



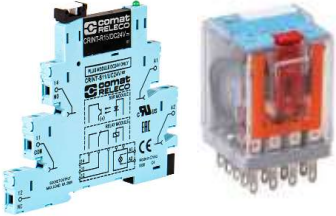








# Electrotech Sales Group, LLC

## Industrial Control Products

 <p><b>AQUILA</b> ATEX Terminal Blocks</p>	 <p>22mm switches, LEDs, Push buttons and Disconnects</p>	 <p>Power Supplies</p>
 <p>Motor Control</p>	 <p>Circuit Protection</p>	 <p>Special Function Terminals</p>
 <p>Control relays</p>	 <p>Wire Ferrules Wire Duct</p>	<p>Flat Cable Power Bus Systems...IP68</p> 
 <p>Programmable Relays</p>	 <p>ComatReleco Relays, Timers, Monitoring Relays, and Wireless remote monitoring and control</p>	 <p>Line Seiki Electronic Counters</p>



On the web:

[www.esgllc-usa.com](http://www.esgllc-usa.com)

Tel: (215) 997-8855

Email: [sales@esgllc-usa.com](mailto:sales@esgllc-usa.com)



## Table of Contents

<b>Terminal Blocks</b>	<b>Page</b>
Corrosion resistant terminal blocks Single level 2.5mm <sup>2</sup> – 10mm <sup>2</sup> .....	3-4
Multi-Level Terminals Twin, two level, Diode terminals, etc.....	5
Terminal Blocks Single level Feed (ATEX Approved); Micro terminal....	6-7
Earth Terminal blocks (Grounding terminals, collector ground block).....	8
Three level and sensor terminals.....	9
New Push-in terminals (no tools req.).....	10
Distribution Blocks, Collector terminals & Power Blocks.....	11
Fuse Terminal Blocks 5x20mm – single level and two levels; .....	12
6mmx32mm (1/4"x1 1/4")	
Woertz Stringent Demand Terminals (up to 3/O AWG).....	13
Fuse Holders for 30 Amp class CC fuses.....	14
Miniature Circuit Breakers .....	15
Accessories (End Stoppers and Din 35mm rail).....	16
<b>Special Function Terminals</b> .....	17-18
Toggle switch Terminals (on-on, on-off-on, momentary).....	17
Knife disconnect terminal.....	17
Spring loaded terminals with screw clamp.....	18
DPDT toggle switch term., Thermocouple terminal .....	18
<b>Relays and Optocouplers.</b>	
Slim Line Pluggable Relays (24VDC and 115VAC).....	19
Relay bases 1,2,3, & 4 pole (24VDC and 115VAC).....	20
Solid State Relays.....	21
Definite purpose Optocouplers (high speed Optocouplers).....	22
<b>Comat/Releco</b> Time delay relays, monitoring, <b>CMS messaging relay</b> .....	23
<b>Pilot Devices and Motor Protection</b>	
22mm pilot devices (LEDs, Push Buttons, Selector switches & accessories)....	24-26
Three Pole Contactors for AC control circuits.....	27
Three Pole Contactors for DC control circuits and Thermal overload relays.....	28
Contactor accessories (Auxiliary contacts and replacement coils).....	28
Motor starters.....	30
DP contactors.....	30
<b>Switching Power Supplies (single phase and 3-Phase)</b> .....	31-32
Control transformers.....	32
<b>Wire Management Products</b>	
Wire Ferrules (Insulated, Non-insulated, twin) and Tools.....	33-34
Wire Duct and cable ties.....	35
<b>Disconnects Non-fused</b> .....	36
Line Seiki - Electronic Counters, Totalizers, Hour meters, mechanical counters.....	37
Screwdrivers for terminal blocks.....	38
120VAC Din rail receptacle (simplex and duplex).....	38
AC and DC Surge protection – for Photovoltaic applications.....	38
RJ45 modules, DP contactors, Non-metallic Polycarbonate Enclosures.....	39
<b>Woertz's Flat Cable Power Bus System</b> .....	39

Electrotech Direct (Electrotech Sales Group, LLC) offers total automation solutions. Partnering with other manufacturers and suppliers that have synergistic products, we offer a wide selection of innovative products for control panels at competitive prices. We can offer these products individually as seen in our catalog or designed into custom assemblies on Din rail.

Please visit [www.esgllc-usa.com](http://www.esgllc-usa.com)

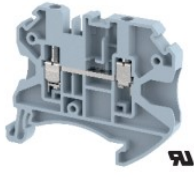
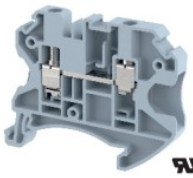
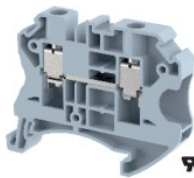
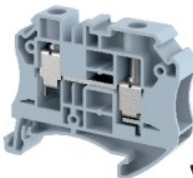
*Electrotech (215) 997-8855*

# Aquila Series Screw Terminals with push in jumpers

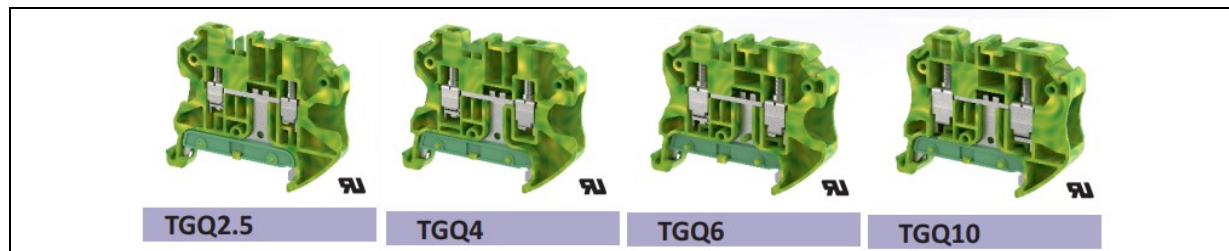


### Features:

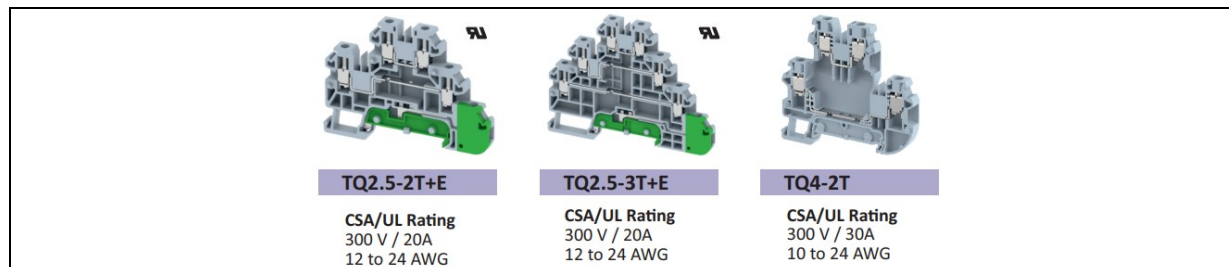
- Screw Clamp Technology
- Higher torque withstand capacity
- Twin shorting facility
- Push in jumpers
- Top marking label provision
- Guided wire entry
- Corrosion resistant clamps

				
Part No	TQ2.5	TQ4	TQ6	TQ10
Wire size/rating	12-24 AWG 600V/20A	10-24 AWG 600V/30A	8-20 AWG 600V/40A	6-20AWG 600v/65A
Insulating mat.	Polyamide 6.6	Polyamide 6.6	Polyamide 6.6	Polyamide 6.6
Clamping mat.	Stainless steel	Stainless steel	Stainless steel	Stainless steel
L/W/H mm	55.5x5x46	55.5x6x46	55.5x8x46	55.5x10x46
End Cover	CST2.5-10			
PUSH IN JUMPERS				
2-pole	SLPU5-2	SLPU6-2	SLPU8-2	SLPU10-2
3-pole	SLPU5-3	SLPU6-3	SLPU8-3	SLPU10-3
5-pole	SLPU-5	SLPU6-5	SLPU8-5	SLPU10-5
10-pole	SLPU-10	SLPU6-10	SLPU8-10	SLPU10-10
Blank Labels	KN5	KN5.5	KN8	KN10

### Ground Blocks:



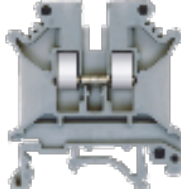
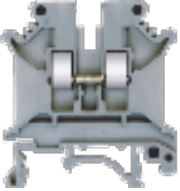
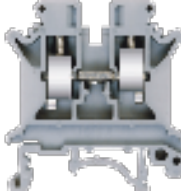
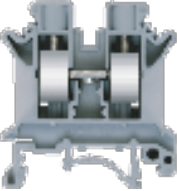

### Multi-Level:



# Din Rail Mounted Terminal Blocks

## Corrosion resistant



<b>Corrosion resistant terminal block</b> with nickel-plated clamps and cross connectors; stainless steel screws				
	<b>Part No.</b>			
Gray *	<b>UBT 2.5 N</b>	<b>UBT 4</b>	<b>UBT 6</b>	<b>UBT 10</b>
Wire Size / Rating	24-12 AWG 600V/26A	24-10 AWG 600V/35A	24-8 AWG 600V/50A	24-6AWG 600V/65A
<b>Technical Data</b>				
Stripping length	7mm	8mm	10 mm	10mm
Screw tread/tightening torque	M3/5Lb-in	M3/6Lb-in	M4/13Lb-in	M4/13Lb-in
L/W/H mm	42.5/5/45.9 mm	42.50/6/45.9 mm	42.5/8/45.9 mm	42.5/10/45.9 mm
<b>Accessories</b>				
End Cover	UPX			
Fixed Bridge	Not available	SLU4-2W SLU4-3W SLU4-4W SLU4-5W SLU4-10W	SLU6-2W SLU6-3W SLU6-4W SLU6-5W SLU6-10W	SLU10-2W SLU10-3W SLU10-4W SLU10-5W SLU10-10W
*colors	UBT2.5N (G) gray (other colors special order)	UBT4 (G) gray UBT4 (B) Blue UBT4 (R)red UBT4 (BL)black UBT4 (GR) green UBT4 ( Y) yellow	UBT6 (G) gray	UBT10 (G) gray UBT10( B ) blue
				
Separating Plate	KBXF			
Terminal strips	U5	U6.2	U8.25	U10
Din 35mm rail (more on page 15)	3401/SE - slotted			
End Stopper (More on page 15)	SCKN			

\* Colors are available for entire range of terminal blocks

### Services

**Custom terminal block assemblies**

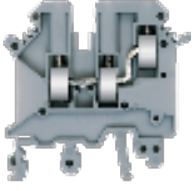
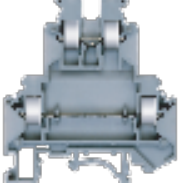

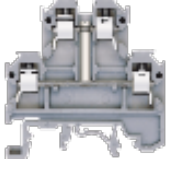

**Custom terminal block labels** (with numbers, letters, symbols, etc. For Elmex and Woertz)



## Din Rail Mountable Terminal Blocks

### Multi-level terminal blocks

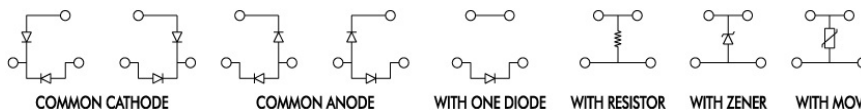
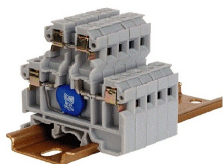


Multi level terminals are perfect where space is a constraint and high density wiring is needed. UBT and UBDD are corrosion resistant!	<b>Corrosion resistant</b> 	<b>Corrosion resistant</b> 	<b>Double deck</b> 	<b>1 polarity</b> 
<b>Ratings</b>	<b>24-10AWG</b>	<b>24-10AWG</b>	<b>20-12AWG</b>	<b>20-12 AWG</b>
<b>Part No.</b>	<b>300V/30A</b>	<b>300V/35A</b>	<b>300V/20A</b>	<b>600V/10A</b>
Gray	UBT4 TWIN (G)	UBDD4 (G)	KUDD4N	
Blue	UBT4 TWIN (B)	UBDD4 (B)	KUDD4N-B	KU2D4S (B)
Red	UBT4 TWIN (R)			
Black	UBT4 TWIN (BL)			KU2D4S (BL)
White	UBT4TWIN (W)			
<b>Technical data</b>				
Stripping length	8mm	8mm	9mm	9mm
Screw tread/tightening torque	M3/5LB-in	M3/5LB-in	M3/6LB-in	M3/6LB-in
L/W/H mm	46x6x46 mm	56x6.1x61	62.5x6x65.4	50x6x50.8
<b>Accessories</b>				
End cover	UP TWIN	UPDD	KPDDN	EPDD
Fix Bridge 2; 3; 5; 10-pole	SLU 4- 2W;3W;5W; 10W	Top: SLU 4- 2W;3W;5W; 10W Side: 30792	CCLADDN- 2W; 3W;4W;5W;10 W	Comb link SLC4N-10W
Labels 	KN 5.5	U6.2	KN5.5	KN5.5
Din 35mm rail	3401/SE - slotted			
End Stopper	SCKN	SCKN	SCKN	SCKN

**Note: Colors are available for entire range of terminal blocks**

### Component Housing

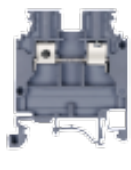
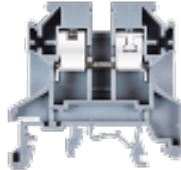
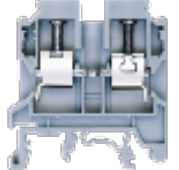
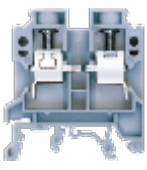
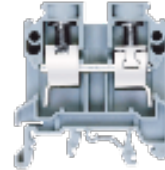

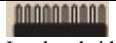
A variety of components can be mounted in the housing of a two level terminal block  
KUDD4-R (resistor); -D (diode) – M (MOV)



## Economy Single level Feed through



**(ATEX approved)**

<b>K series</b> of terminals are made of Polyamide 6.6 housing. Screw clamps are a U-shaped steel part and a washer base screw. Current bars are made of Electrolytic Copper.	5mm wide terminal					
	New "N" series					
<b>Part No.</b>						
	<b>KUT2.5N</b>	<b>KUT2.5</b>	<b>KUT4</b>	<b>KUT6</b>	<b>KUT10</b>	
Wire Size / Rating	12-20 AWG 600V/20A	12-20 AWG 600V/25A	10-20 AWG 600V/35A	8-20 AWG 600V/50A	6-16 AWG 600V/65A	
Stripping length	10mm	10mm	12mm	12mm	12mm	
Screw tread/tightening torque	M2.6/6 Lb-in.	M3/7 Lb-in.	M3/7 Lb-in	M3.5/14 Lb-in	M4/14 Lb-in	
L/W/H mm	44.25x5x51	42.5x6x41	42.5x6.7x46.4	42.5x8x46.4	42.5x10x46.4	
End Cover	KPXN	KPNS	KPX			
Fixed Bridge						
2-pole	CCLM2.5N-2W	CCLMK2.5-2W	CCLA2.5-2W	CCLA6-2W	CCLA10-2W	
3-pole	CCLM2.5N-3W	CCLMK2.5-3W	CCLA2.5-3W	CCLA6-3W	CCLA10-3W	
5-pole	CCLM2.5N-5W	CCLMK2.5-5W	CCLA2.5-5W	CCLA6-5W	CCLA10-5W	
10-pole	CCLM2.5N-10W	CCLMK2.5-10W	CCLA2.5-10W	CCLA6-10W	CCLA10-10W	
Shorting link 						
2-pole	Not available	Not available	PSL2.5-2W	PSL6-2W	PSL10-2W	
 Insulated side jumper 2; 3;4;5;10 pole	SLC2.5N-2W;3W;4W;5W;10W	SLCM2.5-2W;3W;4W;5W;10W	SLC2.5-2W;3W;4W;5W;10W	SLC6-2W;3W;4W;5W;10W	Not available	
Partition Plate	KNBF2.5/10	KBXF				
Gray	KUT2.5 (G)	KUT2.5 (G)	KUT4 (G)	KUT6 (G)	KUT10 (G)	
Blue	KUT2.5 (B)	KUT2.5 (B)	KUT4 (B)	KUT6 (B)	KUT10 (B)	
Brown		KUT2.5 (BR)	KUT4 (BR)			
Red		KUT2.5 (R)	KUT4 (R)			
Black		KUT2.5 (BL)	KUT4 (BL)			
White		KUT2.5 (W)	KUT4 (W)			
Yellow		KUT2.5 (Y)	KUT4 (Y)			
Green		KUT2.5 (GR)	KUT4 (GR)			
Blank Labels	KN5	KN5.5	KN6.5	KN8	KN10	
Din 35mm rail	3401/SE – slotted					
End Stopper	SCKN					

**NEW**



**Micro Terminal blocks for Din 15mm rail**

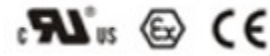


SUT 1.5 (5mm wide)	300V/18A; 14-24AWG -- End barrier: ES2 -- Labels: KN5 – Jumper: CCLA1.5-2W
SUT 4 (6mm wide)	300V/22A; 12-24AWG -- End barrier: ES4 – Labels: KN5.5 – Jumper: CCLADD-2W
End Stopper / Rail	SCMN / 2750 (Din 15mm)

**Economy Single level Feed through**

*Electrotech (215) 997-8855*

(ATEX approved)



<b>K series</b> of terminals are made of Polyamide 6.6 housing. Elmex Screw clamps a U-shaped steel part and a washer base (cheese head) screw. Current bars are made of Electrolytic Copper.						
	<b>Part No</b>					
	<b>KUT16</b>	<b>KUT25</b>	<b>KUT35</b>	<b>KUT50</b>	<b>KUT95</b>	
	Wire Size / Rating	3-12 AWG 600V/100A	2-10 AWG 600V/115A	1-14 AWG 600V/140A	2/O-6 AWG 600V/150A	4/O-2 AWG 600V/230A
	<b>Technical Data</b>					
	Stripping length	15mm	15mm	17mm	24mm	33mm
Screw tread/tightening torque	M4/17 Lb-in	M5/20 Lb-in	M6/38 Lb-in	M6/60 Lb-in	M8/160 Lb-in	
L/W/H mm	44.5x12x51	45x12x56	51x17x58	71x20.5x75.5	83x25x90.5	
<b>Accessories</b>						
End Cover	KPY	KPT	Not required			
Fixed Bridge 2-pole 3-pole 5-pole	CCLA16-2W CCLA16-3W CCLA16-5W	CCLA25-2W CCLA25-3W CCLA25-5W	CCLA35K-2W CCLA35K-3W CCLA35K-5W -----	Not available	Not available	
Shorting link 2-pole	PSL 16-2W		PSL 35K-2W	Not available		
Partition Plate	KBY				Not required	
Making Label	KN12	KN12	KN17	KN17	KN17	
Din 35mm rail	3401/SE - slotted					
End Stopper	SCKN					

- Other colors available upon request (blue, red, yellow, black, green)

**Services**



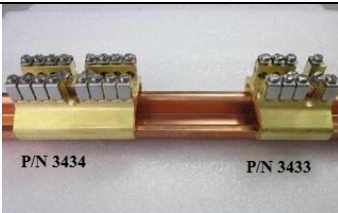
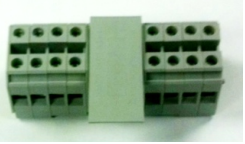
<b>Custom terminal block assemblies</b>
<b>Custom terminal block labels</b> (with numbers, letters, symbols, etc. For Elmex and Woertz)



## Earth Terminals (ATEX approved)

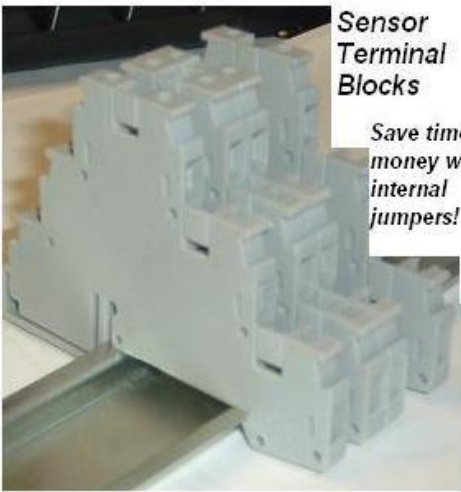


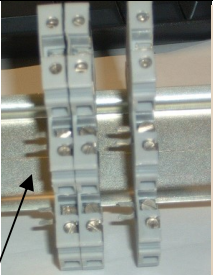
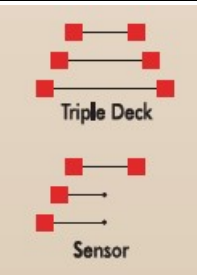
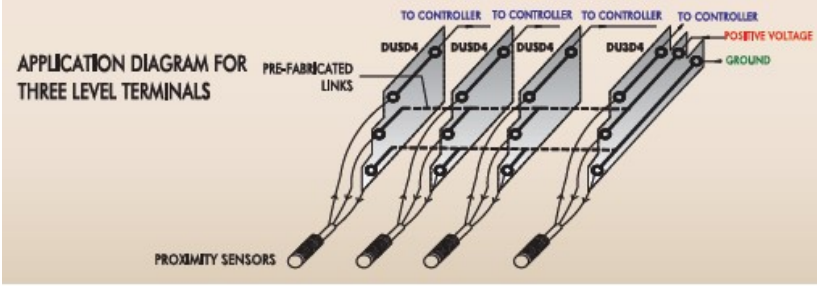
Earth terminal blocks replace conventional bus bars. Grounding is established through the foot which clamps directly on the Din rail. The conducting part is brass with nickel-tin plating providing a low resistance path					
<b>Part No.</b>					
	<b>ET4</b>	<b>ET6</b>	<b>ET10</b>	<b>ET16</b>	<b>ET35</b>
Wire Size	14-24 AWG	8-20 AWG	6-16 AWG	3-12 AWG	1-8 AWG
<b>Technical Data</b>					
Stripping length	8 mm	13mm	13mm	13mm	17mm
Screw tread/tightening torque	M3.5/4.5 Lb-in	M3.5/14 Lb-in	M4/17 Lb-in	M4/14 Lb-in	M6/32Lb-in
L/W/H mm	40x6x36	43x8x45.5	43x10x45.5	52x12.5x52	63x16.5x63
<b>Accessories</b>					
End Cover	Not required				
Partition Plate	KBXF				
Making Label	KN5.5	KN6.5	KN10	KN12	
End Stopper	SCKN				

### Additional Earth terminals:

				
<b>Ratings</b>	<b>24-10AWG</b>	<b>24-10AWG</b>	<b>UL and CE</b>	<b>Isolated Ground collector</b>
<b>Part No.</b>	EBT4	EBT 4TWIN	<b>Collector Ground Blocks</b>	<b>Grounds to the Din Rail</b>
Stripping length	10mm	8mm	<b>Part No. 3433</b> 1 main terminal for up to 4 AWG 8 additional terminals for up to 8AWG	<b>DBK1x4GY</b> 1 main terminal for up to 1 AWG 4 terminals (8 termination pts) for up to 6AWG
Screw tread/tightening torque	M3/5Lb-in	M3/5Lb-in	<b>Part No. 3434</b> 1 main terminal for up to 4 AWG 16 additional terminals for up to 8AWG	<b>DBK1x8GY</b> 1 main terminal for up to 1 AWG 8 terminals (16 termination pts) for up to 6AWG
L/W/H mm	42.5/6.2/47	36.75/6/46		
<b>Accessories</b>				
Labels	U6	U6		
End stopper	SCKN	SCKN		

### 3 level terminal blocks and sensor block (ATEX approved)



 <p><b>Sensor Terminal Blocks</b></p> <p>Save time and money with internal jumpers!</p>		<b>Corrosion Resistant</b>	<b>Corrosion Resistant</b>
			
	<b>Ratings</b>	<b>12-24AWG</b>	<b>12-24AWG</b>
	<b>Part No.</b>	<b>600V/20A</b>	<b>600V/20A</b>
	Gray	DU3D 4	DUSD4
	<b>Technical data</b>		
	Stripping length	8mm	8mm
	Screw tread/tightening torque	M3/5 Lb-in	M3/5 Lb-in
L/W/H mm	82.3/6/55 mm	60/6/55 mm	
  <ul style="list-style-type: none"> <li>DUSD4 has a special internal link attached to middle and lower level to facilitate the interconnection between adjacent terminal blocks, DU3D4 or DUSD4.</li> </ul>	<b>Accessories</b>		
	End cover	DP3D	DPSD
	Fix Bridge 2; 3; 5; 10-pole	CCLATD-2W; 3W; 4W; 5W; 10W	*Please see note below
	Labels	KN 5.5	
	End Stopper	SCKN	
			
<p>*The <b>DUSD4 - WL</b> (without internal jumper – requires CCLATD-xW external jumper)</p>			

*Also available – SR controller  
- Programmable relays*




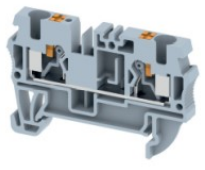
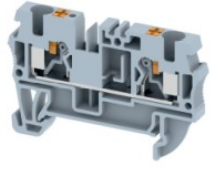
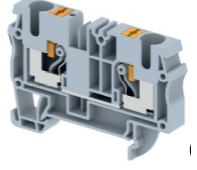
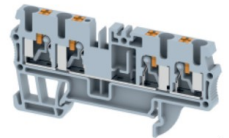





- Programmed with function blocks
- Programmable Timers; Real time clock
- Password protected
- 20 I/O expansion module available (Can be expanded up to 82 I/O)
- Wireless remote control function (transmitter has a transmission distance of 70 meters)
- HMI can be mounted externally
- UL/CE approval
- Free Software

**Please call for a complete catalog**

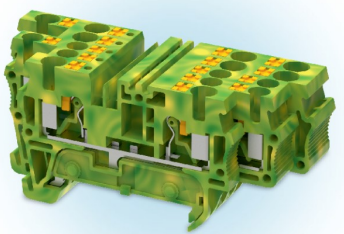
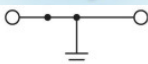






# ARA Series Push-in terminals by Elmex




CE  UL188984

<b>ARA Features:</b> -Push-in technology -Tool free - Increased wiring efficiency -Vibration resistant connection				
				
<b>Part No.</b>	<b>PQ2.5</b>	<b>PQ4</b>	<b>PQ6</b>	<b>PQ2.5 (2x2)</b>
Wire Size / Rating	12-24 AWG 600V/20A	10-24 AWG 600V/30A	8-24 AWG 600V/40A	12-24AWG 600V/20A
Insulating mat.	Polyamide 6.6	Polyamide 6.6	Polyamide 6.6	Polyamide 6.6
Clamping mat.	Stainless steel	Stainless steel	Stainless steel	Stainless steel
L/W/H mm	50.7x5x36	56.2x6x36	64.2x8x42.9	74.7x5x36
End Cover	CSP2.5	CSP4	CSP6	CSP2.5-2X2
<b>PUSH IN JUMPERS</b> 2-pole 3-pole 5-pole 10-pole	 SLPU5-2 SLPU5-3 SLPU-5 SLPU-10	SLPU6-2 SLPU6-3 SLPU6-5 SLPU6-10	SLPU8-2 SLPU8-3 SLPU8-5 SLPU8-10	SLPU5-2 SLPU5-3 SLPU-5 SLPU-10
Partition plate	DBF-1	DBF-1	DBF-3	DBF-3
Gray Blue Brown Red Black White Yellow	PQ2.5 (G) PQ2.5 (B) PQ2.5 (BR) PQ2.5 (R) PQ2.5 (BL) PQ2.5 (W) PQ2.5 (Y)	PQ4 (G) (Other colors available)	PQ6 (G) (Other colors available)	PQ2.5 (2x2) (G) (Other colors are available)
Blank Labels	KN5	KN5.5	KN8	KN5
Din 35mm rail	3401/SE – slotted			
End Stopper	SCKN (LARGE) / DCKN (small)			

## Ground Blocks:

 	  <b>PGQ2.5</b> CSA/UL Rating 12-24AWG	  <b>PGQ4</b> CSA/UL Rating 10-24AWG
--	--	--



## Power Terminals and Distribution Blocks

Distribution blocks offer a simple and cost effective solution for both power distribution and collection. Blocks are completely shrouded and accommodate single input and multiple outputs.	<i>New</i>			
				
<b>Part No.</b>	<b>DBD16</b>	<b>DBD35</b>	<b>DBK 1x4 (c) c=color*</b>	<b>DBK 1 x 8 (c) c=color*</b>
<b>Terminal Pitch</b>	27mm (1.06")	27.5mm (1.07")	73mm (2.87 inch)	133mm (4.45 inch)
<b>Height x width mm (inches)</b>	46.5x65.5(1.81x2.58)	46.5x75.5(1.81x2.97)	49.7x67.5(1.96x2.66)	49.7 x 67.5 (1.96x2.66)
<b>Connection</b>	<b>IC: 3; OG: 4</b>	<b>IC: 2; OG: 6</b>	<b>IC: 1; OG: 4</b>	<b>IC: 1; OG: 8</b>
<b>Stranded wire AWG</b>	IC:10-6 AWG OG:14-10AWG	IC:1 x 10-6 AWG 1x 10-2AWG OG:14-8AWG	IC:8-1AWG OG:16-6AWG	IC:8-1AWG OG:16-6AWG
<b>mm<sup>2</sup></b>			IC:10-50mm <sup>2</sup> , OG:2.5-10mm <sup>2</sup>	IC:10-50mm <sup>2</sup> , OG:2.5-10mm <sup>2</sup>
<b>Wire strip length</b>	10 and 12mm		12mm	12mm
<b>Type of connection</b>			1 nut connection for IC & screw clamp connections for OG	
<b>Ratings</b>	IEC 630V / 76A	IEC 630V / 125A	UL 600V/IC-130A; OG-130A/IC8-1 AWG; OG-16-6 AWG/IC-55LbIn,OG-14LbIn	
<b>Screw size</b>	M5		IC-M8; OG-M4	
<b>End Clamp</b>	SCKN; SCUSL			
<b>Marking label</b>	KN12		KN10	
<b>Mounting channel – Din 35mm rail</b>	3401/SE			

IC = IN-COMING; OG=OUT-GOING

\* Color Gray (G) – stock; other colors special order (Black (BL); Green-Yellow (GY))

## Power Terminals



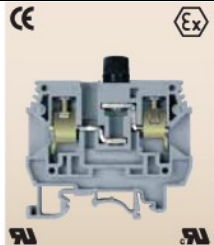



				
<b>DPBB50</b>	<b>DPBB70</b>	<b>DPBB120</b>	<b>DPBB185N</b>	<b>DPBB240</b>
UL/CSA 1000V / 130 A	UL/CSA 1000V / 175A	UL/CSA 600V / 230A	IEC 1000V / 353 A	IEC 1000V / 415 A
1-6 AWG	2/O-6AWG	4/O-3AWG	185 sq. mm (350MCM)	240 sq.mm (500 MCM)
30 LbIn	50 LbIn	70 LbIn	14 Nm	14 Nm

# Din Rail Mountable Terminal Blocks

## Fuse Blocks

(ATEX approved)



<p>Fuse holders accommodate a glass fuse sizes:  <b>5x20mm</b>                  or <b>6mm x 32mm</b>                  (1/4" x 1 1/4")</p> <p>The fuse holders are made of special grade Phosphor-Bronze which offers low contact resistance</p>				
	<b>* 5x20mm</b>	<b>5x20mm</b> Top level fuse; bottom pass through	<b>5x20mm</b>	<b>* 1/4" x 1 1/4" fuse</b>
<b>Ratings</b>	<b>12-20AWG</b>	<b>12-24AWG</b>	<b>18-6AWG</b>	<b>24-10AWG</b>
<b>Part No.</b>	<b>600V/7A</b>	<b>300V/10A</b>	<b>600V/12Amps</b>	<b>600V/12A</b>
No indication Gray			KUF 10	
No indication Black	KUDF4-BL	KUDDF4-BL		KUFH4-BL
Fuse Blow indication 24V Gray			KUF 10D1	
Fuse Blow indication 24V Black	KUDF4D1-BL	KUDDF 4D1-BL		KUFH4D1-BL
Fuse Blow ind. 120V-220V Gray			KUF 10A2	
Fuse Blow ind. 120V-220V Black	KUDF4A2-BL	KUDDF4A2-BL		KUFH4A2-BL
<b>Technical Data</b>				
Stripping length	9mm	9mm	10mm	12mm
Screw tread/tightening torque	M3/6 Lb-in	M3/7Lb-in	M4/12Lb-in	M3/8Lb-in
L/W/H mm	58/8/42.5 mm	74/8/51.5 mm	66/12/55.75	77.75/9/53.5 mm
<b>Accessories</b>				
End Cover	Not needed	Not needed	EPF	EPFH-BL
Insulated side jumper  2 –pole; 3-pole; 4-pole; 5-pole 10-pole	UFSL-2W, 3W, 4W; 5W; 10W	UFSL-2W, 3W, 4W; 5W; 10W	Not available	<b>30790/9</b> – 10 pole side jumper with <b>30790/9IS</b> (insulation pc.)
Labels 	KN6.5 KN8	KN8	KN10	KN8
End Stopper	SCKN	SCKN	SCKN	SCKN
<b>Glass Fuses</b> T=time delay; F=fast (Please call )	WF520TorF /X (X= current max. 10Amps)	WF520T (F) /X (X= current max. 10Amps)	WF520T (F) /X (X= current max. 10Amps)	WF06332 T or F/X (X=current max 10 Amps)

### Services

<b>Custom terminal block assemblies</b>
<b>Custom terminal block labels</b> (with numbers, letters, symbols, etc. For Elmex and Woertz)
<b>Custom Legend Plates</b>



## Woertz Stringent Demand Terminals



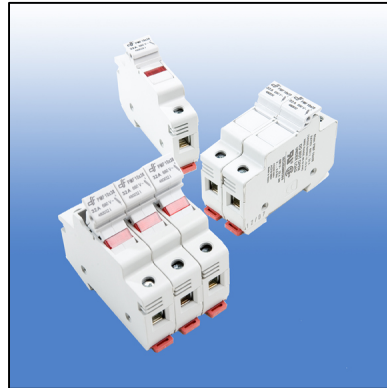
Terminals have EEx, Maritime, CE and UL hazardous classification approvals.

Approval	600V/20 Amps	600V/20Amps	600V/50Amps	600V/63Amps	600V/70Amps	600V/125Amps	600V/200Amps
Wire Range	22-14 AWG	22-12 AWG	18-8 AWG	18-6 AWG	14-4 AWG	14-1/0 AWG	12-3/0 AWG
Dimensions	6	6	8	9	11	14	23
Width mm	46	49	49	52	55	60	74
Length mm	43	45	45	51	55	71	71
Height mm							
Part No.	<b>30128GR</b>	<b>3424GR</b>	<b>3425GR</b>	<b>3426GR</b>	<b>3427GR</b>	<b>3428GR</b>	<b>3429GR</b>
Gary	<b>30128BL</b>	<b>3424BL</b>	<b>3425BL</b>	<b>3426BL</b>	<b>3427BL</b>	<b>3428BL</b>	<b>3429BL</b>
Blue	<b>30128E</b>	<b>3424E</b>	<b>3425E</b>	<b>3426E</b>	<b>3427E</b>	<b>3428E</b>	
Yellow/green							
Labels	35455/06x12	35455/06x12	35455/06x12	35455/06x12	35455/06x12	35455/06x12	35455/06x12
End barrier	30112	3516	3516	3517	3518	3519	
Partition	3506	3506	3506	3507	3508	3509	
<b>End Stoppers</b>							
Plastic	3418	3418	3418				
Metal	30370	30370	30370	30370	30370	30370	30370
Metal w/barrier	30199	30199	30199	30199	30199	30199	30199
<b>Jumpers</b>							
2-pole	81546/2	81556/2	81548/2	81549/2	81501/2	81504/2	
3-pole	81546/3	81556/3	81548/3	81549/3	81501/3	81504/3	
4-pole	81546/4	81556/4	81548/4	81549/4	81501/4	81504/4	
5-pole	81546/5	81556/5	81548/5	81549/5	81501/5	81504/5	
10-pole	81546/10	81556/10	81548/10	81549/10	81501/10	81504/10	
<b>Ground Blocks</b>	Heavy duty brass ground blocks. Screws and springs are stainless steel						
Wire Range		18-12 AWG	18-8 AWG	16-6 AWG	10-4 AWG	6-1/0 AWG	4-2/0 AWG
Dimensions							
Width mm		8	9	11	13	18	23
Length mm		49	49	52	55	60	74
Height mm		45	45	50.5	55	71	71
Part No.		<b>3436/4V</b>	<b>3436V</b>	<b>3436/10V</b>	<b>3437V</b>	<b>3438V</b>	<b>30550/70V</b>

## Fuse Holders

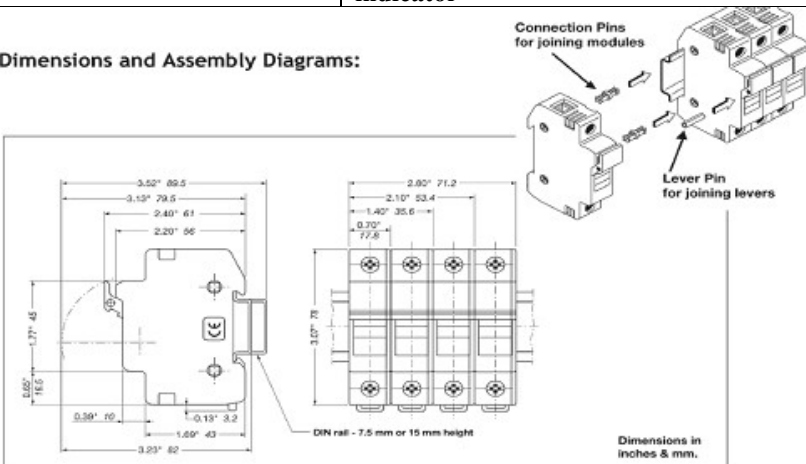
For both Midget (13/32 x 1 1/2") and class CC fuse

- Fuse holders have a front hinged lever cartridge for safe and convenient fuse insertion and replacement.
- Fuse holders mount to DIN 35mm rail.
- Any number of poles can be ganged together with the accessories.
- Replacement of a fuse does not require a special tool.
- Accessories include snap-in ganging pins for body and lever.



Part No	Description	Std. Packs
WFH-1P-Mid	1 Pole Fuse Holder for Midget Fuses	12
WFH-2P-Mid	2 Pole Fuse Holder for Midget Fuses	6
WFH-3P-Mid	3 Pole Fuse Holder for Midget Fuses	4
WFH-1P-Mid-Neon	1 Pole Fuse Holder for Midget Fuses with neon indicator	12
WFH-2P-Mid-Neon	2 Pole Fuse Holder for Midget Fuses with neon indicator	6
WFH-3P-Mid-Neon	3 Pole Fuse Holder for Midget Fuses with neon indicator	4
WFH-1P-CC	1 Pole Fuse Holder for CC Fuses	12
WFH-2P-CC	2 Pole Fuse Holder for CC Fuses	6
WFH-3P-CC	3 Pole Fuse Holder for CC Fuses	4
WFH-1P-CC-Neon	1 Pole Fuse Holder for CC Fuses with neon indicator	12
WFH-2P-CC-Neon	2 Pole Fuse Holder for CC Fuses with neon indicator	6
WFH-3P-CC-Neon	3 Pole Fuse Holder for CC Fuses with neon indicator	4

### Dimensions and Assembly Diagrams:



### Features:

- CSA and UL rated for 30A, 600V maximum.
- Available from stock in 1, 2, 3, or 4 pole versions, with or without neon blown fuse indicator.
- Reliable screw compression clamp accepts up to 10 AWG.
- Thermoplastic polyester (UL-VO) insulated body features wide ventilation slots to help dissipate heat from the fuse.



For Branch circuit Protection (KM curve)      DC Breaker (U2 curve)      UL1077 Breakers (2, 9 curve)



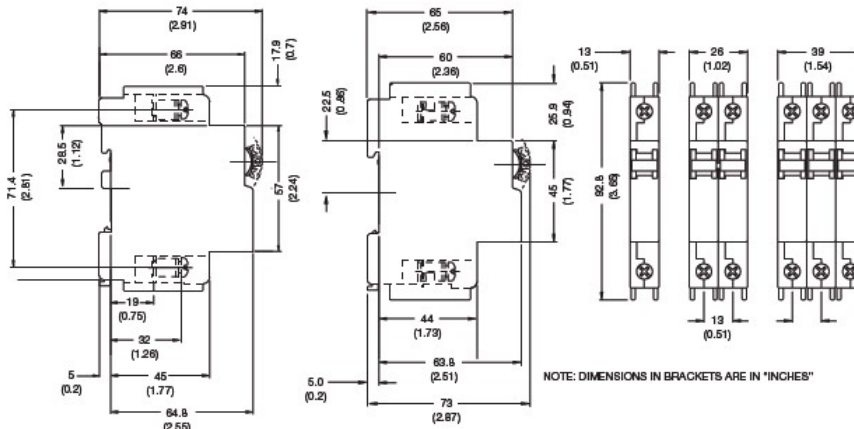
## Circuit Breakers

### Ordering Code:

WCB - \_\_\_\_ P - \_\_\_\_ - \_\_\_\_  
 Poles      Curve      Current  
 1, 2, 3      2, 9, KM, U2

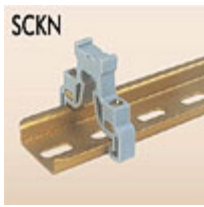




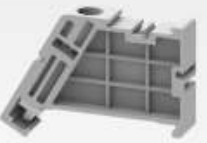


Product Part No.		WCB-(1, 2, 3)P-KM-X (current)	WCB-(1 or 2)P-U2-X (current)	WCB-(1 or 2 or 3)P-(2 or 9)-X (current)
Standard Current ratings (A)		0.1-25 Amps	0.1-63A (1Pole) 0.1-50A (2-pole)	0.1-63 Amps (UL1077)
Number of Poles		1,2,3	1,2	1,2,3
Rated Voltage (V)		120VAC (1P)	80V DC	120V/277VAC (1P)
		120/240V AC (2P) 240V AC (3P)	125V DC (1,2P)	277/480VAC (2,3P)
Approvals & Interrupt capacity(kA)	VDE (EN60947-2)	10kA (240/415AC)	10kA	3kA(240/415VAC)
	(UL489 CSA)	√ 10kA(120/240VAC)	√	√
	<b>UL489A</b>	√	10kA	
	(UL1077 CSA)			5kA(1P,120VAC) 5kA (277/480VAC)
Mounting		Din 35mm rail		
Tripping Curves		<b>KM curve</b> (5-10 rated current) <b>9 curve:</b> 8-10 x rated current	<b>U2 curve</b> (5-10x rated current)	<b>2 Curve:</b> 5-10x rated current <b>9 curve:</b> 8-12 x rated current
Operating Temp		-40°C to + 65°C		
Accessories		Aux. Switch; Bus Bar		
Features		<ul style="list-style-type: none"> <li>• Compact 13mm / module width</li> <li>• Precision tripping</li> <li>• Hydraulic-Magnetic Technology; Mid trip handle</li> </ul>		

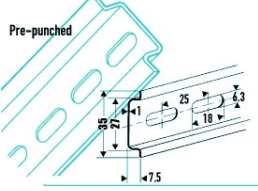

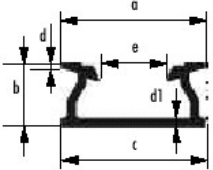
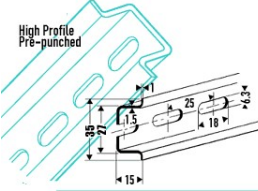
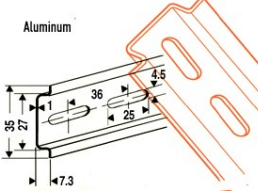
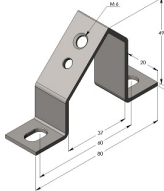
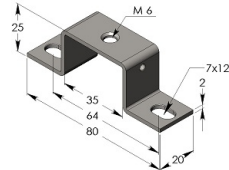
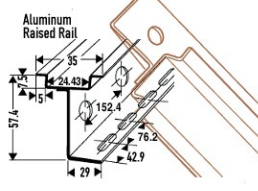


Electrotech (215) 997-8855



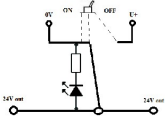
## Accessories


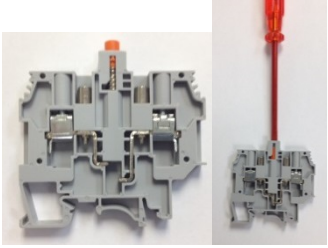
<p><b>End Stoppers</b> Also referred to as End Stoppers. Various types of End stoppers are available to suit different channels. End Stoppers can also be used as “spacers” to increase creepage distance between two terminals</p>				
 <p><b>SCKN</b></p>	<p>SCKN (2 screws) Din 35mm</p>	 <p><b>SCUN</b></p>		<p><b>Part No. 30370;</b> Heavy duty nickel-plated brass end stopper with screw - for Din 35mm rail</p>
 <p><b>SCUSL</b></p>	<p>SCUSL (screwless) Din32mm and Din 35mm</p>	 <p><b>DCKN</b></p>		<p><b>Part No. SCEC35</b> DIN rail mounted End clamp with fixing screw and nut , Width - 8 mm , Color - Grey</p>
		<p>Small screwless</p>		

## Din Rail

 <p>Pre-punched</p>	<p><b>Part No.: 3401/SE</b> Low profile; slotted Galvanized Steel Rail 2 meter lengths</p> <p><b>Part No.: 3401IN/SE</b> Low profile; slotted Stainless Steel 2 meter lengths</p>			<p><b>Part No. 80291</b></p>
 <p>High Profile Pre-punched</p>	<p><b>Part No.: 3490/S-TH</b> High profile; slotted Galvanized Steel rail 2 meter lengths</p>	<p><b>80291 -Combination Aluminum Rail -</b> External dimension is 35mm; Internal channel is made for anchoring studs series 4420 and cable brackets series Dimensions: a=35mm, b=15mm, c=35mm, d=1mm, d1=1.8mm, e=16.7mm</p>		
 <p>Aluminum</p>	<p><b>Part No. WR-35AL/S</b> Low profile; slotted Aluminum 1 meter lengths</p>	<p><b>Support Brackets:</b></p> 		
 <p>Aluminum Raised Rail</p>	<p><b>Part No. WR-35ALRR</b> Raised rail (2 1/4") Aluminum 1 meter lengths</p>	<p><b>Angled:</b> STE-WB-Angled</p>		<p><b>WB-1E - 20mm</b> <b>WB-2E - 40mm</b> <b>WB-3E - 70mm</b> <b>WB-4E - 90mm</b></p>


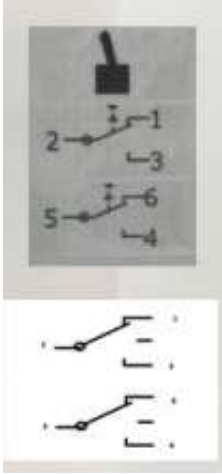
## Special Function Terminals

<b>Terminals with switch</b> <ul style="list-style-type: none"> <li>Assembled in the USA</li> <li>8 mm wide terminals</li> <li>Available with ON-ON, ON-OFF-ON, ON-MOM and On-off-MOM functions</li> <li>Approvals: <ul style="list-style-type: none"> <li>Made with UL recognized parts</li> <li>CSA terminal block and cUL toggle switch (silver plated)</li> </ul> </li> <li>Fully insulated – no end barrier required</li> <li>RoHS compliant</li> </ul>			<b>With LED</b>  24VDC and 120VAC
<b>Technical data</b>			
Contacts	Max. 1A/250V, 3A/120VAC or 28VDC	Max. 1A/250V, 3A/120VAC or 28VDC	
Resistance of ON contacts	20mΩ max	20mΩ max	
Wire size	12-24 AWG	12-24 AWG	
To be snapped on	Din 35mm or Din 32mm rail	Din 35mm or Din 32mm rail	
Size L x W x H	74 x 8 x 70 mm	74 x 8 x 70 mm	
Tightening torque	7 LB-In	7 LB-In	
Wire stripping length	9mm		
<b>Order Numbers</b>			
ON-ON (2 way)	<b>ESG290T/2</b>	<b>ESG290T/2-24VDCLED</b> <b>ESG290T/2-120VACLED</b>	
ON-OFF-ON (3 way)	<b>ESG290T/3</b>		
ON-MOM (2 way)	<b>ESG290T/28</b>		
ON-OFF-MOM (3 way)	<b>ESG290T/328</b>		
<b>Accessories</b>			
Insulated side jumper 10P	UFSL-10W	UFSL-10W	
Labels	KN8	KN8	

<b>Disconnect Switch Terminals</b> Knife disconnect terminal blocks		 <b>Push-twist to hold</b>
	<b>KULTD 4</b>	<b>KUPTD6</b>
<b>Rating</b>	UL 600V/ 15A; 10-24 AWG	IEC/CE 630V/24A/6mm2
<b>H x L x W (mm)</b>	51 x 6 x 52	
<b>End Plate/Partition</b>	KPSD4/KBXF	End plate - KPPDS
<b>Comb Link 10 way Labels</b>	SLC4N-10W KN5.5	Side 2 way SLD6-2W KN8


## Special Function Terminals and Services

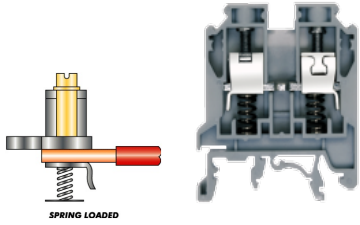
Double Pole Double Throw (DPDT) Toggle Switch Terminal

P/N: ESG-490T/2...2 way switch: on-on  
P/N: ESG-490T/3...3 way switch: on-off-on

- Polyamide 6.6 thermoplastic enclosure (enclosure Elmex KCH) with 8-steel screws and clamps •
- Dimensions 65mm H x 30mm W x 60mm D • Wire size: 22-14 AWG • Current rating: 5A @ 120VAC, 28VDC ; 2A @ 250VAC • CIT toggle switch AST21SEBQ UL file E222871 • Mounts to Din 35mm rail • RoHS compliant

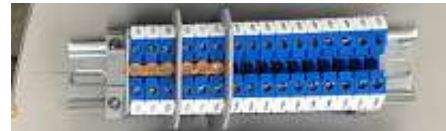
Thermocouple terminal blocks	
	<ul style="list-style-type: none"> <li>• Twin terminal, gray</li> <li>• 4 clamping parts</li> <li>• 2 connecting bars made of the same metals as the thermocouple</li> </ul>
Thermocouple Type	Part Number
Chrome (Ni/Cr) + Alum. (Ni/Al) <b>Type K</b>	<b>KUT4NTCK</b>
Iron (Fe) + Constantan (Cu/Ni) <b>Type J</b>	<b>KUT4NTCJ</b>
Copper (Cu) + Constantan (Cu/Ni) <b>Type T</b>	<b>KUT4NTCT</b>
Chrome (Ni/Cr) + Constantan (Cu/Ni) <b>Type E</b>	<b>KUT4NTCE</b>
Conductor size	0.5mm <sup>2</sup> -4 mm <sup>2</sup> (20 – 12AWG)
Voltage	400 V
Current	5 Amps
Dim. L x W x H	41.5x6x51 mm
End Plate / Label	KPXN

Spring Loaded Feed Through Terminal blocks		
<b>Vibration Resistant Terminal blocks</b> A spring is assembled under compression and engages firmly with contact clamp.		
	<b>Description</b>	<b>KULT 4</b>
<b>Rating</b>	600V /35 A 10-24 AWG	600V /45 A 8-24 AWG
<b>H xW x L (mm)</b>	58.5 x 6 x 52	58.5 x 8 x 52
<b>End Plate</b>	KPSL	
<b>Comb Link</b>	Not Available	
<b>Making Label</b>	KN5.5	KN8
<b>Mounting rail</b>	3401/SE	

### Custom Services



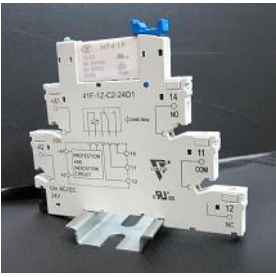
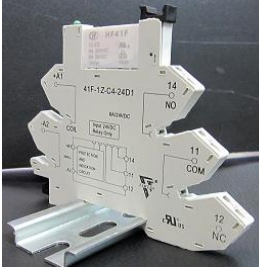
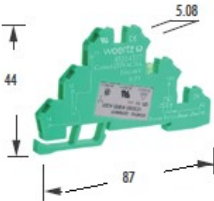

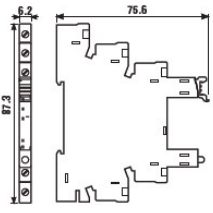
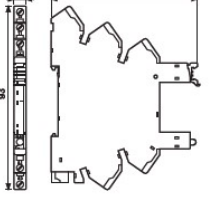

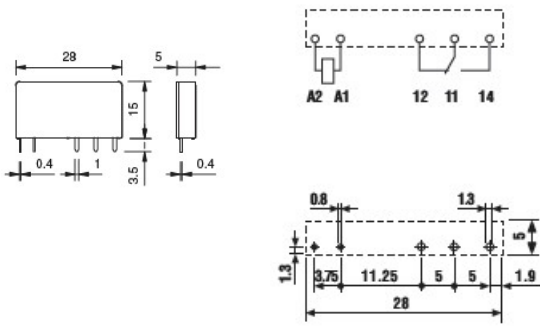
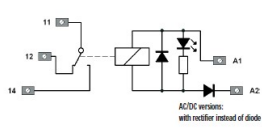
Custom Terminal labels



Custom terminal assemblies



Custom Legend Plates





<p><b>One Pole Relays</b> <b>1PDT relay bases</b></p> <ul style="list-style-type: none"> <li>• 6mm wide</li> <li>• Screw and Cage clamp bases available</li> </ul>			<p><b>Woertz Snapline Relay</b></p>  <p><b>Vibration Proof</b></p>
			<p>Please visit <a href="http://www.esgllc-usa.com">www.esgllc-usa.com</a> for complete data sheet and other Snapline offerings</p>
<p><b>Order No.</b></p>	<p><b>Screw Clamp</b></p>	<p><b>Cage Clamp</b></p>	<p><b>Relay soldered into terminal</b></p>
<p><b>24VDC (6-24VDC)</b></p>	<p><b>41F-1Z-C2-24D1</b></p>	<p><b>41F-1Z-C4-24D1</b></p>	<p><b>45314T/2</b></p>
<p><b>120VAC</b></p>	<p><b>41F-1Z-C2-3-115V</b></p>		
<p><b>230VAC</b></p>	<p><b>41F-1Z-C2-230VAC</b></p>	<p><b>41F-1Z-C4-230VAC</b></p>	<p><b>45329T/15 (115V)</b> <b>(other voltages available)</b></p>
<p><b>Technical Data</b></p>	<p><b>Rated Values</b> 6 Amps-250V</p>		<p><b>6 Amps-250V</b></p>
<p><b>Screw Torque</b></p>	<p>0.5Nm</p>		<p>0.4Nm</p>
<p><b>Wire strip length</b></p>	<p>10mm</p>		<p>7mm</p>
<p><b>Relays:</b> Ultra Slim 1 pole relays 250V/6A 30VDC/6A</p> <p>1 pole changeover contacts 10<sup>7</sup> cycles</p> <p>5mm wide</p>  <p>(HF4 1F series)</p>			 <p>AC/DC version: with rectifier instead of diode</p>
<p><b>5 VDC</b></p>	<p><b>45739R/7-F (HF41F-5)</b></p>		<p><b>Mech. Life: 5x 10<sup>6</sup> cycles</b></p>
<p><b>12VDC</b></p>	<p><b>45739R/1-F (HF41F-12)</b></p>		
<p><b>24VDC relay</b></p>	<p><b>45739R/2-F (HF41F-24)</b></p>		
<p><b>115V &amp; 230VAC</b></p>	<p><b>45739R/8-F (HF41F-60)</b></p>		
<p><b>Push in jumper</b></p>	<p><b>CINT-BR20-W</b></p>		<p><b>30413 (RO) or (BL)</b></p>
<p><b>Assembled Part No.</b></p>			<p><b>End barrier: 30407</b></p>
<p><b>24VDC (6-24VDC)</b></p>	<p><b>41F-1Z-C2-24D1-SR</b></p>		
<p><b>120VAC</b></p>	<p><b>41F-1Z-C2-120VAC-SR</b></p>		



## 1, 2, 3, and 4 pole Relays



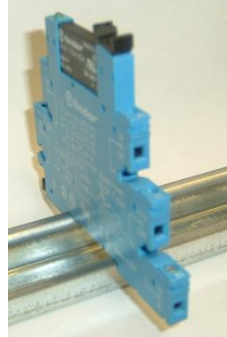
Relay bases for 1 and 2 pole relays Contact terminals all located on one side with the coil terminals on the opposite side		
<b>Order No.</b>	Relays ordered separately (see below)	
Base without LED	14F-2Z-C4	
Base with 24V LED	14F-2Z-C4-D1 (24V LED)	
Base with 120/230V LED	14F-2Z-C4-A1 (120/230V LED)	
Socket	10A/300V	
Socket wire size	22-10AWG	
Socket LxWxH mm	75.2x15.7x61.2	
 Side jumper	45740CC/8-F (8-way jumper link)	
<b>Technical Data</b>	 A1 12 14 A2 11	 A1 12 11 14 A2 22 21 24
<b>Relays</b>	<b>1PDT Order No.</b>	<b>2PDT Order No.</b>
<b>12VDC</b>	45740R1/1-F (16A/250V)	45740R2/1-F
<b>24VDC</b>	45740R1/2-F (16A/250V)	45740R2/2-F
<b>24VAC</b>		45740R2/6-F
<b>115VAC</b>	45740R1/5- F (10A/250V)	45740R2/5-F
<b>Current/voltage</b>	above	8A/250V

2, 3 and 4 pole relays From <b>ComatReleco</b>				
	<b>2 pole; 10 Amp</b>	<b>3 pole; 10 Amp</b>	<b>4 pole; 5A/250VAC LED, lockable man. op</b>	<b>4 pole; 16Amps</b>
24VDC	C2-A20/DC24V	C3-A30/DC24V	C9-A41X/DC24V	C5-A30/DC24
115VAC	C2-A20X/AC115V	C3-A30X/AC115V	C9-A41X/AC120V	C5-A30/AC115
Socket	S2-B	S3-B	S9-M	S5-M
Please call for other voltages and features (LEDs, higher current, etc)				

# Solid State Relays

*Ultra Slim (5mm wide) Solid State Relays that insert into 35mm rail mount sockets. Single Circuit output switch options:*

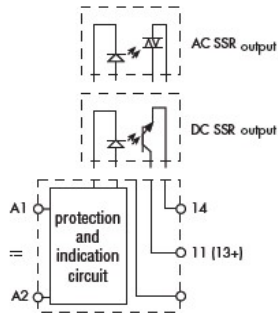
- 2A @ 24VDC
- 2A @ 240VAC



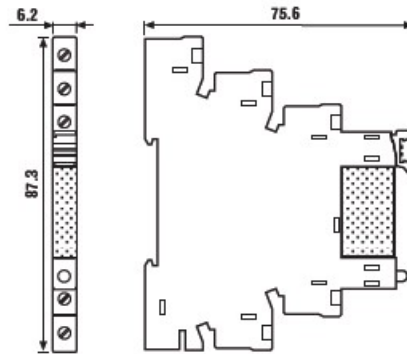
## Wiring



Galvanic isolated Optocoupler



Isolation up to 2.5kV



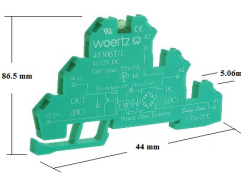
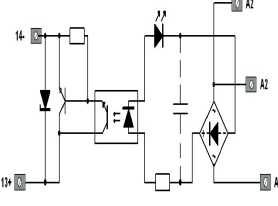
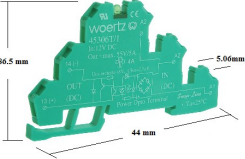
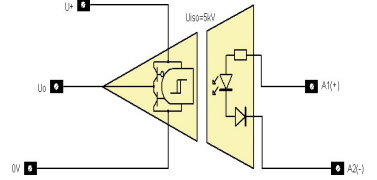
**For DC loads**

**For AC loads**

Input	ESG Order No. (SSR + Base)		
5 VDC	<b>E-OPTO-05D-24VD-F</b>		
24VDC	<b>E-OPTO-24D-24VD-F (CRINT-C115/DC24V)</b>	<b>E-OPTO-24D-240VA-F (CRINT-C118/DC24V)</b>	
120VAC		<b>E-OPTO-120VA-240VA-F</b>	
<b>Solid State relay – technical data</b>			
<b>Output Circuit</b>			
Contact Configuration	1 NO (SPST-NO)	1 NO (SPST-NO)	
Maximum Current/Voltage	2A / 24VDC	2A / 240VAC	
Switching voltage rang	(1.5...24) VDC	(12...240) VAC	
Min. switching current	1 mA	22mA	
Operate/release time	ms	0.1/0.6 (1.43Khz)	12/12
<b>Input Circuit</b>			
Nominal Voltage	24VDC	24VDC	(110...125) AC/DC
Operating range	16...30VDC	16...30VDC	88-138V
Control Current	7mA	7mA	5.5mA
Release Voltage	10VDC	10VDC	22V
Ambient temperature range	-20°C ...+60°C		
<b>Relay Base Specs</b>			
Rated Values	6A-250V		
Protection category	IP20		
Screw Torque	0.5Nm		
Wire Strip length	10mm		
Max wire size	1 x 14AWG; 2 x 16AWG		



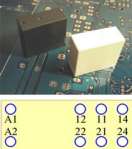
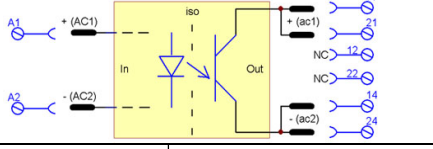
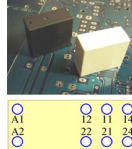
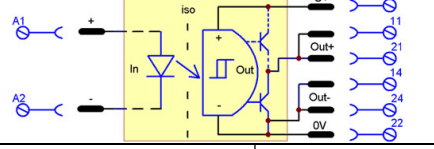
# Definite Purpose Optocouplers

*High Speed!*

<b>SnapLine</b> Compact / Low profile Optocoupler Terminal blocks		For DC Loads 		
Max. switch	55V DC /5Amps	<b>Specifications:</b>	Supply Voltage(U+,0V)	5-15VDC or 15-30 V DC
Input Tol.	24V (+-20%); 5 V (+-15%)	<b>10 Hz Max. Trans. Freq.</b>	Supply Current (no load)	8mA (DC),17 mA (1.5 MHz)
Input current	~ 5mA	<b>Wire size 24-14 AWG</b>	<b>Input Voltages</b>	<b>Order No.:</b>
<b>Control Volts</b>	<b>Order No.:</b>	LxWxH mm 44x5.08x86.5	<b>TTL/5 V DC</b>	Max. output current (source & sink) 100 mA
5 VDC	<b>45306T/7</b>	<b>Switch on/off level:</b> >0.8 x VDC/ < 0.4 x VDC	<b>24V DC</b>	
24 VDC	<b>45306T/2</b>		<b>45315T/7/15</b> <b>45315T/7/30</b> <b>45315T/2/15</b> <b>45315T/2/30</b>	






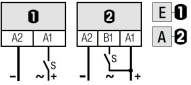



- **Snapline accessories:** 30407 – End barrier  
304013BL (RO) 20 pos. cross connection jumper (Blue or red)

Please visit [www.esglc-usa.com](http://www.esglc-usa.com) to download complete SnapLine catalog

Optocouplers			Super fast Optocouplers		
Electrobrick Optocouplers	 LxWxH mm (16x82.5x72)		Industrial Optocouplers Well suited for switching inductive loads	 LxWxH mm (16x82.5x72)	
					
<b>Technical data</b>	<b>AC/DC in, low power</b>	<b>AC/DC in High power</b>	<b>Technical data</b>	<b>Low power 100mA DC output</b>	<b>High Power 5A DC output</b>
<b>Output</b>	100mA DC output	5A DC output	<b>Output Type</b>	Push-Pull, non inv.	Open collector, inv.
Switching voltage	0-60VDC	0-55VDC	Max. switch V	30VDC	30VDC
Max. continuous A	100mA	5A	Max Switch A	100mA (res.)	5A (res.)
<b>Input</b>			Max. transient	0.5A/0.1ms, 2A/0.01ms	40A/0.1ms
Control voltage tol	Uc+-20%	+ -20% (115,230V:15%)	switch freq.	2.0 MHz	200kHz
Max. input current DC	15mA	15mA	<b>Input</b>		
Max. input current AC	3mA	3mA	Polarity prot.	Yes	Yes
On /off level	80% / 10% of Uc	80% / 10% of Uc	Voltage tol.	Uc+-20%	Uc+-20%
Max. switch freq DC	~ 600Hz (res.)	~10Hz(110V ver. 5Hz)	Max input A	10mA	10mA
Wire size	Up to 10AWG		On /off level	80% / 10% of Uc	80% / 10% of Uc
<b>Control Voltage</b>	<b>Order Numbers</b>		Supply /current	15-30VDC/15mA	15-30VDC/15mA
5VDC	EB-O1-5VDL	EB-O3-5VDL	Wire size	Up to 10AWG	
24VDC	EB-O1-24VDL	EB-O3-24VDL	<b>Cont. Voltage</b>	<b>Order Numbers</b>	
3VAC/DC	EB-O1-3VADL	EB-O3-3VADL	5VDC (TTL)	EB-O6-5VD	EB-O8-5VD
			24VDC	EB-O6-24VD	EB-O8-24VD

Please visit our website [www.esglc-usa.com](http://www.esglc-usa.com) to download the ElectroBrains catalog

ComatReleco (For their full product offering please visit [www.esglc-usa.com](http://www.esglc-usa.com))

 <p>17.5mm Mono – Function <b>CMD</b></p>	 <p>9 Function Din rail Time Delay Relay</p>	 <p>Single Function Time Qube – 8 pin</p>	 <p>Single Function Time Qube – 11 pin</p>	 <p>Single Channel Pulse Shaper</p>
<p><b>CMD11-A/UC24V</b> <b>CMD11-A/AC115V</b> A = OFF Delay</p>	<p><b>CIM1/UC24-240V</b> (AC/DC) 0.6s-60h</p>	<p><b>CT2 SERIES</b> 0.2sec-30min</p>	<p><b>CT3 SERIES</b> 0.2sec-30min</p>	<p><b>CPF11/DC24V</b></p>
<p><b>CMD11-E/UC24V</b> <b>CMD11-A/AC115V</b> E = ON Delay</p>	<p>16A; 250V 1 change over contact</p>	<p>CT2-<u>A</u>30/L UC20- 65V CT2-<u>A</u>30/M UC90- 150V</p>	<p>CT3-<u>A</u>30/L UC20- 65V CT3-<u>A</u>30/M UC90-150V</p>	<p>These devices are used to lengthen or Limit a control pulse. <b>Input Pulse:</b> &gt;=1/5ms</p>
<p><b>Specs:</b> Contact: 1 CO 8A; 250V</p>	<p><b>Functions:</b> On delay Off delay</p>	<p>CT2-<u>A</u>30/S DC935- 18V</p>	<p>CT2-<u>A</u>30/S DC935-18V</p>	
<p><b>5 time ranges:</b> 50ms – 60 min <b>Service function:</b> ON/OFF</p>	<p>Pulse shaping One shot trailing edge One shot leading edge</p>	<p><b>Functions:</b> A= OFF DELAY B=BLINKER E=ON DELY</p>	<p><b>Functions:</b> A= OFF DELAY B=BLINKER E=ON DELY</p>	<p><b>Output pulse:</b> 5/600ms</p>
<p>LED input and output status</p>	<p>Step-on/step-off</p>	<p>K=PULSE SHAP/ONE SHOT</p>	<p>K=PULSE SHAP/ONE SHOT</p>	<p><b>With Time functions:</b></p>
 <p>control</p>	<p>Staircase lighting timer</p>	<p><b>Accessories:</b> 8-PIN 2 POLE RELAY <b>C2-A20/...SERIES</b></p>	<p><b>Accessories:</b> 11-PIN 3 POLE RELAY <b>C2-A20/...SERIES</b></p>	<p>Pulse shaping</p>
 <p>output</p>	<p>Blinker (2 types)</p>	<p>SOCKET: <b>S2-B</b></p>	<p>SOCKET: <b>S3-B</b></p>	<p>Pulse shaping, retrigger Off delay</p>
 <p><b>Monitoring Relays</b></p> <ul style="list-style-type: none"> <li>• Voltage monitoring (MRU11,MRU32)</li> <li>• Current monitoring (MRI11, MRI32)</li> </ul>	 <p><b>CMS-10R-D Messaging Sysytem</b> Wireless remote monitoring and control system</p> <ul style="list-style-type: none"> <li>• For use in 4G, 3G, 2G mobile networks</li> <li>• Built-in eSIM</li> <li>• Push notification via Android or iOS apps, e- mail, SMS</li> </ul>			

## 22mm Pilot Devices

LED Indicator Lights (Plastic)

**NPL22-G A**

**1 2 3**

### 1. Series

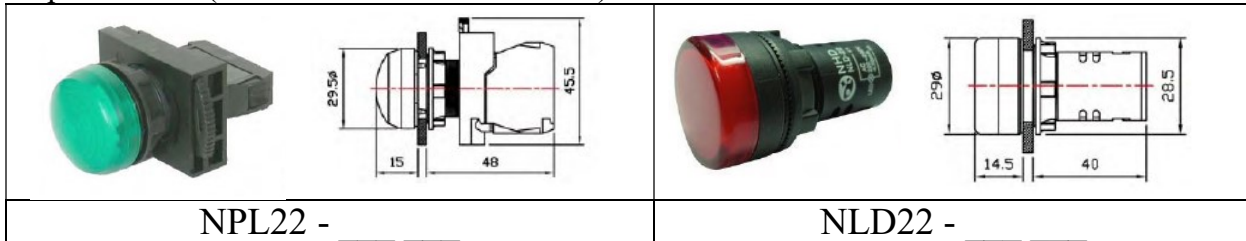
<b>NPL22</b>	Round Head
<b>NLD22</b>	Flush Head

### 2. Cap Color

<b>R</b>	Red	<b>Y</b>	Yellow
<b>G</b>	Green	<b>S</b>	Blue
<b>W</b>	White	<b>O</b>	Orange

3. Voltage Rating		
NPL22		NLD22
<b>A</b>	24V AC/DC	24VAC/DC
<b>E</b>	100-120V AC/DC	100-120VAC
<b>I</b>	220V-240V AC/DC	220-240 VAC
<b>M</b>	380-440 VAC	380-440 VAC
<b>Y</b>	12V DC	

Specification (Maximum wire size: 16AWG)



## 22mm Push Button Switches

Non-Illuminated & Illuminated

**Model Designation NPB22-F 11 G A**

**1 2 3 4 5**

1. series	
<b>NPB22</b>	Non-Illuminated
<b>NLB22</b>	Illuminated

3. Contact Blocks			
<b>10</b>	1a (N/O)	<b>21</b>	2a1b
<b>01</b>	1b (N/C)	<b>12</b>	1a2b
<b>11</b>	1a1b	<b>22</b>	2a2b
<b>20</b>	2a	<b>02</b>	2b

4. Cap color			
NPB22		NLB22	
<b>R</b>	Red	<b>R</b>	Red
<b>G</b>	Green	<b>G</b>	Green
<b>Y</b>	Yellow	<b>Y</b>	Yellow
<b>S</b>	Blue	<b>S</b>	Blue
<b>B</b>	Black	<b>W</b>	White
<b>W</b>	White		

5. Voltage Rating	
NLB22	
<b>A</b>	AC/DC 24V
<b>E</b>	AC/DC 100~120V
<b>I</b>	AC/DC 220~240V
<b>M</b>	AC 380~440V
<b>Y</b>	12V AC/DC

2.Type					
NPB22			NLB22		
<b>F</b>	Flush Head	<b>T</b>	Reset Mush. Head 40Ø	<b>F</b>	Flush Head
<b>E</b>	Elevation Head	<b>R</b>	Reset Mush. Head 40Ø	<b>E</b>	Elevation Head
<b>M</b>	Mushroom Head	<b>S</b>	Reset push-pull stop Mush. Head 35Ø	<b>M</b>	Mushroom Head
<b>K</b>	Mush. Head 40 Ø(with key)	<b>D</b>	Double push Button	<b>R</b>	Reset Mush. Head 40Ø
<b>L</b>	Flush-Head (push-push to release)	<b>G</b>	Mush. Head Push-push to release 40Ø	<b>T</b>	Reset mush. Head (40Ø)
<b>P</b>	Projecting Head (push-push to release)	<b>H</b>	Flush Head Reset push-pull stop	<b>D</b>	Double push Button
<b>J</b>	Turn to reset mushroom (40Ø)			<b>L</b>	Flush-Head (push-push to release)
				<b>G</b>	Mush. Head Push-push to release 40Ø
				<b>P</b>	Projecting Head (push-push to release)

Protection: NPB22-F/NLB22-F: IP66 (other control units IP54)





# 22mm Selector Switches

Non-illuminated & Illuminated

## Model Designation

**NSS22-S 2 11 G A**

1      2 3 4 5 6

1. series	
NSS22	Non-Illuminated
NLS22	Illuminated

2. Type			
NSS22		NLS22	
S	Normal Shaft	S	Normal Shaft
L	Long Shaft	L	Long Shaft
K	Key		

3. Position	
2	2 position
1	2 position (spring return)
3	3 position
0	3 position (spring return)
4	3 pos. spring frm left
5	3 pos spring frm right
6	2 pos – signal continuous

1a=N/O  
1b = N/C

4. Contact Blocks			
10	1a	21	2a1b
01	1b	12	1a2b
11	1a1b	22	2a2b
20	2a	02	2b

5. Cap color			
NSS22		NLS22	
R	Red	R	Red
G	Green	G	Green
Y	Yellow	Y	Yellow
B	Black		

6. Voltage Rating	
NLS22	
A	AC/DC 24V
E	AC/DC 100~120V
I	AC/DC 220~240V
M	AC 380~440V

( 2 ) 2 Position 90°	( 1 ) 2 Position 90° (Spring Return)	( 3 ) 3 Position 45°	( 0 ) 3 Position 45° (Spring return)	( 4 ) 3 pos. spring return frm left	( 5 ) 3 pos. spring return frm left	( 6 ) 2 pos. Signal continuous

## Specifications:

<b>NSS22-S2</b>	<b>NLS22-S2</b>	<b>NSS22-K2</b>

Maximum wire size: 16AWG


Protection: NPB22-F/NLB22-F: IP66 (other control units IP54)

## Pilot devices – accessories

Contact Blocks

### CB-10

CB	
10	1a
01	1b
11	1a1b




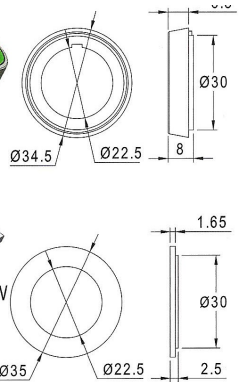
Ui : 600V Ith : 10A

### NHD Stack lights

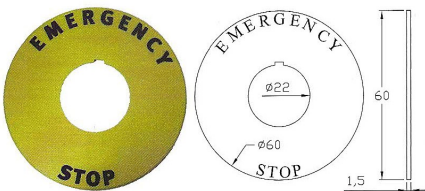


Well priced.  
Please call  
(215) 997-8855

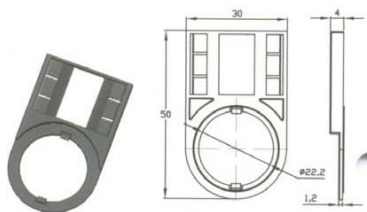
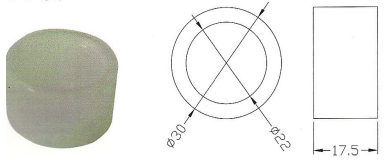
### Mounting Adaptor From 22mm to 30mm Part No. NPB30-01

### Name Plate NPB22-R01C-E



### Name Plates NPB22-01C

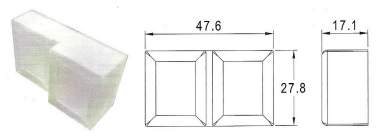
### Transparent Boot - PPB22-P06

### Legends NPB22-01C-01

	START	OFF	ON		
01	ON	06	REV	11	O I
02	OFF	07	UP	12	ON OFF ON
03	STOP	08	DOWN	13	FWD OFF REV
04	START	09	RUN	14	MAN OFF AUTO
05	FWD	10	OFF ON		



NB22-C1Y      NB22-C2Y      NB22-C3Y



### Transparent Boot – PPB22-D06

### Boxes (also aval. in gray – W at the end)

1-Hole – NB22-C1Y  
2- Hole – NB22-C2Y  
3 -Hole – NB22-C3Y  
4- Hole – NB22-C4Y

### Tool – PPB22-02T



## Motor Control and Protection...Three Pole Contactors



Control circuit: AC

Model Name	Aux. contacts		Rated Insulation voltage Ui	AC1 Duty 0<=40°C Ith /Ie	AC3 Duty 3 Phase				AC3 Duty 1 Phase		Approvals	
	N/O	N/C			220V KW HP	380V KW HP	440V KW HP	575V KW HP	120V KW HP	230V KW HP		
C-09D10	1	-	1000V	16A / 9A	2.2	3.7	3.7	3.7	0.37	1.5	UL, SB, CE	
C-09D01	-	1			3	5	5	5	0.75	2		
C-11D10	1	-	1000V	25A /12A	3	5.5	5.5	5.5	0.55	1.5		
C-11D01	-	1			4	7.5	7.5	7.5	0.75	2		
C-12D10	1	-	1000V	25A /16A	4	7.5	7.5	7.5	0.75	2.2		
C-12D01	-	1			5.5	10	10	10	1	3		
C-18D10	1	-	1000V	32A /22A	5.5	11	11	11	1.5	3.7		
C-18D01	-	1			7.5	15	15	15	2	5		
C-25D10	1	-	1000V	40A /32A	7.5	15	15	15	2.2	4		SB, CE
C-25D01	-	1			10	20	20	20	3	5.5		
C-35D10	1	-	1000V	50A /42A	11	19	19	19	3	5.5		
C-35D01	-	1			15	25	25	25	4	7.5		

Model	N/O	N/C	Ui	Ith /Ie	HP 220V	HP 380V	HP 440V	HP 575V	Approvals		
C-45D11	1	1	1000V	60A/55A	20	40	40	40	CE		
C-55D11	1	1	1000V	80A/65A	25	45	45	45			
C-65D11	1	1	1000V	90A/80A	30	50	50	50			
C-80D11	1	1	1000V	125A/105A	35	60	75	75			
C-110D11	1	1	1000V	130A/110A	40	75	75	80			

**Model Designation for C series:** C- 12D 10 G7  
1    2    3

1. Type

C	09D 11D 12D 18D 25D 35D 45D 55D 65D 80D 110D
---	--

2. Auxiliary Contacts

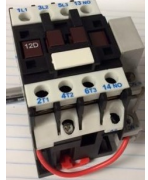
10	1a	01	1b
11	1a1b	22	2a2b

3. Coil Voltage

Coil for C-09D to C-100D (AC)							
24V	110V	120V	220V	230V	240V	400V	480V
A7	D7	E7	G7	H7	I7	K7	N7

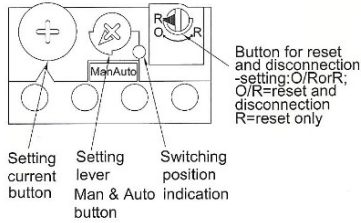
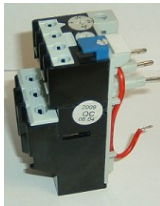
### Three Pole Contactors

control circuit: DC

	Aux. contacts Side Mount CA8			AC1 Duty 0<=40°C	AC3 Duty 3 Phase				AC3 Duty 1 Phase		
					220V	380V	440V	575V	120V	230V	
Model Name	N/O	N/C	Coil	Ith /Ie	KW HP	KW HP	KW HP	KW HP	KW HP	KW HP	Approvals
C-09DC11AD	1	1	24VDC	20A / 9A	2.2 3	3.7 5	3.7 5	3.7 5	0.37 0.75	1.5 2	*
C-11DC11AD	1	1	24VDC	25A /12A	3 4	5.5 7.5	5.5 7.5	5.5 7.5	0.55 0.75	1.5 2	
C-12DC11AD	1	1	24VDC	25A /16A	4 5.5	7.5 10	7.5 10	7.5 10	0.75 1	2.2 3	
C-18DC11AD	1	1	24VDC	32A /22A	5.5 7.5	10 15	10 15	10 15	1.5 2	3.7 5	
C-25DC11AD	1	1	24VDC	40A /32A	7.5 10	15 20	15 20	15 20	2.2 3	4 5.5	

- \*UL on C-18DC11AD. File no. E168542

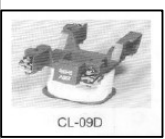
### Thermal Overload Relays



Part No.	Relay Setting Range	Contactors	Motor Capacity (HP)					Approval	
			1 phase		3 phase				
			100-110V	200-220V	200-220V	380-440V	500-550V		
NTH-0.5	0.35-0.5A	C-09D				0.125		CE UL	
NTH-0.75	0.5-0.75A	C-09D				0.125	0.25		
NTH-1.05	0.75-1.05A	C-09D					0.5		
NTH-1.45	1.05-1.45A	C-09D				0.25	0.5		1
NTH-1.9	1.4-1.9A	C-09D		0.125	0.75				
NTH-2.5	1.8-2.5A	C-09D		0.25	0.5	1	1.5		
NTH-3	2.4-3A	C-09D				1.5	2		
NTH-4	2.9-4A	C-09D	1/8	0.5	1	2			
NTH-5	3.8-5A	C-09D	1/4	0.75		3	3		
NTH-6.5	4.5-6.5A	C-09D	1/2	0.75	1.5		5		
NTH-8	6-8A	C-09D	1/2		2	5			
NTH-11	8-11A	C-11D		1.5	3		5		
NTH-14	11-14A	C-12D	0.75	2	4	7.5	10		
NTH-15	10-15A	C-12D	0.75	2	4	7.5	10		
NTH-17	14-17A	C-12D	1	2	5	10	15		
NTH-21	17-21A	C-18D	1.5	3		15	20		
NTH-25	21-25A	C-18D	2	4	7.5		20		
NTH-28	24-28A	C-25D				20			
NTH-32	26-32A	C-25D		5	10		25		
NTH-38	30-38A	C-35D				25	30		
NTH-44	36-44A	C-35D		7.5	15	30	40		

NTH-50,65,80,96 and 126 also available...please call

### Replacement coils for contactors:

	Applicable Contactor	Model No	Applicable Contactor
Model No			
CL-09D	C-09D-C-18D	CL-09DC	C-09DC-C-18DC
CL-25D	C-25D-C-35D	CL-25DC	C-25DC-C-35DC
CL-45D	C-45D-C-65D	CL-45DC	C-45DC-C-65DC
CL-80D	C-80D-C-100D	CL-80DC	C-80DC-C-100DC

### Model Designation:

#### 1. Type

C	09D 25D 45D 80D 09DC 25DC 45DC 80DC
---	--






CL- 09D G7

1 2

#### 2. Coil

Detail Page 26

### Auxiliary Contact Blocks

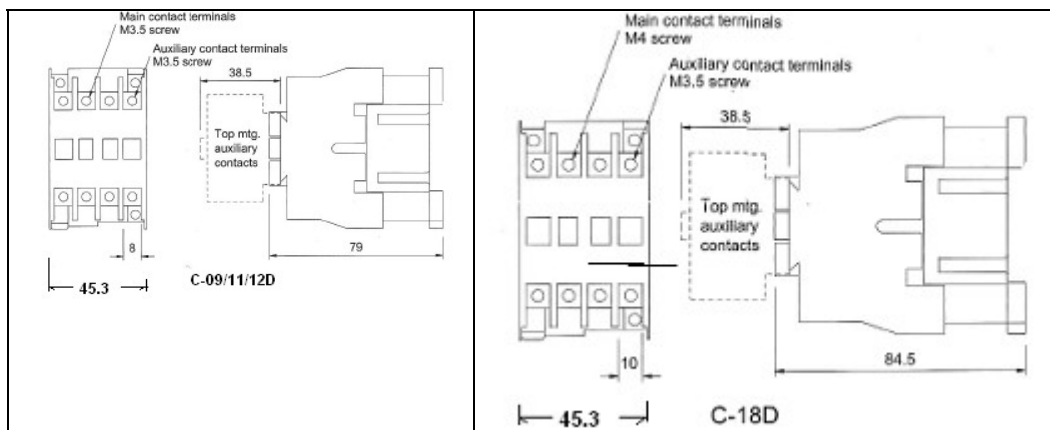
							
CA1-D11	CA1-D02	CA1-D31	CA8-D11	CA9-D02			
Catalogue name	Applicable Contactor	Auxiliary Contacts N/O	N/C	Insulation Voltage	Thermal Current	Approval	
CA1-D20		2	-				
CA1-D11		1	1				
CA1-D02		-	2				
CA1-D40		4	-				
CA1-D31		3	1	660V	10A		
CA1-D22	C-09D to C-100D11	2	2				
CA1-D13		1	3				
CA1-D04		-	4				
CA8-D20		2	-				
CA8-D11		1	1				
CA8-D02		-	2				
CA9-D02		-	2				



CA1 : Top Auxiliary Contacts Blocks

CA8 : Side Auxiliary Contacts Blocks

CA9 : Mechanical Interlock





## Motor Starters

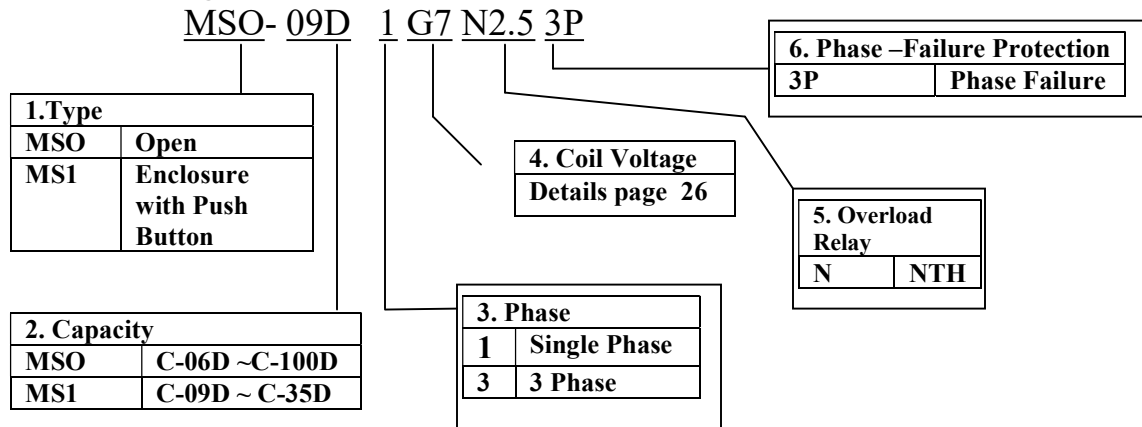


### (MS1 IP65)

Please call for single phase starters in a box and for larger horsepower models.

## AC Motor Starters

### Model Designation



## Definite Purpose Contactors

**1 Pole; 2 Pole; 3 Pole and 4 Pole Control Circuit: AC**

Model Designation:

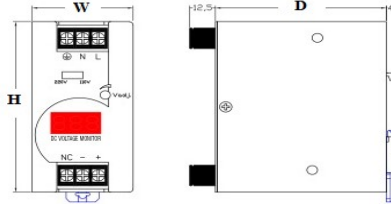
**AC 20 3 A5**  
**1 2 3 4**

- 1 - Air Conditioning
- 2 - Full load Amps (20, 25, 30, 40, 50)
- 3 - 1 pole, 2 poles, 3 poles or 4 poles
- 4 - Coil Voltage

Coil Control Voltage	24V	48V	110V	120V	190V	220V	230V	240V	380V	415V	440V	480V
60Hz	A6	C6	D6	E6	F6	G6	H6	I6	J6	L6	M6	N6

## DIN Rail Mounted Switching Power Supplies

New LP series offers...a compact design with output voltage monitor display option...High Efficiency  
85-90%



- Input frequency: 47~63Hz
- Power supplies have short circuit and over load protection

Part No	Watts	Input V	Output	Current	H mm	D mm	W mm
LP1025D-12S	25W	90-264VAC/ 127-380VDC	12V +-10%	2.1A	102	35	45
LP1025D-24S	25W	90-264VAC/ 127-380VDC	24V +-10%	1.0A	102	35	45
LP1050D-12S	50W	90-264VAC/ 127-380VDC	12V +-10%	4.2A	102	75.5	45
LP1050D-24S	50W	90-132VAC/ 180-264VAC	24V +-10%	2.1A	102	75.5	45
LP1100D-12M	100W	90-132VAC/ 180-264VAC	12V +-10%	8.3A	100	83	49
LP1100D-24M	100W	90-132VAC/ 180-264VAC	24V +-10%	4.2A	100	83	49
LP1150D-12MDA	150W	90-132VAC/ 180-264VAC	12V +-10%	12.5A	100	83	49
LP1150D-24MDA	150W	90-132VAC/ 180-264VAC	24V +-10%	6.25A	100	83	49
LP1150D-48MDA	150W	90-132VAC/ 180-264VAC	48V +-10%	3.10A	100	83	49
LP1300D-24MDA	300W	90-132VAC/ 180-264VAC	24V +-10%	12.5A	100	110	60
LP1300D-48MDA	300W	90-132VAC/ 180-264VAC	48V +-10%	6.25A	100	110	60
LPS1500D-24MDA	500W	90-132VAC/ 180-264VAC	24V +-10%	20.8A	99	112	125
LPS1500D-48MDA	500W	90-132VAC/ 180-264VAC	48V +-10%	10.4A	99	112	125

**Other output voltages available please call**

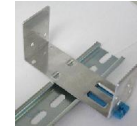
## 2 and 3 Phase Power supplies



<b>ESG-WDR-120-24</b>	2 PHASE 180-550VAC; 24VDC/5 AMPS
<b>ESG-TDR-240-24</b>	3 PHASE 340-550VAC; 24VDC/10 AMPS
<b>ESG-TDR-480-24</b>	3 PHASE 340-550VAC; 24VDC/20 AMPS
<b>ESG-TDR-960-24</b>	3 PHASE 340-550VAC; 24VDC/40 AMPS

Please call to receive a data sheet (215) 997-8855

## AC to DC Switching power supply 1, 2, 3, outputs

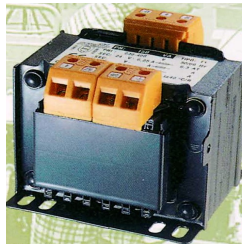


Part No.	O/P Volt			Rated Load (Current) CE, UL		
	V1	V2	V3	V1	V2	V3
	VDC	VDC	VDC			
<b>RP30352SV</b>	<b>+5V</b>	<b>+12V</b>	<b>-12V</b>	<b>3.5A</b>	<b>1A</b>	<b>0.5A</b>
<b>RP30502SV</b>	<b>+5V</b>	<b>+12V</b>	<b>-12V</b>	<b>4A</b>	<b>2A</b>	<b>0.5A</b>
<b>RP20843FV</b>	<b>+15V</b>	<b>-15V</b>	<b>--</b>	<b>2.8A</b>	<b>2.8A</b>	<b>--</b>

**Part No. RP-MT99**  
**Din 35mm bracket**

Please visit [www.esgllc-usa.com](http://www.esgllc-usa.com) for complete specs and additional power supplies

## Control Transformers



### Transformers

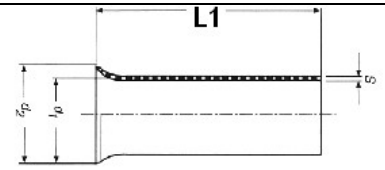
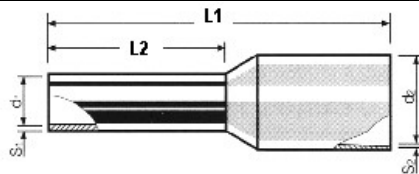
- Open Type Single-phase transformers
- UL-508 and CSA C22.2 n
- Isolation class A (105 °C)
- **VA sizes offered: 50-2000**
- File: E169331 (S)

Please call for larger sizes

Voltage		Part No.	VA
Primary (AC)	Secondary (AC)		
<b>208/230/460</b> (No fusing on the primary)	<b>115</b>	T1-UL-50	50
		T1-UL-75	75
		T1-UL-100	100
		T1-UL-150	150
		T1-UL-300	300
		T1-UL-400	400
		T1-UL-500	500

Electrotech (215) 997-8855

# Wire Management Products



## Insulated Wire Ferrules

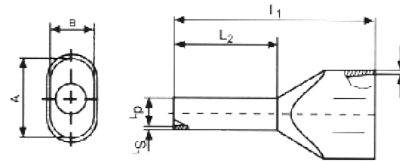
## Non-Insulated Wire Ferrules Material: Tin plated copper

Wire Size		Bag Qty	Din46228	Insulation	Old Din	Insulation	Dimension (mm)		Dimension (mm)	Bag Qty	
AWG	mm <sup>2</sup>		Part #	Color	Part #	Color	L1 / L2	Part #	L1		
26	0.14	500	---		WIW2606	Grey	10.5 / 6	---			
			---		WIW2608	Grey	12.5 / 8	---			
24	0.25		---		WIW2406	Lt. Blue	10.5 / 6	WUD2405	5	1000	
			---		WIW2408	Lt. Blue	12.5 / 8	WUD2407	7		
22	0.34		WID2206	Turquoise				10.5 / 6	WUD2205		5
			WID2208	Turquoise				12.5 / 8	WUD2207		7
20	0.5		WID2006	White	WIW2006	Orange		11.5 / 6	WUD2006		6
			WID2008	White	WIW2008	Orange		13.5 / 8	WUD2008		8
			WID2010	White	WIW2010	Orange		15.5 / 10	WUD2010		10
18	0.75		WID1806	Grey	WIW1806	White		12.0 / 6	WUD1806		6
			WID1808	Grey	WIW1808	White		14.0 / 8	WUD1808		8
			WID1810	Grey	WIW1810	White		16.0 / 10	---		
18-17	1		WID1706	Red	WIW1706	Yellow		12.0 / 6	WUD1706		6
			WID1708	Red	WIW1708	Yellow		14.0 / 8	WUD1708		8
			WID1710	Red	WIW1710	Yellow		16.0 / 10	WUD1710		10
16	1.5		WID1606	Black				12.0 / 6	WUD1607		7
			WID1608	Black	WIW1608	Red		14.0 / 8	WUD1608		8
			WID1610	Black	WIW1610	Red		16.0 / 10	WUD1610		10
14	2.5		WID1408	Blue				15.0 / 8	WUD1407		7
			---						WUD1408		8
		WID1412	Blue				19 / 12	WUD1410	10		
12	4	WID1210	Grey				17.5 / 10	WUD1209	9		500
		WID1212	Grey				20 / 12				
		---						WUD1212	12	1000	
10	6	100	WID1012	Yellow	WIW1012	Black	20 / 12	WUD1010	10	500	
8	10	100	---		WIW0812	Ivory	21 / 12	WUD0812	12	500	
6	16	100	WID0612	Blue				WUD0612	12	500	
		100	WID0618	Blue							
4	25	50	WID0416	Yellow				WUD0415	15	250	

Other sizes available – please call

Please call for more sizes

## Twin Wire Ferrules



Wire	Size	Bag Qty	DIN 46228	Insulation	Old DIN	Insulation	Dim. (mm)					
AWG	mm <sup>2</sup>		Part #	Color	Part #	Color	d1	A	B	I1	L2	s1
2x22	2x0.34	500	WIT2208	Turquoise			1.2	3.5	2	15.0	8.0	0.15
2 x 20	2 x 0.5		WIT2008	White	WOT2008	Orange	1.5	5	3	15.0	8.0	0.25
2 x 18	2 x .075		WIT1808	Grey	WOT1808	White	1.8	5.5	3	15.0	8.2	0.25
2 x 18	2 x .075		WIT1810	Grey	WOT1810	White	1.8	5.5	3	17.0	10.0	0.15
2 x 17	2 x 1.0		WIT1708	Red	WOT1708	Yellow	2.0	5.8	3.2	15.0	8.0	0.15
2 x 17	2 x 1.0		WIT1712	Red	WOT1712	Yellow	2.0	5.8	3.2	17.0	12.0	0.15
2 x 16	2 x 1.5		WIT1608	Black	WOT1608	Red	2.3	6.5	3.6	16.2	8.2	0.15
2 x 16	2 x 1.5		WIT1612	Black	WOT1612	Red	2.3	6.5	3.6	20.0	12.0	0.15
2 x 14	2 x 2.5		WIT1410	Blue			2.9	8	4.5	18.5	10.0	0.15
2 x 14	2 x 2.5		100	WIT1412	Blue			2.9	8	4.5	21.0	12.0
2 x 12	2 x 4	100	WIT1212	Grey			3.7	9	5.2	23.0	12.0	0.2
2 x 10	2 x 6	100	WIT1012	Yellow	WOT1012	Black	4.9	11.4	6.2	23.0	12.0	0.2
2 x 8	2 x 10	100	WIT0812	Red			5.8	13.4	7.6	24.0	12.0	0.2
2 x 6	2 x 16	50	WIT0616	Blue			8.3	17.2	9.5	29.0	14.0	0.3

## Wiring Tools

	<p><b>Part No. WTZ-CT4.4</b> Ratchet crimp tool Crimp range 28-10AWG Square crimp</p>		<p><b>Part No. WTZ-CT4.6</b> Ratchet crimp tool Crimp range 28-10AWG Hexagonal crimp</p>
	<p><b>Part No. WST3300</b> Combination wire cutter; stripper, ferrule crimper Wire stripping range: 20-10AWG Ferrule crimping range: 20-14AWG; 12-10AWG</p>		
	<p><b>Part No. WST3150</b> Wire cutter and wire stripper Wire stripping range: 20-10AWG  One die - automatically adjusts to the wire size being stripped.</p>		
	<p><b>Part No. WST5</b> Pistol grip wire cutter and stripper  Range: 24-10AWG</p>		
<p>For more tools please visit <a href="http://www.esglc-usa.com">www.esglc-usa.com</a></p>			

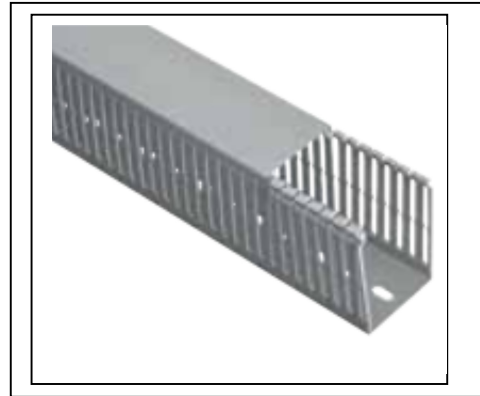


# Wire Duct

C.E.I. 23 - 22 Standards



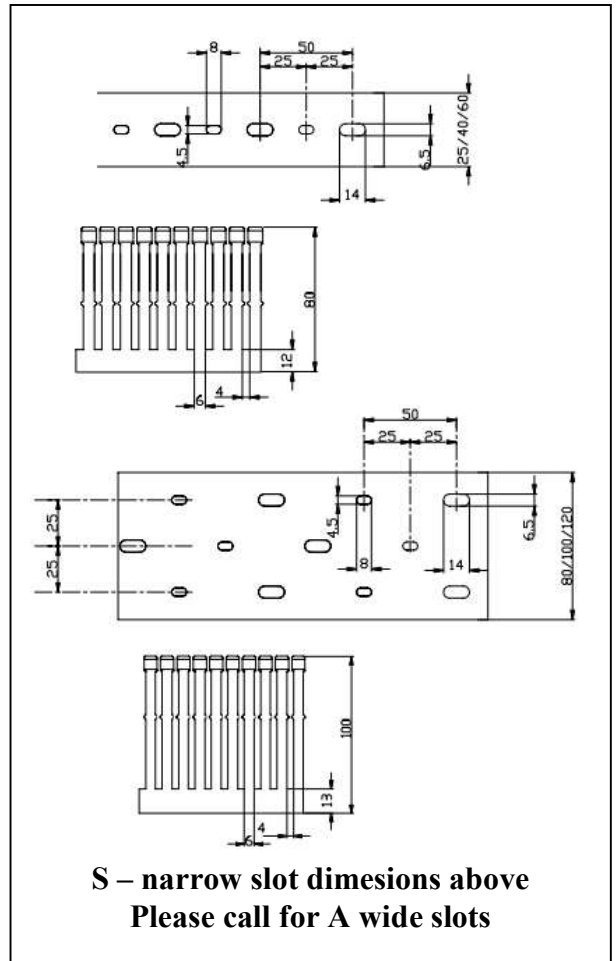
S2525	Wire duct, 4/6mm spacing	25 (0.98)	25 (0.98)
S4025	Wire duct, 4/6mm spacing	40 (1.57)	25 (0.98)
S2540	Wire duct, 4/6mm spacing	25 (0.98)	40 (1.57)
S4040	Wire duct, 4/6mm spacing	40 (1.57)	40 (1.57)
S2560	Wire duct, 4/6mm spacing	25 (0.98)	60 (2.36)
S4060	Wire duct, 4/6mm spacing	40 (1.57)	60 (2.36)
S6060	Wire duct, 4/6mm spacing	60 (2.36)	60 (2.36)
S8060	Wire duct, 4/6mm spacing	80 (3.35)	60 (2.36)
S2580	Wire duct, 4/6mm spacing	25 (0.98)	80 (3.35)
S4080	Wire duct, 4/6mm spacing	40 (1.57)	80 (3.35)
S6080	Wire duct, 4/6mm spacing	60 (2.36)	80 (3.35)
S8080	Wire duct, 4/6mm spacing	80 (3.35)	80 (3.35)
S10080	Wire duct, 4/6mm spacing	100 (3.94)	80 (3.35)
S40100	Wire duct, 4/6mm spacing	40 (1.57)	100 (3.94)
S60100	Wire duct, 4/6mm spacing	60 (2.36)	100 (3.94)
S80100	Wire duct, 4/6mm spacing	80 (3.35)	100 (3.94)
S100100	Wire duct, 4/6mm spacing	100 (3.94)	100 (3.94)



Above is GRAY color; Add "W" for white duct. (Ex:S2560W)

\* Type **A** duct is sold at same price of type **S** duct \*\*

(**A**= wide slots; **S** = narrow slots)



*Also available...Cable ties and adhesive Bi-directional nylon bases*



Many sizes available ...Please call

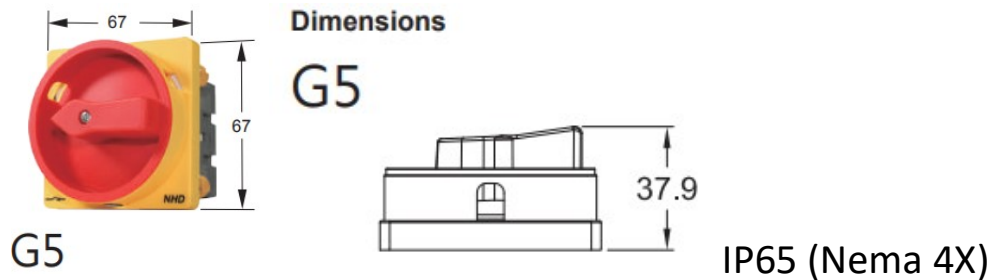


## Disconnects – non Fused



UL listed: E504299

Part No.	Description	Amps
<b>NDS-303G5DL3</b>	3P, 30 amp disconnect with G5 handle; 300mm shaft	30
<b>NDS-403G5DL3</b>	3P, 40 amp disconnect with G5 handle; 300mm shaft	40
<b>NDS-603G5DL3</b>	3P, 60 amp disconnect with G5 handle; 300mm shaft	60
<b>NDS-803G5DL3</b>	3P, 80 amp disconnect with G5 handle; 300mm shaft	80
<b>NDS-1003G5DL3</b>	3P, 100 amp disconnect with G5 handle; 300mm shaft	100



### Disconnects in a box



- NDS-303G5DBX** 32A 3Pole Padlockable Handle 67x67mm
  - NDS-603G5DAX** 63A 3Pole Padlockable Handle 67x67mm
  - NDS-803G5DAX** 80A 3Pole Padlockable Handle 67x67mm
  - NDS-1003G5DAX** 100A 3Pole Padlockable Handle 67x67mm
- \*Aux blocks also available – please call for a data sheet

# Line Seiki – Product of Japan

Electronic and Mechanical Counters, Length measuring Counters, Pulse Generators, Tachometer and Thermometer



## Featured Products:

### Electronic meters

#### MODELS



**GR2 - □□□0**

Type \_\_\_\_\_  
C: Totalizer  
H: Hourmeter

Wiring **0**: Terminal Screw  
Input **0**: Dry Contact / Open Collector / Voltage (NPN Transistor) Input  
**1**: Wide Range Voltage Input  
Reset **0**: Remote  
**1**: Remote & Front



TM-7 - Digital Tachometer...Laser and contact versions available.

### Electronic Preset Counters

#### MODELS

**G48 - 3□□**

Preset \_\_\_\_\_  
**0**: 1 Level Preset  
**1**: 2 Level Preset  
**2**: 1 Level Preset + Prewarn

Power **5**: 100-240VAC  
Source **6**: 12-24VDC (G48-306 only)



Thermocouple Probes  
**TC-250**  
**TC-400**



Length Totalizers  
**RY1 Series**  
**MWC-3 series**

### Mini - Mechanical counter



**KZ series**; 5 digit totalizer; 3 types available  
Please call for to receive a complete spec sheet

Please view the complete Line Seiki product offering at [www.esgllc-usa.com](http://www.esgllc-usa.com)  
Or call for a full line catalog

## Screwdrivers for Terminal Blocks



● Rubber Handle

Part No.					
8100/00	0.3	2	2.5	70	140
8100/0	0.4	2.5	3	80	160
8100/1	0.5	3.5	3.5	90	180
8100/2	0.6	4	4	100	195



⊕ Rubber Handle

Part No.				
8190/00-60	00	3	60	120
8190/0-60	0	4	60	140
8190/1-80	1	5	80	175
8190/2-100	2	6	100	205



● Insulated screwdrivers 1000V

Part No.						
5100/00	1.6	0.4	2	2.5	40	125
5100/0	1.6	0.4	2.5	3	80	165
5100/1	2	0.5	3	3.5	100	190
5100/2	2.5	0.6	3.5	4	100	190



⊕ Insulated screwdrivers 1000V

Part No.					
5190/0-60	1.6	0	3	60	150
5190/1-80	2-3	1	5	80	175
5190/2-100	3-5	2	6	100	205

Please call for larger sizes



## 120VAC DIN Rail Receptacle Outlet

**Part No.**                      **Description**  
 MOM-C                      Single outlet + LED + fuse (6.3A)

MOM-TW                      Double outlet + LED + Surge Prot. + fuse (6.3A)

\*Made with UL components (please call for complete specs)

## AC and DC Power Surge Protectors

AC Surge Protector	DS70RS-X (voltage) Lightning protection	DC Surge Protector for Photovoltaic Apps.	DS50PVS – X (voltage) Lightning protection
 DS70RS Avail. In 1,2,3 4 poles	<ul style="list-style-type: none"> <li>Can be used on the AC side of the inverter</li> <li>Voltages (120,230,400,690)</li> <li>Handles 70kA 8/20us surge current</li> </ul>	 DS50PVS	<ul style="list-style-type: none"> <li>Can be used inside an inverter or DC combiner box</li> <li>Voltages (500,600,800,1000)</li> <li>Handles 40kA 8/20us surge current</li> </ul>
Please visit <a href="http://www.esgll-usa.com">www.esgll-usa.com</a> for more surge protection devices			

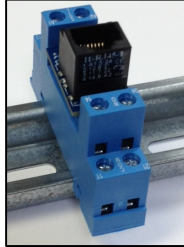
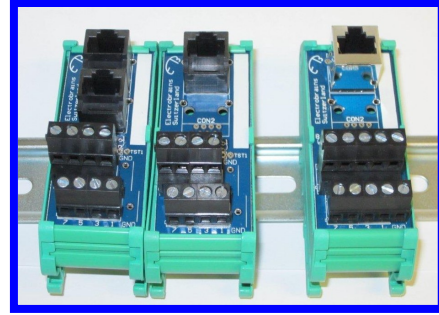
Electrotech (215) 997-8855

## Other Products

### RJ45 Interface modules

The EB-IM4-RJ45 series of interface modules provide a transition from popular multi-pin connectors (8-pin RJ45 connectors) to standard terminal blocks.

These modules mount to standard DIN 35mm rail. Boards are equipped with a series of plated through holes to enable the addition of soldered components.



With 1 Plug type RJ45	EB-IM4-RJ45-1
With 2 Plugs type RJ45	EB-IM4-RJ45-1-2
With 1 Plug type RJ45-Shielded version	EB-IM4-RJ45-1-S

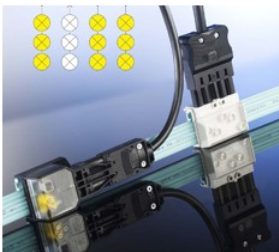
**NEW** mini RJ45 modules...P/N: EB-I1-RJ45-1-mini

Woertz's Flat Cable Power Bus Systems...for complete catalog please visit

[www.esgllc-usa.com](http://www.esgllc-usa.com)



Quick disconnect for motor feeds along a conveyor line-  
IP68 wash down rated



**IP 20 Flat cable Power Bus – 20 amp rated**



**Woertz Fire Resistive Flat cable Power Bus**



### Non-metallic Polycarbonate Enclosures

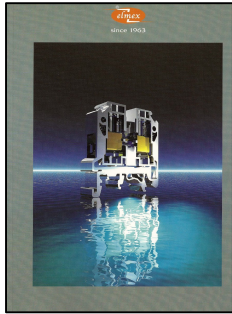
6"x6"x4"	PC060604HOSF	Hinge Construction/Opaque cover/Screw close/Mounting feet
8"x6"x4"	PC080604HOSF	
8"x8"x4"	PC080804HOSF	
10"x8"x4"	PC100804HOSF	
12"x10"x6"	PC121006HOSF	
14"x12"x6"	PC141206HOSF	
16"x14"x7"	PC161407HOSF	

Boxes with locking latches available  
Aluminum Back Panels sold separately

Electrotech (215) 997-8855



# Manufacturer Catalogs



**Terminal Blocks**



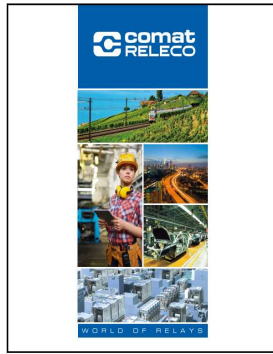
**22mm Pilot Devices**



**Motor Control**



**Power Supplies**



**ComatReleco**



**Woertz Terminals**



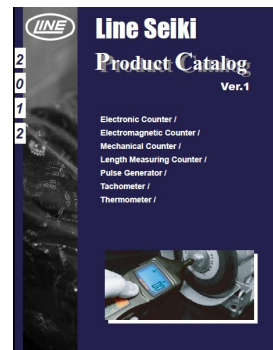
**Woertz Flat cable**



**Programmable Relay**



**Control Transformers**



**Counters, Pulse Generator, Tachometer**