



### Color-Keyed®

Connectors for copper\* cables: 90 °C, 600 V to 35 kV applications

Wire size	Die color	Die code	Stud size
#10-14 AWG	-	-	¼"
#8 AWG	Red	21	#10 ¼" ⅜" ½"
#6 AWG	Blue	24	#10 ¼" ⅜" ½"
#4 AWG	Gray	29	#10 ¼" ⅜" ½"
#2 AWG	Brown	33	#10 ¼" ⅜" ½"
#1 AWG	Green	37	#10 ¼" ⅜" ½"
1/0 AWG	Pink	42	#10 ¼" ⅜" ½"
2/0 AWG	Black	45	¼" ⅜" ½"
3/0 AWG	Orange	50	¼" ⅜" ½"
4/0 AWG	Purple	54	¼" ⅜" ½"
250 MCM	Yellow	62	¼" ⅜" ½"

Wire size	Die color	Die code	Stud size
222 MCM (550/24)	Yellow	62	¼" ⅜" ½"
300 MCM	White	66	⅜" ½" ⅝"
262 MCM (650/24)	White	66	½"
350 MCM	Red	71	¼" ⅜" ½" ⅝"
313 MCM (775/24)	Red	71	¼" ⅜" ½" ⅝"
400 MCM	Blue	76	¼" ⅜" ½" ⅝"
373 MCM (925/24)	-	80	¼" ½" ⅝"
500 MCM	Brown	87	¼" ⅜" ½" ⅝"
444 MCM (1100/24)	Green	94	⅜" ½" ⅝"
600 MCM	Green	94	⅜" ½" ⅝"
700 MCM	Pink	99	½" ⅝"
535 MCM (1325/24)	Pink	99	½" ⅝"
750 MCM	Black	106	½" ⅝"
646 MCM (1600/24)	Black	106	½" ⅝"

One-hole lugs		Two-hole lugs		Hole spacing	Two-way connectors	
Short	Long	Short	Long		Short	Long

One-hole lugs		Two-hole lugs		Hole spacing	Two-way connectors	
Short	Long	Short	Long		Short	Long



### Copper bell-ended lugs

Wire size	Die color	Die code	Stud size
#8 8 (37/24)	Red	21	#10
#6 6 (61/24)	Blue	24	¼"
#4 5 (91/24)	Gray	29	¼"
#4 5 (91/24)	Gray	29	⅜"
#2/3 3 (125/24)	Brown	33	⅜"
#1 2 (150, 175/24)	Green	37	⅜"
1/0 1 (225/24)	Pink	42	⅜"
2/0 1/0 (275/24)	Black	45	⅝"
3/0 2/0 (325/24)	Orange	50	½"
4/0 3/0 (450/24)	Purple	54	½"

Wire size	Die color	Die code	Stud size
250 222 MCM (550/24)	Yellow	62	½"
300 262 MCM (650/24)	White	66	½"
400 313 MCM (775/24)	Blue	76	⅝"
500 373 MCM (925/24)	-	80	½"
- 444 MCM (1100/24)	Green	94	⅝"
700 535 MCM (1325/24)	Pink	99	⅝"
750 -	Black	106	⅝"
800 -	Orange	107	⅝"
900 777 MCM (1925/24)	Yellow	115	⅝"

One-hole lugs

One-hole lugs

Note: Ⓞ 4503 rated for 600 V. Ⓢ E9809 rated for 600 V.

\* For regular, concentric and compact code standings. Connectors and dies ensure complete compression every time at the time at the lowest installed cost. Connections are permanent. With high pull-out value and low resistance. Made of high-conductivity copper, tin-plated, connectors are cold-flowed to a homogeneous mass, bringing strands into intimate contact.

Proper position of die is indicated by bands of color on the connector that match the color on the dies. Compression is made between these bands. Color name is also spelled on connector. Installing tools: See enclosed tool and die selection chart.

Pantone Purple does not plate

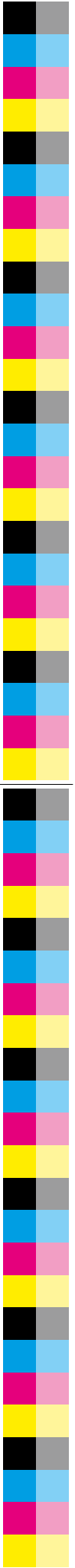
8-1/2 x 11" Slide 1

GRIPPER GRIPPER GRIPPER GRIPPER

54113	54913BE	54275	5486BBE	1¾	54513	54813	58184	58984BE	-	-	-	-	58524
54174	-	54213	-	1	54513	54813	-	-	-	58884BE	1¾	-	58524
54173	-	-	-	-	54513	54813	54123-TB	54923BE	-	-	-	54523TB	54823
54172-TB	-	-	-	-	54513	54813	-	54922BE	54223	54880BE	1¾	54523TB	54823
54170	54970BE	54270	54866BE	1¾	54512	54812	58182	54923BE	-	-	-	53969	54823
54112	-	54212	-	1	54512	54812	-	54922BE	58281	-	1¾	53969	54823
54168	-	-	-	-	54512	54812	54122-TB	-	-	-	-	54522TB	-
54167	-	-	54817BE	¾	54512	54812	-	-	54291	54879BE	1¾	54522TB	-
54165-TB	54965BE	54265	54864BE	1¾	54511	54811	54120	54920BE	-	-	-	54520	54820
54111	-	54211	54816BE	1	54511	54811	-	54921BE	54289	54878BE	1¾	54520	54820
54163-TB	-	54266	-	1	54511	54811	-	-	54220	54824BE	1	54520	54820
54162-TB	-	-	54815BE	¾	54511	54811	58180	54920BE	-	-	-	53968	54820
54160	54951BE	54260	54862BE	1¾	54510	54810	-	54921BE	54289	54878BE	1¾	53968	54820
54110	54910BE	54210	-	1	54510	54810	-	-	54220	54824BE	1	53968	54820
54158	-	54261	-	¾	54510	54810	54187	54919BE	-	-	-	54518	54818
54157	-	-	54814BE	¾	45410	54810	54118	54918BE	54286	54876BE	1¾	54518	54818
54155-TB	54950BE	-	-	-	54509	54809	-	-	54218	-	1	54518	54818
54109	54909BE	54209	-	1	54509	54809	-	-	-	54823BE	¾	54518	54818
54153-TB	54949BE	54255	54860BE	¾	54509	54809	-	54919BE	-	-	-	54818	54818
54152-TB	-	-	54859BE	¾	54509	54809	58177	54918BE	58277	54876BE	1¾	-	54818
-	54946BE	-	-	-	54509	54809	-	-	-	54823BE	¾	-	54818
54150	-	-	54857BE	1¾	54508	54808	54185	54917BE	-	-	-	54516	54816
54148	-	-	-	-	54508	54808	54116	54916BE	54282	54874BE	1¾	54516	54816
54147	54947BE	-	54858BE	¾	54508	54808	-	-	54216	54821BE	1	54516	54816
54108	-	54208	54809BE	¾	54508	54808	-	-	-	54822BE	¾	54516	54816
-	54945BE	-	-	-	54508	54808	-	54917BE	-	-	-	-	54816
54145-TB	-	-	54811BE	1¾	54507	54807	58171	54916BE	-	54874BE	1¾	-	54816
54143-TB	-	-	54810BE	1¾	54507	54807	-	-	54216	54821BE	1	-	54816
54142-TB	54942BE	-	54856BE	¾	54507	54807	-	-	-	54822BE	¾	-	54816
54107	-	54207	54855BE	¾	54507	54807	54183	-	-	-	-	54515	54815
-	54933BE	-	-	-	54507	54807	54115	54915BE	54282	54872BE	1¾	54515	54815
54140	-	-	-	-	54506	54806	-	-	54215	-	1	54515	54815
54139	-	-	-	-	54506	54806	-	-	-	54820BE	¾	54515	54815
54106	54906BE	54206	54854BE	¾	54506	54806	58168	-	-	-	-	-	-
54138	54908BE	-	-	-	54506	54806	54181	-	-	-	-	54514	54814
54136	-	-	-	-	54505	54805	-	-	-	-	-	54514	54814
54135	-	-	-	-	54505	54805	54114	54914BE	54280	54870BE	1¾	54514	54814
54105	54905BE	54205	54852BE	¾	54505	54805	54179	-	54214	54819BE	1	54514	54814
54134	54904BE	-	-	-	54505	54805	54178	-	-	-	-	54514	54814
54132	-	-	-	-	54504	54804	58166	-	-	-	-	53964	54813
54131	-	-	-	-	54504	54804	58165	54913BE	58265	54868BE	1¾	53964	54813
54130	54930BE	542040410	54850BE	¾	54504	54804	58163	-	-	-	-	53964	54813
54104	54929BE	54204	-	¾	54504	54804	58162	-	-	-	-	53964	54813
54101	54901BE	54201	54801BE	¾	-	-	58161	-	-	-	-	53964	54813

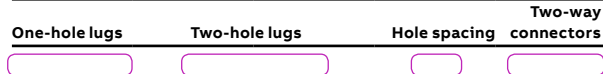
54170BS  
54165BS  
54110BS  
54153BS  
54147BS  
54142BS  
54139BS  
54106BS  
54105BS  
54104BS

54126BS  
54124BS  
54123BS  
54122BS  
58180BS  
58177BS  
54185BS  
54114BS  
58165BS



Connectors for aluminum/copper\* cables: 90 °C, 600 V to 35 kV applications

Wire size	Die color	Die code	Stud size
#10	Red	21	#10 ¼ ⅜
#8	Blue	24	#10 ¼ ⅜ ⅝
#6	Gray	29	#10 ¼ ⅜ ⅝
#4	Green	37	¼ ⅜ ⅝
#2	Pink	42	¼ ⅜ ⅝ ½
#1	Gold	45	¼ ⅜ ⅝ ½
1/0	Tan	50	¼ ⅜ ⅝ ½
2/0	Olive	54	¼ ⅜ ⅝ ½

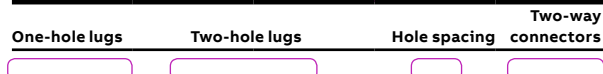


Wire size	Die color	Die code	Stud size
3/0	Ruby	60	¼ ⅜ ⅝ ½
4/0	White	66	⅜ ⅝ ½ ⅝
250	Red	71	⅜ ½ ⅝
300	Blue	76	⅜ ⅝ ½ ⅝
350	Brown	87	⅜ ½ ⅝
400	Green	94	⅜ ½ ⅝
500	Pink	99	⅜ ½ ⅝
600	Black	106	⅜ ½ ⅝
700	Purple	112	⅜ ½ ⅝
750	Yellow	115	⅜ ½ ⅝



Connectors for copper\* cables: 1- & 2-hole lug, two-way splices for up to 35 kV applications

Wire size	Die color	Die code	Stud size
#4	Gray	29	⅜
#2	Brown	33	⅜
#1	Green	37	⅜
1/0	Pink	42	⅜
2/0	Black	45	½
3/0	Orange	50	½
4/0	Purple	54	½



Wire size	Die color	Die code	Stud size
250	Yellow	62	½
300	White	66	½
350	Red	71	½
400	Blue	76	½
500	Brown	87	½
600	Green	94	½
750	Black	106	½



Smart® tool range-taking features

The Color-Keyed lugs and 2-way connectors when crimped with the Smart tools, cat. nos. TBMB-750, TBM8-750-M1, produce these range-taking capabilities:

Copper		Aluminum	
Standard wire size	Range taking	Standard wire size	Range taking
1/0 AWG	#6-1/0 AWG	1/0 AWG	#6-1/0 AWG
2/0 AWG	#1-2/0 AWG	2/0 AWG	#1-2/0 AWG
4/0 AWG	#2-4/0 AWG	4/0 AWG	#2-4/0 AWG
300 MCM	#2/0-300 MCM	300 MCM	#2/0-300 MCM
350 MCM	250-350 MCM	350 MCM	250-350 MCM
500 MCM	250-500 MCM	500 MCM	4/0-500MCM
750 MCM	500-750 MCM	750 MCM	500-750 MCM

\*For regular concentric and compact code strandings.

Aluminum connectors are made of high-conductivity tin-plated wrought aluminum. These connectors are designed and approved for aluminum and copper conductors, performing equally well on both metals. The Color-Keyed aluminum connectors quickly identify the correct installing die for positive compressions. Hardened steel dies compress the connector around the cable, changing the round strands to hexagonal shapes and cold flowing the strands and connector into a solid homogeneous mass. Long compression areas ensure complete contact and multiple compressions prevent creep of the aluminum conductor. Connectors are filled with a high-temperature oxide inhibitor compound. Connectors are electro-tin-plated to prevent electrolytic corrosion when in contact with copper and ensure lowest contact resistance. Installing tools: See enclosed tool and die selection chart.

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Electrification business  
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60138	60238	1%	60536	60178	-	-	60578
60136	60236	1	60536	-	60278	1%	60578
60135	-	-	60536	-	-	-	60578
60134	-	-	60536	60176	-	-	60576
60132	-	-	60530-TB	-	60277	1%	60576
60130	60230	1	60530-TB	-	60276	1	60576
60129	-	-	60530-TB	60174	-	-	60574
60128	-	-	60530-TB	-	60275	1%	60574
60126	-	-	60522-TB	-	60274	1	60574
60124	-	-	60522-TB	60172	-	-	60571
60123	-	-	60522-TB	60171	60273	1%	60571
60122	-	-	60522-TB	-	60271	1	60571
60120	-	-	60516	60168	60269	1%	60568
60118-TB	-	-	60516	-	60268	1	60568
60117-TB	-	-	60516	60166	-	-	60565
60116-TB	-	-	60516	60165	60267	1%	60565
60114-TB	-	-	60512	-	60265	1	60565
60113-TB	-	-	60512	60162	60262	1%	60560
60112-TB	-	-	60512	60160	60260	1	60560
60109-TB	-	-	60507-TB	60159	-	-	60560
60108-TB	-	-	60507-TB	60157	-	-	60554
60107-TB	-	-	60507-TB	60156	60256	1%	60554
60106-TB	-	-	60507-TB	60154	60254	1	60554
60104-TB	-	-	60501-TB	60151	-	-	60548
60103-TB	-	-	60501-TB	60150	60250	1%	60548
60102-TB	-	-	60501-TB	60148	60248	1	60548
60101-TB	-	-	60501-TB	60147	-	-	60548
60099	-	-	60500-TB	60144	60244	1%	60542
60097	-	-	60500-TB	60142	60242	1	60542
60096	-	-	60500-TB	60141	-	-	60542
				60140	-	-	60542

**Tool die selection chart**

Note: All 155\*\* die series require die adapter for TBM15 head only.  
 Catalog number: 15500-TB  
 Note: Add suffix "F" to catalog number 155\*\* series for full die sets.  
 No adapter required. For TBM15 series tools only.  
 For special flexible standings available on some sizes, consult customer service.  
 For a complete technical data, consult the ABB catalog.

55470	54479	1%	54012-TB	-	54487	1%	54023
55465	54478	1%	54011	-	54485	1%	-
55460	54476	1%	54010	-	54484	1%	54018
55409	54475	1	54009-TB	-	54483	1%	-
54448	-	-	54008-TB	-	54482	1%	54015
54443	-	-	54007-TB	-	54481	1%	-
54440	-	-	54006-TB	54413	54480	1%	54013

**Tool reference**

Connector size	TBM6H hydraulic												13642M		TBM14M, TBM15 hydraulic head	
	TBM8/8S		TBM5/5S		TBM60RS, TBM6-6S		head		hydraulic head		TBM12 hydraulic head		hydraulic head			
	Die groove	Die cat. no.	Die cat. no.	Upper die cat. no.	Lower die cat. no.	Die cat. no.	Die cat. no.	Die cat. no.	Die cat. no.	Die code no.	Die cat. no.	Die code no.	Die cat. no.	Die code no.		
Cu	Al/Cu															
8 AWG	10 AWG	Red	Order	Order	13475	13477	6TON21SS	11732	21	TBM12D-1	21	11520SS	21			
6	8	Blue	13461	13454	13475	14477	6TON24SS	11733	24	TBM12D-1	24	15522SS	24			
4	6	Gray			13472	13476	6TON29SS	11734	29	TBM12D-2	29	15527SS	29			
2	-	Brown			13474	13477	6TON33SS	11735	33	TBM12D-2	33	15528SS	33			
1	4	Green	Order	Order	13474	13477	6TON37SS	11736	37	TBM12D-3	37	15513SS	37			
1/0	2	Pink	13462	13455	13475	13477	6TON42SS	11736	42	TBM12D-3	42	15508SS	42H			
2/0	-	Black			13474	13477	6TON45SS	11738	45	TBM12D-4	45	15526SS	45			
3/0	-	Orange			13474	13477	6TON50SS	11739	50	TBM12D-4	50	15530SS	50			
4/0	-	Purple	Order	Order	13475	13477	6TON54SS	11740	54	TBM12D-5	54	15511SS	54H			
250 MCM	-	Yellow	13463	13456	13473	13476	6TON62SS	11771	62	TBM12D-5	62	15510SS	62			
-	1	Gold	Order	Order	13474	13477	6TON45SS	11738	45	TBM12D-4	45	15526SS	45			
-	1/0	Tan	13464	13457	13474	13477	6TON50SS	11739	50	TBM12D-4	50	15530SS	50			
-	2/0	Olive			13475	13477	6TON54SS	11740	54	TBM12D-5	54	15511SS	54H			
-	3/0	Ruby			13473	13476	6TON60SS	11741	60	TBM12D-5	60	15532SS	60			
300 MCM	4/0	White	13465	-	13473	13476	6TON66SS	11742	66H	TBM12D-5	66H	15534SS	66			
350	250 MCM	Red	13466	13458	13472	13476	6TON71SS	11743	71H	TBM12D-4	71H	15514SS	71H			
400	300	Blue	13467	4/0 Al	13472	13476	6TON76SS	11744	76H	TBM12D-4	76H	15512SS	76			
500	350	Brown	13468	Only	13478	13478	6TON87SS	11746	87H	TBM12D-4	87H	15506SS	87H			
600	400	Green						11747	94H	TBM12D-3	94H	15611SS	94H			
700	500	Pink						11748	99H		106H					
								11749	106H	TBM12D-2	99H	15505SS	99H			
								11749	107H	TBM12D-2	107H	15515SS	106H			
750	600	Black									15608	107H				
800	-	Orange									15609	112H				
-	700	Purple						11751	112H	TBM12D-1	112H	15609	112H			
900	750	Yellow						11753	115H	TBM12D-1	115H	15504SS	115H			
1000	800										15603	125H				
-	1000										15602	140H				