

PCB Tension Spring Terminal

5.00 mm Pin Spacing

- 45° Wire Entry
- Tension Spring Technology
- Modular
- Various Colors
- Standard Color: Light Gray



AK3000/xx-5.0

WITHOUT LEVER

AK3001/xxKD-5.0

WITH GROOVED PUSH-LEVER

Electrical Ratings

		UL E178356		IEC	VDE
Usergroup		B	C	D	-
		300V	—	300V	250V
Rated Current		15A	—	10A	24A
Wire Size	solid	28-14AWG	—	28-14AWG	0.5mm ² -2.5mm ²
	stranded	28-14AWG	—	28-14AWG	0.5mm ² -2.5mm ²

Ordering Information

Without Lever

With Grooved Lever

No. Poles	Length (mm)	Std. Pack	Order #	Type #	Order #	Type #
1	7.20	100	38.2101	AK3000/1-5.0	38.2201	AK3001/1KD-5.0
2	12.20	100	38.2102	AK3000/2-5.0	38.2202	AK3001/2KD-5.0
3	17.20	100	38.2103	AK3000/3-5.0	38.2203	AK3001/3KD-5.0
4	22.20	50	38.2104	AK3000/4-5.0	38.2204	AK3001/4KD-5.0
5	27.20	50	38.2105	AK3000/5-5.0	38.2205	AK3001/5KD-5.0
6	32.20	50	38.2106	AK3000/6-5.0	38.2206	AK3001/6KD-5.0
7	37.20	50	38.2107	AK3000/7-5.0	38.2207	AK3001/7KD-5.0
8	42.20	50	38.2108	AK3000/8-5.0	38.2208	AK3001/8KD-5.0
9	47.20	50	38.2109	AK3000/9-5.0	38.2209	AK3001/9KD-5.0
10	52.20	50	38.2110	AK3000/10-5.0	38.2210	AK3001/10KD-5.0
11	57.20	50	38.2111	AK3000/11-5.0	38.2211	AK3001/11KD-5.0
12	62.20	50	38.2112	AK3000/12-5.0	38.2212	AK3001/12KD-5.0
13	67.20	20	38.2113	AK3000/13-5.0	38.2213	AK3001/13KD-5.0
14	72.20	20	38.2114	AK3000/14-5.0	38.2214	AK3001/14KD-5.0
15	77.20	20	38.2115	AK3000/15-5.0	38.2215	AK3001/15KD-5.0
16	82.20	20	38.2116	AK3000/16-5.0	38.2216	AK3001/16KD-5.0
17	87.20	20	38.2117	AK3000/18-5.0	38.2217	AK3001/17KD-5.0
18	92.20	20	38.2118	AK3000/18-5.0	38.2218	AK3001/18KD-5.0
19	97.20	20	38.2119	AK3000/19-5.0	38.2219	AK3001/19KD-5.0
20	102.20	10	38.2120	AK3000/20-5.0	38.2220	AK3001/20KD-5.0
21	107.20	10	38.2121	AK3000/21-5.0	38.2221	AK3001/21KD-5.0
22	112.20	10	38.2122	AK3000/22-5.0	38.2222	AK3001/22KD-5.0
23	117.20	10	38.2123	AK3000/23-5.0	38.2223	AK3001/23KD-5.0
24	122.20	10	38.2124	AK3000/24-5.0	38.2224	AK3001/24KD-5.0

Material Specifications

Tension Spring	Stainless Steel
Solder Tab	Copper Alloy
Insulating Material	PA 6.6
Flammability Class	UL94V-0
Operating Temperature	-30°C - +105°C

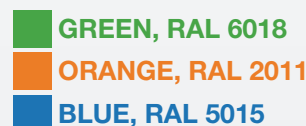
Wave Solder Process

Soldering Temperature	265°C
Peak Soldering Time	3-10s

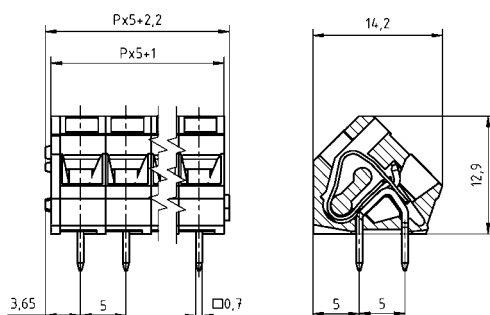
Installation Data

Stripping Length	6mm
PCB Hole Size	1.1mm

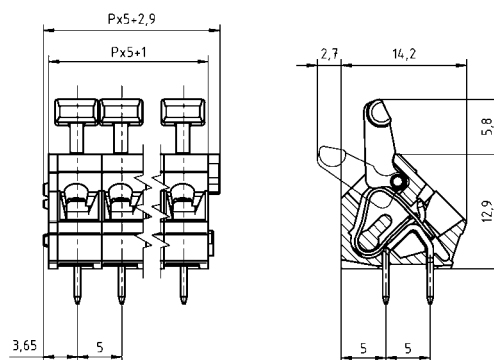
Other Colors Available



Dimensions (mm) - without lever



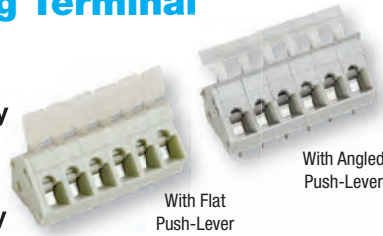
Dimensions (mm) - with grooved push-lever



PCB Tension Spring Terminal

5.00 mm Pin Spacing

- 45° Wire Entry
- Tension Spring Technology
- Modular
- Various Colors
- Standard Color: Light Gray



AK3001-/xxFD-5.0

WITH FLAT PUSH-LEVER

AK3001-/xxWD-5.0

WITH ANGLED PUSH-LEVER

Electrical Ratings

Usergroup	B	C	D	
	300V	—	300V	250V
Rated Current	15A	—	10A	24A
Wire Size	solid 28-14AWG	—	28-14AWG	0.5mm ² -2.5mm ²
	stranded 28-14AWG	—	28-14AWG	0.5mm ² -2.5mm ²



Ordering Information

With Flat Lever

With Angled Lever

No. Poles	Length (mm)	Std. Pack	Order #	Type #	Order #	Type #
1	7.20	100	38.2301	AK3001/1FD-5.0	38.2401	AK3001/1WD-5.0
2	12.20	100	38.2302	AK3001/2FD-5.0	38.2402	AK3001/2WD-5.0
3	17.20	100	38.2303	AK3001/3FD-5.0	38.2403	AK3001/3WD-5.0
4	22.20	50	38.2304	AK3001/4FD-5.0	38.2404	AK3001/4WD-5.0
5	27.20	50	38.2305	AK3001/5FD-5.0	38.2405	AK3001/5WD-5.0
6	32.20	50	38.2306	AK3001/6FD-5.0	38.2406	AK3001/6WD-5.0
7	37.20	50	38.2307	AK3001/7FD-5.0	38.2407	AK3001/7WD-5.0
8	42.20	50	38.2308	AK3001/8FD-5.0	38.2408	AK3001/8WD-5.0
9	47.20	50	38.2309	AK3001/9FD-5.0	38.2409	AK3001/9WD-5.0
10	52.20	50	38.2310	AK3001/10FD-5.0	38.2410	AK3001/10WD-5.0
11	57.20	50	38.2311	AK3001/11FD-5.0	38.2411	AK3001/11WD-5.0
12	62.20	50	38.2312	AK3001/12FD-5.0	38.2412	AK3001/12WD-5.0
13	67.20	20	38.2313	AK3001/13FD-5.0	38.2413	AK3001/13WD-5.0
14	72.20	20	38.2314	AK3001/14FD-5.0	38.2414	AK3001/14WD-5.0
15	77.20	20	38.2315	AK3001/15FD-5.0	38.2415	AK3001/15WD-5.0
16	82.20	20	38.2316	AK3001/16FD-5.0	38.2416	AK3001/16WD-5.0
17	87.20	20	38.2317	AK3001/18FD-5.0	38.2417	AK3001/17WD-5.0
18	92.20	20	38.2318	AK3001/18FD-5.0	38.2418	AK3001/18WD-5.0
19	97.20	20	38.2319	AK3001/19FD-5.0	38.2419	AK3001/19WD-5.0
20	102.20	10	38.2320	AK3001/20FD-5.0	38.2420	AK3001/20WD-5.0
21	107.20	10	38.2321	AK3001/21FD-5.0	38.2421	AK3001/21WD-5.0
22	112.20	10	38.2322	AK3001/22FD-5.0	38.2422	AK3001/22WD-5.0
23	117.20	10	38.2323	AK3001/23FD-5.0	38.2423	AK3001/23WD-5.0
24	122.20	10	38.2324	AK3001/24FD-5.0	38.2424	AK3001/24WD-5.0

Material Specifications

Tension Spring	Stainless Steel
Solder Tab	Copper Alloy
Insulating Material	PA 6.6
Flammability Class	UL94V-0
Operating Temperature	-30°C - +105°C

Wave Solder Process

Soldering Temperature	265°C
Peak Soldering Time	3-10s

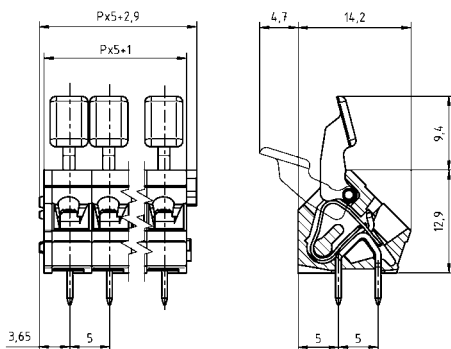
Installation Data

Stripping Length	6mm
PCB Hole Size	1.1mm

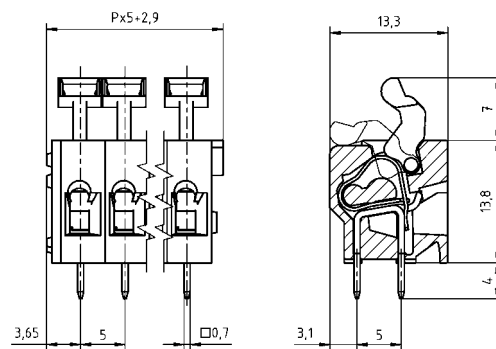
Other Colors Available



Dimensions (mm) - with flat push-lever



Dimensions (mm) - with angled push-lever



PCB Tension Spring Terminal

7.50 mm Pin Spacing

- 45° Wire Entry
- Tension Spring Technology
- Modular
- Various Colors
- Standard Color: Light Gray



AK3010/xx-7.5

WITHOUT LEVER

AK3011/xxKD-7.5

WITH GROOVED PUSH-LEVER

Electrical Ratings

		UL E178356		IEC	VDE
Usergroup	B	C	D	-	-
	300V	-	300V	750V	
Rated Current	16A	-	10A	24A	
Wire Size	<i>solid</i>	28-14AWG	28-14AWG	0.5mm ² -2.5mm ²	
	<i>stranded</i>	28-14AWG	28-14AWG	0.5mm ² -2.5mm ²	

Ordering Information

Without Lever

With Grooved Lever

No. Poles	Length (mm)	Std. Pack	Order #	Type #	Order #	Type #
1	9.70	100	38.4101	AK3010/1-7.5	38.4201	AK3011/1KD-7.5
2	17.20	100	38.4102	AK3010/2-7.5	38.4202	AK3011/2KD-7.5
3	24.70	100	38.4103	AK3010/3-7.5	38.4203	AK3011/3KD-7.5
4	32.20	50	38.4104	AK3010/4-7.5	38.4204	AK3011/4KD-7.5
5	39.70	50	38.4105	AK3010/5-7.5	38.4205	AK3011/5KD-7.5
6	47.20	50	38.4106	AK3010/6-7.5	38.4206	AK3011/6KD-7.5
7	54.70	50	38.4107	AK3010/7-7.5	38.4207	AK3011/7KD-7.5
8	62.20	50	38.4108	AK3010/8-7.5	38.4208	AK3011/8KD-7.5
9	69.70	50	38.4109	AK3010/9-7.5	38.4209	AK3011/9KD-7.5
10	77.20	50	38.4110	AK3010/10-7.5	38.4210	AK3011/10KD-7.5
11	84.70	50	38.4111	AK3010/11-7.5	38.4211	AK3011/11KD-7.5
12	92.20	50	38.4112	AK3010/12-7.5	38.4212	AK3011/12KD-7.5
13	99.70	20	38.4113	AK3010/13-7.5	38.4213	AK3011/13KD-7.5
14	107.20	20	38.4114	AK3010/14-7.5	38.4214	AK3011/14KD-7.5
15	114.70	20	38.4115	AK3010/15-7.5	38.4215	AK3011/15KD-7.5
16	122.20	20	38.4116	AK3010/16-7.5	38.4216	AK3011/16KD-7.5
17	129.70	20	38.4117	AK3010/18-7.5	38.4217	AK3011/17KD-7.5
18	137.20	20	38.4118	AK3010/18-7.5	38.4218	AK3011/18KD-7.5
19	144.70	20	38.4119	AK3010/19-7.5	38.4219	AK3011/19KD-7.5
20	152.20	10	38.4120	AK3010/20-7.5	38.4220	AK3011/20KD-7.5
21	159.70	10	38.4121	AK3010/21-7.5	38.4221	AK3011/21KD-7.5
22	167.20	10	38.4122	AK3010/22-7.5	38.4222	AK3011/22KD-7.5
23	174.70	10	38.4123	AK3010/23-7.5	38.4223	AK3011/23KD-7.5
24	182.20	10	38.4124	AK3010/24-7.5	38.4224	AK3011/24KD-7.5

Material Specifications

Tension Spring	Stainless Steel
Solder Tab	Copper Alloy
Insulating Material	PA 6.6
Flammability Class	UL94V-0
Operating Temperature	-30°C - +105°C

Wave Solder Process

Soldering Temperature	265°C
Peak Soldering Time	3-10s

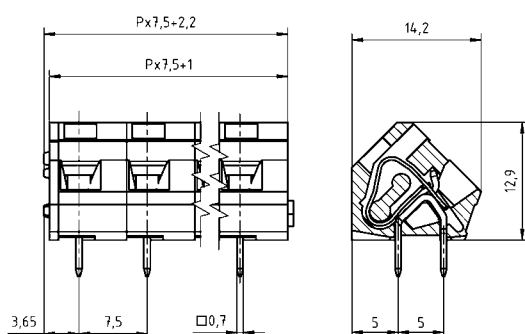
Installation Data

Stripping Length	6mm
PCB Hole Size	1.1mm

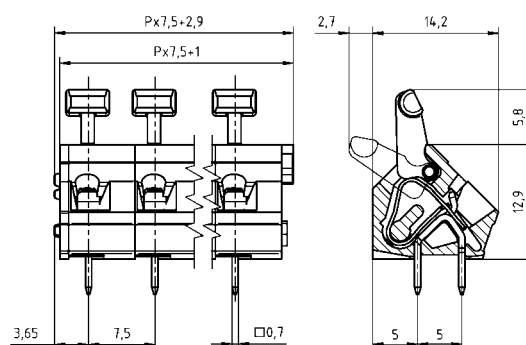
Other Colors Available

- GREEN, RAL 6018
- ORANGE, RAL 2011
- BLUE, RAL 5015

Dimensions (mm) - without lever



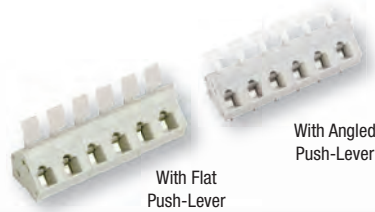
Dimensions (mm) - with grooved push-lever



PCB Tension Spring Terminal

7.50 mm Pin Spacing

- 45° Wire Entry
- Tension Spring Technology
- Modular
- Various Colors
- Standard Color: Light Gray



AK3011/xxFD-7.5
WITH FLAT PUSH-LEVER

AK3011/xxWD-7.5
WITH ANGLED PUSH-LEVER

Electrical Ratings

Usergroup	B	C	D	-
	300V	—	300V	750V
Rated Current	16A	—	10A	24A
Wire Size	solid 28-14AWG	—	28-14AWG	0.5mm ² -2.5mm ²
	stranded 28-14AWG	—	28-14AWG	0.5mm ² -2.5mm ²



Ordering Information

With Flat Lever

With Angled Lever

No. Poles	Length (mm)	Std. Pk.	Order #	Type #	Order #	Type #
1	9.70	100	38.4301	AK3011/1FD-7.5	38.4401	AK3011/1WD-7.5
2	17.20	100	38.4302	AK3011/2FD-7.5	38.4402	AK3011/2WD-7.5
3	24.70	100	38.4303	AK3011/3FD-7.5	38.4403	AK3011/3WD-7.5
4	32.20	50	38.4304	AK3011/4FD-7.5	38.4404	AK3011/4WD-7.5
5	39.70	50	38.4305	AK3011/5FD-7.5	38.4405	AK3011/5WD-7.5
6	47.20	50	38.4306	AK3011/6FD-7.5	38.4406	AK3011/6WD-7.5
7	54.70	50	38.4307	AK3011/7FD-7.5	38.4407	AK3011/7WD-7.5
8	62.20	50	38.4309	AK3011/8FD-7.5	38.4408	AK3011/8WD-7.5
9	69.70	50	38.4300	AK3011/9FD-7.5	38.4409	AK3011/9WD-7.5
10	77.20	50	38.4310	AK3011/10FD-7.5	38.4410	AK3011/10WD-7.5
11	84.70	50	38.4311	AK3011/11FD-7.5	38.4411	AK3011/11WD-7.5
12	92.20	50	38.4312	AK3011/12FD-7.5	38.4412	AK3011/12WD-7.5
13	99.70	20	38.4313	AK3011/13FD-7.5	38.4413	AK3011/13WD-7.5
14	107.20	20	38.4314	AK3011/14FD-7.5	38.4414	AK3011/14WD-7.5
15	114.70	20	38.4315	AK3011/15FD-7.5	38.4415	AK3011/15WD-7.5
16	122.20	20	38.4316	AK3011/16FD-7.5	38.4416	AK3011/16WD-7.5
17	129.70	20	38.4317	AK3011/17FD-7.5	38.4417	AK3011/17WD-7.5
18	137.20	20	38.4318	AK3011/18FD-7.5	38.4418	AK3011/18WD-7.5
19	144.70	20	38.4319	AK3011/19FD-7.5	38.4419	AK3011/19WD-7.5
20	152.20	10	38.4320	AK3011/20FD-7.5	38.4420	AK3011/20WD-7.5
21	159.70	10	38.4321	AK3011/21FD-7.5	38.4421	AK3011/21WD-7.5
22	167.20	10	38.4322	AK3011/22FD-7.5	38.4422	AK3011/22WD-7.5
23	174.70	10	38.4323	AK3011/23FD-7.5	38.4423	AK3011/23WD-7.5
24	182.20	10	38.4324	AK3011/24FD-7.5	38.4424	AK3011/24WD-7.5

Material Specifications

Tension Spring	Stainless Steel
Solder Tab	Copper Alloy
Insulating Material	PA 6.6
Flammability Class	UL94V-0
Operating Temperature	-30°C - +105°C

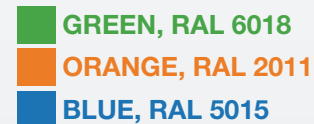
Wave Solder Process

Soldering Temperature	265°C
Peak Soldering Time	3-10s

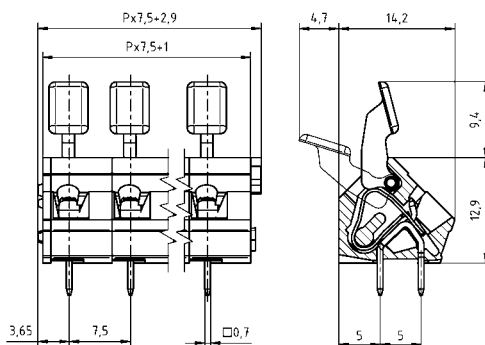
Installation Data

Stripping Length	6mm
PCB Hole Size	1.1mm

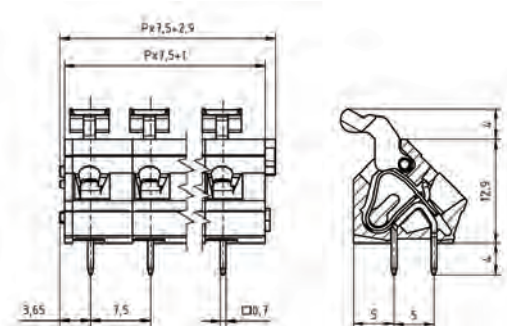
Other Colors Available



Dimensions (mm) - with flat push-lever



Dimensions (mm) - with angled push-lever



PCB Tension Spring Terminal

10.00 mm Pin Spacing

- 45° Wire Entry
- Tension Spring Technology
- Modular
- Various Colors
- Standard Color: Light Gray



AK3000/xx-10.0

WITHOUT LEVER

AK3001/xxKD-10.0

WITH GROOVED PUSH-LEVER

Electrical Ratings

		UL E178356			IEC VDE	
Usergroup		B	C	D	—	
		300V	300V	—	1000V	
Rated Current		15A	15A	—	24A	
Wire Size	<i>solid</i>	28-14AWG	28-14AWG	—	0.5mm ² -2.5mm ²	
	<i>stranded</i>	28-14AWG	28-14AWG	—	0.5mm ² -2.5mm ²	

Ordering Information

Without Lever

With Grooved Lever

No. Poles	Length (mm)	Std. Pack	Order #	Type #	Order #	Type #
1	7.20	100	38.5101	AK3000/1-10.0	38.5201	AK3011/1KD-10.0
2	17.20	100	38.5102	AK3000/2-10.0	38.5202	AK3011/2KD-10.0
3	27.20	100	38.5103	AK3000/3-10.0	38.5203	AK3011/3KD-10.0
4	37.20	50	38.5104	AK3000/4-10.0	38.5204	AK3011/4KD-10.0
5	47.20	50	38.5105	AK3000/5-10.0	38.5205	AK3011/5KD-10.0
6	57.20	50	38.5106	AK3000/6-10.0	38.5206	AK3011/6KD-10.0
7	67.20	50	38.5107	AK3000/7-10.0	38.5207	AK3011/7KD-10.0
8	77.20	50	38.5108	AK3000/8-10.0	38.5208	AK3011/8KD-10.0
9	87.20	50	38.5109	AK3000/9-10.0	38.5209	AK3011/9KD-10.0
10	97.20	50	38.5110	AK3000/10-10.0	38.5210	AK3011/10KD-10.0
11	107.20	50	38.5111	AK3000/11-10.0	38.5211	AK3011/11KD-10.0
12	117.20	50	38.5112	AK3000/12-10.0	38.5212	AK3011/12KD-10.0
13	127.20	20	38.5113	AK3000/13-10.0	38.5213	AK3011/13KD-10.0
14	137.20	20	38.5114	AK3000/14-10.0	38.5214	AK3011/14KD-10.0
15	147.20	20	38.5115	AK3000/15-10.0	38.5215	AK3011/15KD-10.0
16	157.20	20	38.5116	AK3000/16-10.0	38.5216	AK3011/16KD-10.0
17	167.20	20	38.5117	AK3000/18-10.0	38.5217	AK3011/17KD-10.0
18	177.20	20	38.5118	AK3000/18-10.0	38.5218	AK3011/18KD-10.0
19	187.20	20	38.5119	AK3000/19-10.0	38.5219	AK3011/19KD-10.0
20	197.20	10	38.5120	AK3000/20-10.0	38.5220	AK3011/20KD-10.0
21	207.20	10	38.5121	AK3000/21-10.0	38.5221	AK3011/21KD-10.0
22	217.20	10	38.5122	AK3000/22-10.0	38.5222	AK3011/22KD-10.0
23	227.20	10	38.5123	AK3000/23-10.0	38.5223	AK3011/23KD-10.0
24	237.20	10	38.5124	AK3000/24-10.0	38.5224	AK3011/24KD-10.0

Material Specifications

Tension Spring	Stainless Steel
Solder Tab	Copper Alloy
Insulating Material	PA 6.6
Flammability Class	UL94V-0
Operating Temperature	-30°C - +105°C

Wave Solder Process

Soldering Temperature	265°C
Peak Soldering Time	3-10s

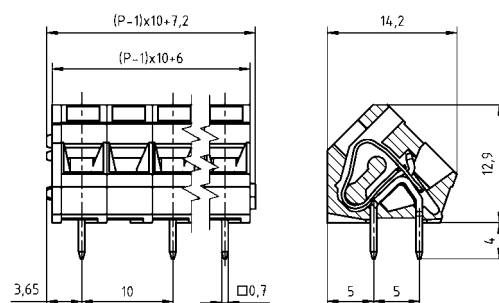
Installation Data

Stripping Length	6mm
PCB Hole Size	1.1mm

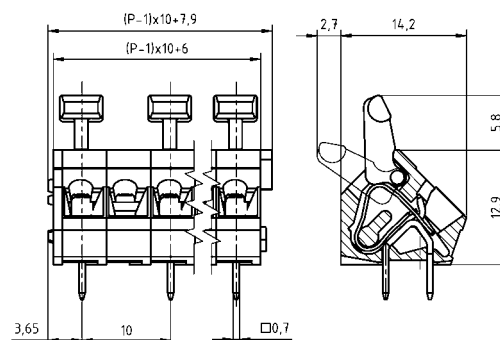
Other Colors Available

- GREEN, RAL 6018
- ORANGE, RAL 2011
- BLUE, RAL 5015

Dimensions (mm) - without lever



Dimensions (mm) - with grooved push-lever



PCB Tension Spring Terminal

10.00 mm Pin Spacing

- 45° Wire Entry
- Tension Spring Technology
- Modular
- Various Colors
- Standard Color: Light Gray



AK3001/xxFD-10.0

WITH FLAT PUSH-LEVER

AK3001/xxWD-10.0

WITH ANGLED PUSH-LEVER

Electrical Ratings

		UL E178356			IEC VDE	
Usergroup		B	C	D	-	
		300V	300V	-	750V	
Rated Current		15A	15A	-	24A	
Wire Size	<i>solid</i>	28-14AWG	28-14AWG	-	0.5mm ² -2.5mm ²	
	<i>stranded</i>	28-14AWG	28-14AWG	-	0.5mm ² -2.5mm ²	

Ordering Information

With Flat Lever

With Angled Lever

No. Poles	Length (mm)	Std. Pk.	Order #	Type #	Order #	Type #
1	7.20	100	38.5301	AK3001/1FD-10.0	38.5401	AK3001/1WD-10.0
2	17.20	100	38.5302	AK3001/2FD-10.0	38.5402	AK3001/2WD-10.0
3	27.20	100	38.5303	AK3001/3FD-10.0	38.5403	AK3001/3WD-10.0
4	37.20	50	38.5304	AK3001/4FD-10.0	38.5404	AK3001/4WD-10.0
5	47.20	50	38.5305	AK3001/5FD-10.0	38.5405	AK3001/5WD-10.0
6	57.20	50	38.5306	AK3001/6FD-10.0	38.5406	AK3001/6WD-10.0
7	67.20	50	38.5307	AK3001/7FD-10.0	38.5407	AK3001/7WD-10.0
8	77.20	50	38.5308	AK3001/8FD-10.0	38.5408	AK3001/8WD-10.0
9	87.20	50	38.5309	AK3001/9FD-10.0	38.5409	AK3001/9WD-10.0
10	97.20	50	38.5310	AK3001/10FD-10.0	38.5410	AK3001/10WD-10.0
11	107.20	50	38.5311	AK3001/11FD-10.0	38.5401	AK3001/11WD-10.0
12	117.20	50	38.5312	AK3001/12FD-10.0	38.5412	AK3001/12WD-10.0
13	127.20	20	38.5313	AK3001/13FD-10.0	38.5413	AK3001/13WD-10.0
14	137.20	20	38.5314	AK3001/14FD-10.0	38.5414	AK3001/14WD-10.0
15	147.20	20	38.5315	AK3001/15FD-10.0	38.5415	AK3001/15WD-10.0
16	167.20	20	38.5316	AK3001/16FD-10.0	38.5416	AK3001/16WD-10.0
17	177.20	20	38.5316	AK3001/18FD-10.0	38.5417	AK3001/17WD-10.0
18	187.20	20	38.5318	AK3001/18FD-10.0	38.5418	AK3001/18WD-10.0
19	197.20	20	38.5319	AK3001/19FD-10.0	38.5419	AK3001/19WD-10.0
20	107.20	10	38.5320	AK3001/20FD-10.0	38.5420	AK3001/20WD-10.0
21	207.20	10	38.5321	AK3001/21FD-10.0	38.5421	AK3001/21WD-10.0
22	217.20	10	38.5322	AK3001/22FD-10.0	38.5422	AK3001/22WD-10.0
23	227.20	10	38.5323	AK3001/23FD-10.0	38.5423	AK3001/23WD-10.0
24	237.20	10	38.5324	AK3001/24FD-10.0	38.5424	AK3001/24WD-10.0

Material Specifications

Tension Spring	Stainless Steel
Solder Tab	Copper Alloy
Insulating Material	PA 6.6
Flammability Class	UL94V-0
Operating Temperature	-30°C - +105°C

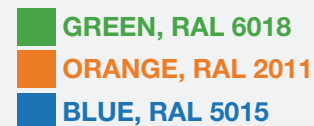
Wave Solder Process

Soldering Temperature	265°C
Peak Soldering Time	3-10s

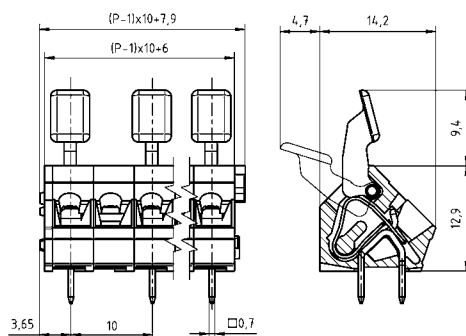
Installation Data

Stripping Length	6mm
PCB Hole Size	1.1mm

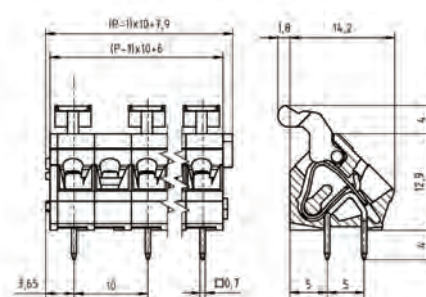
Other Colors Available



Dimensions (mm) - with flat push-lever



Dimensions (mm) - with angled push-lever



Mouser Electronics

Authorized Distributor

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Altech:

38.2221	38.2222	38.2223	38.2224	38.4415	38.4416	38.4409	38.4410	38.4411	38.4412	38.4413	38.4414
38.4221	38.4222	38.4223	38.4406	38.4407	38.4408	38.4207	38.4208	38.4209	38.4210	38.4219	38.4220
38.4201	38.4202	38.4203	38.4204	38.4205	38.4206	38.4119	38.4120	38.4121	38.4122	38.4123	38.4124
38.5208	38.5209	38.2217	38.2218	38.2219	38.2220	38.5201	38.5202	38.5204	38.5205	38.5206	38.5207
38.5119	38.5120	38.5121	38.5122	38.5123	38.5124	38.5113	38.5114	38.5115	38.5116	38.5117	38.5118
38.4423	38.4424	38.5101	38.5110	38.5111	38.5112	38.4417	38.4418	38.4419	38.4420	38.4421	38.4422
38.4113	38.4114	38.4115	38.4116	38.4117	38.4118	38.5424	38.4101	38.4102	38.4105	38.4111	38.4112
38.5418	38.5419	38.5420	38.5421	38.5422	38.5423	38.5412	38.5413	38.5414	38.5415	38.5416	38.5417
38.5405	38.5406	38.5407	38.5408								