

# icountPD Z2

## Hazardous Area Online Particle Detector



### For use in explosive and hazardous areas

The icountPD Particle Detector from Parker represents the most up to date technology in solid particle contamination analysis. This compact, permanently mounted laser-based ATEX approved particle detector module is designed for use in Zone 2 areas and is housed in a robust Stainless Steel IP69K approved enclosure that provides a cost effective solution to fluid management and contamination control.



### Contact Information:

Parker Hannifin  
Hydraulic Filter Division Europe

European Product  
Information Centre  
Freephone: 00800 27 27 5374  
(from AT, BE, CH, CZ, DE, EE, ES,  
FI, FR, IE, IT, PT, SE, SK, UK)  
filtrationinfo@parker.com

www.parker.com/hfde

### Product Features:

- Independent monitoring of system contamination trends.
- Assembled in an approved and certified Stainless Steel enclosure to comply with ATEX Directive 2014/34/EU and UKSI 2016.
- Can be used in explosive and hazardous areas.
- ATEX Zone 2.
- Certified to CE, IECEx and UKCA.  
Ex II 3GD.  
Ex ec nC IIC T4 Gc, Ta = (-30°C<Ta<+60°C).  
Ex tc IIIC T135°C Dc.  
SIRA 09ATEX4340X, IECEx SIR 09.0137X and CSAE22UKEX1161X.
- Moisture & %RH indicator (optional).
- Warning limit relay outputs for low, medium and high contamination levels.
- Continuous performance for prolonged analysis.
- Self diagnostic software.
- Full PC/PLC integration technology such as:- RS232 and 0-5Volt, 4-20mA, CAN(J1939) (Contact Parker for other options).
- Set up and Data logging support software included.

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## ATEX Approved Online Particle Detector



### Features & Benefits

**Diagnostic Self Check Start-up Time:**

Customer selectable 5-900 seconds

**Measurement Period:**

5 to 180 seconds

**Reporting interval through RS232:**

0 to 3600 seconds

**Limit Relay Output:**

Changes occur +/- 1 ISO code at set limit (Hysteresis ON) or customer set (Hysteresis OFF)

**Particle / % RH Output Signal:**

Continuous

**Principle of operation:**

Laser diode optical detection of actual particulates.

**Reporting Codes:**

ISO 7 – 21, NAS 0 – 12, (AS 00 – 12 Contact Parker)

icount will also report less than ISO 7, subject to the statistical uncertainty defined in ISO4406:1999, which is shown in the RS232, reporting results as appropriate e.g “>6”

**Calibration:**

By recognised on-line methods, confirmed by the relevant International Standard Organisation procedures.

**Calibration Recommendation:**

24 months

**Performance:**

+/- 1 ISO Code (Dependant on stability of flow)

**Reproducibility / Repeatability:**

Better than 1 ISO Code

**Power Requirement:**

Regulated 9 to 40Vdc

**Maximum Current Draw:**

150mA

**Hydraulic Connection:**

Size: 066

Connection: EO 24 cone end

**Required Flow Range through the icountPD:**

40 to 140 ml/min (Optimum Flow = 60ml/min)

**Online Flow Range via System 20 Inline Sensors (Hydraulic systems only):**

Size 0 = 6 to 25 l/min - (Optimum Flow = 15 l/min)

Size 1 = 24 to 100 l/min - (Optimum Flow = 70 l/min)

Size 2 = 170 to 380 l/min - (Optimum Flow = 250 l/min)

**Required Differential Pressure across Inline Sensors:**

0.4 bar (Minimum)

**Viscosity Range:**

1-500 cSt

**Temperature:**

Operating Environment -30°C to +60°C (-22°F to +140°F)

Storage -40°C to +80°C (-40°F to +176°F)

Operating Fluid +5°C to +80°C (+41°F to +176°F)

**Working pressure:**

2 to 420 bar (30-6000 PSI)

**Moisture sensor calibration (Not offered with the fuel version):**

±5% RH (over compensated temperature range of +10°C to +80°C) (+50°F to +176°F)

**Operating humidity range:**

5% RH to 100% RH

**Moisture sensor stability:**

±0.2% RH typical at 50% RH in one year

**Certification:**

IP69K rating

EMC/RFI – EN61000-6-3:2007

EN61000-6-2:2019

**Materials:**

Stainless Steel case construction.

Stainless Steel hydraulic block.

**Dimensions:**

260mm x 114mm x 110mm

**Weight:**

2.6kg

**Seals:**

Fluorocarbon seals.

### Ordering Information

Product Configurator

Key	Fluid type		Calibration		Display		Limit relay		Communication		Moisture		Cable connector kit	
IPDZ	1	Mineral	2	MTD	1	None	2	Yes	2	RS232 / 4 - 20mA	1	No	30	M12, 8 pin plug connector
	3	Aviation Fuel (4 channel)							5	RS232 / CANBUS (J1939)	2	Yes		

### Standard Products Table

Part Number	Fluid type	Calibration	Display	Limit relay	Communication	Moisture	Cable connector kit
IPDZ12122230	Mineral	MTD	None	YES	RS232 / 4 - 20mA	YES	M12, 8 pin plug connector
IPDZ32122130	Aviation Fuel (4 channel)	MTD	None	YES	RS232 / 4 - 20mA	NO	M12, 8 pin plug connector

### Accessory Part Numbers

Description	Part Number
Single Point Sampler	SPS2021
External flow device	S840074
Power supply	ACC6NN013
2 x 10 metre M12, 8-pin plug and socket Ultrat cable kit	ACC6NN021
RS232 to USB converter	ACC6NN017

