

# Grade Crossing Auxiliary Products



**NBS Series**  
Narrow Band Shunts

**A53 - A58**



**WBS Series**  
Wide Band Shunts

**A59 - A60**



**TJC Series**  
Tunable Joint Couplers

**A61 - A64**



**Bi-Directional Simulation**  
Couplers

**A65 - A66**



**PSO Insulated Joint Bypass**  
Couplers

**A67**



**Standard Impedance Receiver**  
Couplers

**A68**



**High Impedance Receiver**  
Couplers

**A69**



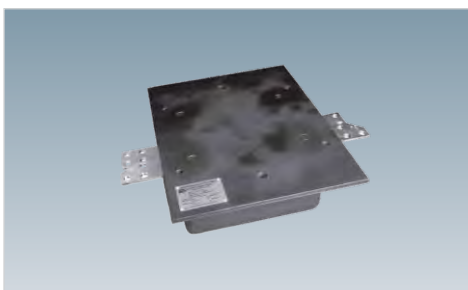
**Line to Rail Transmitter**  
Couplers

**A70**



**Line to Rail Receiver**  
Couplers

**A71**



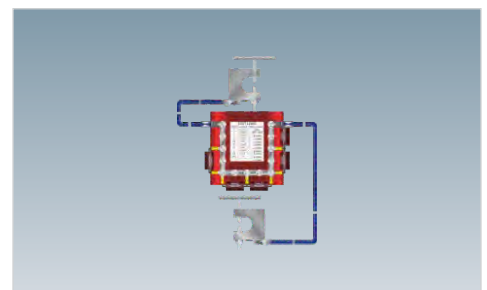
**SZB 20 Series**  
Impedance Bonds

**A72**



**Inductors**  
Simulated Track

**A73 - A74**



**TS Series**  
Test Shunts

**A75 - A76**





## NBS Series

### Narrow Band Shunts

#### Overview

10 ft (3 m) long leads



#### Features

**SIEMENS** offers a variety of industry standard frequencies to choose from, ranging 86 Hz to 970 Hz. Some select models offer additional benefits such as higher than normal impedance or being designed for use in high power applications.

- Hermetically sealed in ABS shell casing.
- Available pre-wired internally with 10 ft (3 m) long leads, using either #6 AWG copper wire or #6 Erico® brand bondstrand.
- Requires no specialized tuning.

*Model A62775 NBS Series Narrow Band Shunt shown for reference purposes only! Actual unit selected may vary in mounting and features.*

**SIEMENS** Narrow Band Shunts (NBS) Series introduces low impedance to a selected narrow band of alternating current frequencies and high impedance to direct current as well as all alternating current frequencies outside the selected band, thus allowing the end user to properly terminate grade crossing approach circuits.

Pre-wired internally using either #6 AWG copper wire or Erico® brand bondstrand.

Assemblies

| SIEMENS<br>Part Number | Frequency | High<br>Impedance | High<br>Power | Multi<br>Frequency | Wire Type             |                      | Weight                | Grade Crossing Systems<br>Grade Crossing Auxiliary Products |
|------------------------|-----------|-------------------|---------------|--------------------|-----------------------|----------------------|-----------------------|---|
|                        |           |                   |               |                    | #6 AWG<br>Copper Wire | Erico®<br>Bondstrand |                       |   |
| NYK:6000627750086      | 86 Hz     | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750114      | 114 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750156      | 156 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750211      | 211 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750285      | 285 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750348      | 348 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750430      | 430 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750525      | 525 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750645      | 645 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750790      | 790 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627750970      | 970 Hz    | -                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750086      | 86 Hz     | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750114      | 114 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750156      | 156 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750211      | 211 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750285      | 285 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750348      | 348 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750430      | 430 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750525      | 525 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750645      | 645 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750790      | 790 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627750970      | 970 Hz    | -                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |

NBS Series - Narrow Band Shunts

High Impedance Assemblies

| Grade Crossing Systems<br>Grade Crossing Auxiliary Products | SIEMENS<br>Part Number | Frequency | High<br>Impedance | High<br>Power | Multi<br>Frequency | Wire Type             |                      | Weight                |
|---|------------------------|-----------|-------------------|---------------|--------------------|-----------------------|----------------------|-----------------------|
|   |                        |           |                   |               |                    | #6 AWG<br>Copper Wire | Erico®<br>Bondstrand |                       |
|   | NYK:6000627800086      | 86 Hz     | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800114      | 114 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800156      | 156 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800211      | 211 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800285      | 285 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800348      | 348 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800430      | 430 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800525      | 525 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800645      | 645 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800790      | 790 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6000627800970      | 970 Hz    | X                 | -             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800086      | 86 Hz     | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800114      | 114 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800156      | 156 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800211      | 211 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800285      | 285 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800348      | 348 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800430      | 430 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800525      | 525 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800645      | 645 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800790      | 790 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:6E00627800970      | 970 Hz    | X                 | -             | -                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |

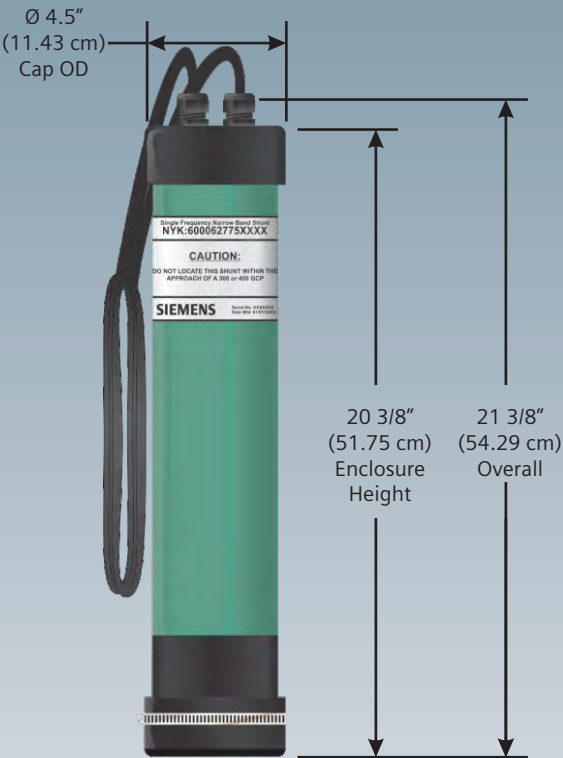
High Power and Multi Frequency Assemblies

| SIEMENS<br>Part Number | Frequency    | High<br>Impedance | High<br>Power | Multi<br>Frequency | Wire Type             |                      | Weight                |
|------------------------|--------------|-------------------|---------------|--------------------|-----------------------|----------------------|-----------------------|
|                        |              |                   |               |                    | #6 AWG<br>Copper Wire | Erico®<br>Bondstrand |                       |
| NYK:6000627700086      | 86 Hz        | -                 | X             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627700114      | 114 Hz       | -                 | X             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627700156      | 156 Hz       | -                 | X             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627700211      | 211 Hz       | -                 | X             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627700285      | 285 Hz       | -                 | X             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627700348      | 348 Hz       | -                 | X             | -                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627758621      | 86 - 211 Hz  | -                 | -             | X                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627751543      | 156 - 430 Hz | -                 | -             | X                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627752152      | 211 - 525 Hz | -                 | -             | X                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627752879      | 285 - 790 Hz | -                 | -             | X                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000627753497      | 348 - 970 Hz | -                 | -             | X                  | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6E00627758621      | 86 - 211 Hz  | -                 | -             | X                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6E00627751543      | 156 - 430 Hz | -                 | -             | X                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6E00627752152      | 211 - 525 Hz | -                 | -             | X                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6E00627752879      | 285 - 790 Hz | -                 | -             | X                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6E00627753497      | 348 - 970 Hz | -                 | -             | X                  | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |

Grade Crossing Systems  
Grade Crossing Auxiliary Products

Dimensions

Applicable for all NBS Series Narrow Band Shunts





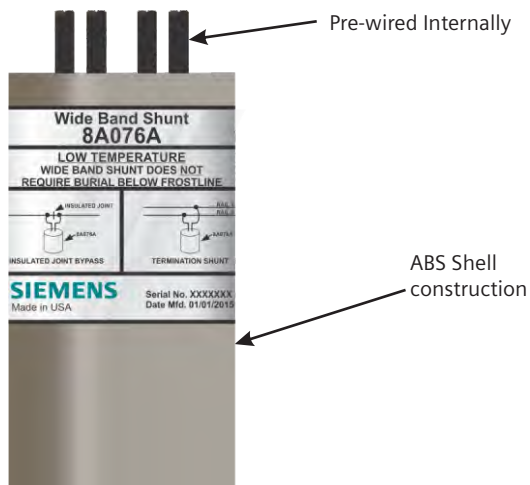




WBS  
Series

Wide Band Shunts

## Overview



*Model A8A076 WBS Series Wide Band Shunt shown for reference purposes only!  
Actual unit selected may vary in mounting and features.*

**SIEMENS** Wide Band Shunts (WBS) Series introduces low impedance to all frequencies of alternating current and high impedance to direct current energy, thus allowing the end user to properly terminate grade crossing approach circuits.

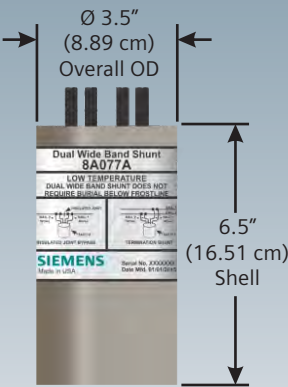
Pre-wired internally using either #6 AWG copper wire or Erico® brand bondstrand.

Assemblies

| SIEMENS<br>Part Number | Voltage | Lead Length | No of Bands |      | Wire Type             |                      | Weight                |
|------------------------|---------|-------------|-------------|------|-----------------------|----------------------|-----------------------|
|                        |         |             | Single      | Dual | #6 AWG<br>Copper Wire | Erico®<br>Bondstrand |                       |
| NYK:80008A0760001      | 3 V     | 10 ft       | X           | -    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0760002      | 3 V     | 14 ft       | X           | -    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0760011      | 20 V    | 10 ft       | X           | -    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0760012      | 20 V    | 14 ft       | X           | -    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0760001      | 3 V     | 10 ft       | X           | -    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0760002      | 3 V     | 14 ft       | X           | -    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0760011      | 20 V    | 10 ft       | X           | -    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0760012      | 20 V    | 14 ft       | X           | -    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0770001      | 3 V     | 10 ft       | X           | -    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0770002      | 3 V     | 14 ft       | X           | -    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0770011      | 20 V    | 10 ft       | -           | X    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:80008A0770012      | 20 V    | 14 ft       | -           | X    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0770001      | 3 V     | 10 ft       | -           | X    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0770002      | 3 V     | 14 ft       | -           | X    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0770011      | 20V     | 10 ft       | -           | X    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |
| NYK:8E008A0770012      | 20 V    | 14 ft       | -           | X    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |

Grade Crossing Systems  
Grade Crossing Auxiliary Products

Applicable for all WBS Series Wide Band Shunts





TJC  
Series

Tunable Joint Couplers

## Overview

10 ft (3 m) long leads



*Model A62875 Tunable Joint Coupler shown for reference purposes only!  
Actual unit selected may vary in mounting and features.*

**SIEMENS** TJC Series Tunable Joint Couplers are pre-wired internally using either #6 AWG copper wire or Erico® brand bondstrand.

Assemblies

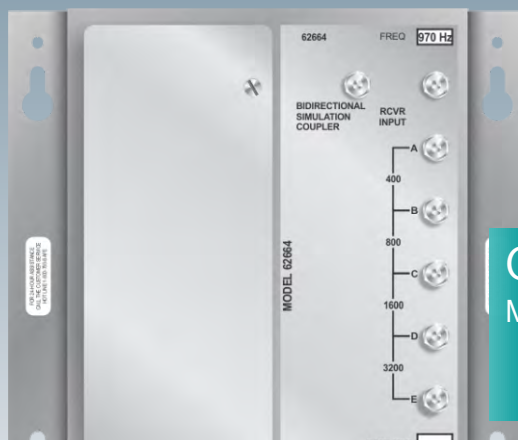
| SIEMENS<br>Part Number | Frequency | Wire Type             |                      | Weight                | Grade Crossing Systems<br>Grade Crossing Auxiliary Products |
|------------------------|-----------|-----------------------|----------------------|-----------------------|---|
|                        |           | #6 AWG<br>Copper Wire | Erico®<br>Bondstrand |                       |   |
| NYK:6000627850086      | 86 Hz     | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850114      | 114 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850156      | 156 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850211      | 211 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850285      | 285 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850348      | 348 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850430      | 430 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850525      | 525 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850645      | 645 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850790      | 790 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6000627850970      | 970 Hz    | X                     | -                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850086      | 86 Hz     | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850114      | 114 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850156      | 156 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850211      | 211 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850285      | 285 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850348      | 348 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850430      | 430 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850525      | 525 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850645      | 645 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850790      | 790 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |
| NYK:6E00627850970      | 970 Hz    | -                     | X                    | 7.6 lbs<br>(3.45 kgs) |   |

Dimensions

Applicable for all TJC Series Tunable Joint Couplers

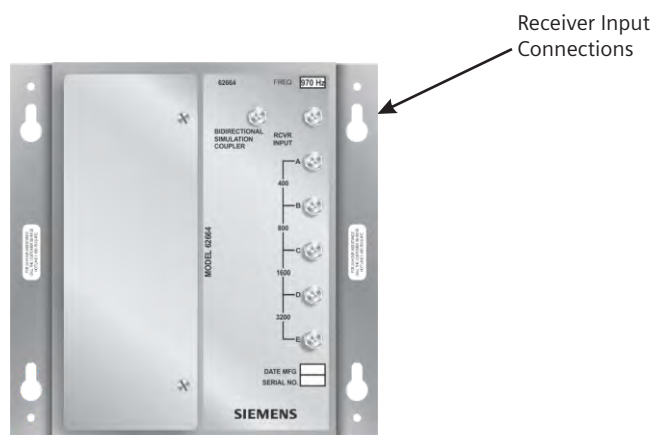






## Couplers Miscellaneous

### Overview



### Features

- Provides the benefits of a bidirectional installation
- Compatible with all Wayguard® Simple Grade Crossing Predictors / Motion Sensors (SGCP / MS) 4000 Series and Wayguard® Grade Crossing Predictors (GCP) 4000 Series units
- Adjustable to match track approach length
- Compact size can easily be wall or shelf mounted

**Model A62664 Bi-Directional Simulation Coupler**  
*shown for reference purposes only!*  
*Actual unit selected may vary in mounting and features.*

**SIEMENS** Bidirectional Simulation Coupler is designed for use at unidirectional Wayguard® Simple Grade Crossing Predictors / Motion Sensors (SGCP / MS) 4000 Series and Wayguard® Grade Crossing Predictors (GCP) 4000 Series installations, obtaining the operating benefits associated with a bidirectional installation. Includes a narrow-band shunt, of the same frequency as the SGCP / MS 4000 or GCP 4000 Series unit and is designed for use with coded DC track circuits or where other audio frequencies or AC signals are present.

GCP 4000 Series units must also set up for bidirectional operation. The bidirectional simulation coupler must not be used with a unidirectional which is providing a DAX start for an adjacent street.

The compact unit is housed in a brushed aluminum case containing a single plug-in-type printed circuit board and four toroid-wound inductors, each of which simulates a specific track length.

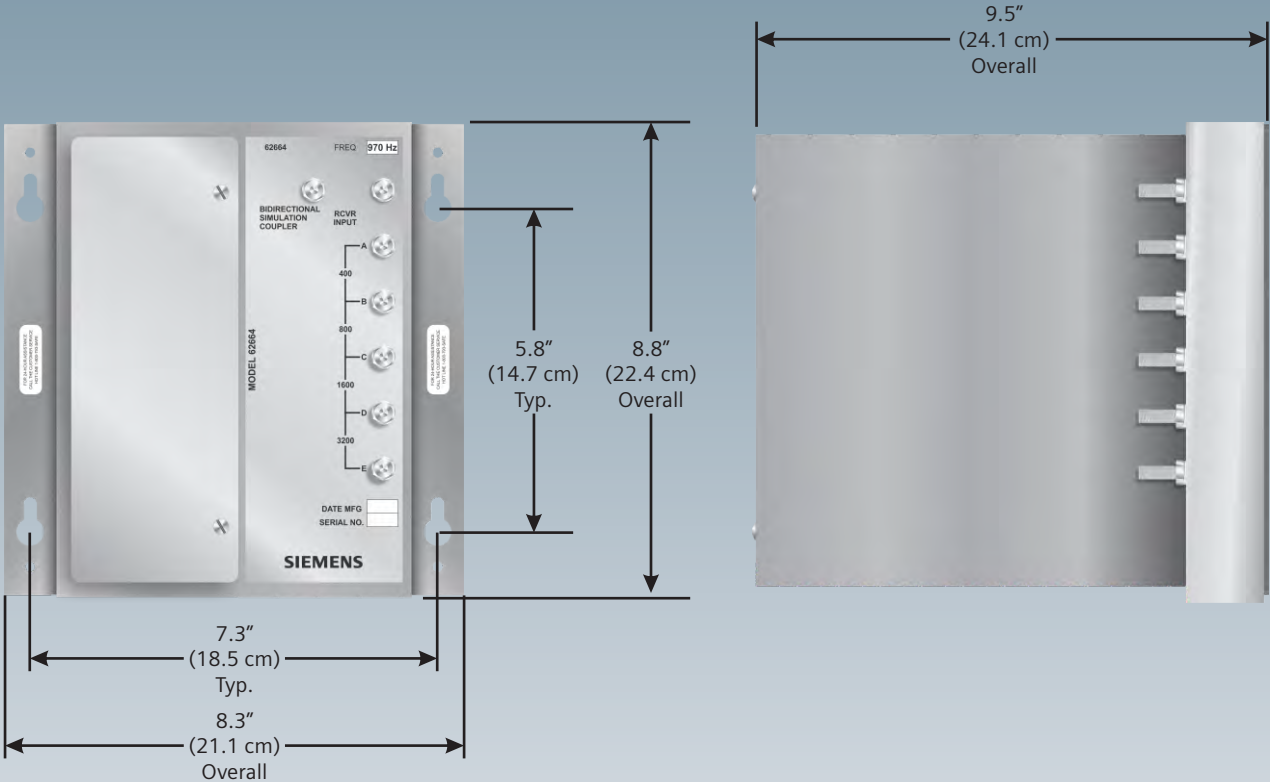
The inductors are wired in series with taps provided to enable strapping of front panel terminals for selecting approach distances (to closely match the actual track approach) that range from 400' (122 m) to 6,000' (1829 m).

| SIEMENS<br>Part Number | Frequency | Weight                |
|------------------------|-----------|-----------------------|
| NYK:6000626640086      | 86 Hz     | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640114      | 114 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640156      | 156 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640211      | 211 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640285      | 285 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640348      | 348 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640430      | 430 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640525      | 525 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640645      | 645 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640790      | 790 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:6000626640970      | 970 Hz    | 7.6 lbs<br>(3.45 kgs) |

Grade Crossing Systems

Grade Crossing Auxiliary Products

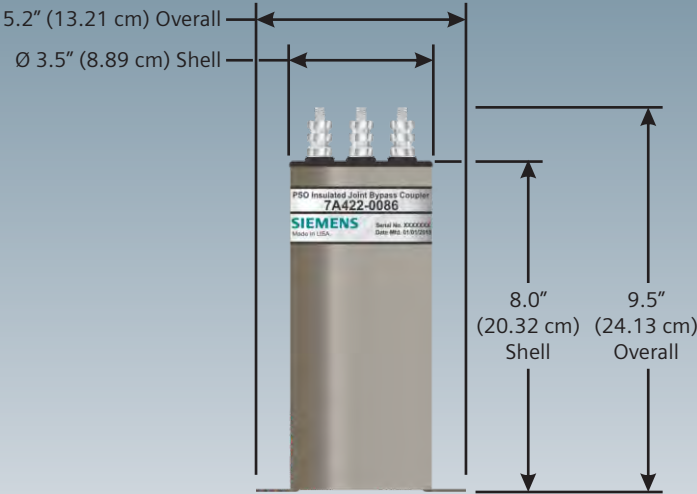
Applicable for all Bi-Directional Simulation Couplers





| Grade Crossing Systems<br>Grade Crossing Auxiliary Products | SIEMENS<br>Part Number | Frequency | Weight                |
|---|------------------------|-----------|-----------------------|
|   | NYK:70007A4220156      | 156 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220211      | 211 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220285      | 285 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220348      | 348 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220430      | 430 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220525      | 525 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220645      | 645 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220790      | 790 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4220970      | 970 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4221180      | 1180 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4221450      | 1450 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4221770      | 1770 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4222140      | 2140 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4222630      | 2630 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4223240      | 3240 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A4224000      | 4000 Hz   | 7.6 lbs<br>(3.45 kgs) |

Applicable for all PSO Insulated Joint Bypass Couplers



| SIEMENS<br>Part Number | Frequency | Weight                |
|------------------------|-----------|-----------------------|
| NYK:70007A3550156      | 156 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550211      | 211 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550285      | 285 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550348      | 348 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550430      | 430 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550525      | 525 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550645      | 645 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550790      | 790 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3550970      | 970 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3551180      | 1180 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3551450      | 1450 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3551770      | 1770 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3552140      | 2140 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3552630      | 2630 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3553240      | 3240 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3554000      | 4000 Hz   | 7.6 lbs<br>(3.45 kgs) |

Grade Crossing Systems

Grade Crossing Auxiliary Products

Applicable for all Standard Impedance Couplers

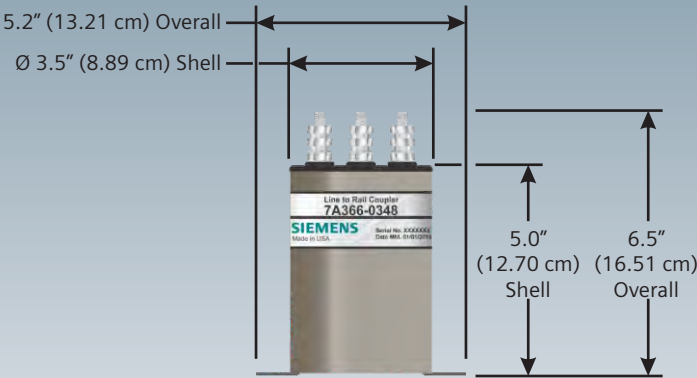
The diagram shows a Siemens Toned Receiver Coupler (part 7A355-00156) with the following dimensions:

- Overall width: 5.2" (13.21 cm)
- Shell diameter: Ø 3.5" (8.89 cm)
- Shell height: 6.0" (15.24 cm)
- Overall height: 7.5" (19.05 cm)

The coupler is a cylindrical metal component with three mounting studs on top. The label on the coupler reads: "Toned Receiver Coupler 7A355-00156 SIEMENS Serial No. XXXXXX Date Mfg. 11/01/2010".

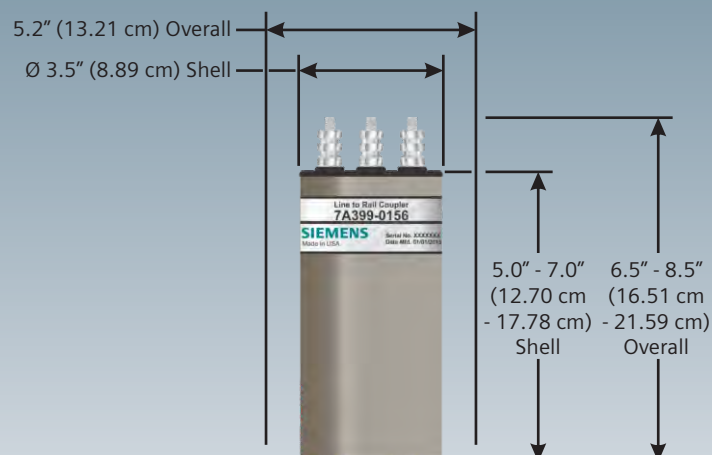
| Grade Crossing Systems<br>Grade Crossing Auxiliary Products | SIEMENS<br>Part Number | Frequency | Weight                |
|---|------------------------|-----------|-----------------------|
|   | NYK:70007A3660156      | 156 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660211      | 211 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660285      | 285 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660348      | 348 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660430      | 430 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660525      | 525 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660645      | 645 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660790      | 790 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3660970      | 970 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3661180      | 1180 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3661450      | 1450 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3661770      | 1770 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3662140      | 2140 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3662630      | 2630 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3663240      | 3240 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70007A3664000      | 4000 Hz   | 7.6 lbs<br>(3.45 kgs) |

Applicable for all High Impedance Couplers



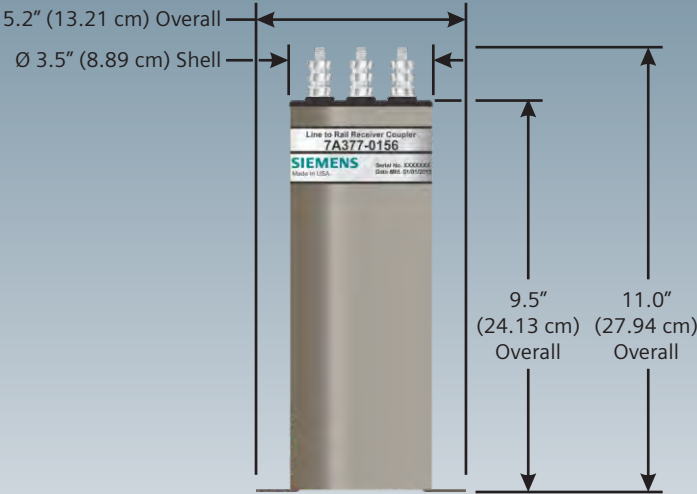
| SIEMENS<br>Part Number | Frequency | Weight                |
|------------------------|-----------|-----------------------|
| NYK:70007A3990156      | 156 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990211      | 211 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990285      | 285 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990348      | 348 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990430      | 430 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990525      | 525 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990645      | 645 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990790      | 790 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3990970      | 970 Hz    | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3991180      | 1180 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3991450      | 1450 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3991770      | 1770 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3992140      | 2140 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3992630      | 2630 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3993240      | 3240 Hz   | 7.6 lbs<br>(3.45 kgs) |
| NYK:70007A3994000      | 4000 Hz   | 7.6 lbs<br>(3.45 kgs) |

Applicable for all Line to Rail Transmitter Couplers



| Grade Crossing Systems<br>Grade Crossing Auxiliary Products | SIEMENS<br>Part Number | Frequency | Weight                |
|---|------------------------|-----------|-----------------------|
|   | NYK:70017A3770156      | 156 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770211      | 211 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770285      | 285 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770348      | 348 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770430      | 430 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770525      | 525 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770645      | 645 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770790      | 790 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3770970      | 970 Hz    | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3771180      | 1180 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3771450      | 1450 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3771770      | 1770 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3772140      | 2140 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3772630      | 2630 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3773240      | 3240 Hz   | 7.6 lbs<br>(3.45 kgs) |
|   | NYK:70017A3774000      | 4000 Hz   | 7.6 lbs<br>(3.45 kgs) |

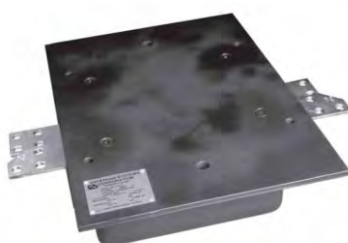
Applicable for all Line to Rail Receiver Couplers



## SZB Series

### Impedance Bonds

#### Overview



*Model 012 SZB 20 Series Impedance Bond shown for reference purposes only! Actual unit selected may vary in mounting and features.*

**SIEMENS** SZB 20 Series Impedance Bonds are designed to permit propulsion current to bypass insulated joints, while providing operation and isolation of adjacent signaling track circuits.

Unique construction of copper coils constructed from large cross sectional area copper bars, encased in a magnetic circuit of air gapped ferrous "C" cores. Construction exceeds magnetic characteristics of conventional laminated transformer cores; thereby reducing size and weight.

Coil / core assemblies are then sealed in a protective varnish to provide a medium for heat transfer to outside air, and to provide protection against the rigors of the trackside environment.

Epoxy sealed versions are also available which will withstand total immersion in seawater.

Models SZB-23 and SZB-24 are low profile design allowing mounting above the tie level and between the rails. Model SZB-25 is similar to the entry level model SZB-20, except that it is higher impedance for use with audio frequency track circuits or where minimum attenuation of signal track circuits is required.

A 3000 volt AC test of insulation between all parts of electrical circuits and other metallic parts is conducted. In ideal conditions, the traction return current flows equally in both rails and in each half of the bond. If under traction fault conditions, "out of balance" occurs, the gap prevents the core from saturating. Direct current bonds will accept 12% unbalance current, while maintaining 90% of the specified impedance.

#### Features

- Maintenance free, weather and damage resistant design.
- Solid State. No mechanical components to breakdown.
- Designed for AC or DC propulsion.
- Available in either tunable or untuned models.
- Tested at full rated current prior to shipment.
- All housings consist of steel and/or cast iron construction.
- AREMA® Compliant.

Reference to any specific commercial products, processes, or services, or the use of any trade, firm, or corporation name is for the information and convenience of the public and does not constitute endorsement, recommendation, or favoring by their respective entities





## Inductors

### Simulated Track

#### Overview



*Model A8V617 Simulated Track Inductor shown for reference purposes only!  
Actual unit selected may vary in mounting and features.*

**SIEMENS** Simulated Track Inductors are used in bidirectional installations of MS / SGCP or GCP units, where insulated joints located in an approach sometimes may prevent both termination shunts from being installed with the same approximate length from the MS / SGCP or GCP feed point.

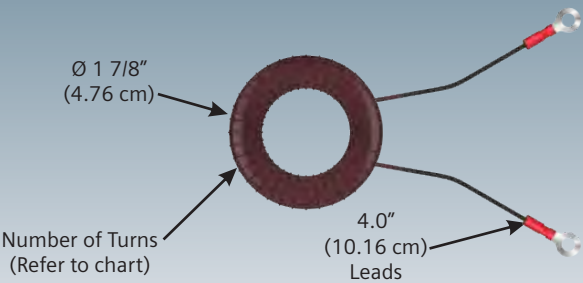
When using **SIEMENS** multi frequency NBS Series Narrow Band Shunts to terminate approaches, these can be installed inline with the shunt to simulate a longer track condition to compensate for the difference in available length in the shorter approach.



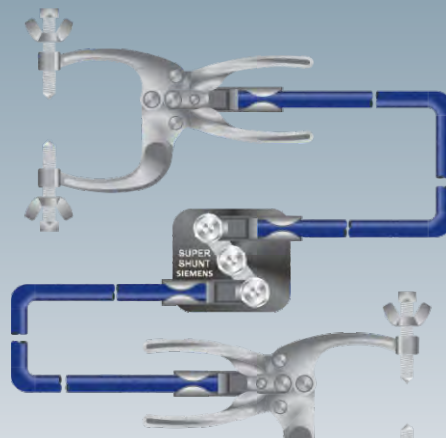
| SIEMENS<br>Part Number | Length of<br>Track<br>Simulated | Number<br>of<br>Turns | Inductance $\pm$ 10%<br>(Henry) | Weight                |
|------------------------|---------------------------------|-----------------------|---------------------------------|-----------------------|
| NYK:8V617-0100         | 100 ft<br>(30.5 m)              | 18                    | 0.00005 H                       | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-0200         | 200 ft<br>(61.0 m)              | 25                    | 0.0001 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-0400         | 400 ft<br>(121.9 m)             | 35                    | 0.0002 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-0600         | 600 ft<br>(182.9 m)             | 43                    | 0.0003 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-0800         | 800 ft<br>(243.8 m)             | 49                    | 0.0004 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-1000         | 1000 ft<br>(304.8 m)            | 55                    | 0.0005 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-1200         | 1200 ft<br>(365.8 m)            | 60                    | 0.0006 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-1400         | 1400 ft<br>(426.7 m)            | 65                    | 0.0007 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-1600         | 1600 ft<br>(487.7 m)            | 70                    | 0.0008 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-1800         | 1800 ft<br>(548.6 m)            | 74                    | 0.0009 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-2000         | 2000 ft<br>(609.6 m)            | 78                    | 0.0010 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-2200         | 2200 ft<br>(670.6 m)            | 82                    | 0.0011 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-2400         | 2400 ft<br>(731.5 m)            | 86                    | 0.0012 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-2600         | 2600 ft<br>(792.5 m)            | 89                    | 0.0013 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-2800         | 2800 ft<br>(853.4 m)            | 93                    | 0.0014 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-3000         | 3000 ft<br>(914.4 m)            | 96                    | 0.0015 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-4000         | 4000 ft<br>(1219.2 m)           | 111                   | 0.0020 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-4400         | 4400 ft<br>(1341.1 m)           | 112                   | 0.0022 H                        | 7.6 lbs<br>(3.45 kgs) |
| NYK:8V617-5200         | 5200 ft<br>(1585.0 m)           | 125                   | 0.0026 H                        | 7.6 lbs<br>(3.45 kgs) |

Grade Crossing Systems  
Grade Crossing Auxiliary Products

Applicable for all High Impedance Couplers







TS  
Series

Test Shunts

## Overview



*Model NYK:021500-25X Super Shunt shown for reference purposes only!  
Actual unit selected may vary in mounting and features.*

**SIEMENS** TS Series Test Shunts are a portable track test shunts which combines greater ease in use with positive shunting.

Toggle clamps are used for quick attachment or removal to either the base or ball of rail. These clamps provide a positive grip with release lever for easy removal.

Hardened steel points bite through rust and scale for better electrical contact. Jaws are adjustable to accommodate any size rail. Clamps of cadmium plated steel, conductors of #6 copper cable with neoprene jacket, and center block of compression molded high impact plastic allow the Super Shunt to withstand rugged field use. The center block contains a sealed 0.06  $\Omega$  resistor as well as two test links to provide open circuit, zero resistance, and 0.06  $\Omega$  shunting in the same unit.

| SIEMENS<br>Part Number | Shunt Type  | Application  |              |                               | Shunt Resistance Values in Ohms |      |     |      |     |     |     |     |      |      |
|------------------------|-------------|--------------|--------------|-------------------------------|---------------------------------|------|-----|------|-----|-----|-----|-----|------|------|
|                        |             | Base of Rail | Ball of Rail | Locking Pliers (Base of Rail) | 0.0                             | 0.06 | 0.2 | 0.25 | 0.5 | 1.0 | 1.2 | 1.3 | 1.41 | Open |
| NYK:021500-5X          | TS-1 Shunt  | X            |              |                               | X                               | X    |     |      |     |     |     |     |      |      |
| NYK:021500-5VGX        | TS-1 Shunt  |              |              | X                             | X                               | X    |     |      |     |     |     |     |      |      |
| NYK:021500-6X          | TS-1B Shunt |              | X            |                               | X                               | X    |     |      |     |     |     |     |      |      |
| NYK:021500-6VGX        | TS-1 Shunt  |              |              | X                             | X                               | X    |     |      |     |     |     |     |      |      |
| NYK:021500-25X         | Super Shunt | X            | X            |                               | X                               | X    |     |      |     |     |     |     |      | X    |
| NYK:021500-25VGX       | Super Shunt |              |              | X                             | X                               | X    |     |      |     |     |     |     |      | X    |
| NYK:021500-40X         | TS-1B Shunt |              | X            |                               | X                               |      | X   |      |     |     |     |     |      |      |
| NYK:021500-40VGX       | TS-1 Shunt  |              |              | X                             | X                               |      | X   |      |     |     |     |     |      |      |
| NYK:021500-42X         | TS-1 Shunt  | X            |              |                               | X                               |      | X   |      |     |     |     |     |      |      |
| NYK:021500-56X         | TS-1 Shunt  | X            |              |                               | X                               | X    | X   | X    |     | X   | X   |     |      |      |
| NYK:021500-57X         | TS-4 Shunt  | X            |              |                               | X                               | X    | X   | X    | X   | X   | X   | X   | X    | X    |

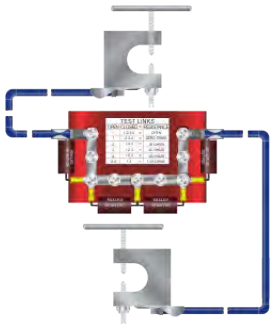
Grade Crossing Systems  
Grade Crossing Auxiliary Products



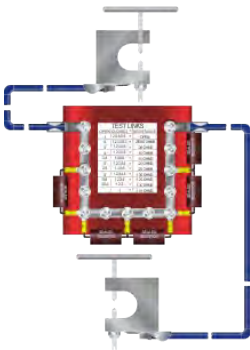
NYK:021500-25



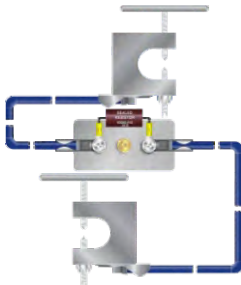
NYK:021500-25VGX



NYK:021500-56X



NYK:021500-57X



NYK:021500-5X