



# **Drip Detect Sensor**

**Introtek's** optical technology, non-invasive designed sensor measures the instantaneous drip rate by accurately outputting a pulse for each drop of liquid.



NTROTEK's Drip Detect Sensor can be customized & designed to fit any drip chamber. This sleek, non-invasive designed sensor outputs a pulse for each drop of liquid accurately and dependably, thereby eliminating the need for time-consuming, visual drip count monitoring at patient site for flow rate.

## TECHNOLOGY

INTROTEK's optical technology provides highly reliable, non-invasive drip detection sensing for use with a variety of clear drip chambers, where is it desirable to monitor patient intravenous IV infusion flow rate remotely. INTROTEK produces a diversity of drip chamber sensors that have continually and successfully met the requirements of medical device manufacturers worldwide.

## HIGHLIGHTS

- Sleek, non-invasive design package provides a compact & cost effective solution.
- Can be customized for use with almost any clear drip chamber.
- Finger grips provide an easy, self-clamping attachment and removal from drip chamber.
- Integrated Electronics
- Accurately outputs optical pulse for each drop during IV infusion.
- High noise immunity to EMI and RFI
- Lower power consumption







## APPLICATIONS

The Drip Detect sensor is designed to be utilized as a technique for monitoring media flow rate during patient IV infusion. The sensor can be used to enhance and improve processes in the following applications;

- ♦ IV Infusion Administration System
- Liquid Dispensing
- Pharmaceutical manufacturing
- Clinical laboratory

## **Drip Detect Sensor**

## SENSOR PART NUMBER

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

## **FUNCTIONAL SPECIFICATIONS**

#### **Supply Voltage:**

5 VDC

#### **Supply Current:**

Less than 50 mA

#### **CMOS Output:**

30ms pulse per drop

#### **Operating Temperature:**

+41 to +140 °F (+5 to +60 °C)

#### **Humidity:**

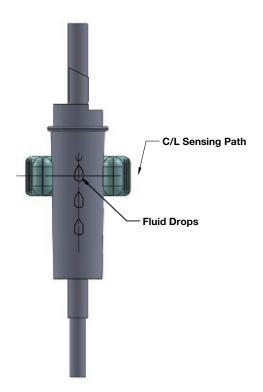
0% to 95% Non-Condensing

#### **Response Time:**

Less than 500 µsec

#### Rate:

0 to 10 drops per second



**Vertical Chamber Positioning** 

BULLETIN: DDS-14.0 EFFECTIVE: September 2014

## VALIDATION TESTING

The Drip Detect Sensor is 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:**

IEC 61000-4-2:2002

#### **Radiated Immunity:**

IEC 61000-4-3:2002

### **Power Frequency Magnetic Fields:**

IEC 60601-1-2:2004

#### **General Safety Requirements:**

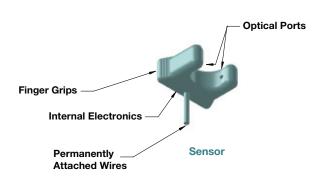
IEC 60601-1:1988

## 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, with no modifications to the sensor; the original manufacturing label intact; and, upon factory inspection of the unit, the cause of the malfunction is determined to be defective material or workmanship; INTROTEK will repair or replace the system at no cost to the purchaser (or owner) other than transportation. If a unit is returned without an original label, the warranty is void.

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.





Introtek International, L.P., Subsidiary of Magnetrol International, Incorporated

150 Executive Drive • Edgewood, New York 11717-9998 • 631-242-5425 • Fax 631-242-5260 www.introtek.com • info@introtek.com

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