P53LWC pH meter/redox meter

pH/Redox/Temp Analysator

Brief description

P53F type pH/ORP analyzer covers all technologies of universal type P53, adding to USB data export and Zigbee wireless data transmission technology.

Application fields

Generally conventional environment monitoring, sewage disposal, ultrapure water environment, metal plating and disposal, water quality disinfection, oiliness, organic solvent, sulfide, strong acid and strong base environment and fermentation environment

System description diagraph

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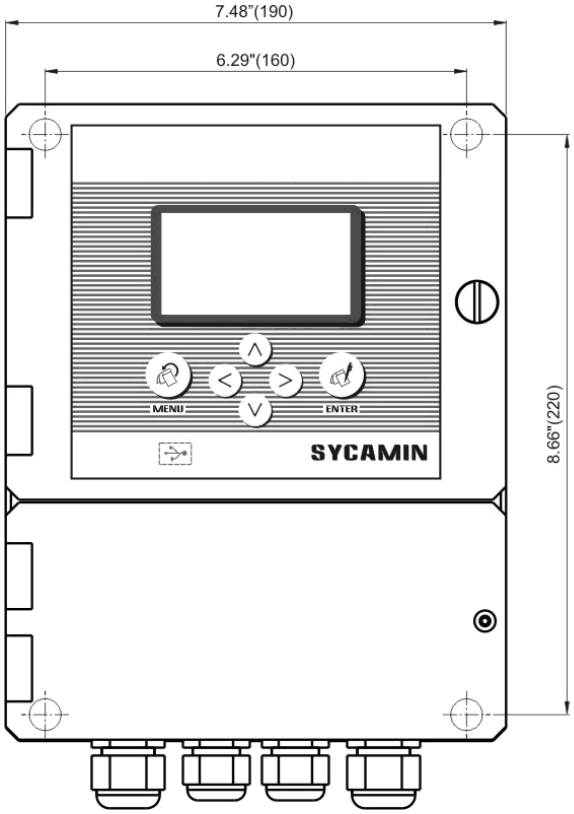
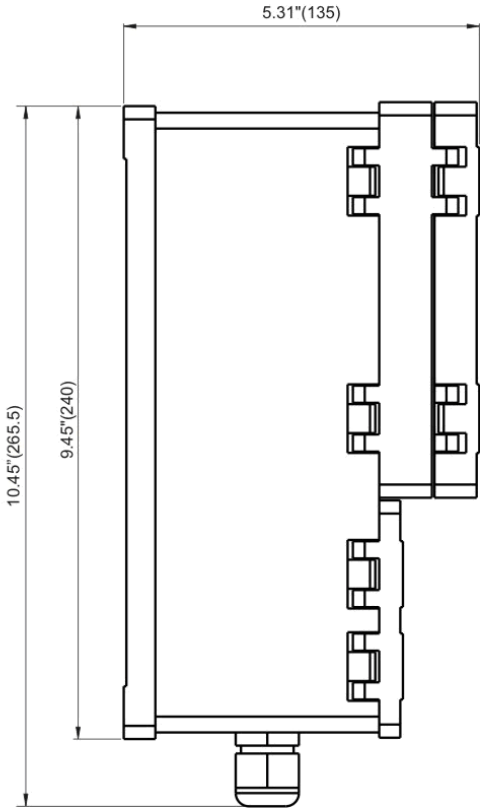
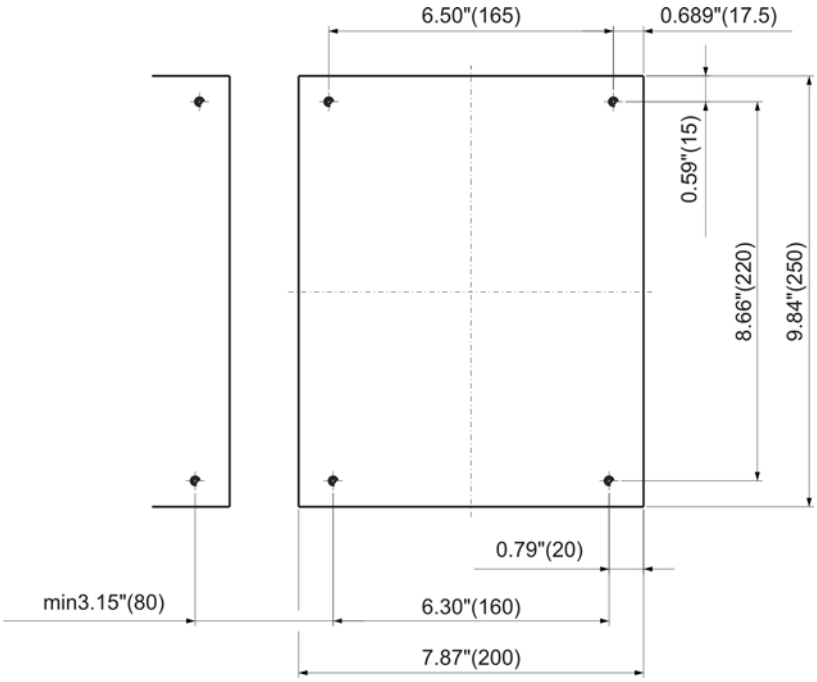
Instrument dimensional drawing Unit: inch (millimeter)





System description diagraph

Instrument installation drawing Unit: inch (millimeter)



SYCAMIN

MEASURING SYSTEM

SPECIFICATION SHEET

Features description

Diversifying measurement	Measured pH (or ORP) value can be simultaneously displayed on screen with temperature. Alarm state can be simultaneously displayed on one screen. Screen displays date and time.
Backlight LCD reading	Backlight oversized graph dot matrix liquid crystal display, resolution ratio is 128×64 pixel, display height of main character is 1/2 inches (13 mm).
Multilanguage support capability	All the display of display screen can select to show by English or Chinese.
Multifunction	Isolated RS-485, standard MODBUS protocol or factory agreed protocol GPRS and Zigbee wireless data transmission (optional); Field print (optional); USB historical data downloading (optional);
Menu guide operation	Simple key field, reasonable menu structure, this analyzer is easy to be used, whose menu display screen designates user setting, calibration, operation, test, maintenance function and so on.
Difference or traditional compound electrode	Being able to use any differential technological PH or ORP electrode or conventional combined electrode, being able to accept PT1000RTD, NTC10K temperature sensor.
Two path of analogue output 0/4~20mA	The first analogue output terminal is designated as main measured value (pH or ORP); the second analogue output can select main measured value (pH or ORP) or measured temperature value
Password protection	For safety, please use password protection function to restrict instrument -al setting visit. Just allow authorized personnel to do calibrating.

System performance

Mechanical parameter

Housing	Aluminium alloy stoving varnish
Protection degree	IP65
Display	128 x 64mm dot-matrix LCD liquid crystal
Weight	Approximately 5.51 pounds (2.5 kg)
Dimension (L×W×D)	265.5×190×135 mm (L×W×D)

Electrical connection

Type	Terminal
Power requirement	220VAC, 50Hz
Power consumption	Maximum 10VA

Environmental conditions

When operating	-4～140℉ (-20～60℃); relative humidity 0～95%, no condensation
When depositing	-22～158℉ (-30～70℃); relative humidity 0～95%, no condensation

System performance

Input

Measured variable	pH	ORP	Temperature
Measurement range	-2.00~+16.00pH	-1999~+1999mV	-4.0~302.0℉ (-20~150.0℃)
Resolution ratio	0.01 pH	1mV	0.1℃
Temperature compensation	NTC10kΩ or Pt1000 RTD Automatically or user manually inputs a temperature set up by himself to do compensating Setting range: 32.0~140.0℉(0~60.0℃) For pure water, being able to select extra temperature correction factor (ammonia water or morpholine), to do temperature compensation automatically in the range of 32.0~122.0℉(0~50.0℃)		
Distance between sensor and transmitter	5-wire differential technological sensor, whose maximum is 100 ft. (30m) Pre-amplifier of conventional combination sensor, whose maximum is 985 ft. (300 m) Conventional combination sensor without pre-amplifier, whose maximum is 100 ft. (30 m) and capacity of sensor cable is less than 30 pF/ft		
Calibration method	Automatical calibration	3 points of calibration (pH only): using standard buffer solution, instrument automatically generates zero and two slopes 2 points of calibration: using standard buffer solution, instrument automatically generates zero and one slope 1 point of calibration: using standard buffer solution, instrument automatically generates zero	
	Manual calibration	Having known sensor's zero and slope, whose numerical value is altered manually	
	Standard buffer solution setting	4.01,6.86 and 9.18pH	

System performance

Output

Relay output	3 pieces of relay, SPST (C type), UL level, 10A/5A @120/250 VAC, 5A @ 24 VDC contact	Respectively being able to set as high alarm output, low alarm output as well as temperature alarm or washing output.
Function mode	Control: being able to set as: high/low phase adjustion, fixed point setting, dead zone, open delay and closed delay. Alarm: being able to set as: low post alarm point, dead zone of low post alarm point, high post alarm point, dead zone of high post alarm point, open delay and closed delay. State: being able to set as: normally open or normally closed; when happening error, automatically recovering setting before leaving factory.	
Control function	Relay or electric current output can be programmable as one or two pieces pulse pump or magnetic value or motor driven pump Programmable P, PI, PID or PD controls parameter Each relay can designate to pass setting parameter to do drive Measured value selected by sensor (PH, ORP, temperature or self-cleaning)	
Current output	Two groups of independent analogue output (#1 and #2), each group can be set as 0~20mA or 4~20mA Resolution: 0.004mA(12 digits) Maximum driving load: 550Ω	#1 group designates representing measurement pH/ORP #2 group can designates representing measurement pH/ORP or temperature
Pulse output	Two groups of pulse output	
Communication way	Isolation RS-485	Respectively following two groups of electric current output manufacture procedure value
Storage backup	RS-232	Standard MODBUS protocol Or factory agreed protocol
	HART protocol (optional)	Making use of serial port miniprinter Printing historical data (optional)
	GPRS transmitter machine (optional)	Utilizing appropriate hand-held terminal or data system and according to communication chaining established by HART software to realize configuration and invoking of multi-testers' measured value
	All the user settings are saved in EEPROM, and data will not be lost after outage. Data storage 20000 points Being able to circumscribe USB downloading historical record Zigbee wireless data transmission technology	
Measuring performance	Accuracy: 0.1% of full measurement range Stability: each 24h is 0.05% of full measurement range (no accumulation) Repeatability: less than 0.1% of scale range Temperature drift: zero and full measurement range: less than 0.03% of each ℃ full measurement range	

More information **www.sycamin.de**