

Dissolved Oxygen measuring cell, Ø12 mm, stainless steel body

Group of cells for the measure of Oxygen designed for laboratory use and industrial applications, stainless steel body, Ø12 mm, 120 mm length. Series 332C cells are membrane polarographic sensors including two electrodes immersed into an electrolyte solution and separated from the sample by a stainless steel reinforced PTFE-silicone membrane permeable to gaseous oxygen. These cells include a special system for the compensation of the volume increase of electrolyte solution due to high temperatures, they can therefore be used at high temperature and can be sterilized in-line. Thanks to their small dimensions these cells are also suitable for laboratory use.

Series 332C cells can be directly installed into closed pipelines.

Typical applications of these cells are chemical and pharmaceutical industries, food and beverage industry.



Advantages

- Standard dimensions, Ø 12 mm, L.120 mm
- Very sturdy execution
- Stainless steel body
- Stainless steel reinforced PTFE-silicone membrane
- Polarographic membrane cell
- Available c/w integral temperature sensor
- Measuring range: 0 to 20 ppm
- Operating temperature up to 130 °C
- Operating pressure up to 4 bar
- Can be sterilized in line
- Little maintenance requirements

Operating principle and realization

Series 332C cells are classic Clark cells, with platinum working electrode and silver counter electrode. These cells have stainless steel body, Ø 12mm L.120mm. The two electrodes are installed in the lower tip, immersed in the electrolyte solution and separated from the sample by a stainless steel reinforced PTFE-silicone membrane permeable to oxygen gas. The cell includes a temperature sensor for measure thermo compensation and temperature indication.

The cells c/w integral temperature sensor are available with integral cable. Maximum cable length is always 15 m. The PG13,5 threaded process connection allow direct installation of 332C cells into closed pipelines.

Series 332C cells are available with the options listed in the Order Code Breakdown.

Installation, Maintenance and Calibration

Mod.332C cell has to be installed in a position that is representative of the process dissolved oxygen, having a good sample mixing but no turbulence. Minimum sample flow rate required under the membrane is 0,5 cm/sec: the site of installation must be chosen accordingly.

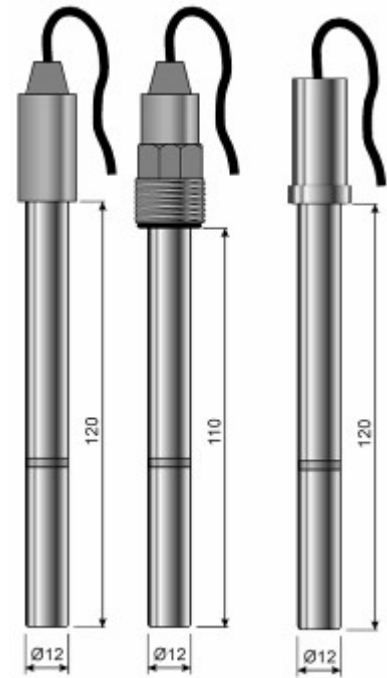
Calibration of 332C dissolved oxygen measuring cell and connected electronic can be performed leaving the cell in air. In this type of cell no zero calibration is required because of its good stability. Zero point can always be checked just immersing the cell in a sodium bisulphite solution (approx.1 g/L).

The only required maintenance is the check of the calibration to be performed once every one or two months, after cleaning the membrane.

332CxDOxxA

Technical Specifications

Cell body:.....stainless steel
 Electrodes:.....Platinum working electrode, Silver counter electrode
 Membrane:.....stainless steel reinforced PTFE-silicone membrane
 Measuring range:.....0÷20 ppm O₂
 Accuracy:.....0.25 % f.s.
 Response time:.....20" to reach 90 % of full value
 Operating temperature limits:.....5÷130 °C
 Operating pressure limits:.....4 bar
 Minimum sample flow rate under the membrane:.....0,5 cm/sec
 Dimensions : Ø 12mm, length. 120 mm
 Cable:.....integral, std 3 m, max.15 m
 Weight:.....100 g w/o cable



Optional accessories

Electrolyte solution

Electrolyte solution for 332C, 100ml bottleMod.E/332

Powder for zero point check

Sodium sulphite, powder, for zero pt control, 10 g pwr bag.....Mod.T/332

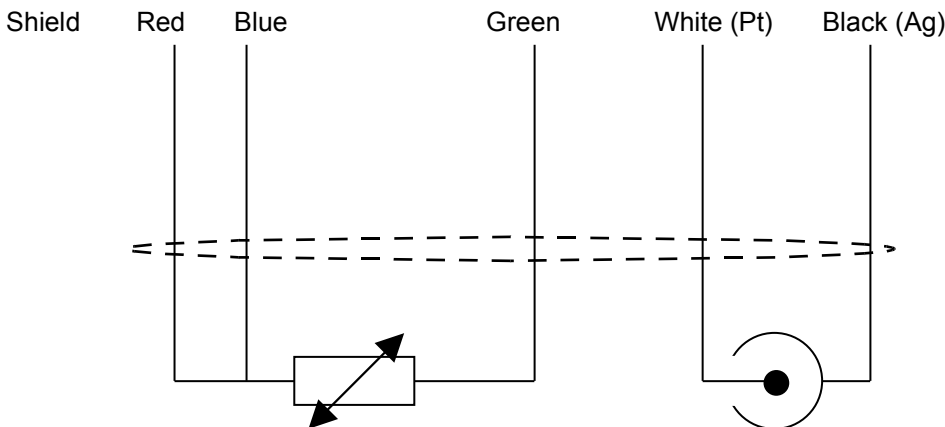
Maintenance Kit for 332C

2 ss cartridges with ss reinforced PTFE-silicone membrane + 25 ml electrolyte bottle..... Mod.332Minox

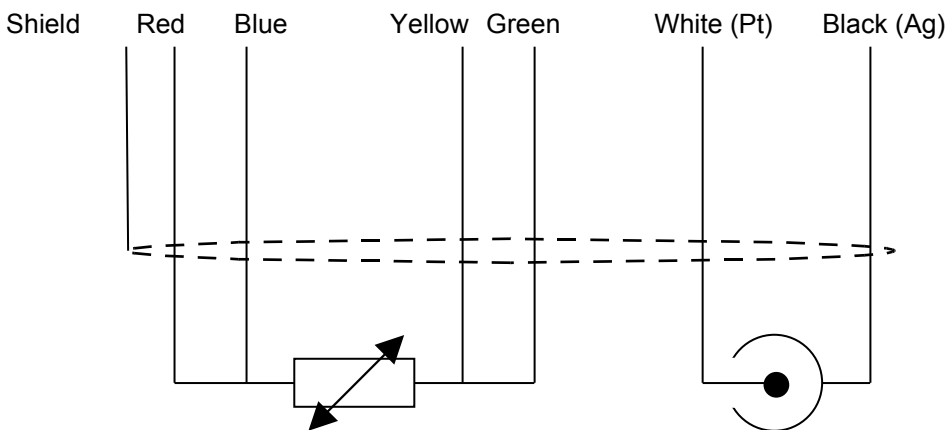
Wirings

Cable color code Rev.A

Wiring diagram, DO cell, 3 wires Pt100



Wiring diagram, DO cell, 4 wires Pt100



332CxDOxxA

Order code breakdown

	332	x	x	x	x	x	x	x
Cells for the measure of oxygen	332							
Type of cell								
Stainless steel cell, Ø 12mm, L.120 mm (332/P-inox)		C						
Temperature compensation								
Reserved			0					
Sensor Pt100			1					
Sensor TC100			2					
Sensor Pt1000			4					
Special execution			9					
Body material								
Reserved				A				
AISI 316				D				
Special execution				Z				
PTFE Membrane thickness								
Standard: SS reinforced PTFE-silicone membrane					0			
Special execution					9			
Cable and connector								
Reserved						Y		
Integral shielded cable, 1 m (standard)						A		
Integral shielded cable, 3 m						B		
Integral shielded cable, 5 m						C		
Integral shielded cable, 10 m						D		
Integral shielded cable, 15 m						E		
Integral shielded cable, 3 m and PG 13.5 connector						F		
Integral shielded cable, 5 m and PG 13.5 connector						G		
Integral shielded cable, 10 m and PG 13.5 connector						H		
Integral shielded cable, 15 m and PG 13.5 connector						L		
Integral shielded cable, 3 m and SS head c/w flange						M		
Integral shielded cable, 5 m and SS head c/w flange						Q		
Integral shielded cable, 10 m and SS head c/w flange						R		
Integral shielded cable, 15 m and SS head c/w flange						S		
Special execution						Z		
Connector on instrument side								
No connector							0	
Conn.CN/2109.1 c/w linearizing circuit for Mod.HD2109.1							3	
7 poles connector for bench top DO meter Mod.360, CN/13							4	
Special execution							9	
Cable color code revision (factory selected code)								
Revision A CV/7025-SCH								A