



**DC DYNAMIC<sup>TM</sup>**  
Process Equipment

Dissolved Oxygen Transmitter  
**SmartSense DO-2002**

## Core Features of SmartSense Transmitters

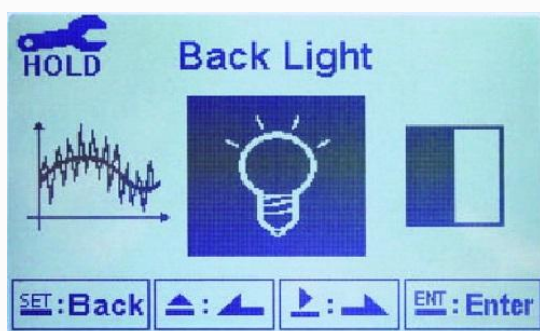
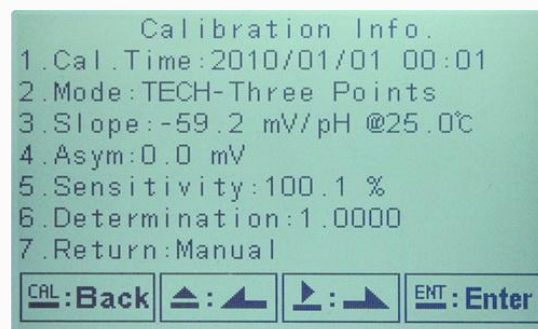


### Waterproof protection

Provides the instrument safety with IP65 waterproof protection and front flap cover design for easy installation and wiring.

### Dot-Matrix LCD

For convenience and better process safety, it reveals the last calibration records and a system setting overview

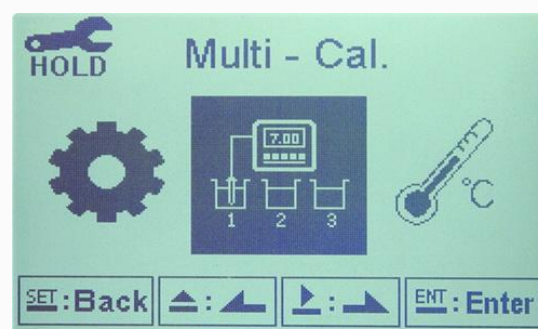


### Auto-Sense Backlight Display

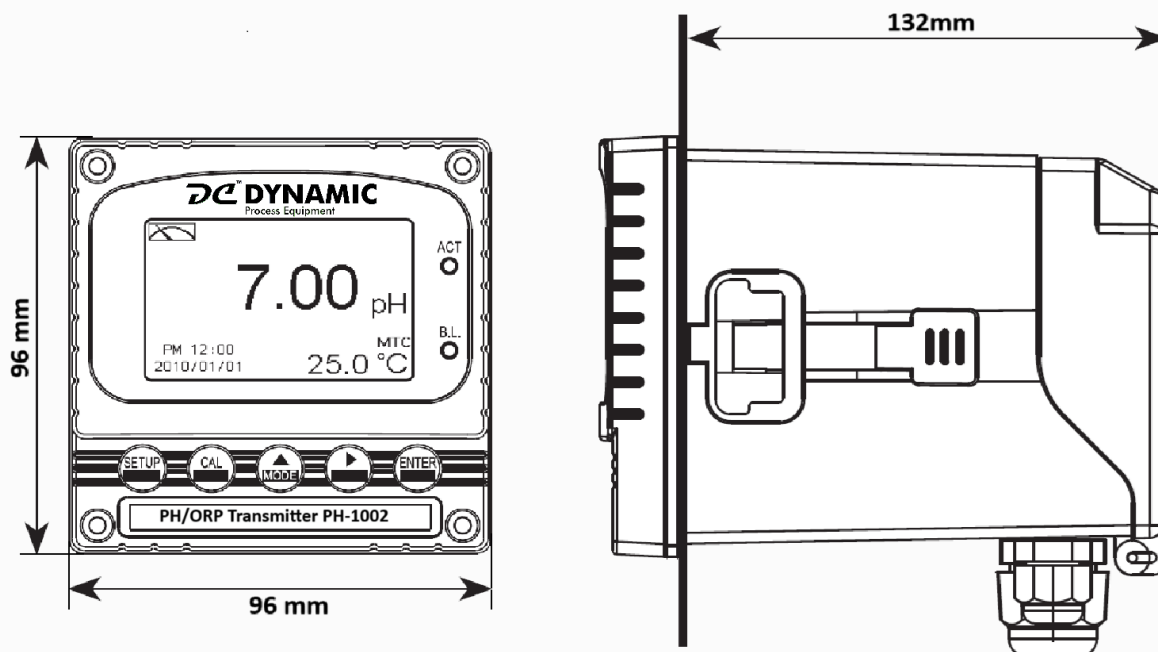
For clear reading and energy saving, it turns on the backlight automatically when the environment becomes dark.

### Graphical Menu

Allows extremely intuitive & quick setting and calibration.



## Transmitter Dimension DIN ¼, 96 x 96:



## Flameproof Transmitter Specification:

**Transmitter Type:** DIN1/4 (96 x 96mm)

### Flameproof protection:

EX-d AS PER IS/IEC 60079-1:2014 SUITABLE FOR INSTALLATION IN HAZARDOUS LOCATION OF GAS GROUP IIA & IIB, ZONE 1 & 2.

### Ingress protection:

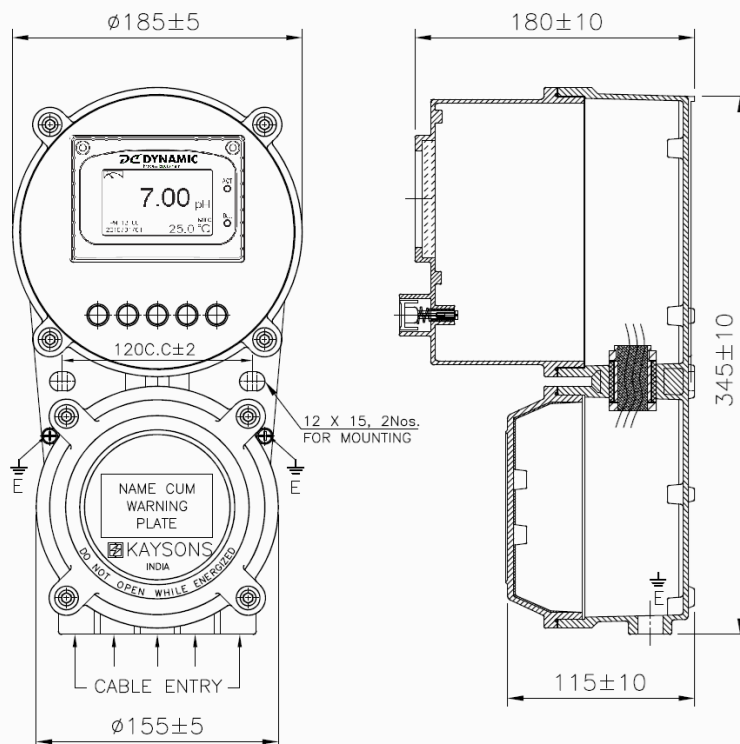
IP-66 AS PER IS/IEC 60529:2001 (REAFFIRMED 2014)

### DUST IGNITION PROTECTION:

(Ex 'db' IIB Gb) (Ex tb IIIC Db) AS PER IS/IEC 60079-31:2013

**Temperature class:** T6

**Material of construction:** DIE CAST AL. ALLOY LM-6.





## SmartSense Dissolved Oxygen Transmitter

### DO-2002



The SmartSense DO-2002 series transmitter is compatible with wide range applications of oxygen measurement. The graphical menu driven operation with setting and calibration information in full text pages provide the extreme ease of use in all functions.

#### **Applications**

- Industrial Process
- Water & Wastewater Treatment
- Effluent Treatment
- Fish ponds
- Fermentation

#### **Features**

- Waterproof and dustproof design
- Compatible with polarographic analogue sensors
- User-friendly operation with text and graphic illustration, clear signs and easy to understand
- With password and multi-key design-security protection enhancement
- Hi/Lo, Hi/Hi, Lo/Lo selectable two limited contact outputs with programmable set-points and hysteresis
- Sensor slope status indicator for pre-amplifier sensor
- Salinity correction & atmospheric pressure correction
- Automatic sensor clean function with programmable time interval
- LED indicated alarm or washing status signal
- IP 65 (NEMA 4X)

## Specification:

Dissolved Oxygen Transmitter SmartSense DO-2002		
Model		DO-2002
Measurement Range	% Saturation	0.0 to 600.0%, (Depends on the sensor), $\pm 0.5\%$ of reading ( $\pm 1$ Digit)
	mg/L, ppm	0.0 to 60.00 mg/l (ppm), (Depends on the sensor), $\pm 0.5\%$ of reading ( $\pm 1$ Digit)
	$\mu\text{g/l}$ , ppb	0.0 to 9999.9 $\mu\text{g/l}$ (ppb), (Depends on the sensor), $\pm 0.5\%$ of reading ( $\pm 1$ Digit)
	O <sub>2</sub> % Gas	0.00 to 120.0% O <sub>2</sub> , (Depends on the sensor), $\pm 0.5\%$ of reading ( $\pm 1$ Digit)
	Temperature	0.0 to 140.0°C (Depends on the sensor), $\pm 0.2^\circ\text{C}$ ( $\pm 1$ Digit)
Temperature Compensation		NTC 30K or NTC 22K automatic compensation or manual adjustment
Compensation	Salinity	0.0 to 45.0 ppt Manual Input
	Pressure	0.500 to 2.500 bar or 7.25 to 36.25 psi Manual Input
Display		Large LCD with auto-sense backlight and contrast adjustment
Analog Output	DO	Isolated DC 0/4 to 20 mA corresponding to measurement, max load 500 $\Omega$
	Temperature	Isolated DC 0/4 to 20 mA
Calibration		One Point OR Two Point calibration
Output Relay	Rating	240 VAC, 0.5A max. (recommended)
	Set Point	Hi/Lo, Hi/Hi, Lo/Lo selectable two limited programmable, ON/OFF
Wash Relay	Rating	240 VAC, 0.5A max. (recommended)
	Time	On: 0-99min. 59sec, Off: 0-999hr 59min.
Ambient Temperature		0 to 50°C
Storage Temperature		-20 to 70°C
Power Supply	AC Version	100V to 240V AC $\pm 10\%$ , 50/60Hz, 8W Max.
	DC Version	12V to 36V DC, 8W Max.
Installation		Wall mounting, Pipe mounting, Panel mounting
Dimensions	Enclosure	H: 96 mm W: 96 mm D: 132 mm (1/2 DIN)
	Panel Cut out	93 mm x 93 mm
Weight		~ 500 Grams
Protection		IP 65 (NEMA 4X), Flameproof (Optional)

Also check out our range of **Retractable Housings** for Liquid Analytics...



#### SmartDip 405M

SmartDip 405M is a retractable electrode housing with pneumatically operated drive Unit. This metal body model can be implemented in harsh chemical applications through flan...



#### SmartDip 220M

SmartDip 220M is a compact retractable electrode housing with manual drive Unit. This metal body model can be implemented in different chemical applications including ferment...



#### SmartDip 405P

SmartDip 405P is a retractable electrode housing with pneumatically operated drive Unit. This plastic body model can be implemented in harsh chemical applications through flan...



#### SmartDip 250M

SmartDip 250M is a manually operated Retractable electrode housing with long immersion lengths and ball valve for isolation. It can fit 120mm long Sensor.



#### SmartDip 420M

SmartDip 420M is a compact retractable electrode housing with pneumatically operated drive Unit. This metal body model can be implemented in different chemical applicatio...



#### SmartDip 240M

SmartDip 240M is a compact retractable electrode housing. This version can fit 120mm long sensor. It comes with 1" NPT, Triclover connection.



#### SmartDip 450M

SmartDip 450M is a pneumatically operated retractable electrode housing with long immersion length and isolation ball valve. This unique model can fit 120mm long sensor.