

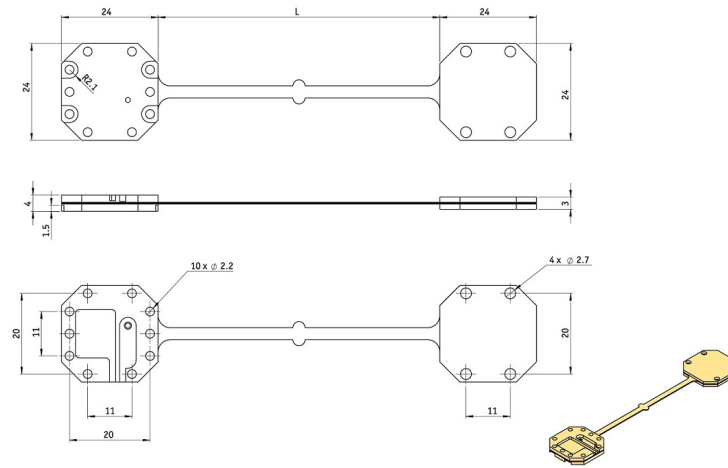
# Thermal Coupling Device

1019346

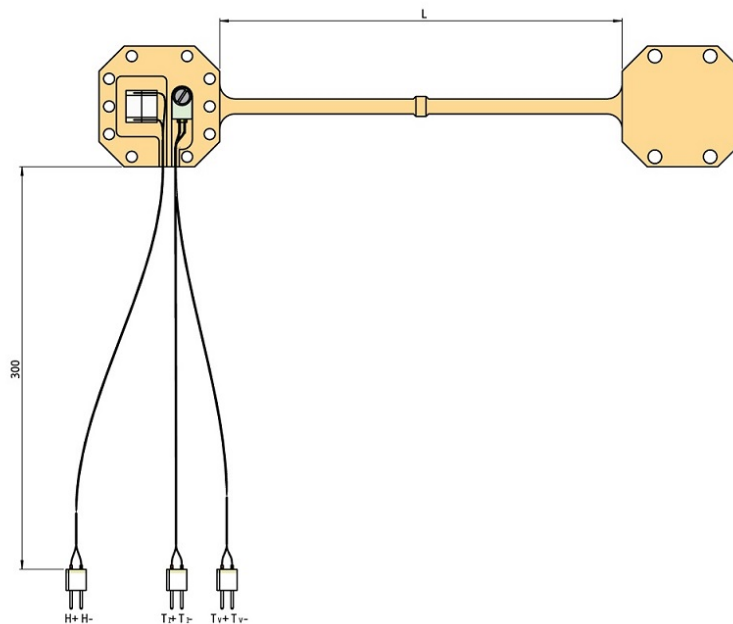
## Technical Specifications

<b>Size and Dimensions</b>	
weight	approx. 30 g
footprint base plate	24 x 24 mm <sup>2</sup>
footprint top plate	24 x 24 mm <sup>2</sup>
height base plate	3 mm
height top plate	4 mm
length copper coupling foil	35 mm; 60 mm; 70 mm; 80 mm; 100 mm (L in technical drawing)
<b>Materials</b>	
body material	gold-plated copper
<b>Mounting</b>	
base plate	four through holes dia 2.7 mm
top plate	ten through holes for M2 (four through holes with slot for screw head)
<b>Thermal Conductance @5K</b>	
ATC100/35	~45 mW/K
ATC100/60	~31 mW/K
ATC100/70	~26 mW/K
ATC100/80	~20 mW/K
ATC100/100	~18 mW/K
<b>Working Conditions</b>	
temperature range	10 mK - 325 K
pressure conditions	ambient, HV, UHV
<b>Models</b>	
ATC100/35	suitable for ANPxy101 stack
ATC100/60	suitable for ANPxyz101 stack, ANPxy311 + ANSxyz100 + Adapter stack or ANPxy311 + ANPz101 + Adapter stack
ATC100/70	suitable for ANPxyz101 + ANSxyz100 stack, ANPxy102 + ANPz102 stack, ANPxy311 + ANPz101 + ANSxyz100 + Adapter stack or ANPxy311 + ANPz102 + Adapter stack
ATC100/80	suitable for ANPxy101 + ANPz102 + ANSxyz100 or ANPxy311 + ANPz102 + ANSxyz100
ATC100/100	Suitable for ANPxy101 + ANPz102 + ANSxyz100 + ANSz100lr
<b>Cernox Sensor</b>	
temperature range	1,4 K - 325 K
calibrated accuracy	±5 mK at 4.2 K
reproducibility	±3 mK at 4.2 K
use in magnetic fields	recommended for use in magnetic fields at low temperatures
<b>Heater</b>	
material	SMD heater
resistance	50 Ohm (nominal)
power consumption	5 W
current	0,3 A
<b>Article Numbers</b>	
1015998	ATC100/35 - thermal coupling device
1015999	ATC100/60 - thermal coupling device
1016000	ATC100/70 - thermal coupling device
1016001	ATC100/80 - thermal coupling device
1022136	ATC100/100 - thermal coupling device
1019452	ATC100/Cer/35 - thermal coupling device with cernox sensor and heater
1019453	ATC100/Cer/60 - thermal coupling device with cernox sensor and heater
1019454	ATC100/Cer/70 - thermal coupling device with cernox sensor and heater
1019455	ATC100/Cer/80 - thermal coupling device with cernox sensor and heater
1022129	ATC100/Cer/100 - thermal coupling device with cernox sensor and heater
1019497	ATC50/45 - thermal coupling device
1019451	ATC50/Cer - thermal coupling device with cernox sensor and heater
1019346	ATC/cust - customized thermal coupling device

## Technical Drawings



## Connecting and Cabling Schematics



If equipped with temperature sensor and heater, three twisted pair wires are connected to the top plate of the ATC100. One twisted pair ( $H+, H-$ ) is connected to the 50 Ohm heater, two twisted pairs ( $T+, T-$ ;  $T+, T-$ ) are connected to the temperature sensor. T-sensor and Heater cables are standardly 300mm long, customizations are possible (e.g. for integration into a complete system).