SI0Gxx0xx and SI0Hxx0xx

Sensor fitting for immersion installation, 60 mm diameter

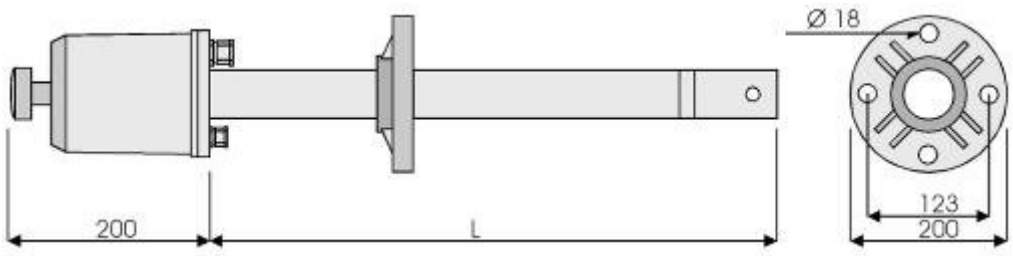
Sensor fitting for immersion installations suitable to mount up to 4 electrodes and cells with standard dimensions (∅12 mm, length 120 mm) for the measure of pH, ORP, conductivity, dissolved oxygen and temperature. These probes are handy and can be easily installed on basins, channels and open tanks.
Mod.SI0G and SI0H sensor fittings are made of PP, PVDF or stainless steel, with ∅60 mm body and are supplied c/w mounting flange. Mod.SI0H probe is supplied c/w sensor chemical cleaning system. The probe head houses the terminal board and when required the electrolyte reservoir for reference electrodes (pH and ORP measures).
Typical applications for SI0G and SI0H sensor fittings are multiparametric analysis in drinking water plants, wastewater treatment plants, in basins, channels and tanks.

Advantages

- **Sturdy and compact execution**
- **Suitable to house up to 4 sensors for pH, ORP, Conductivity, Dissolved Oxygen, Temperature measure**
- **Easy to install**
- **Supplied c/w sliding fixing flange**
- **Cable outlet from tight cable glands**
- **Electrolyte reservoir for pH and ORP reference electrodes**
- **Extremely low maintenance requirements**
- **Electrodes protection can be removed**

Operating principle and realization

SI0G and SI0H sensor fittings include a body with 60 mm diameter, 600, 1000 or 1500 mm standard length, an electrode holder c/w electrode protection and a sealed housing on the upper part of the fitting that includes the terminal board and the electrolyte reservoir. The fitting body is available in PP and PVDF; SS only upon request. The electrode holder allows easy electrode replacement and the electrode protection may be easily removed if not required. The electrolyte reservoir (for reference electrodes dedicated to pH and ORP measures) assures long operating periods without refilling requirements and a good hydraulic head that keeps clean the porous diaphragm.
The sensor fitting can be easily installed through a sliding flange, ISO/DIN DN50, that can be fixed in its position on the body with two screws (included).
The probe Mod.SI0H includes the chemical cleaning device; the cleaning sequence is directly driven by one of the μP transmitters connected to the probe.



SI0Gxx0xx and SI0Hxx0xx

Electrodes that can be installed into the SI60 sensor fitting

pH		Combined electrode.....101V or 101GEL or 101BB
		Simple pH measuring electrode.....S101L
	+	Reference electrode.....301I or 301GEL or 301BB
ORP		Combined electrode.....201V (Pt or Au) or 201GEL (Pt or Au) or 201BB (Au or Pt)
		Simple ORP measuring electrode.....S201LI (Pt or Au)
	+	Reference electrode .....301I or 301GEL or 301BB
Conductivity		Conductivity cell.....401LxA0Axx
	or	Conductivity sensor c/w temperature sensor.....401Lx(B,CorD)0Axx
D.O.		Dissolved oxygen cell 332Pxxxxxx
Temperature		Temperature sensor Pt100 .....T0x2xxx

Technical Specifications

Allowed sensors:.....refer to the given list
Body material:.....PP or PVDF (SS upon request)
Operating temperature limits: (*):.....5 to 70°C (PP); 5 to 110 °C (PVDF); 5 to 120°C (SS)
Storage temperature limits:.....0 to +60 °C
Electrodes cable outlet: .....q.ty 3 from tight cable glands (1 PG 13,5 and 2 PG9)
Max.allowed distance from sensor to instrument: max 50 m, with respect to the limits given for each sensor
Mounting: .....supplied c/w mounting flange ISO/DIN DN50
Dimensions: .....∅60 mm, length 600 – 1000 – 1500 mm
Weight:.....apprx.1,5 Kg (600 mm version)

(*) Operating temperature must always respect limits given for each sensor.

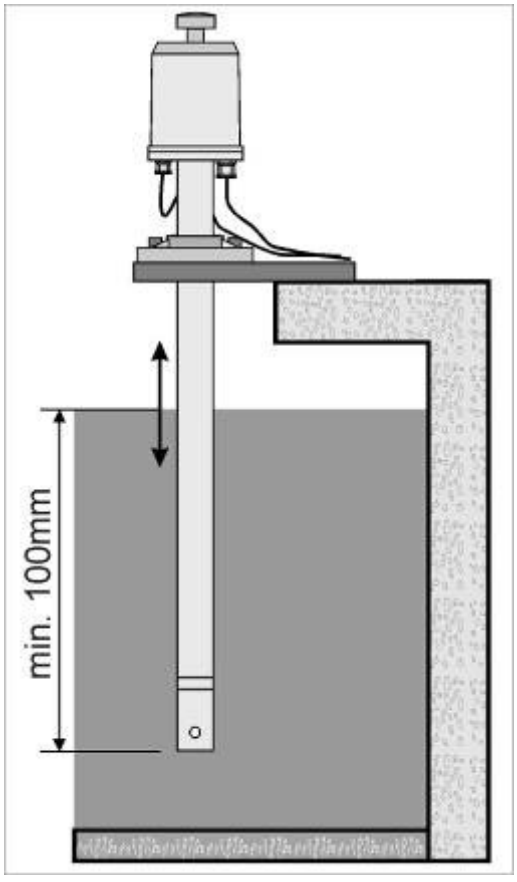
Installation, Calibration & Maintenance

The sensor fitting can be installed through the sliding flange in basins or tanks, in a vertical position; it may also be installed in a inclined position, with a maximum deviation of 75° from vertical axis. A stainless steel mounting braket is optionally available (see order code breakdown). The immersion depth can be set by moving the position of the flange on the fitting body; the flange can then be fixed with the two screws. A 100 mm immersion depth is enough for correct sensor operation. Make sure the sensor protection caps have been removed before the start up.

This probe has very low maintenance requirements: it is recommended to clean the electrodes at periodical intervals defined by the operators on the basis of his own experience of the specific process. After the cleaning always operate a check of the sensitivity of the measuring chains.

The calibration can be operated either by comparison to properly calibrated portable instruments or extracting the probe from the process liquid, cleaning it and then immersing it into the solutions with known value of the parameter to be calibrated. Calibration frequency is to be defined by the operator according to specific process requirements. A threaded calibration vessel is optionally availbale, see order code breakdown.

Periodically inspect the level of electrolyte in the reservoir (when it is present) and refill when required.



SI0Gxx0xx and SI0Hxx0xx

Order code breakdown

	SI0	x	x	x	x	x	x
Immersion fittings	SI0						
Type of sensor fitting							
∅ 60 mm, for 4 sensors **SI/60**		G					
∅ 60 mm, for 4 sens. c/w chemical cleaning system **SI/60-AP-CH**		H					
Probe length (measured under the flange)							
Reserved			0				
600 mm			2				
1000 mm			4				
1500 mm			5				
Special execution			9				
Probe construction material							
Reserved				A			
Polypropylene, PP (standard)				B			
PVDF, ∅ 60 mm fittings, length up to 1000 mm (Note 1)				E			
PVDF, ∅ 60 mm fittings, length up to 1500 mm (Note 1)				H			
SS AISI 316, ∅ 60 mm fittings, length up to 1000 mm (Note 1)				M			
Special execution				Z			
Fixed Code					0		
Calibration vessel							
Reserved						A	
For fittings ∅ 60 mm						D	
Not included						E	
Stainless steel mounting bracket							
Reserved							0
For fittings ∅ 60 mm							3
Not included							4

Note 1: Chemical cleaning system is always made of PP.

Accessories included in the supply

Sliding flange ISO/DIN DN50

Optional Accessories

Stainless steel bracket for wall installation .....Order probe code SI0xxx0x3
Calibration vessel to be screwed on the electrode holder joint.....Order probe code SI0xxx0Dx

Electrolyte reservoir.....Mod.123/28
Silicone rubber hose for electrolyte reservoir connection.....MOD.123/6X9

pH 7,00 buffer solution.....T/101-7x
pH 4,00 buffer solution.....T/101-4x
pH 9 buffer solution.....T/101-9x
where x= A : 250 ml bottle; x = B : 500 ml bottle; x = C: 1000 ml bottle.

Known conductivity solution for the calibration of conductivity measuring chain, 250 ml bottle.....T/401-A
Specify desired conductivity value; typical values are:
1,278 mS, 11,67 mS and 102,09 mS, other values are available upon request.

Known ORP value standard solution, 468 mV, 250 ml bottle.....T/201-468A
Known ORP value standard solution, 220 mV, 250 ml bottle.....T/201-220A