmil Ropelay	33.78mm	1000 kcmil Ropelay	33.78mm
PB53SS6H	SS	2000 kcmil Concentric	40.94mm	2000 kcmil Concentric	40.94mm

## ADDITIONAL PRODUCT DETAILS

For applications such as computer room, tunnel or other low-ventilation areas, specify a smokeless nVent ERICO Cadweld Exolon mold. Add an XL prefix to the standard mold part number when ordering (for example, a PB10GR162G becomes XLPB10GR162G). Similarly, nVent ERICO Cadweld Exolon welding material is also designated by the XL prefix (for example, PB90 becomes XLPB90).

A gap between conductors may be required. See mold tag for more information.

XXXX-XX-XX-XX-L-M-W		
XXXX	Price Key	
XX	Mold Family	
XX	Conductor Code 1	
XX	Conductor Code 2	
L*	Split Crucible	Crucible section is split on molds designed with horizontal opening for easier cleaning
M*	Mold Only	
W*	Wear Plates	Reduce mechanical abrasion of molds at cable entry points

\* Empty if none

## WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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