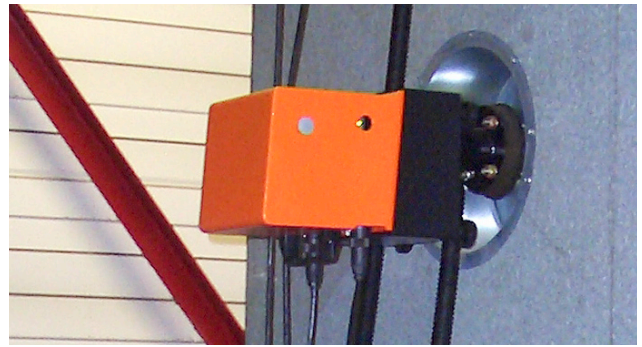


DUSTHUNTER C Transmission and Scattered Light Measuring Device

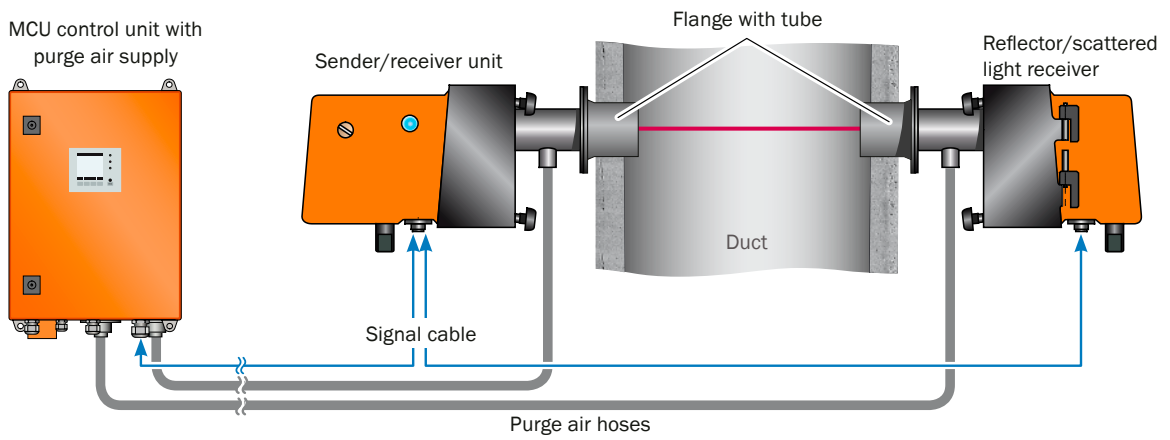
Continuous measurement of dust for
very low and high concentrations



SICK
Sensor Intelligence.



SYSTEM COMPONENTS

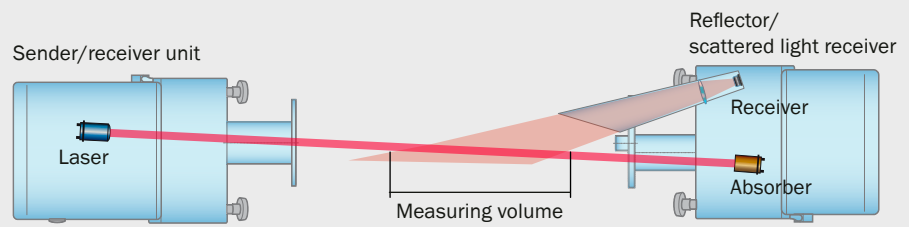


TWO MEASURING PRINCIPLES IN THE DUSTHUNTER C200

Transmission measurement



Scattered light measurement, forward



Technical Data		DUSTHUNTER C200 – transmission and scattered light measuring device	
Device models	C200		
Measuring Parameters			
Measuring values	Transmission, opacity, extinction, dust concentration		
Available measuring ranges	Min.	Max.	
• Transmission	100 ... 90 %	100 ... 0 %	
• Opacity	0 ... 10 %	0 ... 100 %	
• Extinction	0 ... 0.045	0 ... 2.0	
• Dust concentration ¹⁾	Min. 0 ... 5 mg/m ³ , max. 0 ... 200 mg/m ³ , scattered light measurement Min. 0 ... 200 mg/m ³ , max. 0 ... 10.000 mg/m ³ , transmission measurement		
Distance (flange – flange)	0.5 ... 8 m		
Measurement uncertainty	< ±2%		
Measuring Conditions			
Sample gas temperature ²⁾	-25 ... +300 °C		
Sample gas pressure	-50 ... +2 hPa -50 ... +30 hPa with external purge air unit option		
Ambient Conditions			
Ambient temperature	-40 ... +60 °C -40 ... +45 °C for MCU control unit with integrated purge air supply		
Approvals			
Conformities	<ul style="list-style-type: none"> • U.S. EPA PS1 and PS11 • EN 15267-3, EN 14181 and DIN ISO 14956 • TÜV-tested for equipment subject to authorization (2001/80/EC, 2000/76/EC) and plants of 27th BImSchV (FICA) • MCERTS • GOST in progress 		
Protection class	<ul style="list-style-type: none"> • IP 66 for sender/receiver unit, reflector, MCU • IP 54 for external purge air unit 		
Electrical safety	CE		
Control Unit Inputs and Outputs			
Analog outputs ³⁾	3 outputs: 0/2/4 ... 22 mA, max. load 750 Ω		
Analog inputs ³⁾	2 inputs: 0 ... 20 mA		
Digital outputs ³⁾	5 outputs: 30 V DC/2 A, 48 V AC/1 A; potential-free Status signals: operation/malfunction, maintenance, function check, service requirement, limit value		
Digital inputs ³⁾	4 inputs to connect potential-free contacts		
Interfaces	<ul style="list-style-type: none"> • USB • RS232 (service) 	<ul style="list-style-type: none"> • RS485 by optional interface module • Ethernet by optional interface module 	
Bus protocol	<ul style="list-style-type: none"> • TCP/IP via Ethernet (optional interface module) • PROFIBUS-DP via RS485 (optional interface module) • Modbus ASCII/RTU via RS 485 		
General			
System components	<ul style="list-style-type: none"> • Sender/receiver unit • Reflector/scattered light receiver • MCU-P control unit with integrated purge air • MCU-N control unit with ext. purge air (option) 	<ul style="list-style-type: none"> • Connection cable • Purge air hose • Flanges with tube • Hood for weather protection (option) 	
Operation	Via SOPAS ET software and/or display		
Check function	<ul style="list-style-type: none"> • Zero and reference point test • Soiling correction • Automatic self-alignment 		

¹⁾ Depending on particle size and active measuring path

²⁾ Above dew point

³⁾ Extendable with additional I/O modules