

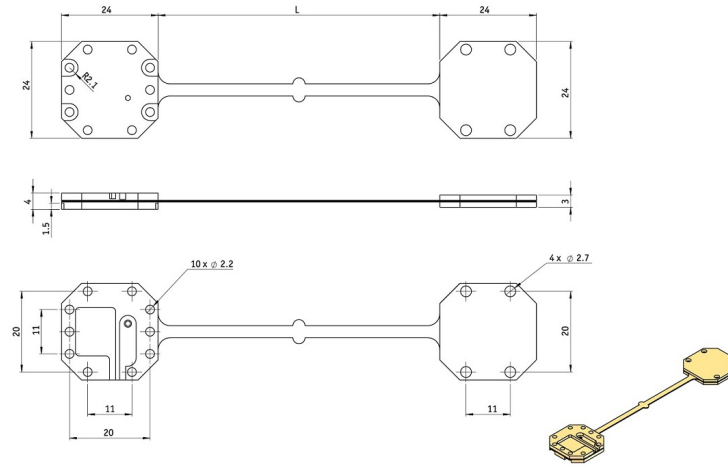
Thermal Coupling Device

1019346

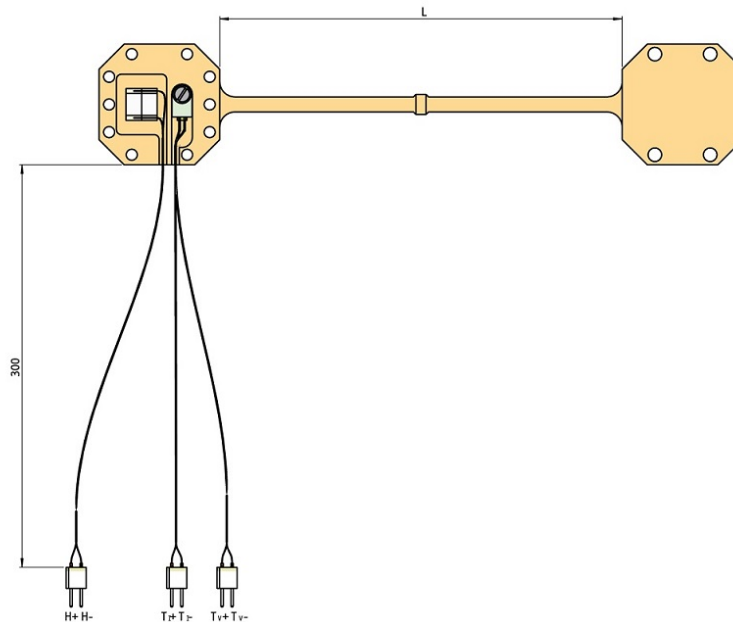
Technical Specifications

Size and Dimensions	
weight	approx. 30 g
footprint base plate	24 x 24 mm ²
footprint top plate	24 x 24 mm ²
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)
Materials	
body material	gold-plated copper
Mounting	
base plate	four through holes dia 2.7 mm
top plate	ten through holes for M2 (four through holes with slot for screw head)
Thermal Conductance @5K	
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
Working Conditions	
temperature range	10 mK - 325 K
pressure conditions	ambient, HV, UHV
Models	
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 + ANSxy100 + ANSz100lr
Cernox Sensor	
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
Heater	
material	SMD heater
resistance	50 Ohm (nominal)
power consumption	5 W
current	0,3 A
Article Numbers	
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-; TV+, TV-) 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).