



DX4090 Standard Z-Meter

AC Resistance (ACR) Measurement
Figure-of-Merit (Z) Measurement
Time Constant (τ) Measurement
dTmax estimations (for single-stage TECs)

Passive Thermostat
Chamber for TECs
up to 40x40mm² size

Magnetic Lock Cover

Built-in Temperature
sensor

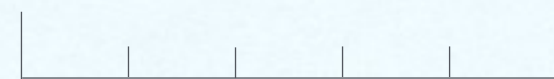
External TEC Clips

USB Interface is used
for power supply
connection to PC

Internal Clips for
TECs

Portable design
Measuring Current in a range 0...80 mA
Measurement at direct and reversed current
Results normalization to ambient temperatures
Correction coefficients to Z value
Low power consumption

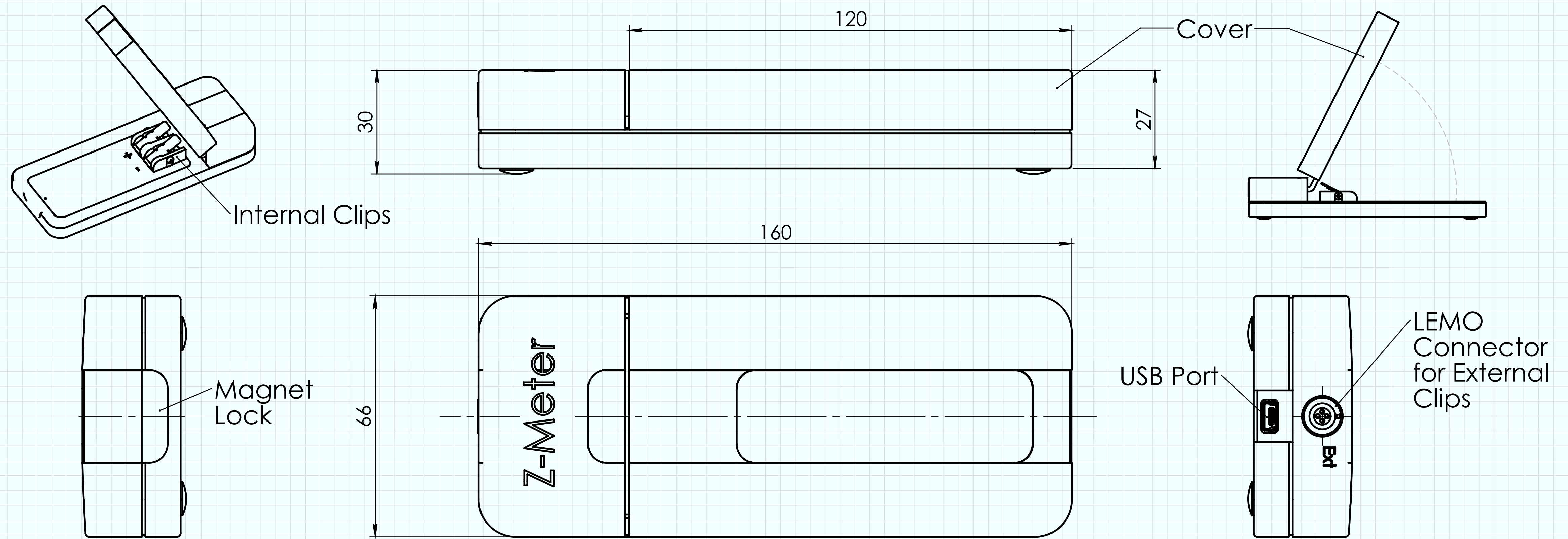
50mm





DX4090 Z-Meter

Dimensions (mm)





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Specifications

DX4090 Z-METER SPECIFICATIONS		
Connection to PC		Required
PC Connection Interface		USB type A
Z-Meter Software		Included. Windows version only
Measurement Interface		Internal in Chamber or External with Clips
Measurement Scheme		4-wires method
Ambient Temp. Sensor		Available, integrated
TEC Polarity Check		N/A
Typical TEC Testing Time	sec	20 .. 180 (depending on TEC size)
TEC AC RESISTANCE MEASUREMENTS (ACR)		
Range	Ohm	0.1 .. 100
Accuracy	%	0.6 (but >0.01Ohm)
Repeatability	%	0.3
FIGURE-OF-MERIT MEASUREMENTS (Z)		
Range	10E-3/K	1 .. 4
Accuracy	%	1.5
Repeatability	%	0.4
TEC TIME CONSTANT		
Range	sec	1 .. 100
Accuracy	%	1.5
Repeatability	%	1

OPERATING CONDITIONS		
Ambient Temperature	°C	15 .. 35
Humidity	%	0 .. 95
DX4090 POWER SUPPLY		
External Power Adapter		NOT REQUIRED
Voltage	V	5.0 (from PC USB port)
Current	mA	250
DIMENSIONS AND WEIGHT		
Z-Meter Mini	mm	160 x 66 x 30 (with cover closed)
Z-Meter Weight	g	240
STANDARD DX4090 KIT		
Z-Meter DX4090	1pcs	
USB AM-AF	1pcs	Extension cable for Z-Meter to PC connection
External Clips	1pcs	External Kelvin Clips (4-wires scheme)
Z-Meter Software		MS Windows version only
OPTIONAL ACCESSORIES (ORDERED SEPARATELY)		
BNC Adapter		Allows to use BNC tools with Z-Meter
Customized WB Clips		Required for WB TECs measuring process