

# StructuredGround™ Flat Braided Bonding Straps

## specifications

Flat braided bonding straps shall be used for electrically bonding enclosure doors, subpanels, motors, and machine frames in the construction of industrial automation control panels or machine structures. Flat braided bonding straps shall have protective green/yellow insulation, indicating a ground connection where abrasion protection is required. Flat braided bonding straps shall be constructed of #4 AWG tin-plated copper with a minimum strap width of 1" and shall be terminated with a seamless ferrule that maintains the flat braided shape across its entire length. Flat braided bonding straps shall be cULus 467 Listed and RoHS compliant.



## technical information

**Industry Standards:** cULus 467 Listed, and RoHS compliant

### Flat Braided Bonding Straps, One-Hole

Part Number	Conductor Size	Length In. (mm)	Width In. (mm)	Thickness In. (mm)	Ferrule Length In. (mm)
<b>Insulated</b>					
BS100445	#4 AWG	4.00 (101.6)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
BS100645	#4 AWG	6.00 (152.4)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
BS100845	#4 AWG	8.00 (203.2)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
BS101245	#4 AWG	12.00 (304.8)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
<b>Non-Insulated</b>					
BS100445U	#4 AWG	4.00 (101.6)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
BS100645U	#4 AWG	6.00 (152.4)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
BS100845U	#4 AWG	8.00 (203.2)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)
BS101245U	#4 AWG	12.00 (304.8)	1.06 (27.0)	0.13 (3.3)	1.00 (25.4)

### Flat Braided Bonding Straps, Two-Hole

Part Number	Conductor Size	Length In. (mm)	Width In. (mm)	Thickness In. (mm)	Ferrule Length In. (mm)	Stud Hole Spacing In. (mm)
<b>Non-Insulated</b>						
BS201246EU	#4 AWG	12.00 (304.8)	1.06 (27.0)	0.13 (3.3)	2.50 (36.5)	1.25 (31.8)
BS201846EU	#4 AWG	18.00 (457.2)	1.06 (27.0)	0.13 (3.3)	2.50 (36.5)	1.25 (31.8)
BS202446EU	#4 AWG	24.00 (609.6)	1.06 (27.0)	0.13 (3.3)	2.50 (36.5)	1.25 (31.8)

## key features and benefits

<b>Flat ferrule design</b>	Delivers an enhanced high frequency bond to reduce the effects of EMI (Electromagnetic Interference)
<b>Available with polyolefin yellow/green insulation</b>	Provides abrasion protection in the internationally-recognized green and yellow pattern for grounding applications
<b>Seamless ferrule ends</b>	Provide mechanical strength for improved reliability
<b>Tin plating</b>	Inhibits corrosion for long-term reliability
<b>Wide range of lengths and stud hole variations</b>	Offers design flexibility to optimize available space in industrial bonding applications

## applications

Bonding components with short lengths of flat braided bonding straps help reduce the effects of EMI. Flat surfaces and flat braided cables pass high frequency noise more effectively than round stranded type cables. In applications where the control of high frequency noise is important, such as industrial control panels, flat braided bonding straps are highly recommended. In applications where motion or vibration is a concern, the flat braided bonding straps resist breaking and cracking of individual strands that can degrade the

effectiveness of the bonding strap. Flat braided bonding cables can be used in most applications for general bonding for safety and ESD (Electrostatic Discharge) protection.

StructuredGround™ Flat Braided Bonding Straps are part of a complete line of Panduit Industrial Automation Solutions which provide improved manageability, high availability, enhanced security, and help simplify industrial network convergence throughout the physical infrastructure.

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### Related Products

#### Universal Ground Bar

<b>6-port ground bar:</b>	UGB2/0-414-6
<b>12-port ground bar:</b>	UGB2/0-414-12
<b>18-port ground bar:</b>	UGB2/0-414-18
<b>Isolation standoffs:</b>	UGB-IN-SO
<b>Bonding standoffs:</b>	UGB-B-SO

### Grounding Washers

<b>3/8" – 16 bolt hole, paint piercing, box of 100:</b>	RGW-100-1Y
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### Green Bonding Screws

<b>#12 – 24 x 1/2", box of 100:</b>	RGTBSG-C
<b>M6 x 15mm, box of 100:</b>	RGTBSM6G-C

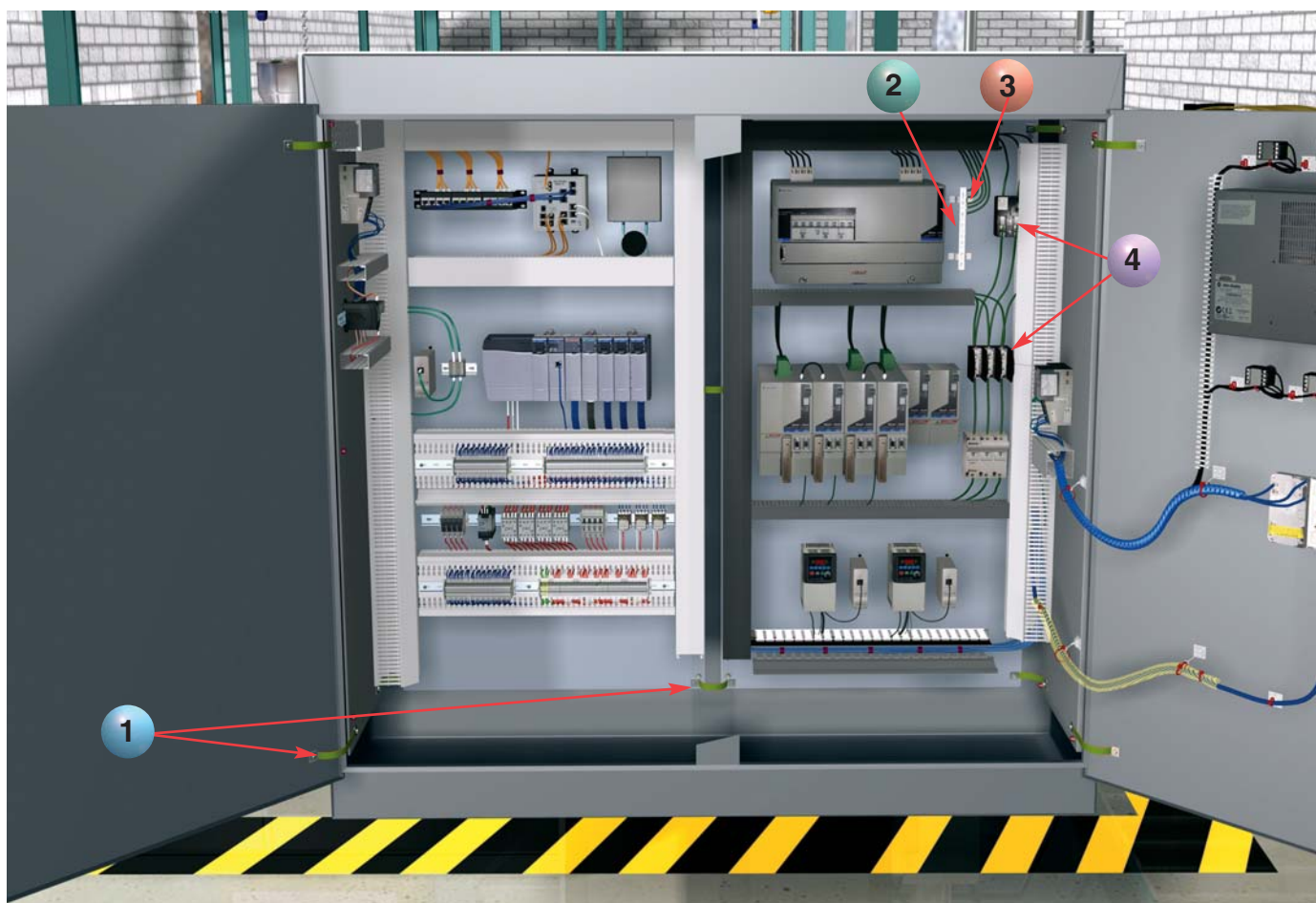
### Thread-Forming Screws

<b>#12 – 24 x 1/2":</b>	RGTS-CY
<b>M6 x 12mm:</b>	RGTSM6-C

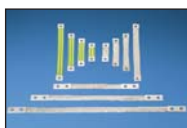
### Stainless Steel Mounting Hardware

<b>Bolts, 3/8" – 16, box of 100:</b>	SSNTS3816-C
<b>Belleville washers (locking), 3/8" – 16, box of 100:</b>	SSCW38-C
<b>Flat washers, 3/8" – 16, box of 100:</b>	SSFW38-C
<b>Nuts, 3/8" – 16, box of 100:</b>	SSN3816-C

# StructuredGround™ Flat Braided Bonding Straps



**1 Flat Braided Bonding Straps**  
Used to electrically bond enclosure doors, subpanels, motors, and machine frames



**3 Ring Terminals**  
For terminating smaller conductor



**2 Universal Ground Bar**  
Provides the common grounding point within the enclosure



**4 Copper Compression Power Connectors**  
For terminating larger conductor



## Bonding Hardware for Mounting



**Paint Piercing, Green, Grounding Washers**  
Bond subpanels to enclosures



**Bonding Screws**  
Create an electrical bond between mounting flanges and subpanels



**Thread-Forming Screws**  
Used for mounting DIN rails

## WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT CANADA  
Markham, Ontario  
cs-cdn@panduit.com  
Phone: 800.777.3300

PANDUIT EUROPE LTD.  
London, UK  
cs-emea@panduit.com  
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.  
Republic of Singapore  
cs-ap@panduit.com  
Phone: 65.6305.7575

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Tokyo, Japan  
cs-japan@panduit.com  
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PANDUIT LATIN AMERICA  
Guadalajara, Mexico  
cs-la@panduit.com  
Phone: 52.33.3777.6000

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