Product data sheet



System FWE200DH

FWE200DH

DUST MEASURING DEVICES

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
System FWE200DH	On request

Our regional sales organization will help you to select the optimum device configuration.

Other models and accessories → www.sick.com/FWE200DH

Detailed technical data

Technical specifications

Measured values	Scattered light intensity, dust concentration (after gravimetric comparison measurement)
Performance-tested measurands	Dust concentration
Measurement principles	Scattered light forward
Spectral range	640 nm ... 660 nm Laser, protection class 2, power < 1 mW
Measuring ranges	
Dust concentration	0 ... 5 mg/m³ / 0 ... 500 mg/m³ Measuring ranges freely selectable Higher measuring ranges on request
Certified measuring ranges	
Dust concentration	0 ... 7.5 mg/m³ / 0 ... 10 mg/m³ / 0 ... 15 mg/m³ / 0 ... 50 mg/m³ / 0 ... 100 mg/m³ / 0 ... 500 mg/m³
Response time (t_{90})	0.1 s ... 600 s Freely adjustable
Accuracy	± 2 % Of measuring range full scale
Process temperature	
PVDF gas removal probe:	≤ +120 °C
Hastelloy gas removal probe:	≤ +220 °C Versions for higher temperatures on request
Process pressure	
With SLV7 2BH1100 purge air unit:	–20 hPa ... 20 hPa Other pressure ranges on request
Process gas velocity	5 m/s ... 30 m/s
Process gas humidity	Max. 40 g/m³ liquid water without water vapour
Ambient temperature	–20 °C ... +50 °C

Intake temperatures for purge air:	–20 °C ... +45 °C
Conformities	Approved for plants requiring approval 2001/80/EC (13. BImSchV) 2000/76/EC (17. BImSchV) 27. BImSchV TA-Luft (Prevention of Air Pollution) EN 15267 EN 14181 U.S. EPA PS-11 compliant When options are used, agreement with local authorities may be required
Electrical safety	CE
Enclosure rating	
Measuring and control unit	IP54
Electronics enclosure	IP65
Analog outputs	3 outputs: 0/2/4 ... 20 mA, + 750 Ω Electrically isolated
Analog inputs	6 inputs: 0 ... 20 mA Not electrically isolated
Digital outputs	5 relay outputs (change-over contacts), potential-free: 48 V, 1 A
Digital inputs	8 inputs
Modbus **Modbus**	✓, ✓
Type of fieldbus integration	TCP (via optional interface module, only one module possible per MCU) RTU RS-485 (via optional interface module, only one module possible per MCU)
PROFIBUS DP	✓
Type of fieldbus integration	Via optional interface module (only one module possible per MCU)
Ethernet	✓
Type of fieldbus integration	Via optional interface module (only one module possible per MCU)
Function	Connection to SOPAS ET software or OPC server
Serial	✓
Type of fieldbus integration	RS-232
Function	Proprietary service interface
Indication	
	LC display and status LEDs on control and remote unit
Input	Functional keys
Operation	Menu-driven operation via control unit or software SOPAS ET
Dimensions (W x H x D)	
FWE200DH measuring and control unit	813 mm x 722 mm x 286 mm (for details see dimensional drawings)
Weight	
FWE200DH measuring and control unit:	65 kg
Sampling probe:	≤ 15 kg
Material in contact with media	PVDF, Hastelloy
Energy supply	
Voltage	115 V AC 230 V AC

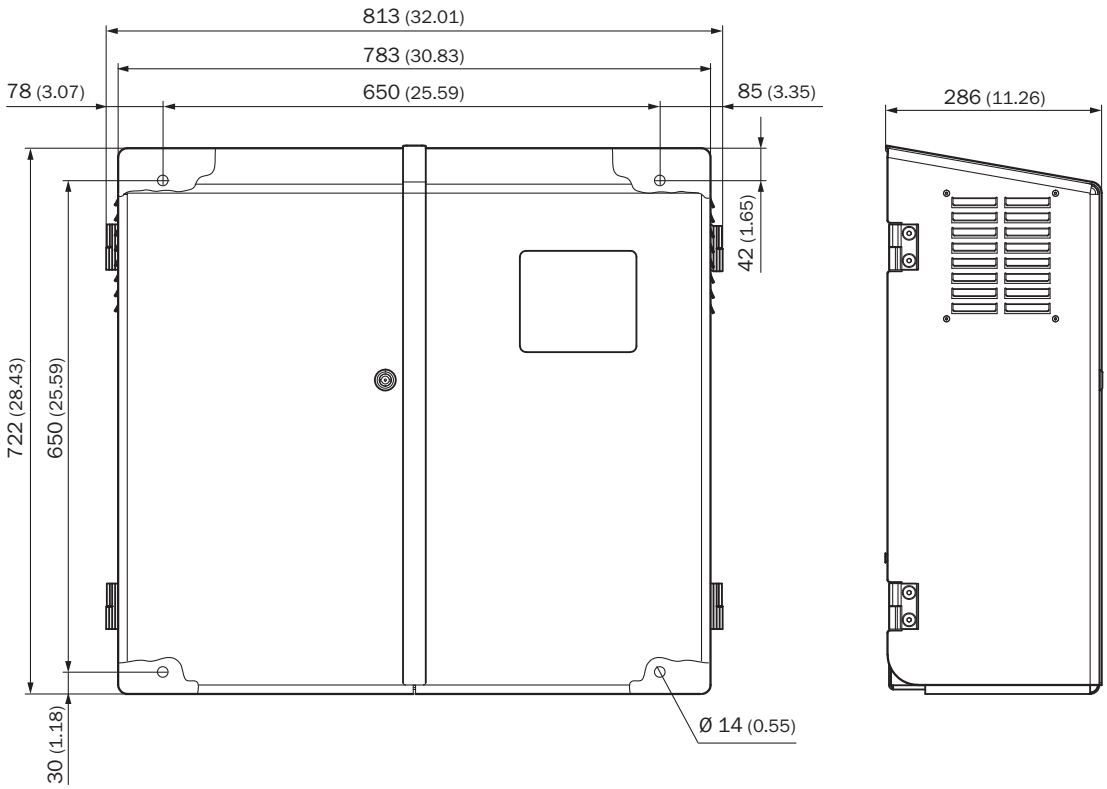
Frequency	50 Hz / 60 Hz
Power consumption	FWE200DH measuring and control unit: 800 VA ... 1,700 VA Air heater: ≤ 1,000 VA Sample gas line, heated: ≤ 300 VA
Test functions	Automated self-test (zero point, contamination, drift) Contamination limit values: Warning at 30%; fault at 40% Manual linearity test with reference filter
Options	FWE200DH mounting rack Air backwash Water backwash Sample gas line, heated Air heater

Classifications

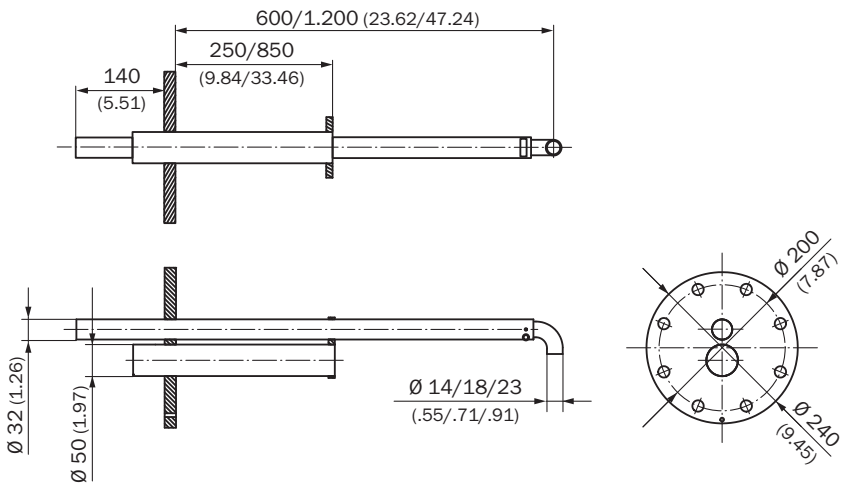
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ECLASS 6.0	27150306
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ECLASS 8.0	27150306
ECLASS 8.1	27150306
ECLASS 9.0	27150306
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ECLASS 11.0	27150306
ECLASS 12.0	27150306
ETIM 5.0	EC001190
ETIM 6.0	EC001190
ETIM 7.0	EC001190
ETIM 8.0	EC001190
UNSPSC 16.0901	41115406

Dimensional drawing (Dimensions in mm (inch))

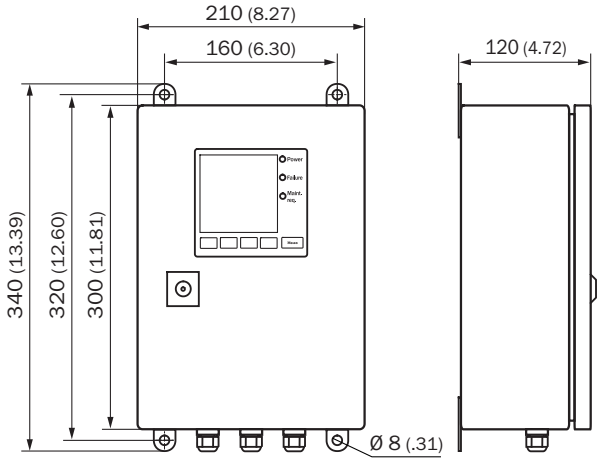
FWE200DH measuring and control unit



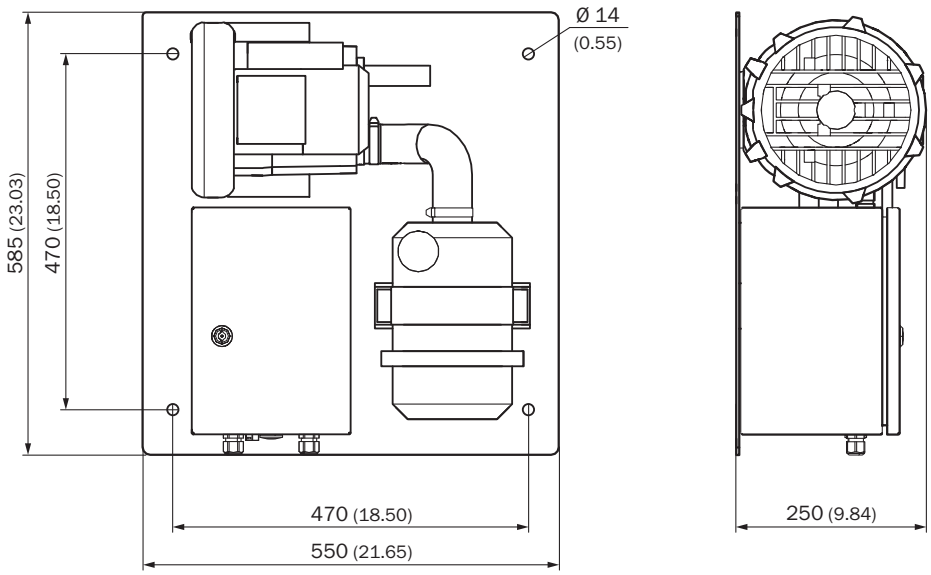
Sampling probe



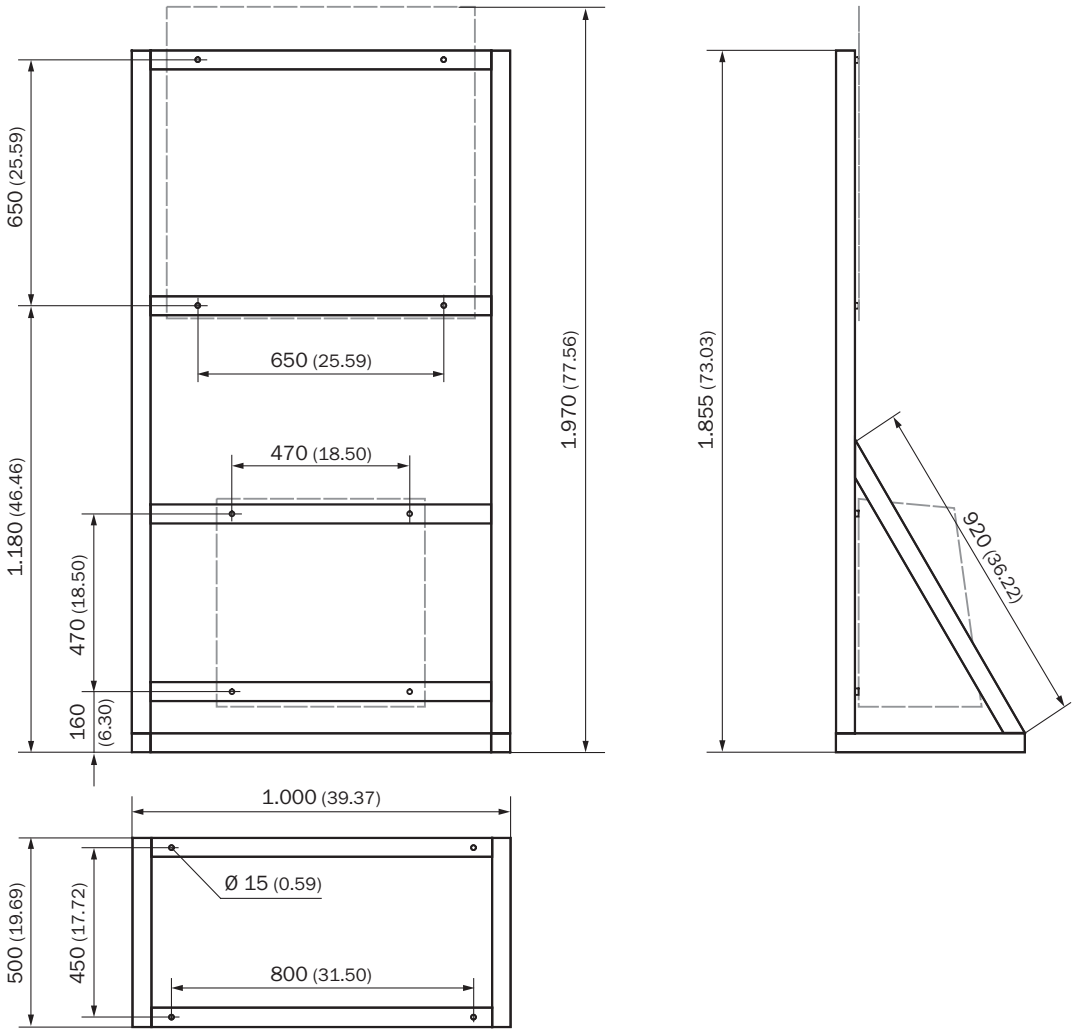
FWE200DH remote control unit



SLV7-1 purge air unit, 2BH1100, 1-ph



FWE200DH mounting rack



SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com