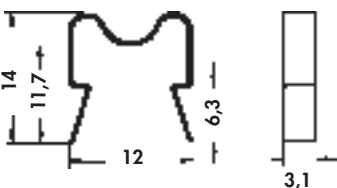
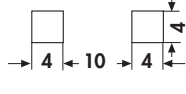
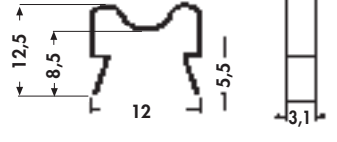
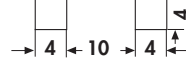
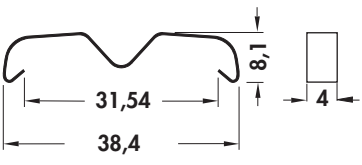
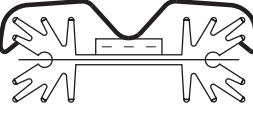
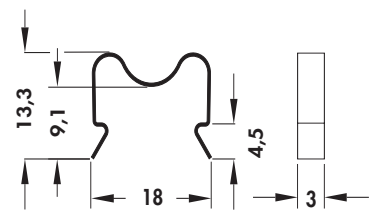
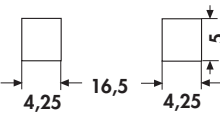
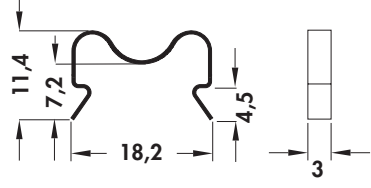
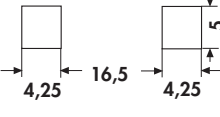
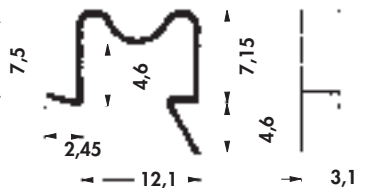
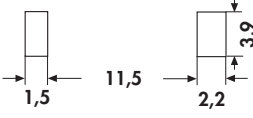
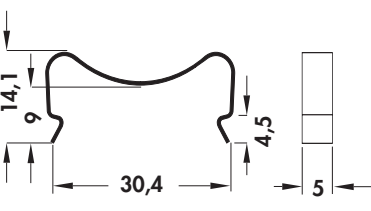
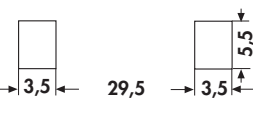


**Transistor-  
haltefedern**
**Retaining springs  
for transistors**
**Ressorts de retenue  
pour transistors**

	Lochbild Perforations Perforations	Art. Nr. Art. No. Art. n°	Transistor- gehäuse Transistor housing Boîtier	für Kühl- körper for heatsink pour dissipateur	Seite Page Page	für Blech- stärke for thickness of sheet pour épais- seur de tôle	Material/Matière
		<b>THF 129 TO 220</b>	TO 220	SK 129 FK 219 FK 222	A 105/106 C 10 C 8	1 – 2 mm	FS
		<b>THF 129 SOT 32</b>	SOT 32 SOT 82 TO 126	SK 129	A 105/106	1 – 2 mm	FS
		<b>THF 104</b>	TO 220 TO 3 P TO 247 TO 248	SK 104	A 97/98	1 – 2 mm	FS
		<b>THF 409 TO 220</b>	TO 220 TO 3 P TO 247 TO 248	SK 409 UK 35	A 99/100 A 123	1,5 – 3 mm	RS
		<b>THF 409 SOT 32</b>	SOT 32 TO 126 SOT 82	SK 409	A 99/100	2 – 3 mm	RS
		<b>THF 220</b>	TO 220	FK 219 FK 222	C 10 C 8	1 – 2 mm	FS
		<b>THF 247</b>	TO 220 TO 3 P TO 247 TO 248	SK 484	A 113	2 mm	RS

<b>Transistor- haltefedern</b>	<b>Retaining springs for transistors</b>	<b>Ressorts de retenue pour transistors</b>
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	Lochbild Perforations Perforations	Art. Nr. Art. No. Art. n°	Transistor- gehäuse Transistor Housing Boîtier	für Kühl- körper for heatsink pour dissipateur	Seite Page Page	für Blech- stärke for thickness of sheet pour épais- seur de tôle	Material/ Matière
		<b>THF 247 4</b>		SK 460	A 115/116	4 mm	RS
		<b>THF 220 17</b>	TO 218 TO 220 TO 3 P	UK 35	A 123	1 – 1,5 mm	RS
		<b>THF 409 220 1</b>	TO 247 TO 248	SK 409 SK 459	A 99/100 A 101-104	2 – 3 mm	RS
		<b>THF 409 220 2</b>		SK 145 SK 185 SK 437	A 47,109 A 61,107 A 23,112	4 mm	RS

<b>Material:</b> RS = rostfreier Stahl FS = Federstahl, korrosionsgeschützt	<b>Material:</b> RS = stainless steel FS = spring steel, corrosion protected	<b>Matière:</b> RS = acier inoxydable FS = acier à ressort, résistant à la corrosion
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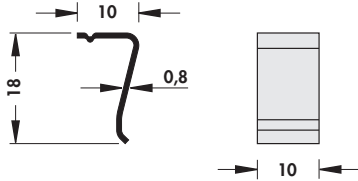

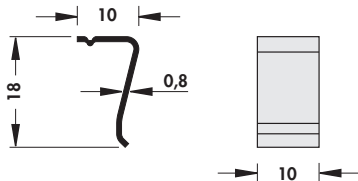

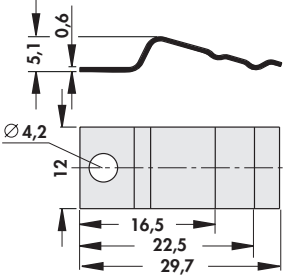

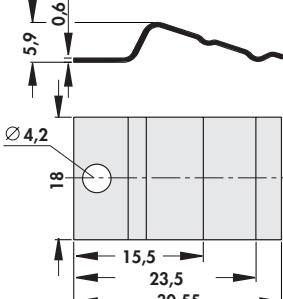
		<b>THF 249</b>	TO 220	FK 249	C 6	1 – 1,5 mm	FS
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<b>Material:</b> Federstahl, passiviert 0,3 mm dick	<b>Material:</b> stainless steel, passivated 0.3 mm thick	<b>Matière:</b> acier à ressort, passivé, épaisseur 0,3 mm
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**Transistor-  
haltefedern**

**Retaining springs  
for transistors**

**Ressorts de retenue  
pour transistors**

		Art. Nr. Art. No. Art. n°	Transistor- gehäuse Transistor Housing Boîtier	für Kühl- körper for heatsink pour dissipateur	Federkraft spring pressure force élastique
		THFU 1	TO 218 TO 220 TO 3 P	SK 480 SK 481 SK 482 SK 483 SK 487 SK 489 SK 490	50±5 [N]
		THFU 2	TO 247 TO 248	SK 492 SK 495 SK 499 SK 512 SK 514	
		THFK 220	TO 220		79 [N]
		THFK 247	TO 218 TO 247		119 [N]

Material: rostfreier Stahl

Material: stainless steel

Matière: acier inoxydable

Transistorklammern

Transistor clips

Clips pour transistor

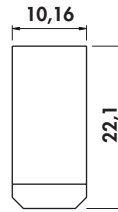
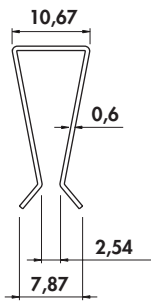
- Transistorklammern für TO 220, TO 247 u.ä.
- über Transistor und Montageplatte auf-schiebbar
- einfache Montage
- hohe Andruckkraft und fester Halt
- kundenspezifische Ausführungen

- Transistor clips for TO 220, TO 247 and similar
- over edge sliding onto the transistor and the mounting plate
- easy installation
- high pressing force and firm grip
- customer-specific designs on request

- ressorts de retenue pour transistors TO 220, TO 247 et similaires
- enfichables sur le transistor et sur la plaque de montage
- fixation simple
- haute force de serrage et fixation sûre
- versions selon indications du client

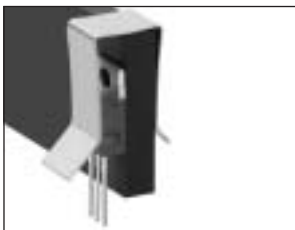


THFA 1

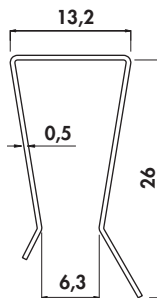


TO 220

Haltekraft bei clip force at →|← 20 [N]  
force portante de 2 [mm]



THFA 2

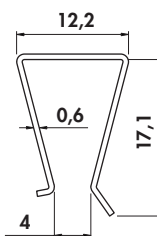


TO 220

Haltekraft bei clip force at →|← 20 [N]  
force portante de 6,5 [mm]



THFA 3

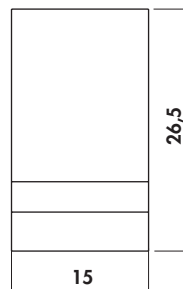
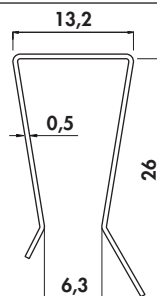


TO 220

Haltekraft bei clip force at →|← 33 [N]  
force portante de 5,5 [mm]



THFA 4



TO 247/TO 218

Haltekraft bei clip force at →|← 59 [N]  
force portante de 6,5 [mm]

**Material:**  
THFA 1 = rostfreier Stahl  
THFA 2 ... 4 = Federstahl, vernickelt

**Material:**  
THFA 1 = stainless steel  
THFA 2 ... 4 = spring steel, Nickel plated

**Matière:**  
THFA 1 = acier inoxydable  
THFA 2 ... 4 = acier à ressort, nickelé

## Transistor- haltefedern

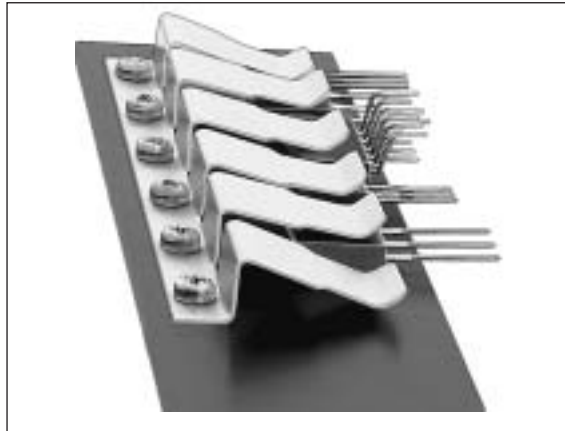
## Retaining springs for transistors

## Ressorts de retenue encliqueter pour transistors

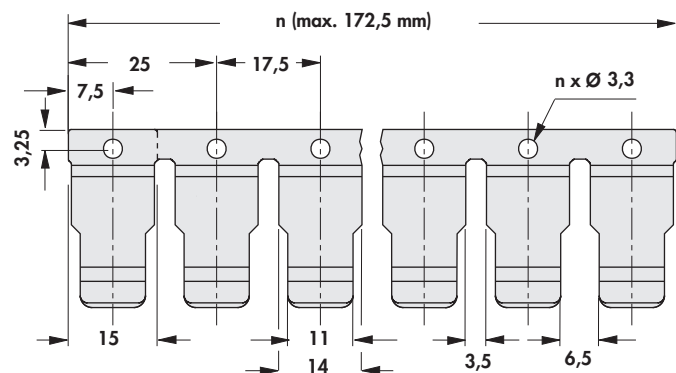
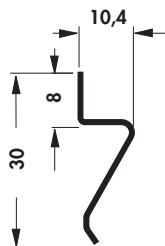
- universelle **Mehrfachtransistorhaltefeder** für Transistorgehäusetypen TO 218, TO 220, TO 247, TO 264, SOT 32 und diverse SIP, Multiwatt etc.
- Gebrauchsmuster 200 14 739.0
- schnelle und einfache Montage der Transistoren
- Anzahl der Haltefederelemente frei wählbar ( $n = \text{max. } 10$ )
- Kundenspezifische Ausführungen und Modifikationen auf Anfrage

- universal **retaining spring** for transistor types TO 218, TO 220, TO 247, TO 264, SOT 32 and various SIP, Multiwatt etc.
- registered design 200 14 739.0
- quick and easy assembly of the transistors
- number of retaining spring elements can be chosen ( $n = \text{max. } 10$ )
- customised versions and modifications on request

- **ressort de retenue multiple** pour boîtiers de transistor TO 218, TO 220, TO 247, TO 264, SOT 32 et de divers SIP, Multiwatt etc.
- modèle déposé 200 14 739.0
- montage rapide et facile des transistors
- nombre d'éléments de retenue à votre choix ( $n = \text{max. } 10$ )
- versions spécifiques et modifications sur demande



### THFM 1 ... 10

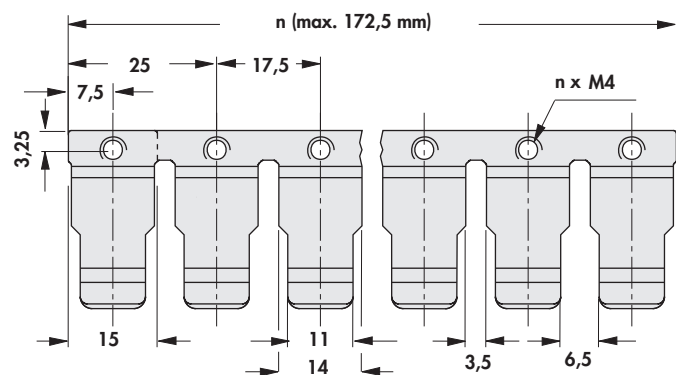


### THFMG 1 ... 10

- mit Gewinde M4

- with M4 threads

- avec taraudages M4



#### Material/Technische Daten:

Material: rostfreier Stahl, 0,8 mm dick  
Federkraft:  $60 \pm 5N$

#### Material/Technical Data:

material: stainless steel, 0.8 mm thick  
spring pressure:  $60 \pm 5N$

#### Matière/Caractéristiques techniques:

matière: acier inoxydable, 0,8 mm épaisseur  
force élastique:  $60 \pm 5N$