

Title (en)  
Suspended particle detector.

Title (de)  
Detektor für suspendierte Teilchen.

Title (fr)  
Détecteur pour des particules suspendues.

Publication  
**EP 0099729 A1 19840201 (EN)**

Application  
**EP 83304076 A 19830713**

Priority  
GB 8220406 A 19820714

Abstract (en)  
A suspended particle detector includes a housing (1,2) containing a radiation source (3) which shines radiation across the interior of the housing (1,2), a first radiation sensor (5) arranged to receive radiation scattered from the wall (1) of the housing (1,2) and radiation scattered from particles suspended in the housing (1,2) and to produce a first signal indicative of the total intensity of radiation incident on it. A second sensor (4) is arranged to produce a second signal indicative of the intensity of the radiation source (3). The detector also includes a signal combining circuit arranged to combine the two signals in opposition to produce a composite signal and the detector is constructed so that the composite signal has a first polarity when the density of suspended particles in the housing is less than a predetermined pressure or value and the opposite polarity when the said density is greater than the threshold value. A logic unit is arranged to detect when the polarity of the composite signal reverses and then to produce an alarm signal.

IPC 1-7  
**G08B 17/10**

IPC 8 full level  
**G01N 21/53** (2006.01); **G08B 17/10** (2006.01); **G08B 17/107** (2006.01)

CPC (source: EP)  
**G08B 17/107** (2013.01); **G08B 17/113** (2013.01)

Citation (search report)  
• [X] US 3723747 A 19730327 - STEELE D  
• [Y] DE 2856259 B1 19791220 - CERBERUS AG  
• [A] EP 0015007 A1 19800903 - HEKATRON GMBH [DE]

Cited by  
EP2093733A1; EP0547415A1; EP0463795A1; US5231378A; US8546740B2; WO2009103668A1; WO2009103777A1

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