



The Introtek Advantage provides products of unsurpassed quality, functionality and dependability that are manufactured to the highest medical device standards and backed by a three-year warranty.

Blood Component Detector

The Blood Component Detector performs colorimetric-based detection non-invasively for fluid within clear tubing for many critical processes.

HIGHLIGHTS

- ◆ Non-invasive optical technology
- ◆ Compact, free-entry design
- ◆ Micro-controller based integral circuitry
- ◆ Immunity to ambient light
- ◆ Detection threshold is AAMI compliant for dialysis applications
- ◆ Adjusted detection thresholds for additional applications
- ◆ ISO 9001:2000 and ISO 13485:2003 certified

INTROTEK'S CERTIFICATIONS



APPLICATIONS

- ◆ Blood leak detection / Dialysis
- ◆ Blood component vs. Saline
- ◆ Blood processing devices
- ◆ Contamination of fluids
- ◆ Chemical reactions

TECHNOLOGY

Introtek's Optical sensors incorporate micro-controller based integral circuitry which allows for factory-calibrated sensitivity to coloration in fluid. This technology is typically required in applications such as hemodialysis where blood lading through a defective membrane into clear dialysate must be detected in order to prevent harm to the patient being treated.

Blood Component Detector

DETECTOR PART NUMBER

Please contact an Introtek Application Specialist to determine the optimal configuration for your application.

FUNCTIONAL SPECIFICATIONS

Supply Voltage:

5.0 VDC
6 to 24 VDC optional

Supply Current:

150.0 mA Typical

Calibrate Input:

Provides adjustment for tube insertion. Must be performed after each tube insertion before output may be considered valid.

Output Signal:

CMOS Logic
Analog optional

Response Time:

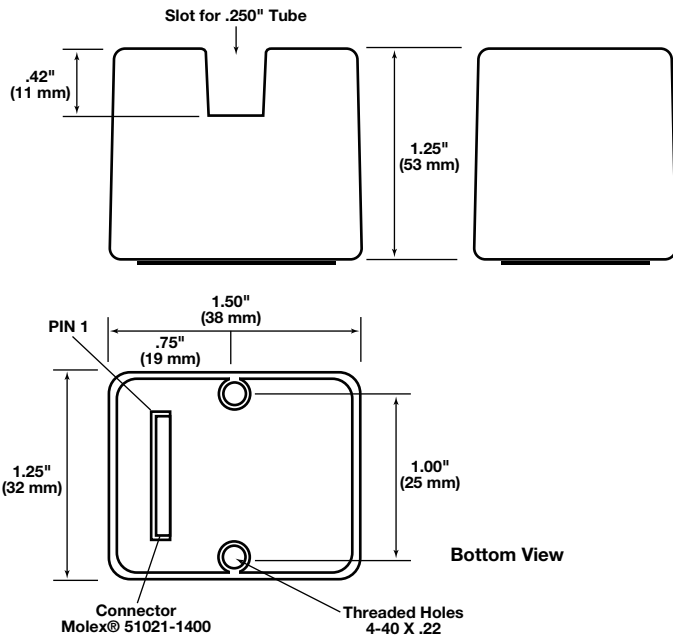
Calibration: 10 second maximum
Blood Detected: 1 second maximum

Operating Temperature:

+41° to +140° F (+5° to +60° C)

Humidity:

0 - 95% Non-Condensing



Blood Component Detector Dimensions

VALIDATION TESTING

The Blood Component Detector was designed to be tested in conjunction with the following specifications:

Electrical Fast Transients:

IEC 61000-4-4:2004

Radiated Emissions, Group 1, Class B:

CISPR 11

Electrostatic Discharge:

EN60601-1-2 Clause 36.202.2
IEC 61000-4-2:2002

Radiated Immunity:

IEC 61000-4-3:2002

Power Frequency Magnetic Fields:

Performed per IEC 60601-1-2:2004

General Safety Requirements:

IEC 60601-1:1988

Hemodialysis Systems:

ANSI/AAMI RD5:2003

OPTIONS

- ◆ Logic and Analog output signals
- ◆ Tubing Detection
- ◆ Liquid / Air Detection
- ◆ Alternative Slot Sizes
(Subject to Engineering Evaluation)
- ◆ Blood Level Threshold Calibration
(factory-set in accordance to customer specification)

THREE YEAR WARRANTY

All Introtek systems are warranted free of defects in materials or workmanship for three full years from the date of original factory shipment.

If returned within the warranty period; and, upon factory inspection of the unit, the cause of the malfunction is determined to be defective material or workmanship; then, Introtek will repair or replace the system at no cost to the purchaser (or owner) other than transportation.

Introtek shall not be liable for misapplication, labor claims, direct or consequential damage or expense arising from the installation or use of the equipment. There are no other warranties expressed or implied, except special written warranties covering some Introtek products.



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Performance specifications are effective with date of issue and are subject to change without notice.

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