Temperature Indicators
For OS1512 and OS1532 Infrared Sensors and OS1513 and OS1533 Fiber Optic Sensors

DP1500 Series Starts at
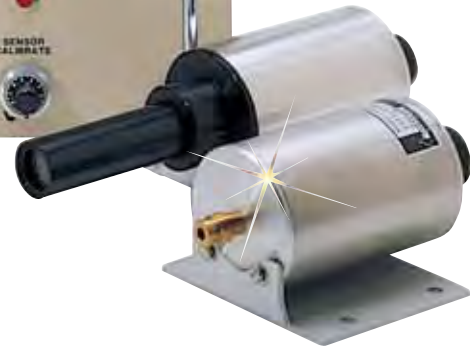**$3040**

DP1511 general purpose single channel monitor for use with OS1512 infrared and OS1513 fiber optic sensors.

DP1521 general purpose 4-channel 48 cm (19") rackmount monitor for use with OS1512 infrared and OS1513 fiber optic sensors.

DP1531 high speed single channel 48 cm (19") rackmount monitor for use with OS1532 infrared and OS1533 fiber optic sensors.

✔ **Precise Non-Contact Temperature Measurement**

✔ **1 mV/Degree Output Standard**

✔ **Optional Second Output for Process Control or Recording**

✔ **Optional Signal Processing**

✔ **Digital Pushbutton Emissivity Control Assures Precise Setting of Target Emissivity (0.05 to 1.00 in 0.01 Steps)**

✔ **3¾ Digit Display with Temperature Readout**

The DP1511, DP1521 and DP1531 non-contact infrared thermal monitoring systems represent a unique technological approach for monitoring and controlling process temperatures. These units combine fiber optics or line-of-sight optics with advanced electronic technology into a system that continuously monitors infrared radiation (a function of temperature) in real time and without physically contacting the target material. The result is a highly reliable system offering outstanding accuracy and repeatability with high response speed.

Built-in synchronous demodulation circuitry helps to minimize or eliminate noise pickup from nearby sources such as motors, induction heating generators, etc.

The DP1511, DP1521 and DP1531 contain all of the electronics necessary to amplify, linearize and process the electronic signal received from the detector head. In addition, they provide a millivolt per degree linear output, as well as an optional second output of 0 to 10 Vdc or 4 to 20 mA, which can be used for process control or recording purposes.

DP1511 single input benchtop monitor shown with OS1512 infrared sensor.

DP1521 4-channel 48 cm (19") rackmount monitor shown with OS1512 infrared sensor.

DP1531 single input 48 cm (19") rackmount high speed monitor shown with OS1533 fiber optic sensor.

On all three models, the front panel digital pushbutton emissivity control assures precise setting of the target emissivity. If process parameters are changed, this digital control enables the operator to accurately return to the previous settings.

A variety of signal processing options is available (one per unit) such as peak (or valley) sense and hold (when the process temperature sharply rises and falls), signal averaging (to smooth out unwanted variations in the temperature measurement), sample and hold (to sample a temperature and hold it for a specified time), and fast rise variable decay (which is similar to peak and hold, but has a variable decay time). These signal processing options are adjustable by a front panel variable control adjustment.

The DP1521 has four independent input channels with a front panel selector switch, each channel having its own 1 mV/degree output as well as its own emissivity adjustment.

The DP1531 is a high speed single channel monitor suitable for use on any high speed event application utilizing the 20 microseconds time constant (0 to 63.2%). This system utilizes an auto-zero circuit (with shutter built into the detector head) to zero out any system drift.

The DP1511 or DP1521 thermal monitoring system consists of a fiber optic assembly and detector head, (or line-of-sight detector head), connecting cable, and meter. The DP1511 and DP1521 monitors are used with either the OS1512 infrared or OS1513 fiber optic sensors.

The DP1531 high speed monitor is used with either the OS1532 infrared or OS1533 fiber optic sensors.

Specifications

Temperature Range:
  DP1511, DP1521: 50 to 3700°C
  (120 to 6692°F)
  DP1531: 75 to 2300°C
  (165 to 4172°F)
Accuracy: ±1% rdg
Repeatability: ±0.5% rdg
Resolution: 1°F/1°C
Output: 1 mV/degree
Ambient Operating Range: 10 to 50°C
(50 to 122°F)
Time Constant:
  DP1511, DP1521: 10 msec,
  (0 to 63.2%)
  DP1531: 20 microseconds
Power: 115 Vac ±10% 50/60 Hz
Power Dissipation:
  DP1511: 25 W
  DP1521, DP1531: 50 W
Display: 3¾ digit, max reading 3999
Emissivity: 0.05 to 0.99, adjustable
in 0.01 steps
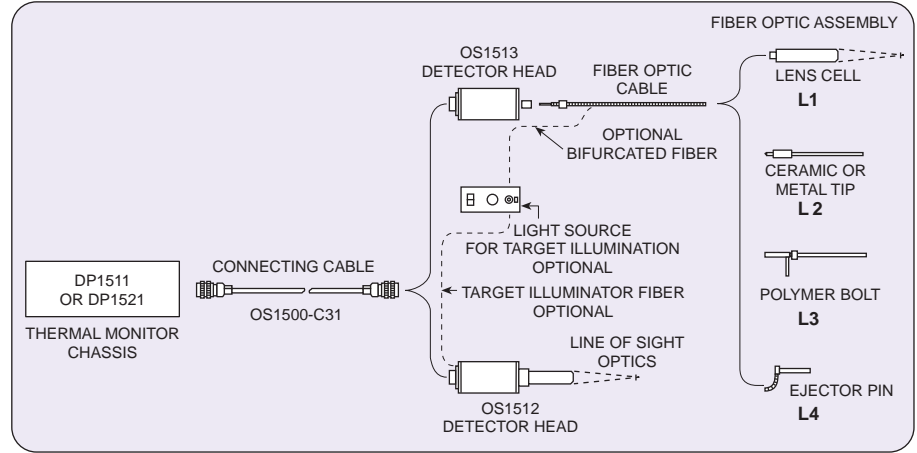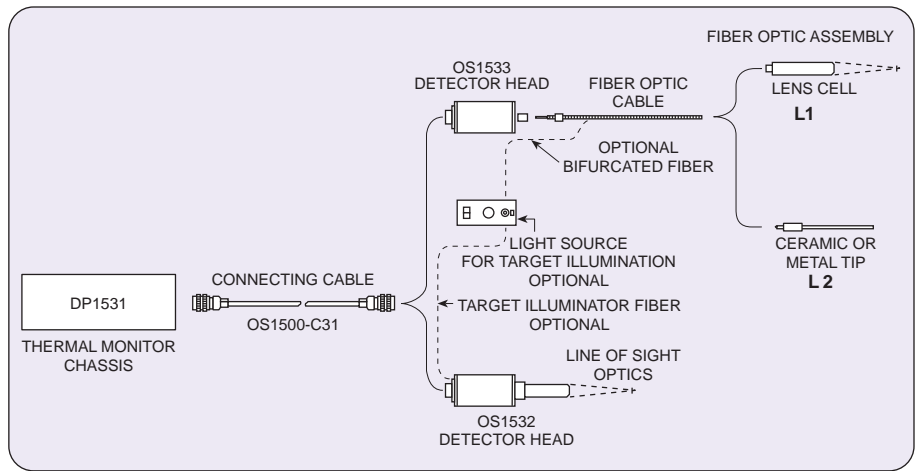**Signal Processing Adjustment:**
0.5 to 10 sec hold/decay time
Dimensions:
  DP1511: 98 H x 300 W x 238 mm D
  (3.87 x 11.84 x 9.38")
  DP1521, DP1531:
  133 H x 483 W x 305 mm D
  (5.25 x 19 x 12")
Weight:
  DP1511: 4.3 kg (9.5 lb)
  DP1521: 6.35 kg (14 lb)
  DP1531: 5.4 kg (12 lb)

MOST POPULAR MODEL HIGHLIGHTED!

To Order (Specify Model Number)

Model No.	Price	Description	Compatible Infrared Sensor	Compatible Fiber Optic Sensor
DP1511(*)	**$3040**	Single-channel benchtop monitor 1 mV/degree output	**OS1512**	**OS1513**
DP1521(*)	7995	4-channel 48 cm (19") rackmount monitor 1 mV/degree output	**OS1512**	**OS1513**
DP1531(*)	4995	Single-channel 48 cm (19") rackmount high speed monitor 1 mV/degree output	**OS1532**	**OS1533**

** Specify display and analog output: "**F**" for Fahrenheit display and 1 mV/°F output, or "**C**" for Celsius display and 1 mV/°C output.*
Comes with 10' connecting cable for sensor and complete operator's manual.

Ordering Examples: DP1531-F-MA, *single-channel 48 cm (19") rackmount high speed monitor with 1 mV/°F output, with an additional 4 to 20 mA output, $4995 + 125 =* **$5120. DP1521-C-V-SA,** *4-channel 48 cm (19") rackmount high speed monitor with 1 mV/°C output, with an additional 0 to 10 Vdc output, and signal averaging feature $7995 + 300 + 1320 =* **$9615.**

Optional Second Output (DP1511 and DP1531 Meters)

Order Suffix	Add'l Price	Description
-V	**$75**	0 to 10 Vdc
-MA	125	4 to 20 mA

Optional Second Output (DP1521 Meter)

Order Suffix	Add'l Price	Description
-V	**$300**	0 to 10 Vdc
-MA	500	4 to 20 mA

Signal Processing Outputs (DP1511 and DP1531 Meters)

Order Suffix	Add'l Price	Description
-PS	**$330**	Peak sense and hold
-SA	330	Signal averaging
-VS	330	Valley sense and hold
-ST	330	Sample timed hold
-FR	330	Fast rise variable decay

Signal Processing Outputs (DP1521 Meter)

Order Suffix	Add'l Price	Description
-PS	**$1320**	Peak sense and hold
-SA	1320	Signal averaging
-VS	1320	Valley sense and hold
-ST	1320	Sample timed hold
-FR	1320	Fast rise variable decay

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