

ALPHA FIX Terminal Blocks

ALPHA FIX 8WA and 8WH Terminals with Screw Connection

Measuring transformer terminals

Overview

Measuring transformer terminals can be used for testing and isolating circuits in switchgear installations, control rooms and the like without any interruption of operation.

The isolating and instrument isolating terminals contain an isolating device in the through-type connection. The isolating device permits electrical separation between the input and output of a terminal.

Test sockets for plugs with a diameter of 4 mm can be screwed into the front side of the through-type and isolating terminals. The rated insulation voltage between colored test sockets is 125 V. The rated insulation voltage between test sockets and link rails which are not connected to the terminal is 16 V (circuit 3, terminals 3 and 5).

Two adjacent terminals can be connected in parallel with the disconnecting bridge. The disconnecting bridge can be operated in any position of the isolating contact.

Instrument set for one transformer

The basic circuit of the transformer terminal blocks becomes clear in the instrument set for a transformer. Much larger instrument sets also contain this basic circuit which is extended by adding on equivalent circuits. Links between the basic circuits allow many kinds of tests to be carried out, parallel outgoing feeders to other measuring devices, the connection of test equipment etc.

Instrument set for three transformers

The simplest version of an instrument set for a three-phase circuit consists of three basic circuits strung together without any continuing links or extensions. Instead of isolating terminals 1, 3 and 5, less expensive through-type terminals can also be used.

On the other hand, it is also possible to use instrument isolating terminals for this purpose so that the terminal versions are all the same.

Instrument set for three transformers with neutral point

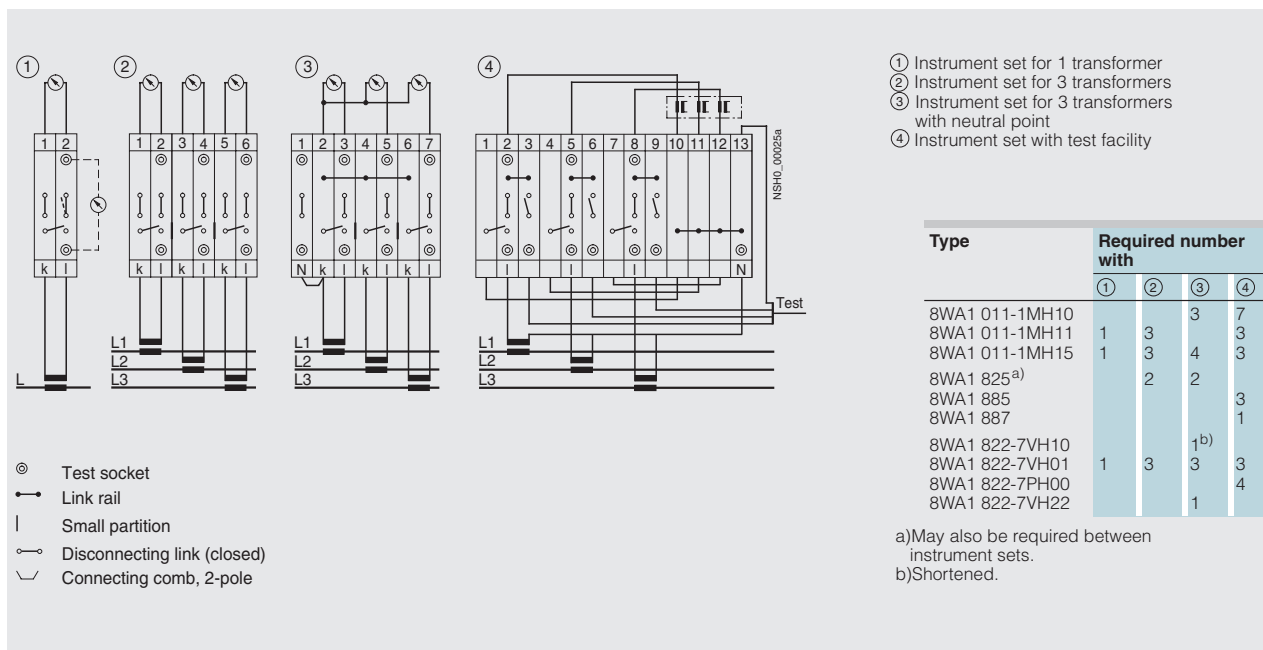
The instrument set with a neutral point is an extension of the previous circuit. Four instead of six lines are sufficient for connecting it with the measuring instruments. The neutral point is produced on the measuring instruments on the one hand, and using a shortened 8WA1 822-7VH10 link rail on the other. The instrument isolating terminal 1 is connected to the neutral point using a connecting comb.

Note

The terminal sets for current transformers are considerably simplified by the introduction of the 8WA1 011-1MH10 through-type terminals and the associated disconnecting bridges. Instead of the 12 isolating or instrument isolating terminals which have been used up to now, only four instrument isolating terminals and three through-type terminals now have to be used.

Instrument set with test facility

This instrument set represents a significant enhancement over previous types. In normal operation, terminals 2, 5 and 8 are closed. For testing a measuring instrument (e.g. a plotter), these terminals are opened and terminals 3, 6 and 9 are closed in order to feed in a test signal. The transformers first have to be short-circuited with the disconnecting bridges between terminals 1-2, 4-5 and 7-8. Wire bridges connect terminals 1, 4 and 7 with the neutral point. It is formed in terminals 10, 11, 12 and 13 with an 8WA1 887 link rail.






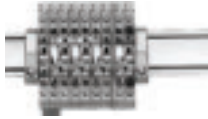
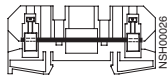
Connection possibility for measuring transformer terminals (instrument sets)

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Selection and ordering data


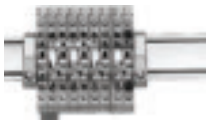


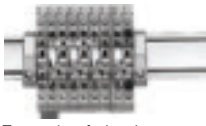
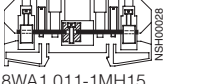
Arrangement of components	Version	Order No.	Price 1 unit	PG	PS* P. unit Unit(s)	
General details						
<ul style="list-style-type: none"> • With thermoplastic insulating base • Screw terminal on both sides and two holes for test sockets for Ø 4 mm test plug, insulated on both sides • Enclosed on both sides 						
Note		Section	Page			
For labeling accessories see ...		Accessories	6/2			
Terminal size 6 mm²						
 <p>8WA1 011-1MH10</p>	Through-type terminals, terminal size 6 mm²		8WA1 011-1MH10	041	20	
	<ul style="list-style-type: none"> • Rated uninterrupted current 41 A • Rated insulation voltage 500 V • Mounting width 8 mm • Terminal height 33 mm • Terminal length 83 mm • Without test sockets •  AWG 14-8 •  AWG 16-10 					
 <p>Example of circuits</p>	Accessories		Section	Page		
	Covers, for link rails		Accessories	1/39	8WA1 822-7AX01	041 10
<ul style="list-style-type: none"> • Transparent • White, facility for inscription 		Accessories	1/39	8WA1 822-7AX03	041 10	
 <p>8WA1 011-1MH10</p>	Test sockets		Accessories	1/39	8WA1 822-7PH00	041 50
	<ul style="list-style-type: none"> • Rated voltage between test socket and bypassed link rail 16 V - recessed 					
<ul style="list-style-type: none"> • Rated voltage between two test sockets: 125 V - green - black - red 		Accessories	1/39	8WA1 822-7PH03	041 50	
		Accessories	1/39	8WA1 822-7PH06	041 50	
		Accessories	1/39	8WA1 822-7PH08	041 50	
Test plugs		Accessories	1/39	8WA1 868	041 10	
<ul style="list-style-type: none"> • Red 		Accessories	1/39	8WA1 822-7VH01	041 50	
Disconnecting bridges		Accessories	1/39	8WA1 825	041 50	
Insulation plates, for terminal size 2.5 to 6 mm²		Accessories	1/39	8WA7 163	041 10	
Connecting combs		Accessories	1/39	8WA1 822-7VH22	041 10	
<ul style="list-style-type: none"> • 10-pole for measuring transformer terminals, can be shortened as required • 2-pole 		Accessories	1/39	8WA1 885	041 50	
Link rails, for terminal size 6 mm²		Accessories	1/39	8WA1 886	041 50	
<ul style="list-style-type: none"> • For two terminals • For three terminals • For four terminals • For ten terminals • Unmounted for ten terminals 		Accessories	1/39	8WA1 887	041 20	
		Accessories	1/39	8WA1 888	041 10	
		Accessories	1/39	8WA1 822-7VH10	041 50	
Barriers, for Insta terminals, terminal size 2.5 mm² and measuring transformer terminals, terminal size 6 mm²		Accessories	1/39	8WA1 822-7TH00	041 50	

* See pages 7/9 through 7/12 for 8WA package size requirements.

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Arrangement of components	Version	Order No.	Price 1 unit	PG	PS* P. unit Unit(s)	
 <p>8WA1 011-1MH11</p>  <p>Example of circuits</p>  <p>8WA1 011-1MH11</p>	Isolating terminals, terminal size 6 mm² <ul style="list-style-type: none"> Rated uninterrupted current 41 A Rated insulation voltage 500 V Mounting width 8 mm Terminal height 33 mm Terminal length 83 mm Without test sockets • AWG 14-8 • Ø AWG 16-10 	8WA1 011-1MH11		041	20	
	Accessories	Section	Page			
	Covers, for link rails <ul style="list-style-type: none"> Transparent White, facility for inscription 	Accessories	1/39	8WA1 822-7AX01	041	10
		Accessories	1/39	8WA1 822-7AX03	041	10
	Test sockets <ul style="list-style-type: none"> Rated voltage between test socket and bypassed link rail 16 V <ul style="list-style-type: none"> - recessed Rated voltage between two test sockets: 125 V <ul style="list-style-type: none"> - green - black - red 	Accessories	1/39	8WA1 822-7PH00	041	50
		Accessories	1/39	8WA1 822-7PH03	041	50
		Accessories	1/39	8WA1 822-7PH06	041	50
		Accessories	1/39	8WA1 822-7PH08	041	50
	Test plugs <ul style="list-style-type: none"> Red 	Accessories	1/39	8WA1 868	041	10
	Disconnecting bridges	Accessories	1/39	8WA1 822-7VH01	041	50
	Insulation plates, for terminal size 2.5 to 6 mm²	Accessories	1/39	8WA1 825	041	50
	Connecting combs <ul style="list-style-type: none"> 10-pole for measuring transformer terminals, can be shortened as required 2-pole 	Accessories	1/39	8WA7 163	041	10
		Accessories	1/39	8WA1 822-7VH22	041	10
	Link rails, for terminal size 6 mm² <ul style="list-style-type: none"> For two terminals For three terminals For four terminals For ten terminals Unmounted for ten terminals 	Accessories	1/39	8WA1 885	041	50
		Accessories	1/39	8WA1 886	041	50
	Accessories	1/39	8WA1 887	041	20	
	Accessories	1/39	8WA1 888	041	10	
	Accessories	1/39	8WA1 822-7VH10	041	50	
Barriers, for Insta terminals, terminal size 2.5 mm² and measuring transformer terminals, terminal size 6 mm²	Accessories	1/39	8WA1 822-7TH00	041	50	
 <p>8WA1 011-1MH15</p>  <p>Example of circuits</p>  <p>8WA1 011-1MH15</p>	Instrument isolating terminals, terminal size 6 mm² <ul style="list-style-type: none"> Mounting width 8 mm Terminal height 33 mm Terminal length 83 mm Open isolating distance With recessed test connectors • AWG 14-8 • Ø AWG 16-10 	8WA1 011-1MH15		041	20	
	Accessories	Section	Page			
	Covers, for link rails <ul style="list-style-type: none"> Transparent White, facility for inscription 	Accessories	1/39	8WA1 822-7AX01	041	10
		Accessories	1/39	8WA1 822-7AX03	041	10
	Test sockets <ul style="list-style-type: none"> Rated voltage between test socket and bypassed link rail 16 V <ul style="list-style-type: none"> - recessed Rated voltage between two test sockets: 125 V <ul style="list-style-type: none"> - green - black - red 	Accessories	1/39	8WA1 822-7PH00	041	100
		Accessories	1/39	8WA1 822-7PH03	041	50
		Accessories	1/39	8WA1 822-7PH06	041	50
		Accessories	1/39	8WA1 822-7PH08	041	50
	Disconnecting bridges	Accessories	1/39	8WA1 822-7VH01	041	50
	Insulation plates, for terminal size 2.5 to 6 mm²	Accessories	1/39	8WA1 825	041	50
	Connecting combs <ul style="list-style-type: none"> 10-pole for measuring transformer terminals, can be shortened as required 2-pole 	Accessories	1/39	8WA7 163	041	10
		Accessories	1/39	8WA1 822-7VH22	041	10
	Link rails, for terminal size 6 mm² <ul style="list-style-type: none"> For two terminals For three terminals For four terminals For ten terminals Unmounted for ten terminals 	Accessories	1/39	8WA1 885	041	50
		Accessories	1/39	8WA1 886	041	50
		Accessories	1/39	8WA1 887	041	20
	Accessories	1/39	8WA1 888	041	10	
	Accessories	1/39	8WA1 822-7VH10	041	50	
Barriers, for Insta terminals, terminal size 2.5 mm² and measuring transformer terminals, terminal size 6 mm²	Accessories	1/39	8WA1 822-7TH00	041	50	

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Arrangement of components	Version	Order No.	Price 1 unit	PG	PS* P. unit Unit(s)
Accessories					
	Covers, for link rails For through-type terminals, size 2.5 to 6 mm ²				
	Versions <ul style="list-style-type: none"> • Transparent • White, facility for inscription 	8WA1 822-7AX01 8WA1 822-7AX03		041	10
	Test sockets Ø 4 mm				
	Versions <ul style="list-style-type: none"> • Rated voltage between test socket and bypassed link rail 16 V <ul style="list-style-type: none"> - recessed • Rated voltage between two test sockets: 125 V <ul style="list-style-type: none"> - green - black - red 	8WA1 822-7PH00 8WA1 822-7PH03 8WA1 822-7PH06 8WA1 822-7PH08		041	100
 8WA1 822-7PH00					
 8WA1 822-7PH03					
	Test plugs <ul style="list-style-type: none"> • Red 	8WA1 868		041	10
	Disconnecting bridges Rated insulation voltage with disconnecting bridge opened according to DIN VDE0110:125 V size C or 250 V size B	8WA1 822-7VH01		041	50
 8WA1 822-7VH01					
	Insulation plates, for terminal size 2.5 to 6 mm²	8WA1 825		041	50
 8WA1 825					
	Connecting combs For inserting in the clamping points				
	Versions <ul style="list-style-type: none"> • 10-pole for measuring transformer terminals, can be shortened as required • 2-pole 	8WA7 163 8WA1 822-7VH22		041	10
 8WA7 163					
	Link rails, for terminal size 6 mm² <ul style="list-style-type: none"> • For two terminals • For three terminals • For four terminals • For ten terminals • Unmounted for ten terminals 	8WA1 885 8WA1 886 8WA1 887 8WA1 888 8WA1 822-7VH10		041	50
 8WA1 885					
	Barriers, for Insta terminals, terminal size 2.5 mm² and measuring transformer terminals, terminal size 6 mm²	8WA1 822-7TH00		041	50
 8WA1 822-7TH00					