

1.4.2.3 Standard Customized Solutions (OEM) Thermal Sensors

60mW to 100W

Features

- Conduction cooled
- Spectrally flat
- Standard UAF version can give analog voltage output or digital RS232 output and can measure power or single shot energy. Can also have multiple switchable ranges and/or multiple switchable wavelengths
- UAU and UAE versions are similar to the UAF version but UAU operates via the USB terminal of the PC and UAE via an Ethernet connection

100C-BB-18-SH / 100C-UAF / 100C-UAU / 100C-UAE

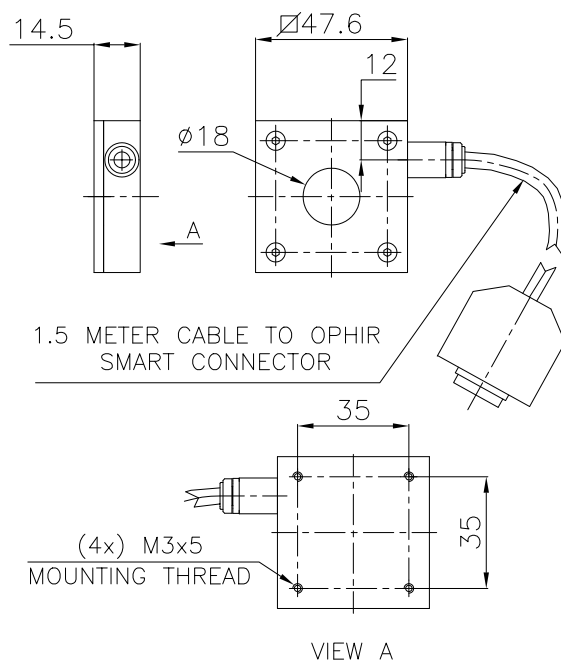


These specifications refer to standard OEM sensors, and are to be understood as generic, describing sensor families. Ophir will be happy to help you with a specific solution for your particular application.

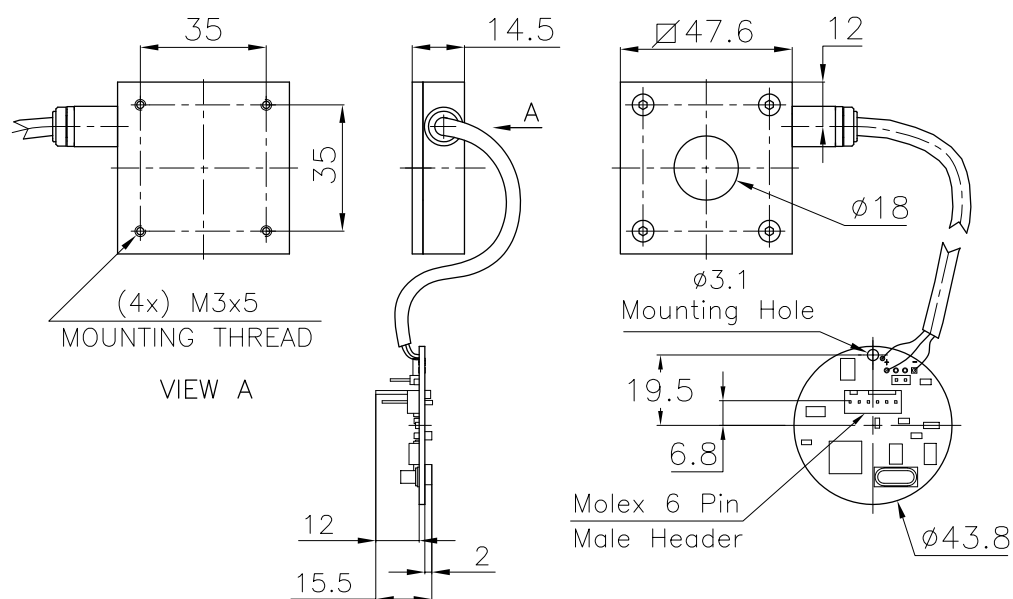
Model	100C-BB-18-SH	100C-UAF / 100C-UAU / 100C-UAE
Type	Smart sensor	UAF – Analog or RS232 output UAU – USB compatible output UAE – Ethernet output
Features	Low profile, smart sensor	Low profile, various outputs
Absorber Type	Broadband	Broadband
Spectral Range μm	0.19 - 11	0.19 - 11 ^(c)
Absorption	~88%	~88%
Aperture mm	$\varnothing 18$	$\varnothing 18$
Power Mode		
Maximum power ^(a)	free standing heat sunked	4W continuous, 20W for 1.8 min 100W
Minimum power	60mW	60mW
Power Noise Level	3mW	3mW
Maximum Average Power Density kW/cm^2	30 at 4W 14 at 100W	30 at 4W 14 at 100W
Response Time (0-95%), typ. (sec)	1.2s	1.2s
Calibration Uncertainty $\pm\%$	1.9	1.9
Power Accuracy $\pm\%$ at calibration wavelength	3 ^(d)	3 ^(d)
Linearity with Power $\pm\%$	1	1
Amplifier power supply	NA	UAF +6V to +24V UAU - Via Host USB UAE +6V to +24V via separate connector
Energy Mode		
Maximum Energy	NA	NA
Minimum Energy	NA	NA
Maximum Energy Density J/cm^2		
<100ns	0.3	0.3
0.5ms	5	5
2ms	10	10
10ms	30	30
Cooling	Conduction	Conduction
Connections	Ophir smart plug	UAF - 6 pin Molex ^(b) UAU - Mini B USB connector UAE - Ethernet for communications and 5 pin for power
Dimensions	48x48x14.5mm	48x48x14.5mm
Compliance	CE, UKCA, China RoHS	RoHS, China RoHS
Version	V1	
Part number	7Z07126	Consult Ophir Representative
Note: (a) With analog "UAF" versions, sensor voltage output is accurate up to 2v below lowest level of supply voltage, taking into account supply voltage ripple		
Note: (b) 6 pin Molex connections: RS232 input, Ground, +Voltage, Analog signal out, high/low voltage or switch input when used, RS232 output		
Note: (c) Calibrated at customer selected wavelength		
Note: (d) $\pm 4\%$. For wavelengths <240nm		

* For drawings please see page 153
* For UAE & UAU drawings please see pages 158-159

100C-BB-18-SH

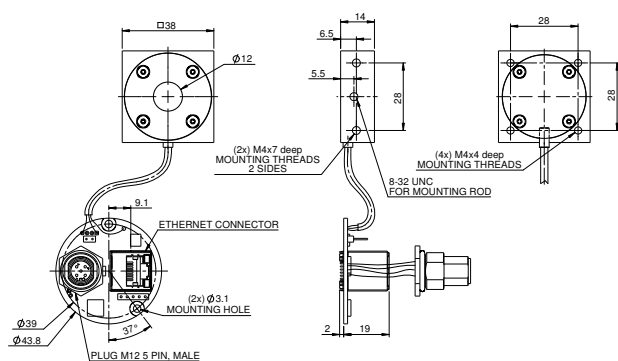


100C-UAF

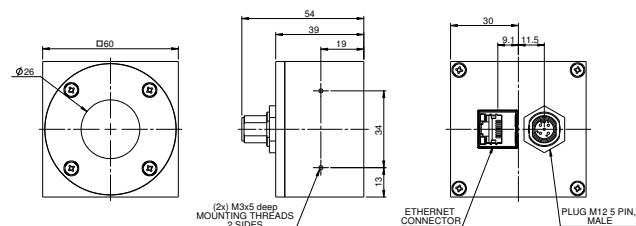


UAE Drawings

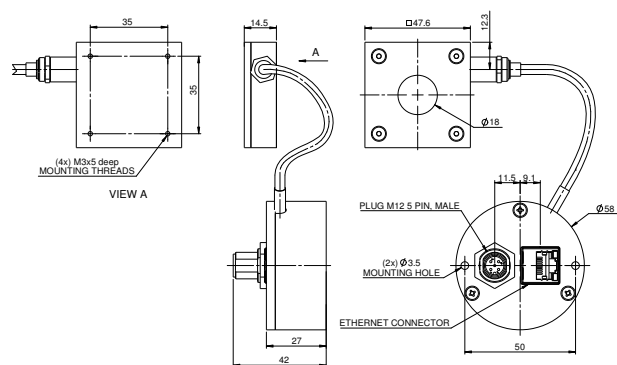
20C-UAE



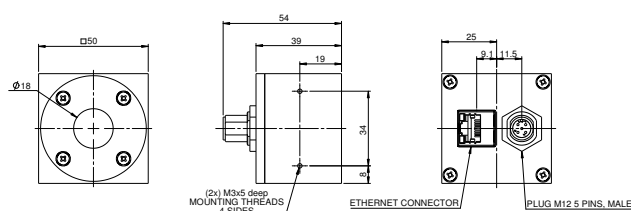
L30C-UAE



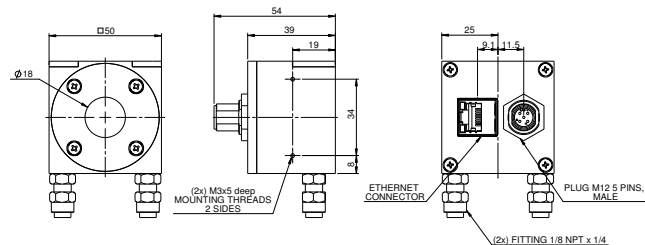
100C-UAE



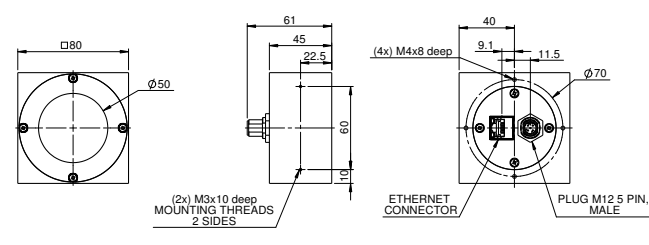
150C-UAE



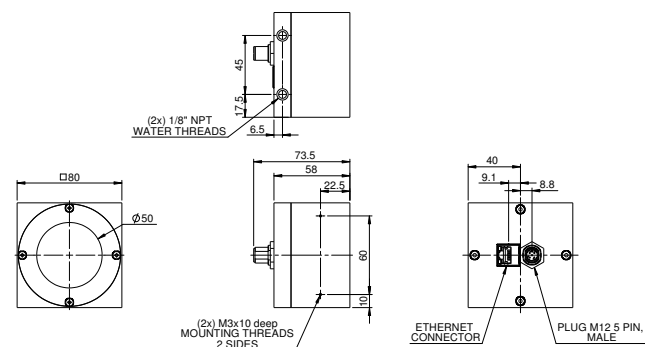
150W-UAE



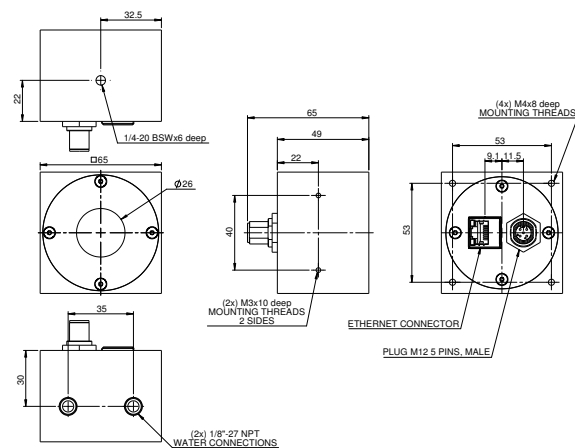
L150C-UAE



L250W-UAE / L300W-UAE

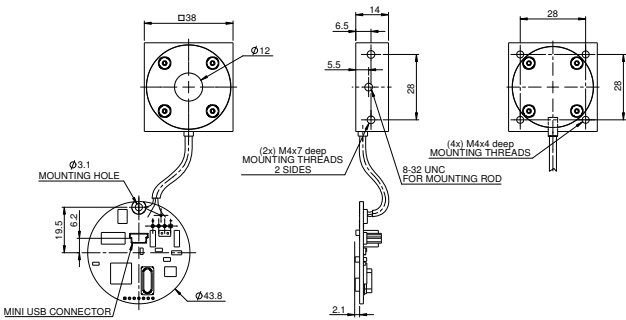


600W-UAE

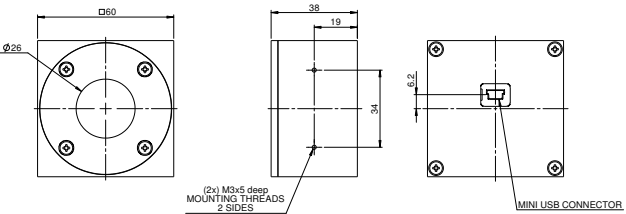


UAU Drawings

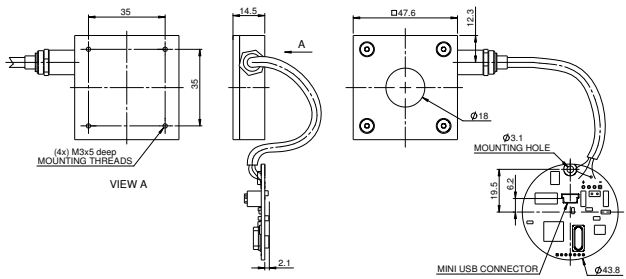
20C-UAU



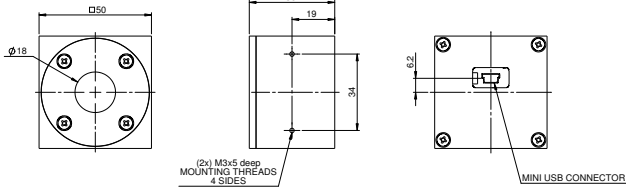
L30C-UAU



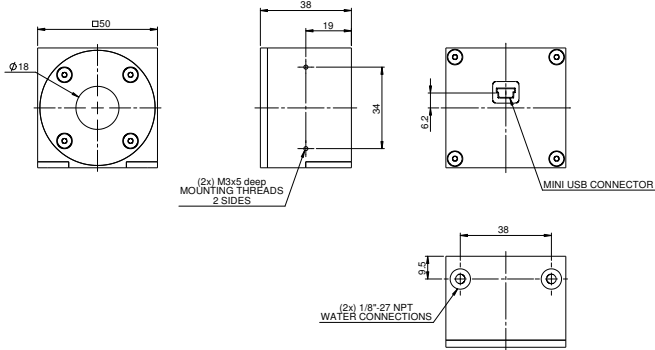
100C-UAU



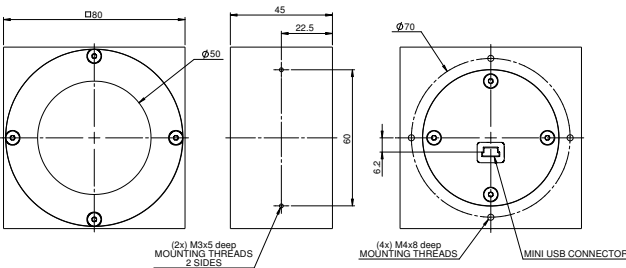
150C-UAU



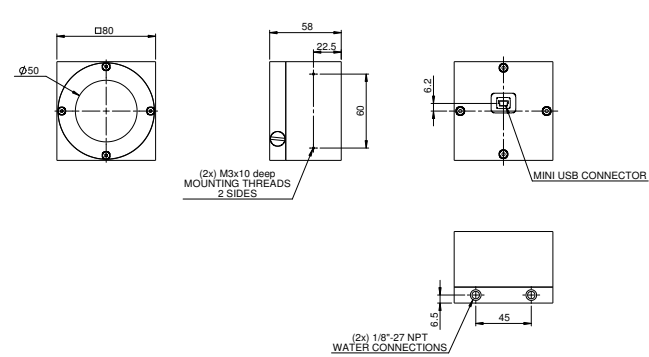
150W-UAU



L150C-UAU



L250W-UAU / L300W-UAU



600W-UAU

