

ELECTRO-CHEMICAL DEVICES, INC.

SPECIFICATION SUMMARY DISSOLVED OXYGEN (DO) SENSOR SPECIFICATION Models DOS10 & DOS17

MEASUREMENT RANGE:

0 - 20 ppm (mg/l)
0 to 200% saturation

OUTPUT:

Signal conditioned output, intrinsically-safe.

SIGNAL CONDITIONER:

Integral to sensor.
T23: Model T23, T28, & T21 transmitters.
C22: Model System C22 controller

POWER SUPPLY:

Provided by the transmitter.

OPERATING TEMPERATURE:

Standard: +23°F to +194°F (-5°C to +90°C)
Optional: +23°F to +266°F (-5°C to +130°C)

OPERATING PRESSURE:

Standard DOS10: 100 psig @ 90°C
Optional DOS10:² 300 psig @ 130°C
Standard DOS17: 100 psig @ 90°C
Optional DOS17:² 300 psig @ 140°C

DIMENSIONS:

DOS10*: 0.75" dia x 13.75" lg.
(1.9 cm x 34.9 cm)
DOS17*: 0.75" dia x 24.00" lg.
(1.9 cm x 60 cm)

Dimensions are housing diameter x length of sensor.
S10 sensor length is measured from front of seal guard to rear of strain relief.
S17 sensor length is measured from front of the fully extended valve retraction assembly to the rear of the extension assembly.

SHIPPING WEIGHT:

PHS10: 2.50 lbs (1.13 kgs)
PHS17: 2.75 lbs (1.25 kgs)
PHS17-VSS: 5.80 lbs (2.63 kgs)

HOUSING MATERIALS:

Standard: 316 stainless steel
Optional: Titanium, grade 2 (T)
Hastelloy C22 (H)
Kynar, PVDF (K)

O-RING MATERIALS:

Standard: Vkon (VIT)
Optional: EPR (EPR)
Fluorosilicone (FSIL)
Silicone (SIL)
Kairez (KLZ)
CV75 (CV75)
HF resistant Viton (VIT75)

CABLE:

Standard: 10 feet
Optional: Specify in 10' increments.
Maximum: 1 mile
Type: 6-conductor shielded (Belden 8786)

PROCESS CONNECTIONS: (optional)

PHS10 -75 3/4" 316ss gland fitting with nylon ferrule.
-75HT 3/4" 316ss gland fitting with Teflon ferrule.
-75SF 3/4" 316ss gland fitting with stainless steel ferrule.
-75TFE 3/4" all Teflon gland fitting.
-100 1" all Teflon gland fitting (Kynar housings only)

PHS17: -VSS 1" 316ss valve-retraction assembly.
-VKY 1" Kynar valve-retraction assembly.

All sensors ordered with valve-retraction assemblies are provided with safety lanyards.

TEMPERATURE COMPENSATION:

Automatic, 0°C to +100°C.
Accuracy within +/- 0.2°C over the full temperature range.
Uses a 3,000 ohm Balco RTD, integral to sensor.

* The S17 sensor includes an extension assembly. The S10 sensor does not.

¹ Temperature ratings are a function of the electrode. High temperature electrodes are necessary options to achieve higher temperatures. Refer to the appropriate electrode specification sheets.

² Optional pressure ratings are allowed with the use of metallic retaining ferrules and higher pressure pH electrodes. High temp electrodes should be used where high pressure and temperature are present.