

Particulate Monitoring Systems

Advanced Particulate Monitor for
Dust Arrestment Plant

Dustsense 30 Series

TriboACE®

Particulate Monitors

For Dust Trending



Certificate No: 9389



- Scalable 4-20mA output
- Dual alarms (early warning & failure)
- Digital display reading percentage dust level (DS30a version only)
- Digital averaging minimises false alarms from pulsing baghouses
- Unique patented TriboACE® technology (increased reliability over Triboelectric systems)
- Combined sensor and control unit (c version) or separate sensor and control unit (a version)

N.B. If continuous quantitative monitoring in mg/m³ is required please refer to datasheets of our DT range of products

System Description

The DustSense 30 series is based on PCME's unique patented TriboACE® technology giving more reliable operation than Triboelectric dust monitors. Once installed in the emission stack or exhaust duct, the average background level of particulate can be defined. The alarm levels can then be set to a percentage or factor above this background reference level. A digital display (#) displays the percentage of dust in relation to the alarm level, having a span of 0-200% of the chosen alarm level setting. The 4-20mA output is scaled 0-200% of alarm level 1, allowing the operator to determine how the dust level is compared to a pre-determined limit or warning level. The two alarm levels can be used to set both warning and emission limit levels to assist operators in potential failures from their arrestment plant. Alarm delay and data averaging are user selectable. The DS30 series complies with the UK EPA requirement for indicative monitoring and European requirements for filter performance monitoring.

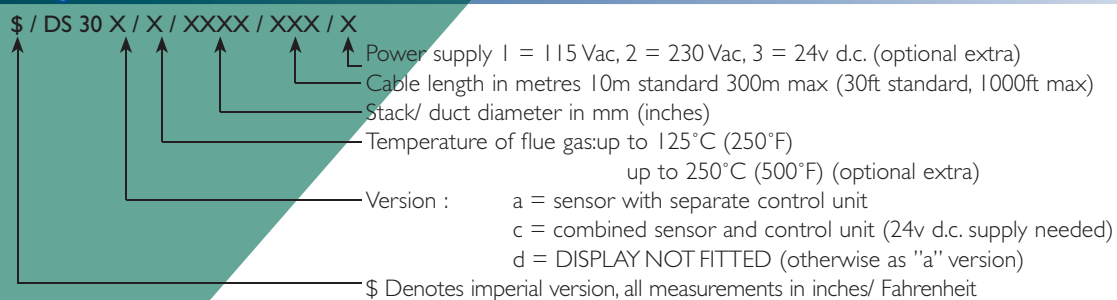
User Controls and Functions

Reference period	User defined from 1 minute to 60 minutes
Alarm level 1	Adjustable 1 - 10,000 units
Alarm level 2	50% of alarm level 1 (fixed setting)
Data smoothing	1 minute data averaging
Alarm delay	up to 1 minute or 2 minutes
4-20mA output	Scaled @ 0 - 200% of alarm level 1 setting
4-20mA smoothing	2 seconds or 5 seconds
Relay outputs	2 separate relays, voltage free contacts

Specifications

	DS30a		DS30c
	Control unit	Sensor	Combined unit
Enclosure rating	IP 65	IP 65	IP 65
Enclosure size (mm)	75l x 80h x 55d	75l x 81h x 57d	75l x 81h x 57d
Enclosure weight	700gms (1¼ lbs)	500gms (1lb)	500gms (1lb)
Power supply	115/230 Vac 50/60Hz	N/A	24v d.c. @ 100mA (option)
Relay contacts	2 x 0.5 amps @ 24V	N/A	2 x 0.5 amps @ 24V
Ambient temperature	-20°C to +50°C (-65°F to +125°F)	-20°C to +50°C (-65°F to +125°F)	-20°C to +50°C (-65°F to +125°F)
Display	Tri-state LED (alarm 1, 2 & status)	N/A	Tri-state LED (alarm 1, 2 & status)
LCD Display	3½ LCD (not fitted on DS30d)	N/A	N/A
Cable lengths	N/A	10 to 300m (10m std) 30-100ft	N/A
Cable to control unit	N/A	8 core screened	N/A
Stack/duct connection	N/A	½" BSP (female)	
Sensor lengths (mm)	N/A	100, 250, 500, 750, or 1000 (4, 10, 20, 30, 40 inches nominal)	
Sensor material	N/A	316 stainless steel, PTFE insulator	
Stack gas temperature	N/A	Standard: -20°C to +125°C (-65°F to 250°F) Optional: up to 250°C (500°F) For higher temperatures please contact PCME Ltd	
Air purge (optional)	N/A	¼" BSP @ 0.5 litre/min	

Product Ordering Codes



About PCME Ltd

As a progressive environmental Company, PCME specialises in particulate measurement for industrial processes. With a worldwide reputation for reliability, innovation and technological excellence, the Company produces equipment for concentration, velocity and mass monitoring for regulatory, environmental and process control requirements. A dedicated team of qualified application and sales engineers is always on hand and should be consulted in the selection and usage of the most suitable equipment for any particulate application.



PCME Ltd
 Clearview Building, 60 Edison Road
 St. Ives, Cambs PE27 3GH
 Tel: Int +44 (0)1480 468200
 Fax: Int +44 (0)1480 463400
 E-mail: sales@pcme.co.uk

Contact your national or area sales and service office

PCME products are the subject of worldwide patents. Due to the continuing product development programme, PCME reserves the right to change any specifications without prior notice.