

## Chapter XII

# Orion Star Series Specifications

<b>Environmental Operating Conditions</b>	
<b>Portable and Benchtop Meters</b>	
Ambient Operating Temperature	5 to 45 °C
Relative Humidity	5 to 85%, Non-Condensing
Storage Temperature	- 20 to + 60 °C
Storage Humidity	5 to 85%, Non-Condensing
Pollution	Degree 2
Overvoltage	Category II
Altitude	up to 2000 m
Weight	Portable: 0.45 kg Benchtop: 0.91 kg
Size	Portable: 4.8 cm (H) x 9.7 cm (W) x 21.3 cm (D) Benchtop: 9.4 cm (H) x 17.0 cm (W) x 22.4 cm (D)
AC powered Meters	Indoors Use Only
Battery operated meters	Indoors/Outdoors
<b>Wall Adapter Environmental Conditions</b>	
Ambient Operating Temperature	0 to 40 °C
Relative Humidity	20 to 90%, Non-Condensing
Storage Temperature	- 20 to 85 °C
Storage Humidity	20 to 90%, Non-Condensing
Pollution	Degree 2
Overvoltage	Category II
Operating Altitude	up to 2000 m
Storage Altitude	up to 3000 m
Benchtop Meters	Indoors Use Only

## Orion Star Series Specifications (cont'd)

<b>Regulatory and Safety</b>
CE, CSA, TÜV, UL, FCC Class limits
<b>Case Material</b>
ABS
<b>Shock and Vibration</b>
Vibration, Shipping/Handling Per ISTA #1A Shock, Drop Test in Packaging Per ISTA #1A
<b>Enclosure (designed to meet)</b>
IP67 (Portable Meter) IP54 (Benchtop Meter)

**Note:** *If the products described in this manual are used in a manner that is not specified by Thermo Electron the protection provided by the equipment maybe impaired. ▲*

## 2 & 3-Star Meter Specifications (Benchtop & Portable)

2, 3-Star pH		
<b>pH</b>	Range	- 2.000 to 19.999
	Resolution	0.1/0.01/0.001
	Relative accuracy	± 0.002
<b>ORP</b>	mV/RmV/Eh Range	± 1999.9
	Resolution	± 0.1
	Relative accuracy	± 0.2 mV or 0.5%, whichever is greater
3-Star DO		
<b>DO</b>	Concentration	0.000 to 90.00 mg/L
	Relative Accuracy	0.2 mg/L
	% Saturation	0.0 to 600
	Salinity factor	0 to 45 ppt
	Barometric pressure	450 - 850 mm Hg
3-Star Conductivity		
<b>Conductivity</b>	Range	0 - 5000 mS/cm cell constant dependent See probe specification for the cell constant
	Resistivity	0.0001 to 100 Megohms
	Salinity	0.01 to 80.0 ppt NaCl
	TDS	0.0 to 19.999.0 mg/L
	Cell Constant	0.001 to 199.9
	Reference temperature	15 °C, 20 °C or 25 °C (default), autoranging

**Note:** 2-Star Benchtop pH meter does not include methods, password, calibration alarms, backlight, stirrer, remote control, computer output format, and is limited to 3-point calibration, 50 datalog points, and a range of 0.000 to 14.000 pH units.