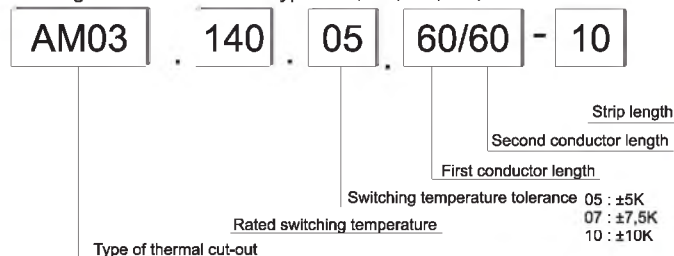
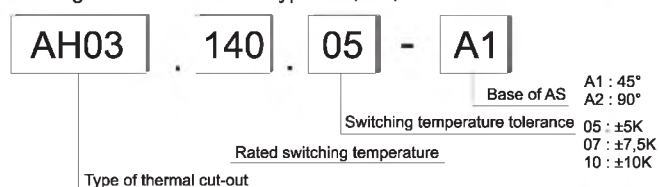


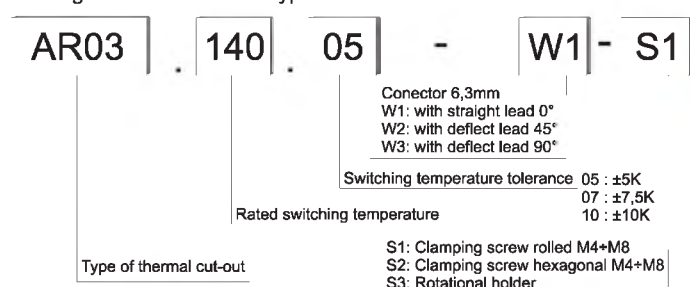
Marking of thermal cut-outs type: AM, AB, AC, AD, AA.



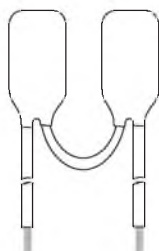
Marking of thermal cut-outs type: AH, AK, AS.



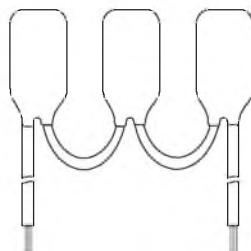
Marking of thermal cut-outs type: AR.



**Options:**



\*Double



\*Triple

\* non-standard temperatures acc. to customer requirements

**Contact configuration - abbreviations**

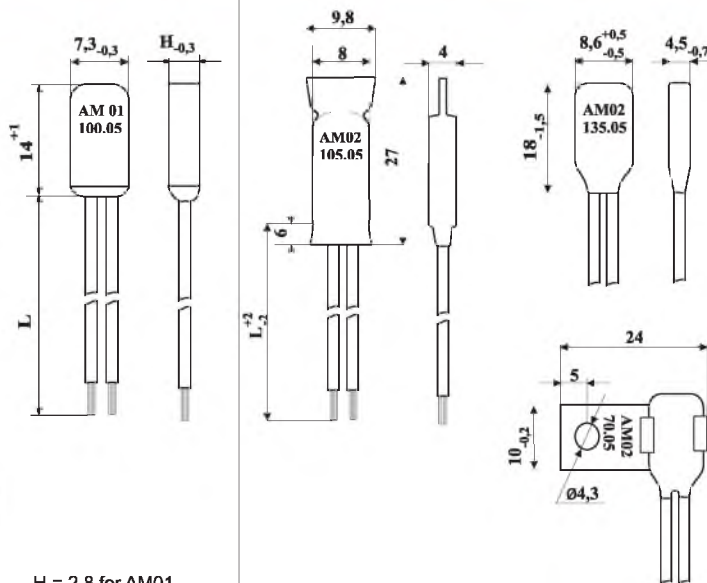
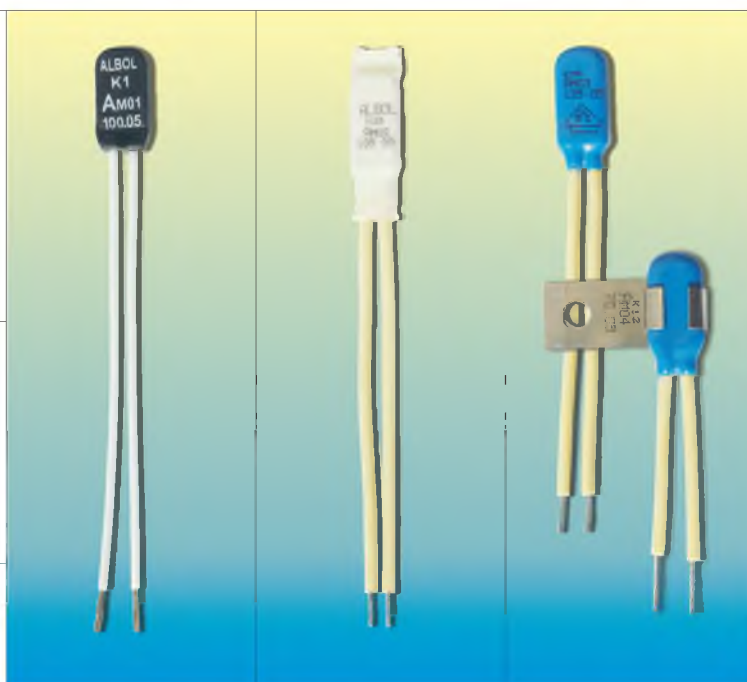
n.c. normally closed

n.o. normally open

SPST single-pole single-throw

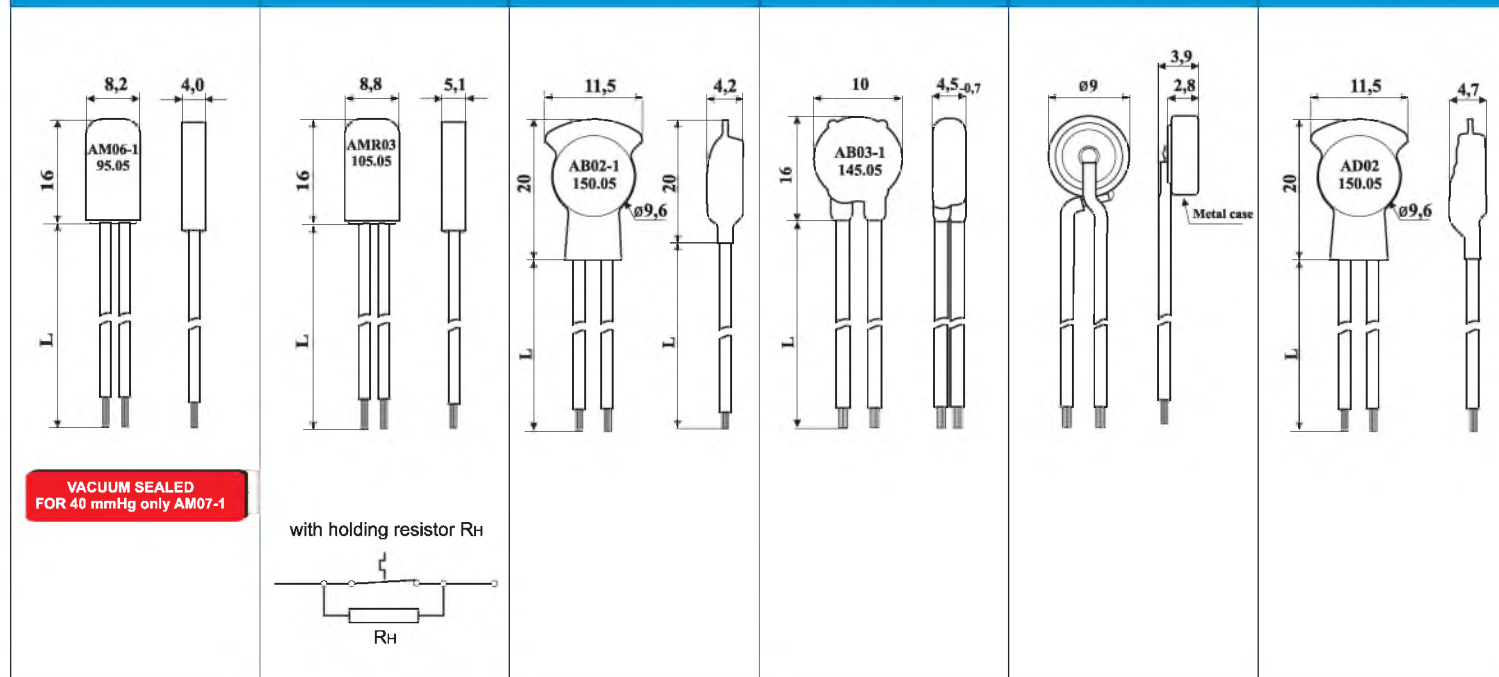
DPST double-pole single-throw

3PST triple-pole single-throw

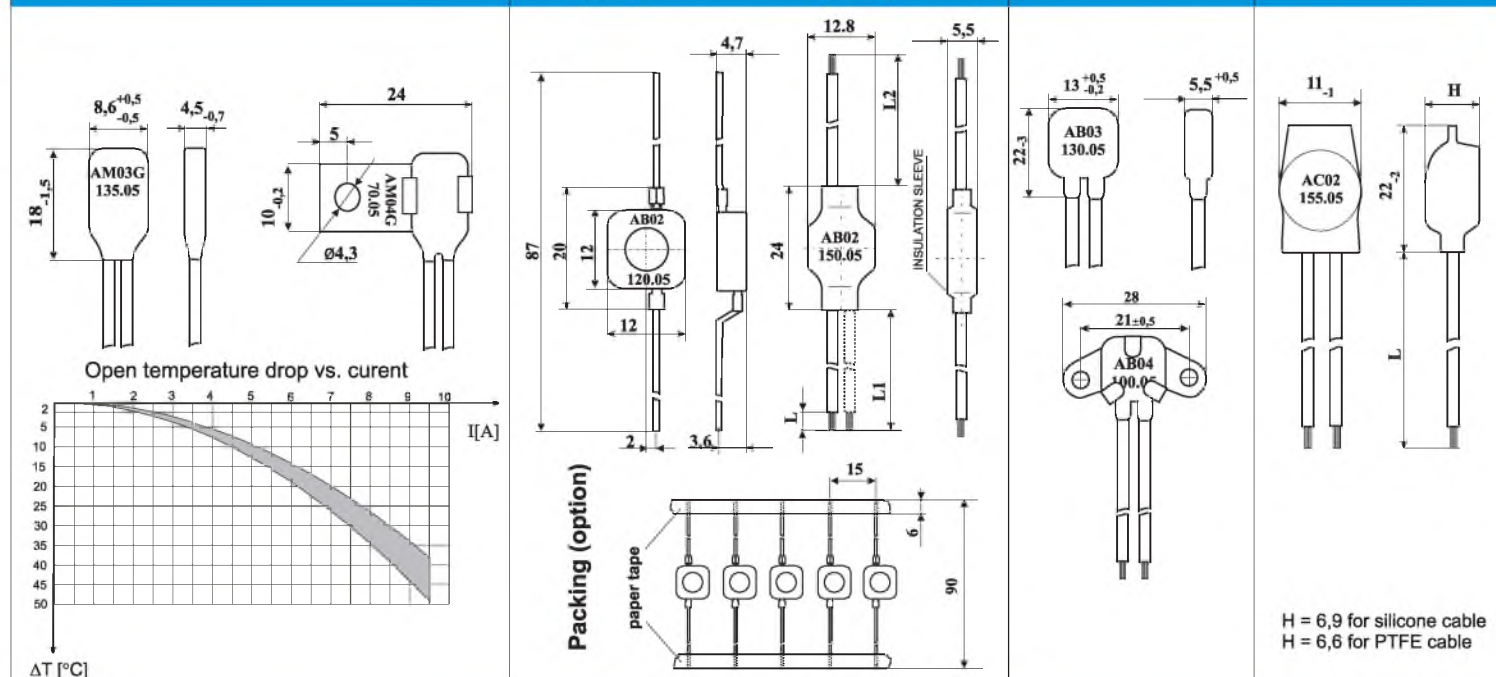


H = 2,8 for AM01  
H = 3,3 for AM01\*

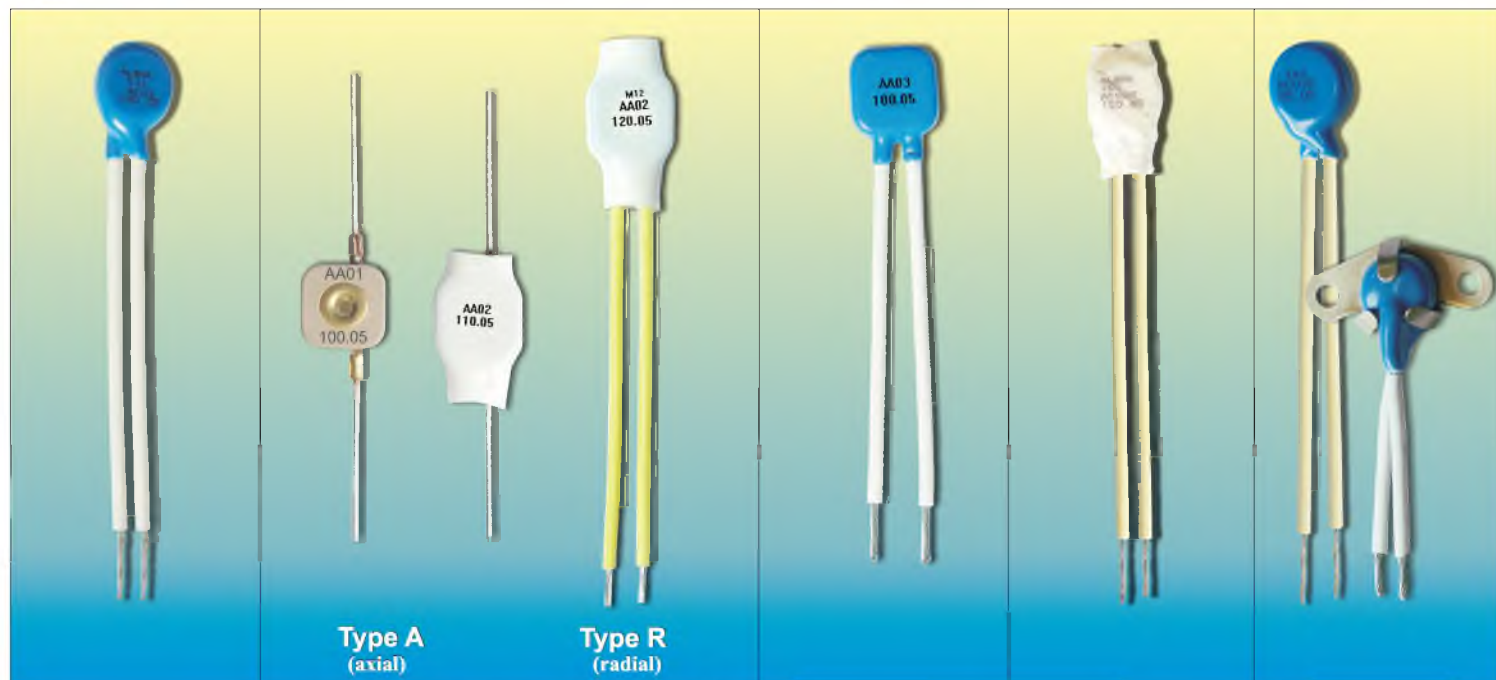
|    | Technical data                                                                                                                     | Type of thermal cut-out | AM01   AM01*                                              | AM02                         | AM03<br>AM04                 |
|----|------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------|------------------------------|------------------------------|
| 1  | Contact configuration                                                                                                              |                         | SPST n.c.                                                 | SPST n.c.                    | SPST n.c.                    |
| 2  | Rated voltage                                                                                                                      |                         | 250V; AC                                                  | 250V; AC                     | 250V; AC                     |
| 3  | Rated current<br>of resistance loading $I_{zn}$ , $\cos\phi = 1,0$<br>of resistance and induction loading $I_x$ , $\cos\phi = 0,6$ |                         | 2,5 A<br>1,6 A                                            | 2,5 A<br>1,6 A               | 2,5 A<br>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<br>1,6 A               | 2,5 A<br>1,6 A               | 2,5 A<br>1,6 A               | 2,5 A<br>1,6 A               | 2,5 A<br>1,6 A               | 2,5 A<br>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  | $\pm 5K/\pm 7,5K/\pm 10K$    | $\pm 5K/\pm 7,5K/\pm 10K$    | $\pm 5K/\pm 7,5K/\pm 10K$    | $\pm 5K/\pm 7,5K/\pm 10K$    | $\pm 5K/\pm 7,5K/\pm 10K$    | $\pm 5K/\pm 7,5K/\pm 10K$    |
| 8  | 30 $\pm$ 15 K                | voltage maintained           | 30 $\pm$ 15 K                | 30 $\pm$ 15 K                | 30 $\pm$ 15 K                | 30 $\pm$ 15 K                |
| 9  | 0,5 $\pm$ 1 K / min          | 0,5 $\pm$ 1 K / min          | 0,5 $\pm$ 1K / min           | 0,5 $\pm$ 1K / min           | 0,5 $\pm$ 1K / min           | 0,5 $\pm$ 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 $\leq$ 40 m $\Omega$     | max $\leq$ 40 m $\Omega$     | max $\leq$ 40 m $\Omega$     | max $\leq$ 40 m $\Omega$     | max $\leq$ 40 m $\Omega$     | max $\leq$ 40 m $\Omega$     |
| 17 | BEAB, ENEC                   | UL                           | VDE in progress              |                              |                              |                              |

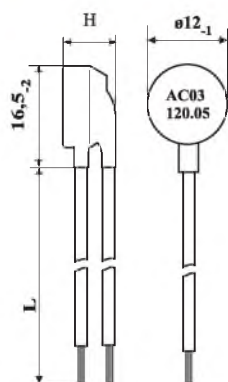


|    | AM03G<br>AM04G               | AB01   AB02                  | AB03<br>AB04                 | AC02                         |
|----|------------------------------|------------------------------|------------------------------|------------------------------|
| 1  | SPST n.c.                    | SPST n.c.                    | SPST n.c.                    | SPST n.c.                    |
| 2  | 250V; AC                     | 250V; AC                     | 250V; AC                     | 250V; AC                     |
| 3  | 4,5 A<br>1,6 A               | 6,3 A<br>4,0 A               | 6,3 A<br>4,0 A               | 6,3 A<br>4,0 A               |
| 4  | 10 000 cycles                | 10 000 cycles                | 10 000 cycles                | 10 000 cycles                |
| 5  | 6 A / 2000 cycles            | 10 A / 2000 cycles           | 10 A / 2000 cycles           | 10 A / 2000 cycles           |
| 6  | 65°C - 150°C                 | 65°C - 150°C                 | 65°C - 150°C                 | 65°C - 180°C                 |
| 7  | ±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                    |
| 9  | 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                            |
| 11 | max 190°C / 1 min            | max 230°C / 1 min            | max 230°C / 1 min            | max 190°C / 1 min            |
| 12 | IP 00                        | IP 00                        | IP 00                        | IP 00                        |
| 13 | 250 V                        | 250 V                        | 250 V                        | 250 V                        |
| 14 | 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               |
| 16 | max ≤ 40 mΩ                  | max ≤ 25 mΩ                  | max ≤ 25 mΩ                  | max ≤ 25 mΩ                  |
| 17 |                              |                              |                              | VDE, UL                      |

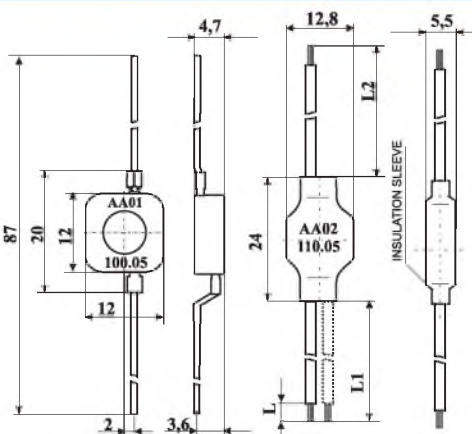


**Type A**  
(axial)

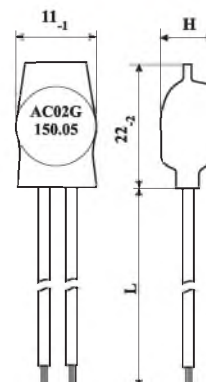
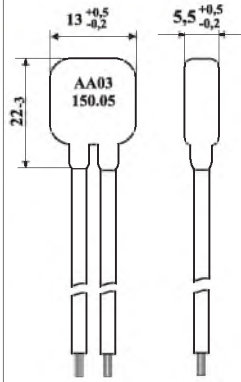
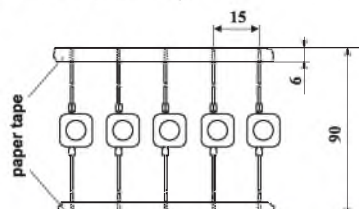
**Type R**  
(radial)



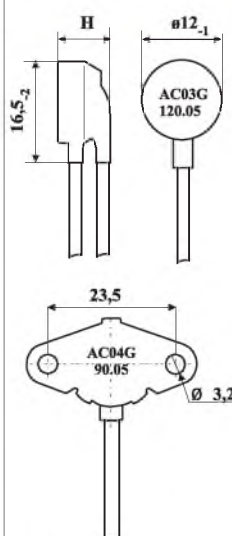
H = 7,7 for silicone cable  
H = 7,2 for PTFE cable



Packing (option)

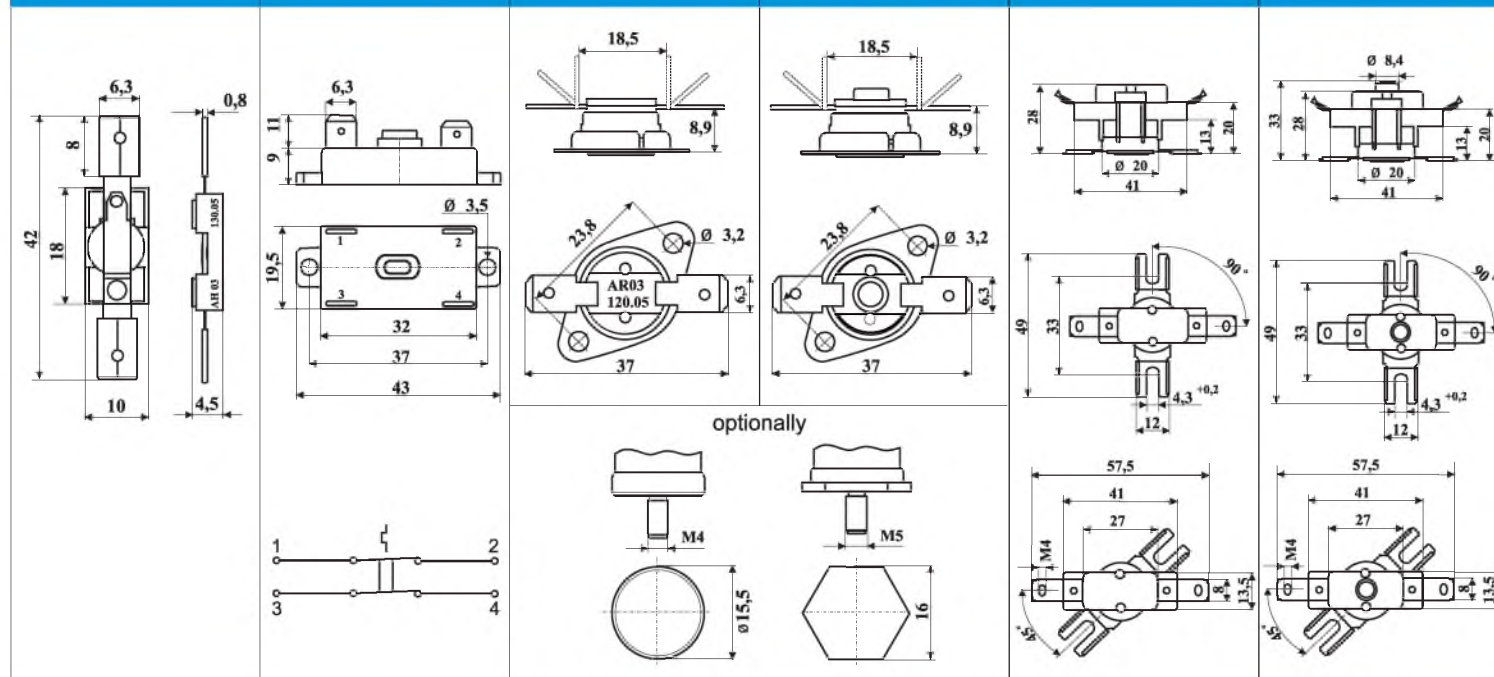
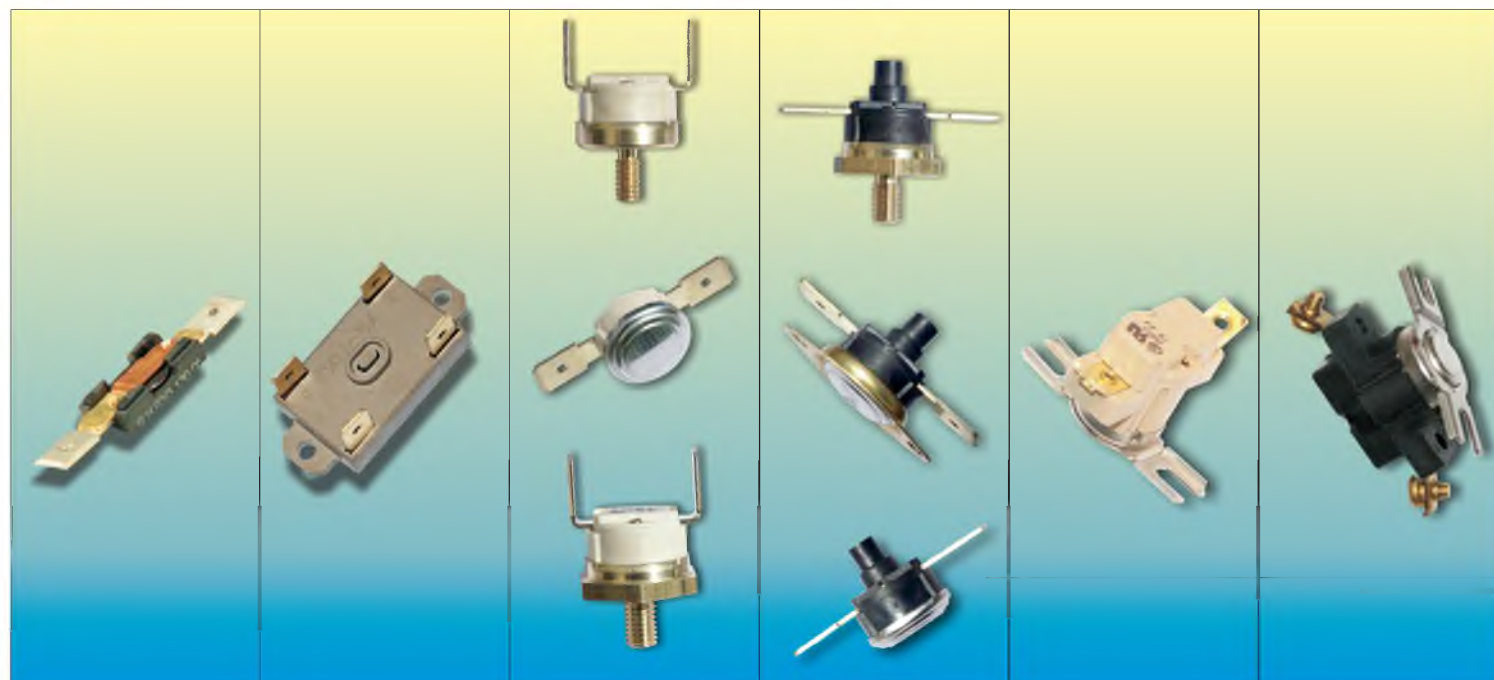


H = 7,2 for silicone cable  
H = 6,9 for PTFE cable

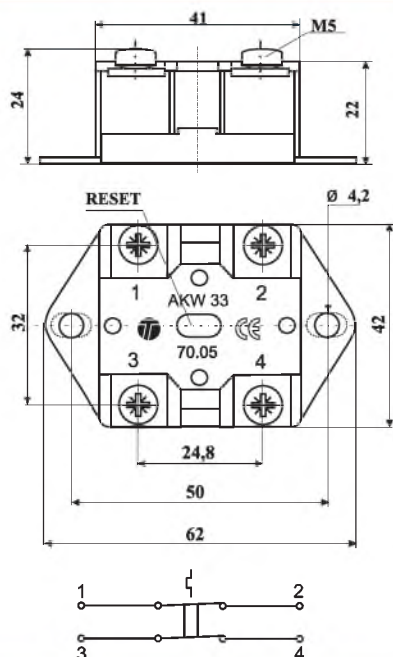


H = 8 for silicone cable  
H = 7,5 for PTFE cable

|    | AC03                         | AA01   AA02                  | AA03                         | AC02G                        | AC03G<br>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<br>4,0 A               | 13A<br>6,0A                  | 13 A<br>6,0 A                | 13 A<br>6,0 A                | 13 A<br>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                          |



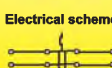
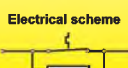
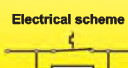
|    | AH03/3                       | AK33                                      | AR03                         | AR33                         | AS03                         | AS33                                         |
|----|------------------------------|-------------------------------------------|------------------------------|------------------------------|------------------------------|----------------------------------------------|
| 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<br>2,5 A                | 16 A per each line<br>6,0 A per each line | 16 A<br>6,0 A                | 16 A<br>6,0 A                | 25A/250 V                    | 25A/250 V; 15A/400 V<br>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

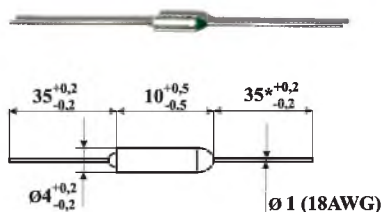
|    |                              |
|----|------------------------------|
| 1  | DPST n.c.                    |
| 2  | max 400V; AC                 |
| 3  | 32A/400 V<br>10A/400 V       |
| 4  | 300 cycles                   |
| 5  | 42A / 30 cycles              |
| 6  | 65°C - 150°C                 |
| 7  | ±5K/±7,5K/±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 ≤ 40 mΩ                  |
| 17 |                              |

## ADDITIONAL OPTIONS

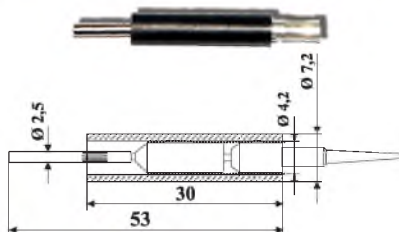
|    | AST33                                                                                                  | ASR44                                                                                                    | ASR44G                                                                                                   |
|----|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|    |                       |                        |                       |
|    | Electrical scheme<br> | Electrical scheme<br> | Electrical scheme<br> |
| 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 Ratings 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.

