Product data sheet



System MARSIC300

MARSIC300

GAS ANALYZERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
System MARSIC300	On request

Other models and accessories ➜ www.sick.com/MARSIC300

Detailed technical data

Technical specifications

Measured values	CO_2, SO_2, NO, NO_2, CO, NH_3, H_2O
Maximum number of measurands	8
Measurement principles	NDIR spectroscopy
Spectral range	2,000 nm ... 11,000 nm
Length of measuring path	8.5 m
Gas flow rate	200 l/h ... 300 l/h
Measuring ranges	
CO_2	0 ... 25 Vol.-%
SO_2	0 ... 30 ppm / 0 ... 2,000 ppm
NO	0 ... 300 ppm / 0 ... 2,000 ppm
NO_2	0 ... 200 ppm / 0 ... 500 ppm
CO	0 ... 200 ppm / 0 ... 2,000 ppm
NH_3	0 ... 50 ppm / 0 ... 500 ppm
H_2O	0 ... 40 Vol.-%
Response time (t_{90})	≤ 140 s Including sample gas path and gas sampling unit
Accuracy	< 2 % Of measuring range full scale
Sensitivity drift	< 2 %: of measuring range full scale per week
Zero point drift	< 2 %: of measuring range full scale per week
Reference point drift	

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Detection limit	< 2 %: of measuring range full scale
Process temperature	+10 °C ... +550 °C
Process pressure	–20 hPa ... 200 hPa Relative
Dust load	≤ 200 mg/m³
Ambient temperature	0 °C ... +50 °C Type approved up to 45 °C
Storage temperature	–20 °C ... +70 °C
Ambient pressure	900 hPa ... 1,100 hPa
Ambient humidity	≤ 90 % Non-condensing
Conformities	MARPOL Annex VI and NTC 2008 – MEPC.177(58) Guidelines for exhaust gas cleaning systems – MEPC.340(77) Guidelines for SCR reduction systems – MEPC.198(62) DNV GL Rules for Type Approvals (2012) IACS E10 and Rules of major classification societies
Electrical safety	CE, Rules of major classification societies
Enclosure rating	IP54
Modbus	✓
Type of fieldbus integration	TCP
PROFIBUS DP	✓
Remark	Option
Type of fieldbus integration	RS-485
Ethernet	✓
Function	Connection to OPC server
Indication	LC display Status LEDs: "Power", "Maintenance request" and "Fault"
Input	Functional keys
Operation	Via LC display or SOPAS ET software, multiple operating levels, password-protected
Dimensions (W x H x D)	600 mm x 1,300 mm x 434 mm (for details see dimensional drawings)
Weight	120 kg
Material in contact with media	Stainless steel 1.4547, PTFE, aluminium, coated

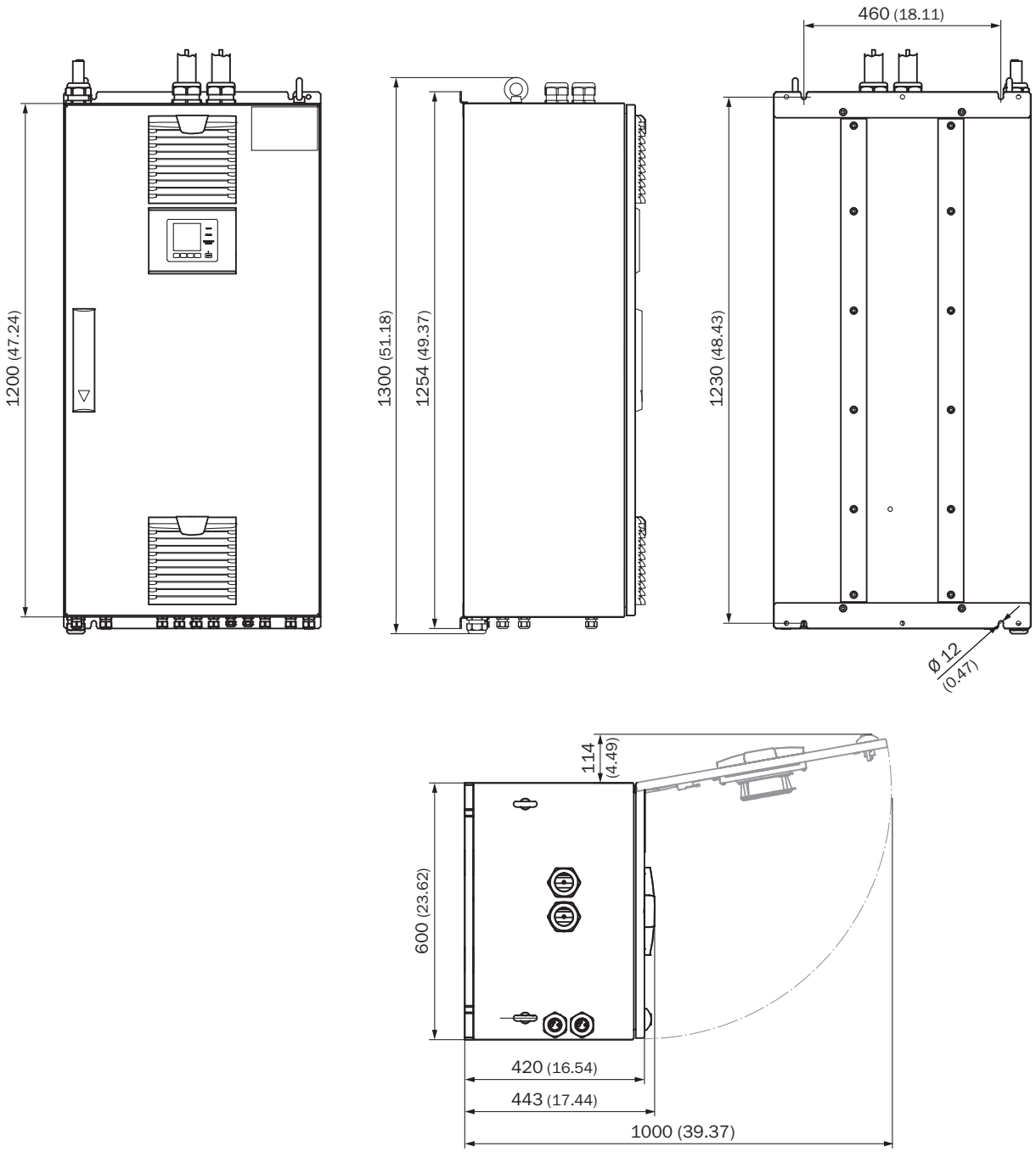
Mounting	Wall-mounting
Energy supply	
Three-phase current	3-phase: 115 V AC, 50/60 Hz 3-phase: 208 V AC, 50/60 Hz 3-phase: 230 V AC, 50/60 Hz Special configurations with minimal equipment are also possible
Current consumption	At 230 V AC: ≤ 14 A
Power consumption	Analyzer cabinet: ≤ 1,000 VA Sample gas line, heated: ≤ 95 VA/m Gas sampling unit: ≤ 450 VA Heated gas sampling pipe: ≤ 450 VA
Auxiliaries	
Compressed air:	≤ 1,300 l/h Instrument air: 5 ... 7 bar; particle size max. 1 µm; oil content max. 0.1 mg/m³; pressure dew point max. –40 °C
Sample gas connections	Clamping ring fitting for 6 mm pipes
Auxiliary gas connections	
Compressed air	Hose connector DN 6/8 and DN 8/10
Test gas	Hose connector DN 6/8
Corrective functions	Drift correction and optical monitoring function via adjustment cell Automatic zero point adjustment with instrument air
System components	Gas sampling unit, heated, including filter housing Sample gas line, heated (max. 35 m) Analyzer cabinet
Integrated components	Ejector pump Pressure sensors

Classifications

ECLASS 5.0	27150302
ECLASS 5.1.4	27150302
ECLASS 6.0	27150302
ECLASS 6.2	27150302
ECLASS 7.0	27150302
ECLASS 8.0	27150302
ECLASS 8.1	27150302
ECLASS 9.0	27150302
ECLASS 10.0	27150302
ECLASS 11.0	27150302
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))

MARSIC300



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