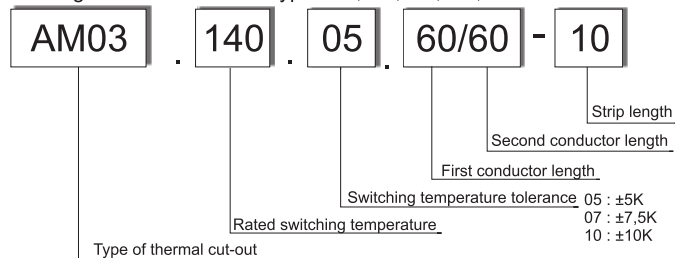
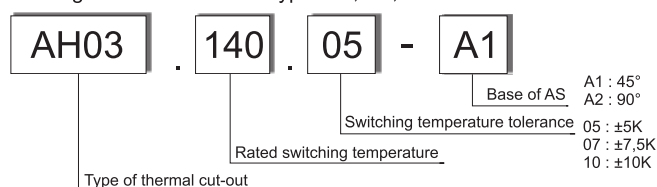


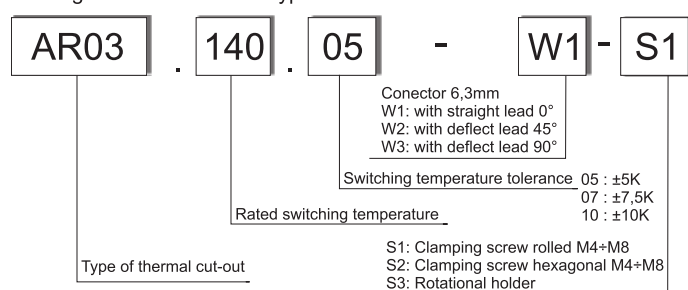
Marking of thermal cut-outs type: AM, AB, AC, AD, AA.



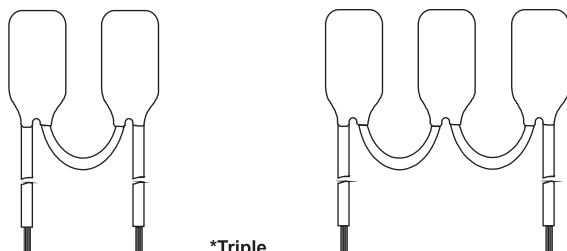
Marking of thermal cut-outs type: AH, AK, AS.



Marking of thermal cut-outs type: AR.



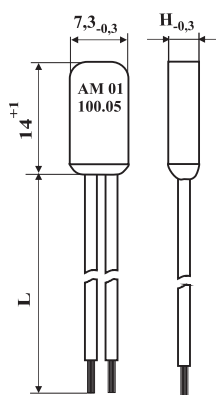
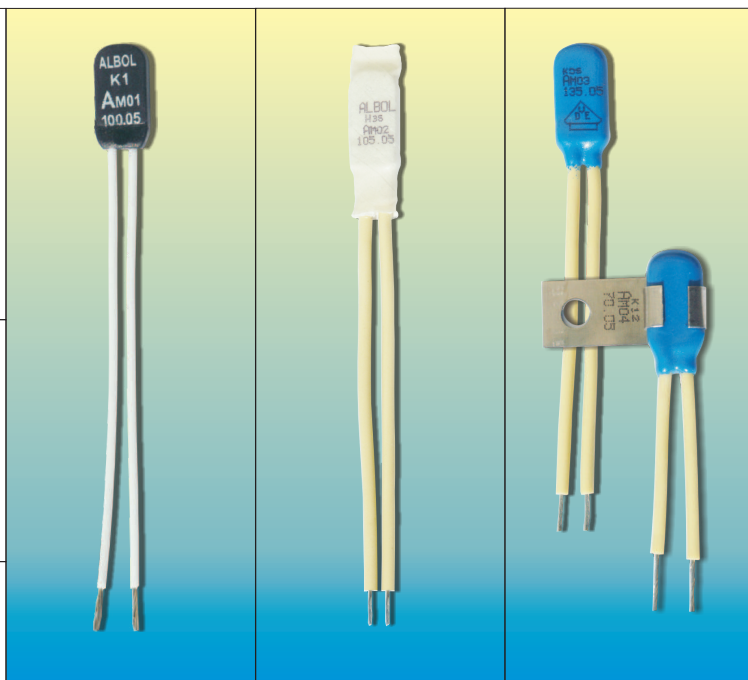
Options:



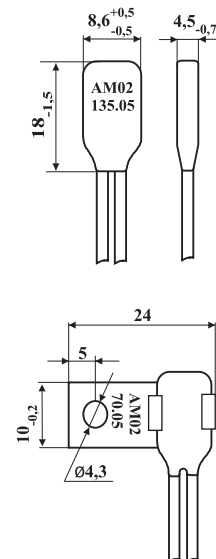
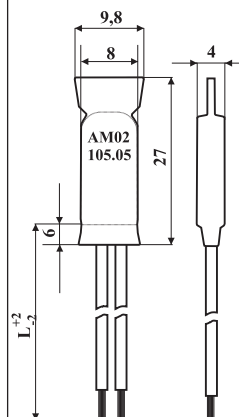
* non-standard temperatures acc. to customer requirements

Contact configuration - abbreviations

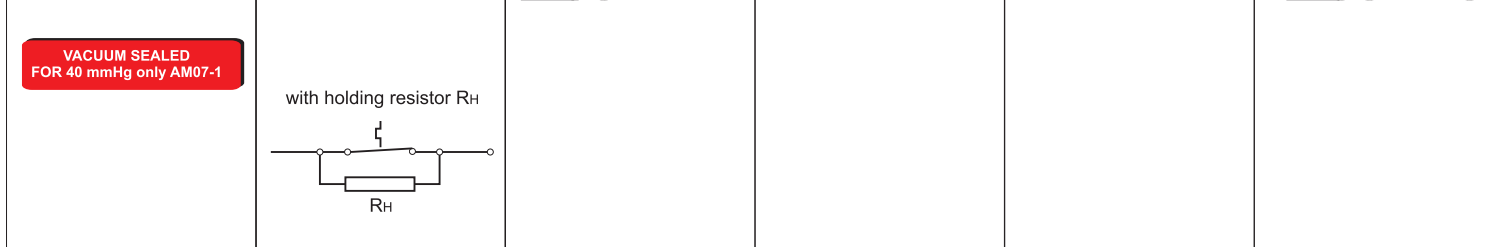
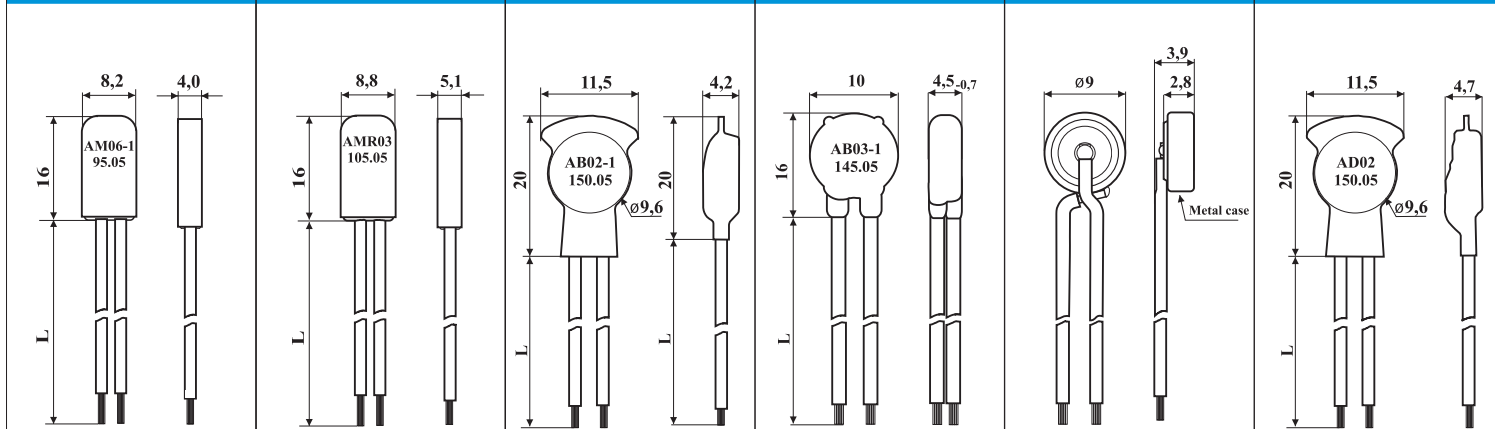
n.c. normally closed
n.o. normally open
SPST single-pole single-throw
DPST double-pole single-throw
3PST triple-pole single-throw



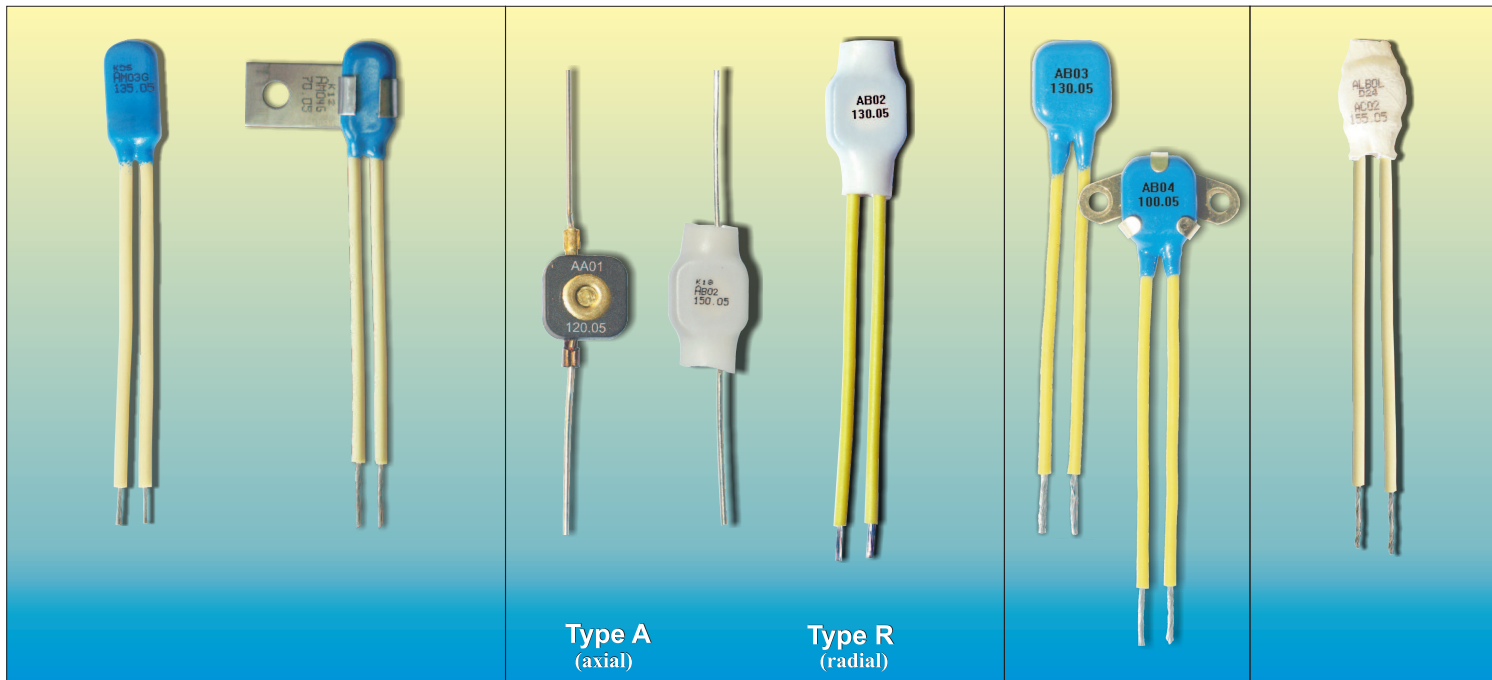
H = 2,8 for AM01
H = 3,3 for AM01*



	Technical data	Type of thermal cut-out	AM01 AM01*	AM02	AM03 AM04
1	Contact configuration		SPST n.c.	SPST n.c.	SPST n.c.
2	Rated voltage		250V; AC	250V; AC	250V; AC
3	Rated current of resistance loading I_{zn} , $\cos\varphi = 1,0$ of resistance and induction loading I_x , $\cos\varphi = 0,6$		2,5 A 1,6 A	2,5 A 1,6 A	2,5 A 1,6 A
4	Number of switching cycles at rated loading		10 000 cycles	10 000 cycles	10 000 cycles
5	Maximum loading / number of automatic cycles		3,6 A / 2000 cycles	3,6 A / 2000 cycles	3,6 A / 2000 cycles
6	Range of rated switching temperatures		$65^\circ C - 130^\circ C$ $65^\circ C - 150^\circ C^*$	$65^\circ C - 150^\circ C$	$65^\circ C - 150^\circ C$
7	Switching temperature tolerance		$\pm 5K/\pm 7,5K/\pm 10K$	$\pm 5K/\pm 7,5K/\pm 10K$	$\pm 5K/\pm 7,5K/\pm 10K$
8	Switching differential		$30 \pm 15 K$	$30 \pm 15 K$	$30 \pm 15 K$
9	Speed of temperature changes		$0,5 \div 1 K / min$	$0,5 \div 1 K / min$	$0,5 \div 1 K / min$
10	Degree of pollution (acc. to EN-60730-1)		2	2	2
11	Thermal resistance		max $170^\circ C$ $190^\circ C^* / 1 min$	max $190^\circ C / 1 min$	max $190^\circ C / 1 min$
12	Degree of protection		IP 00	IP 00	IP 00
13	PTI of material used for insulation		250 V	250 V	250 V
14	Construction		incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic
15	Electrical strength of insulation		1 000 V 2000 V*; 50 Hz	2 500 V; 50 Hz	2 500 V; 50 Hz
16	Contact resistance		max $\leq 40 m\Omega$	max $\leq 40 m\Omega$	max $\leq 40 m\Omega$
17	Approvals acc. to design for		VDE, UL, BEAB	VDE, UL, BEAB	VDE, UL, BEAB

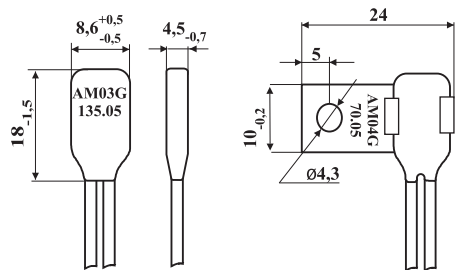


	AM06 AM07-1	AMR03	AB02-1	AB03-1	AD01	AD02
1	SPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.
2	250V; AC	250V; AC	250V; AC	250V; AC	250V; AC	250V; AC
3	2,5 A 1,6 A	2,5 A 1,6 A	2,5 A 1,6 A	2,5 A 1,6 A	2,5 A 1,6 A	2,5 A 1,6 A
4	10 000 cycles	3 000 cycles	10 000 cycles	10 000 cycles	10 000 cycles	10 000 cycles
5	3,6 A / 2000 cycles	3,6 A / 2000 cycles	3,6 A / 2000 cycles	3,6 A / 2000 cycles	3,6 A / 2000 cycles	3,6 A / 2000 cycles
6	65°C - 160°C	65°C - 150°C	65°C - 160°C	65°C - 150°C	65°C - 180°C	65°C - 160°C
7	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K
8	30 ± 15 K	voltage maintained	30 ± 15 K	30 ± 15 K	30 ± 15 K	30 ± 15 K
9	0,5 ÷ 1 K / min	0,5 ÷ 1 K / min	0,5 ÷ 1K / min	0,5 ÷ 1K / min	0,5 ÷ 1K / min	0,5 ÷ 1K / min
10	2	2	2	2	2	2
11	max 230°C / 1 min	max 190°C / 1 min	max 230°C / 1 min	max 230°C / 1 min	max 190°C / 1 min	max 190°C / 1 min
12	IP 54 IP68	IP 00	IP 00	IP 00	IP 00	IP 00
13	250 V	250 V	250 V	250 V	250 V	250 V
14	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic
15	2 500 V; 50 Hz	2 500 V; 50 Hz	2 500 V; 50 Hz	2 500 V; 50 Hz	-----	2 500 V; 50 Hz
16	max ≤ 40 mΩ	max ≤ 40 mΩ	max ≤ 40 mΩ	max ≤ 40 mΩ	max ≤ 40 mΩ	max ≤ 40 mΩ
17	BEAB, ENEC	UL	VDE in progress			

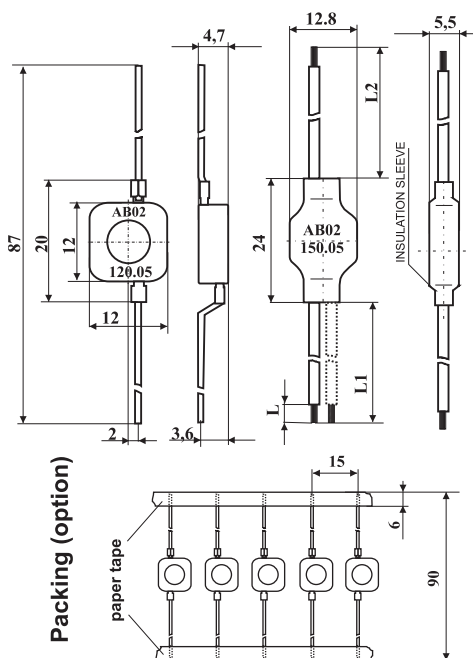
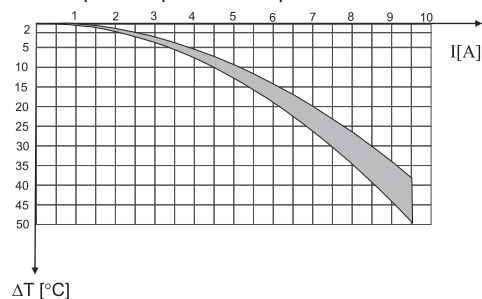


Type A
(axial)

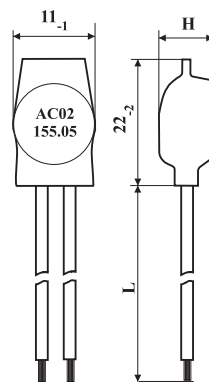
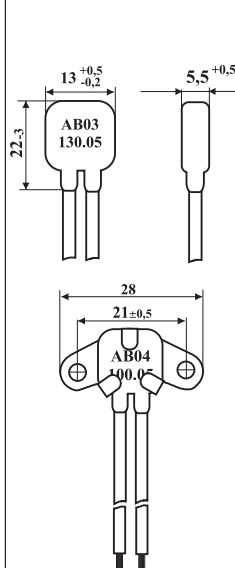
Type R
(radial)



Open temperature drop vs. current



Packing (option)



H = 6,9 for silicone cable
H = 6,6 for PTFE cable

AM03G
AM04G

AB01 | AB02

AB03
AB04

AC02

SPST n.c.

SPST n.c.

SPST n.c.

SPST n.c.

250V; AC

250V; AC

250V; AC

250V; AC

4,5 A
1,6 A

6,3 A
4,0 A

6,3 A
4,0 A

6,3 A
4,0 A

10 000 cycles

10 000 cycles

10 000 cycles

10 000 cycles

6 A / 2000 cycles

10 A / 2000 cycles

10 A / 2000 cycles

10 A / 2000 cycles

65°C - 150°C

65°C - 150°C

65°C - 150°C

65°C - 180°C

±5K/±7,5K/±10K

±5K/±7,5K/±10K

±5K/±7,5K/±10K

±5K/±7,5K/±10K

30 ± 15 K

30 ± 15 K

30 ± 15 K

30 ± 15 K

0,5 ÷ 1 K / min

0,5 ÷ 1 K / min

0,5 ÷ 1 K / min

0,5 ÷ 1 K / min

2

2

2

2

max 190°C / 1 min

max 230°C / 1 min

max 230°C / 1 min

max 190°C / 1 min

IP 00

IP 00

IP 00

IP 00

250 V

250 V

250 V

250 V

incorporated; non-electronic

incorporated; non-electronic

incorporated; non-electronic

incorporated; non-electronic

2 500 V; 50 Hz

----- | 2 500 V ; 50Hz

2 500 V; 50 Hz

2 500 V; 50 Hz

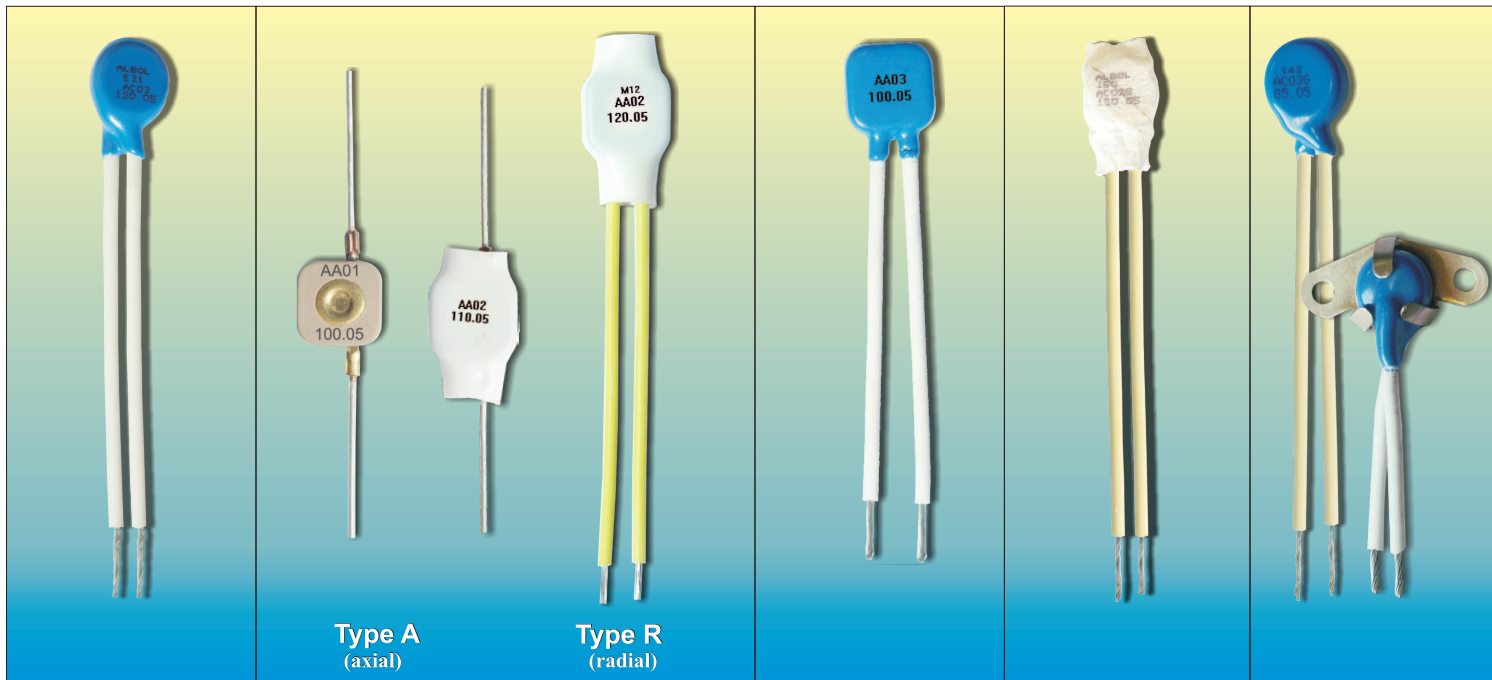
max ≤ 40 mΩ

max ≤ 25 mΩ

max ≤ 25 mΩ

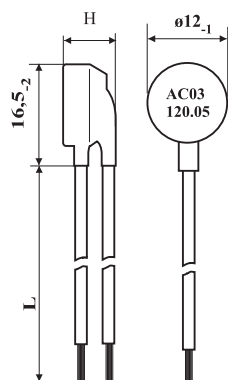
max ≤ 25 mΩ

VDE, UL

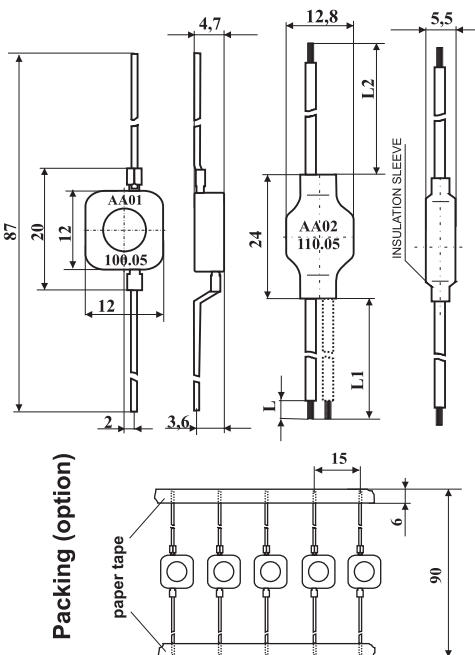


Type A
(axial)

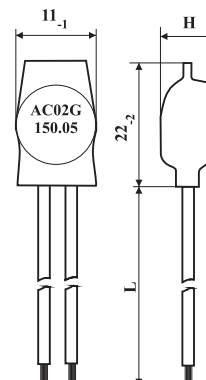
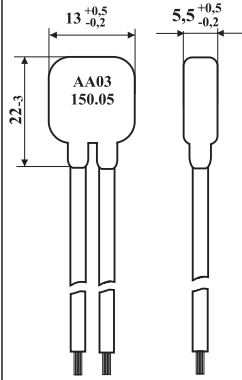
Type R
(radial)



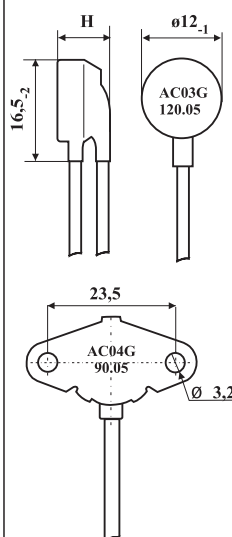
H = 7,7 for silicone cable
H = 7,2 for PTFE cable



Packing (option)

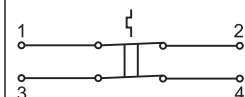
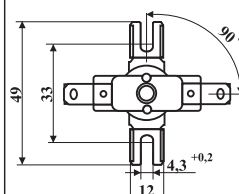
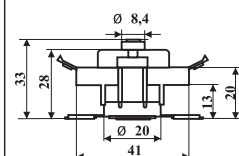
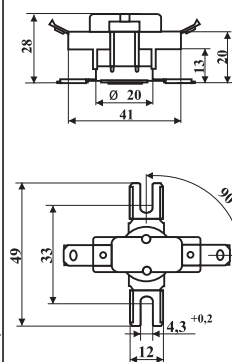
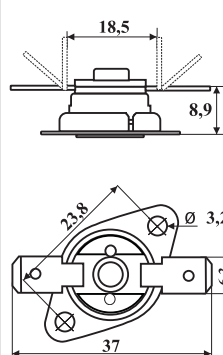
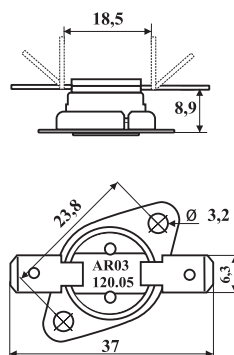
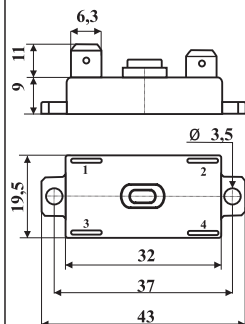
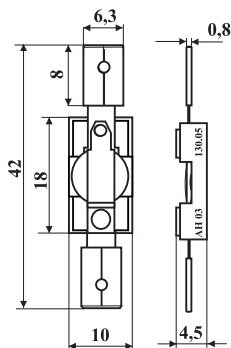
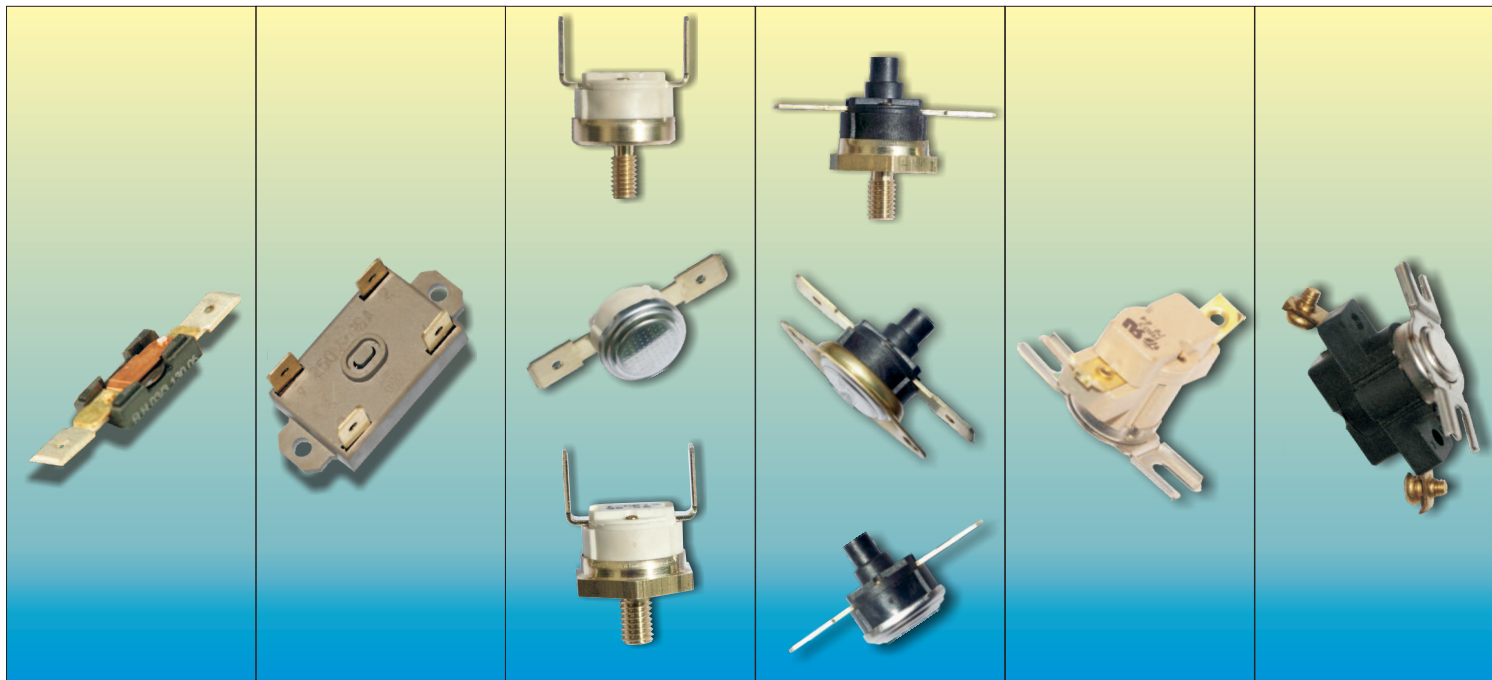


H = 7,2 for silicone cable
H = 6,9 for PTFE cable

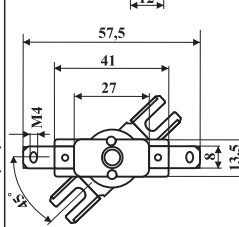
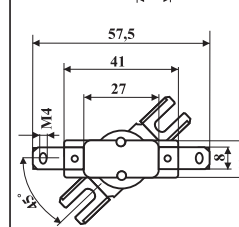
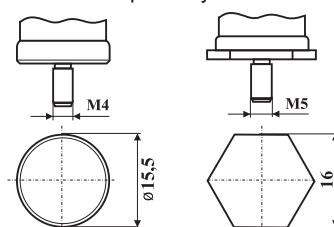


H = 8 for silicone cable
H = 7,5 for PTFE cable

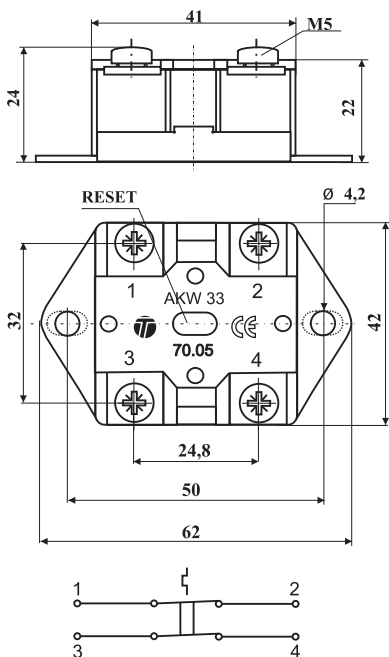
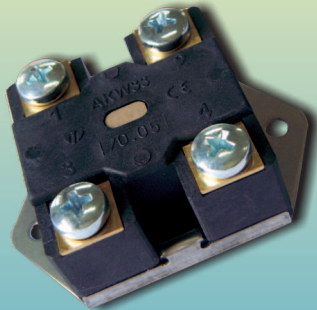
	AC03	AA01 AA02	AA03	AC02G	AC03G AC04G
1	SPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.
2	250V; AC	250V; AC	250V; AC	250V; AC	250V; AC
3	6,3 A 4,0 A	13A 6,0A	13 A 6,0 A	13 A 6,0 A	13 A 6,0 A
4	10 000 cycles		10 000 cycles	10 000 cycles	10 000 cycles
5	10 A / 2000 cycles	10 A / 2000 cycles	16 A / 2000 cycles	16 A / 2000 cycles	16 A / 2000 cycles
6	65°C - 150°C	65°C - 150°C	65°C - 150°C	65°C - 180°C	65°C - 160°C
7	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K	±5K/±7,5K/±10K
8	30 ± 15 K	30 ± 15 K	30 ± 15 K	30 ± 15 K	30 ± 15 K
9	0,5 ÷ 1 K / min	0,5 ÷ 1 K / min	0,5 ÷ 1 K / min	0,5 ÷ 1 K / min	0,5 ÷ 1 K / min
10	2	2	2	2	2
11	max 190°C / 1 min	max 230°C / 1 min	max 230°C / 1 min	max 190°C / 1 min	max 190°C / 1 min
12	IP 00	IP 00	IP 00	IP 00	IP 00
13	250 V	250 V	250 V	250 V	250 V
14	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic
15	2 500 V; 50 Hz	----- 2 500 V ; 50Hz	2 500 V; 50 Hz	2 500 V; 50 Hz	2 500 V; 50 Hz
16	max ≤ 25 mΩ	max ≤ 25 mΩ	max ≤ 15 mΩ	max ≤ 15 mΩ	max ≤ 15 mΩ
17	VDE				VDE



optionally



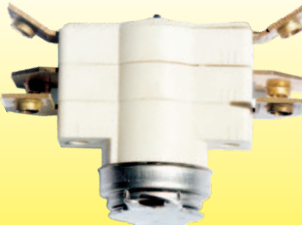
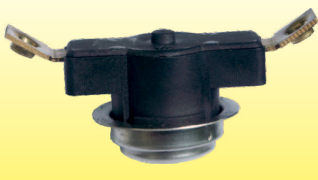
	AH03/3	AK33	AR03	AR33	AS03	AS33
1	SPST n.c.	DPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.	SPST n.c.
2	250V; AC	250V; AC	250V; AC	250V; AC	250V; AC	max 400V; AC
3	13 A 2.5 A	16 A per each line 6.0 A per each line	16 A 6.0 A	16 A 6.0 A	25A/250 V	25A/250 V; 15A/400 V 16A/250 V; 10A/400 V
4	10 000 cycles	10 000 cycles	3 000 cycles	3 000 cycles	6 000 cycles	10 000 cycles
5	16 A / 2000 cycles	20 A / 200 cycles	20 A / 200 cycles	20 A / 200 cycles	40 A / 50 cycles	32 A / 200 cycles
6	65°C - 150°C	65°C - 150°C	50°C - 180°C	50°C - 180°C	60°C - 180°C	60°C - 180°C
7	±5K/±7.5K/±10K	±5K/±7.5K/±10K	±5K/±7.5K/±10K	±5K/±7.5K/±10K	±5K/±7.5K/±10K	±5K/±7.5K/±10K
8	30 ± 15 K	manual reset	30 ± 15 K	manual reset	30 ± 15 K	manual reset
9	0.5 ÷ 1 K / min	0.5 ÷ 1 K / min	0.5 ÷ 1 K / min	0.5 ÷ 1 K / min	0.5 ÷ 1 K / min	0.5 ÷ 1 K / min
10	2	2	2	2	2	2
11	max 230°C / 1 min	max 260°C / 1 min	max 260°C / 1 min	max 260°C / 1 min	max 260°C / 1 min	max 260°C / 1 min
12	IP 00	IP 00	IP 00	IP 00	IP 00	IP 00
13	250 V	250 V	250 V	250 V	250 V	250 V
14	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic	incorporated; non-electronic
15	-----	2 500 V; 50 Hz	2 500 V; 50 Hz*	2 500 V; 50 Hz*	2 500 V; 50 Hz*	3750 V; 50 Hz*
16	max ≤ 40 mΩ	max ≤ 40 mΩ	max ≤ 20 mΩ	max ≤ 20 mΩ	max ≤ 20 mΩ	max ≤ 20 mΩ
17			VDE	VDE	UL	



AKW33

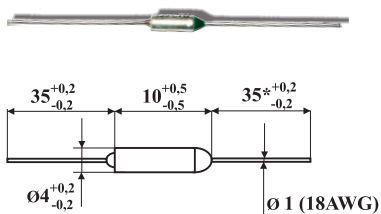
1	DPST n.c.
2	max 400V; AC
3	32A/400 V 10A/400 V
4	300 cycles
5	42A / 30 cycles
6	65°C - 150°C
7	$\pm 5K/\pm 7,5K/\pm 10K$
8	manual reset
9	0,5 ÷ 1 K / min
10	2
11	max 260°C / 1 min
12	IP 00
13	250 V
14	incorporated; non-electronic
15	3750 V; 50 Hz
16	max $\leq 40 \text{ m}\Omega$
17	

ADDITIONAL OPTIONS

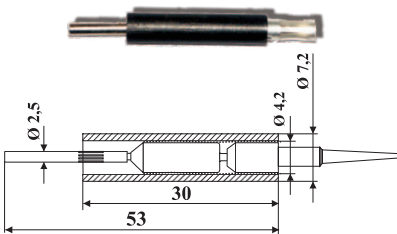
	AST33	ASR44	ASR44G
			
	Electrical scheme 	Electrical scheme 	Electrical scheme 
1	3PST n.c.	SPST n.c.	SPST n.c.
2	max 400V; AC	115V AC; 230V AC; 24V,48V AC, DC	115V AC; 230V AC; 24V,48V AC, DC
3	40A (300 cycles)	16A	25A
6	65°C - 150°C	65°C - 175°C	65°C - 175°C
8	manual reset	not higher than: -20°C	not higher than: -20°C
12	IP 00	IP 00	IP 00
15	2500V; 50Hz	2500 V	2500 V

OTHER PRODUCTS

Thermal fuses



Thermal links



Approved Applied

UL file NO: E126429, MITI : 33-890, -942, -945, -940, -941, -943, -944, JET1054-32001-1002, -1001

*SW-108T, 109T,110T,114T,128T Dual Retings UL, VDE approved 250V 10A and 125V 10A and 125V 15A(VDE:250V 15A)

TEMPERATURE Ratings

Cat No.	Tf [°C]	Cutoff temperature	Th [°C]	K	MARK	UL	C-UL	VDE	TUV	CCC	PSE
SW-102T	72	72°C +2°C, -2°C	57								
SW-105T	77	77°C +0°C, -4°C	62								
SW-109T*	84	84°C +0°C, -5°C	57								
SW-104T	98	98°C +2°C, -2°C	73								
SW-108T*	100	100°C +0°C, -5°C	75								
SW-110T*	109	109°C +0°C, -5°C	84								
SW-111T	121	121°C +0°C, -5°C	94								
SW-115T	126	126°C +0°C, -4°C	100								
SW-129T	128	128°C +0°C, -5°C	103								
SW-114T*	139	139°C +0°C, -4°C	114								
SW-138T	144	144°C +0°C, -5°C	119								
SW-116T	152	152°C +0°C, -4°C	127								
SW-120T	167	167°C +0°C, -4°C	144								
SW-118T	169	169°C +0°C, -4°C	144								
SW-127T	184	184°C +0°C, -6°C	159								
SW-122T	192	192°C +3°C, -3°C	162								
SW-125T	195	195°C +0°C, -6°C	165								
SW-139T	216	216°C +0°C, -6°C	178								
SW-124T	228	228°C +0°C, -6°C	187								
SW-128T*	240	240°C +0°C, -6°C	193								

Multiple connectors

Multiple connectors for printed boards, used in radio - TV equipment. These connectors are intended for indirect connections between circuits of electronic equipment, allowing building of connection system of type wire-board and board-board in 2,54 mm or 5mm raster. In systems of wire-board the most suitable for connection are conductors with wire cross-section of 0,12 to 0,20 mm². Maximum working voltage 60V.

