



Particle monitor BDA 02

In many production and thermal processes the process- or exhaust air also contain dust particles of various sizes. To ensure this dust does not enter the environment unchecked, they are separated or retained using suitable filter systems.

Whilst in e.g. manufacturing powdered milk, plastics, soot and fertilisers this primarily means recovering valuable substances, in steel production, the wood industry, in foundries, crematoriums and in the cement industry as well as plasterboard product, just to name some of the possible applications, the focus is on environmental protection.

Since the separation elements in the filter systems used wear due to more or less frequent backwashing, dust breaches or increasing particle emission often occur. In addition to ensuring operating safety in the interest of the owner, TA Luft even requires the use of certified residual dust monitoring equipment for many applications and air exhaust ducts.

The particle monitor BDA 02 is one version in a series for this scope of application.

Unit made in Germany

Robust, low-maintenance technology

Easyjust installation kit for easy installation

German / English menu navigation

Automatic service notification

Zero point and range monitoring

Calibratable (mg/Nm^3)

Visual filter condition diagnosis on site

2.5" Graphics display

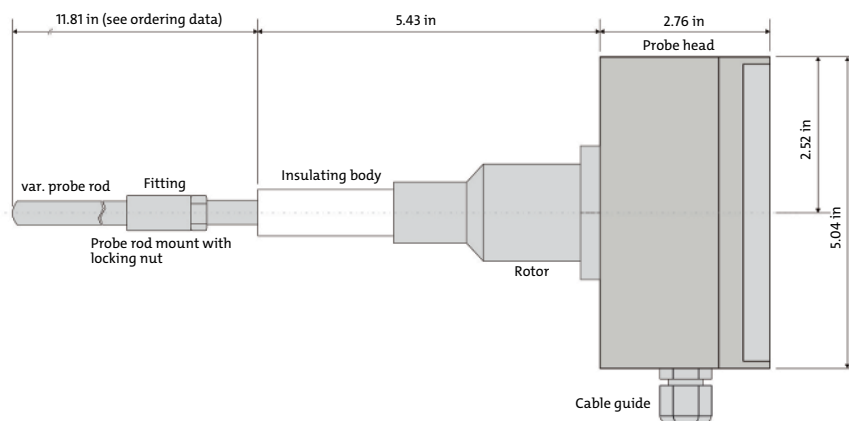
Suitability-tested technology according to TA-Luft

Low operating costs / high energy efficiency (3 W)

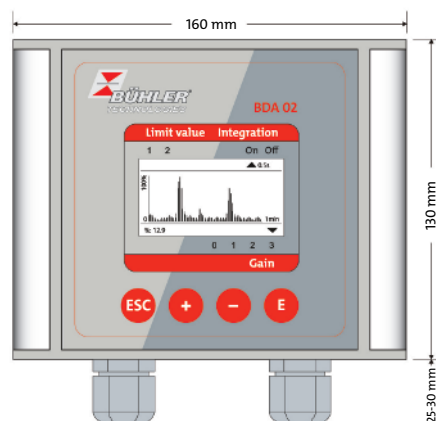


Dimensions

Side view



Front view



Technical data

Technical Data

Housing:	IP 65 compact unit
Weight:	approx. 5.5 lb
Probe:	triboelectric probe consisting of probe rod and probe head
Probe rod:	insulated from housing, length: variable (mechanically trimmable)
Probe material: :	Stainless steel 1.4571 (Isolator PTFE)
Immersion depth	Varies by application (max. 39.37 in)
Display/Operation:	2.5" graphics display, 4 control keys
Ambient temperature:	-4...122 °F
Humidity:	not particularly sensitive
Dew point difference:	min. +5 K
Sample gas temperature:	max. 482 °F (higher temperatures on request)
Flow rate:	approx. 3 m/s and up
Dust measuring range	qualitative: 0...100 %; quantitative: 0...10 mg/m ³ (0...1000 mg/m ³)
Amplification levels:	arbitrary from 0 to 3
Calibration:	by gravimetric comparison measurements
Analogue output:	4...20 mA, galvanically isolated from equipment earth, max. load impedance 500 Ω
Digital outputs:	3 relays, max. 24 V DC at 0.1 A (for failure, service, required service)
Process connection:	1" Easyjust/Tri Clamp DN32/Flange 3"/Flange DN25 PN6/DN80 PN6/DN50 PN16/DN65 PN40
Cable fitting:	2x M20 x 1.5 / 0.35...0.51 in, 1x dummy plug
Power supply:	230/110 V AC, 50-60 Hz, 24 V DC
Performance test:	Technology suitability-tested to TA Luft

See also

DE020010 Questionnaire [► 4]

Project-No.: _____



Questionnaire Filter Monitoring and Dust Measurement

Gas Analysis

Company

Person in charge

Company

Name

Street

Dept.

ZIP code, city

Phone

Country

Email

General process information

Industry

(e. g.: Metal, Chemistry, Food, Energy, etc.)

Industry sector

(e. g.: Casting, Plastics, Powdered milk, coal-fired power plant, etc.)

Process

(e. g.: Drying, Material transport, Material processing, Material recycling, etc.)

Filter type

(e. g.: Bag filter, Cartridge filter, Cyclone, Electrofilter, etc.)

Reason for filter monitoring

(e. g.: Official requirements, active environmental protection, process control, filter monitoring, etc.)

Certificates / Approvals

Ex-Zone ☐ Yes ☐ No

Zone

Technical Data

Duct diameter [L1]: _____ [mm]

Junction length [L2]: _____ [mm]

Insulation thickness [L3]: _____ [mm]

Straight length upstream [L4]: _____ [mm]

Straight length downstream [L5]: _____ [mm]

Velocity exhaust gas [v]: Constant? ☐ Yes ☐ No

from _____ to _____ [m/s]

Amount of exhaust gas [V]: _____ [Nm³/h]

Temp. of exhaust gas [T]: _____ [°C]

Pressure exhaust gas [P]: _____ [mbar]

Residual dust content: _____ [mg/Nm³]

Material of particles: _____

Particle size: _____ [µm]

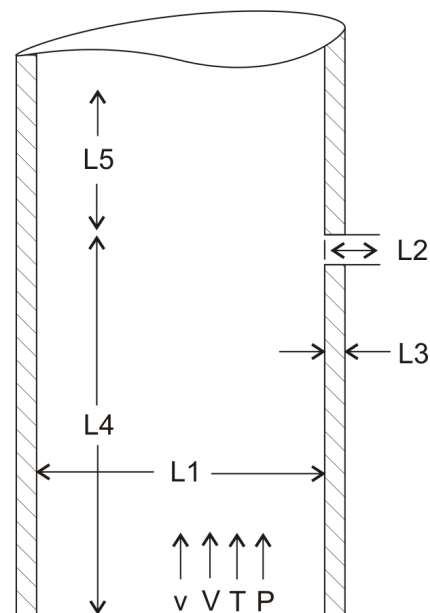
Relative humidity: _____ [%]

Water drops contained? ☐ Yes ☐ No

Corrosive gas? ☐ Yes ☐ No

Which type: _____

Mains supply: ☐ 110-230 V ☐ 24 V DC



Duct direction: ☐ horizontal

☐ vertical

flow direction: ↑ ↓ → ←

☐ ☐ ☐ ☐

