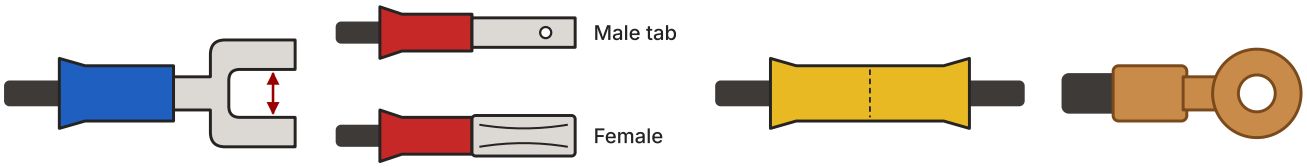
Wire Connector Sizes

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Spades, quick disconnects, butt splices and lugs by wire range and connection size: the red / blue / yellow color code, quick disconnect tab sizes, and the stud each spade or lug fits.

A crimp connector is picked by **two numbers**: the **wire range** its barrel takes (in AWG) and the size of what it connects to — the **stud** a spade or lug goes on, or the **tab width** a quick disconnect mates with. A butt splice joins two wires, so its wire range is the whole story. On insulated connectors the sleeve color tells you the wire range at a glance. (Ring terminals: see Wire Terminal Sizes.)



Spade (fork)
wire range + stud

Quick disconnect
wire range + tab width

Butt splice
wire range, both ends

Lug
wire size + stud

Spade, quick disconnects, butt splice and lug. The sleeve color is the wire range; the business end is sized for the stud or tab. Not to scale.

Insulated connector color code — by wire range

WIRE RANGE	INSULATION COLOR
22-18 AWG	Red
16-14 AWG	Blue
12-10 AWG	Yellow

The same code on insulated spades, quick disconnects, bullets and butt splices as on ring terminals. From the Grote and ABB Sta-Kon catalogs; printed where both agree. Other wire ranges and heat-shrink colors aren't on the chart — only one of the two lists them.

Quick disconnect tab sizes — width, thickness and wire ranges

TAB WIDTH	TAB THICKNESS	WIRE RANGES
.110"	—	22-18, 16-14 AWG
.187"	—	22-18, 16-14 AWG
.250"	.032"	22-18, 16-14, 12-10 AWG

The tab widths both Panduit and ABB Sta-Kon list for their quick disconnects, and the wire ranges both list each one in. A dash in thickness: both makers make that width in more than one thickness — match the female to the tab it goes on. A tab width only one of the two lists isn't on the chart.

Spade and lug stud sizes — the screw or stud each fits

STUD SIZE	STUD DIA
#4	—
#6	.138"
#8	.164"
#10	.190"
1/4"	.250"

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STUD SIZE	STUD DIA
5/16″	.312″
3/8″	.375″
1/2″	.500″

The nominal diameter of the screw or stud, from the Grote and Panduit terminal stud charts; printed where both agree. A dash: the two charts differ or only one lists it.

Good to know

Pick by two numbers: the wire's AWG must fall inside the connector's wire range (a 14 AWG wire takes a 16-14 connector), and the business end must match: the spade or lug on the same stud size, the quick disconnect on the same tab width.

Crimp die: on insulated spades, quick disconnects and butt splices use the crimp tool's die nest of the **same color** as the terminal — tools mark them red, blue and yellow to match (Grote, ABB Sta-Kon).

Quick disconnects come in male (the flat tab) and female (the receptacle that slides over it); they mate only at the same tab width. A **flag** female has its receptacle turned across the barrel for tight spots. **Bullets** mate male into female of the same bullet size.

Butt splices join two wires end to end, both in the listed range; a **step-down** splice takes a different range at each end. **Copper lugs** are listed by one wire size and the stud the ring fits; crimp them with the die their maker names — lug die markings aren't on this chart.

Quick answers

What size tab does a 1/4 inch quick disconnect fit?

A 1/4″ quick disconnect is the **.250″** tab size. Panduit and ABB Sta-Kon list the .250″ tab only **.032″** thick; male and female mate only at the same tab width.

What color is a 16-14 butt connector?

On insulated butt splices, spades and quick disconnects the color is the wire range: **red = 22-18 AWG**, **blue = 16-14 AWG**, **yellow = 12-10 AWG** (Grote and ABB Sta-Kon catalogs).

What tab sizes do 12-10 quick disconnects come in?

On both the Panduit and ABB Sta-Kon charts, 12-10 AWG quick disconnects come in the **.250″** tab only.

What size screw does a #10 spade terminal fit?

A #10 spade (fork) slides under a #10 screw, **.190″** in diameter; a #8 spade fits a .164″ screw and a 1/4″ spade a .250″ stud.

How do I pick a copper lug?

By the **wire size** (one AWG size, such as 4 AWG or 2/0) and the **stud size** of the ring (a 3/8″ lug goes on a .375″ stud). Crimp it with the die its maker names for that size.

Which crimp die do I use for a yellow quick disconnect?

The die nest of the **same color**: crimp tools mark their insulated-terminal nests red, blue and yellow to match the terminals (Grote, ABB Sta-Kon).

Reference values drawn from the governing standards. For critical applications, confirm against the standard and the manufacturer's published data. Technical information disclaimer →