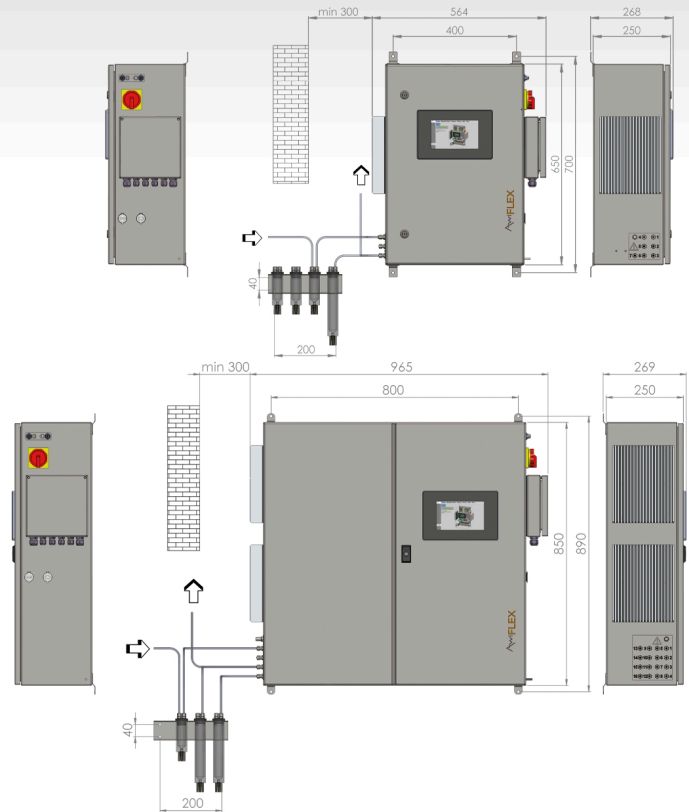




TECHNICAL DATA  
AWIFLEX COOL /  
AWIFLEX COOL XL



Subject to technical changes (12.0)

AWITE BIOENERGIE GMBH | GRÜNSEIBOLDSDORFER WEG 5 | D - 85416 LANGENBACH  
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# AWITE GAS ANALYSIS SYSTEMS

GENERAL DATA	AWIFLEX	AWIFLEX XL
Installation dimensions (WxHxD in mm)	564x700x268	965x890x269
Weight	≤ 34 kg	≤ 72 kg

OPERATION CONDITIONS		
Ambient temperature	5 – 35 °C	
Ambient humidity	0 – 80 % relative humidity	
Installation height	≤ 2000 m above NHN	
Protection type	IP 54	
Lengths of suction pipe	≤ 100 m	
Max. gas inlet pressure	20 mbar rel. (optional 400 mbar or up to 20 bar)	
Min. gas inlet pressure	-20 mbar rel. (optional -350 mbar)	
Rel. gas humidity	≤ 100 %	

POWER SUPPLY		
Rated input voltage	100 – 240 VAC	
Input voltage range	85 – 265 VAC (Derating < 90 VAC: 2,5 % / Kelvin)	
Frequency range	50 – 60 Hz	
Power consumption <sup>1</sup>	≤ 80 W	≤ 160 W
Power supply unit	24 VDC / 5 A	24 VDC / 10 A
AwiProtect	Over and low voltage protection, overcurrent protection	
Line filter		

## SENSOR SYSTEM

SENSOR <sup>2</sup>	MEASURING PRINCIPLE		MEASURING RANGE	REPEATABILITY <sup>3</sup>
Methane	infrared 2-beam sensor	thermostated, pressure compensation	0 – 100 Vol.-%	± 0,2 %
Carbon dioxide	infrared 2-beam sensor	thermostated, pressure compensation	0 – 100 Vol.-%	± 0,2 %
Carbon monoxide	infrared 2-beam sensor	thermostated, pressure compensation	0 – 100 Vol.-%	± 0,2 %
Oxygen	electrochemical	pressure compensation	0 – 25 Vol.-%	± 0,1 %
Hydrogen sulfide	electrochemical	pressure compensation	0 – 20 ppm	± 2,5 %
			0 – 200 ppm / 0 – 500 ppm / 0 – 1.500 ppm / 0 – 3.000 ppm / 0 – 5.000 ppm / 0 – 10.000 ppm	± 1,0 %
Hydrogen	electrochemical	pressure compensation	0 – 20.000 ppm <sup>4</sup> / 0 – 50.000 ppm <sup>4</sup>	± 1,0 %
			0 – 2.000 ppm / 0 – 5.000 ppm / 0 – 10.000 ppm / 0 – 20.000 ppm / 0 – 50.000 ppm	± 1,0 %
Hydrogen	thermal conductivity	temp.- and pressure compensation	0 – 100 Vol.-% <sup>4</sup>	± 1,0 %
			0 – 100 Vol.-%	± 0,2 %

<sup>1</sup> values might differ, see type plate of analysis system

<sup>2</sup> configurable and extendable as required

<sup>3</sup> from upper measuring range value

<sup>4</sup> with dilution and only in conjunction with auto-calibration

PROCESS CONNECTION		SOFTWARE FEATURES	
Hose screw connection, stainl. steel 4/6 mm	standard	Display of measurement history	graphic / tabular
Pipe screw connection, stainl. steel 6 mm VA-pipe	optional	Extensive data storage	4GB microSD card
Hose screw connection, stainl. steel 1/8" / 1/4"	optional	<b>DATA INTERFACES</b>	
Pipe screw connection, stainl. steel 1/4" VA-pipe	optional	Group fault	potential-free 1 x relay (Uout: max. 250V AC/DC @ 6A)
<b>NUMBER OF MEASURING POINTS</b>		Alarm outputs (optional)	potential-free n x relay (Uout: max. 250V AC/DC @ 6A)
<b>AwiFLEX</b>	1-4	Analogue outputs 4 – 20 mA (optional)	analog output feed-through terminal
<b>AwiFLEX XL</b>	1-9	Ethernet (optional)	Ethernet/IP – I/O Adapter (slave) PROFINET – I/O Device (slave) Modbus TCP Slave ProcessView AwiView TCP Socket VNC
External measuring point switch-over <b>AwiSamplex</b> for additional measuring points		RS232 / RS485 (optional)	Modbus RTU slave 1 x M12 connector
Connection for discharge of exhaust air into the open or re-feeding of measuring gas into process pipe (relative pressure < 20 mbar)		Profibus DP slave (optional)	2 x M12 connector
Connection for removal of condensate in provided condensate container		USB (optional)	1 x type A
<b>MAXIMUM NUMBER OF DAILY MEASUREMENTS</b>		More interfaces and transfer protocols on request	
<b>AwiFLEX</b>	50, continuous	<b>CERTIFICATION</b>	
<b>AwiFLEX XL</b>	50, continuous	NRTL TÜV SÜD Mark (UL / CSA 61010-1) Certificate No. U8 17 12 83160 002	
<b>SAFETY MECHANISM</b>		SIL 1 for O <sub>2</sub> measurement according IEC 61508-2 (optional)	
Water sensor		<b>OPTIONS</b>	
Pressure sensor		Combi package <b>AwiDESULF</b> for microbiological desulfurization incl. compressor, control valves and controller output	
Internal monitoring of leakages (CH <sub>4</sub> ) by concentration measurement (interior) <sup>5</sup>		FuzzyLogic control for controlling valves, fans etc.	
Automatic detection of overloads and temporary switch-off of involved measuring channels to preserve the sensors		Integration of external sensors (analogue and digital), e.g. temperature, pressure, gas amount measurement, relative humidity	
Temperature monitoring (interior)		Calculation of calorific value, energy flow, CH <sub>4</sub> - and humidity compensation etc	
Gas warning sensor for interior of the device		Automatic calibration feature	
<b>AwiFLEX XL</b>	optional	Remote access to gas analysis	
<b>GAS PROCESSING</b>		Monitoring of measuring gas pump with switch mechanism to redundant pump	
Gas filter		Automatically known values for measuring ranges to increase accuracy	
Gas precision pressure regulator	optional	Control of gas analysis from high-level controls	
Condensate trap			
Gas cooler AwiCool			
Other pressure control systems	optional		
<b>PLC</b>			
AwiCore electronic module	extendable		
<b>GAS TRANSMISSION</b>			
Encapsulated analytic valves			
Durable membrane pump			
<b>DISPLAY AND OPERATION</b>			
Panel-PC	7" TFT touch panel 1024x600		



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