

The Best Just Got Smaller

HORIBA's ES series are hand-held conductivity meters that work like full function bench top meters. For both lab and field.



**ES Series
Portable conductivity
meters**

The carrying case and holder stand are optional.

- Conductivity and Resistivity measurement:**
 - At any sample temperature from 0 to 100°C, direct results for either conductivity or resistivity can be delivered with the stroke of a key.
- Direct readout of sodium chloride concentration:**
 - You can have the ES-14 automatically calculate the sodium chloride level in a specimen from 0 to 19.99 wt % by selecting the concentration range.

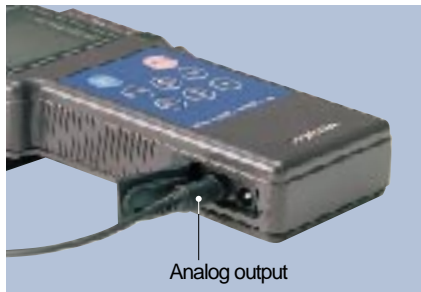


- Auto-range switch over:**
 - To assure accurate answers, measuring ranges are either automatically or manually selected.
- Automatic temperature conversion to final values at 25°C:**
 - Conductivity readings are automatically converted to conductivity at 25°C. This conversion is computed either with a user entered temperature coefficient (TC) in the range of 0~10.00 %/°C or with a preset TC of 2 %/°C.

- Data memory:**
 - Up to 10 specimen results along with measurement conditions can be stored in memory for instant retrieval at a later time.
 - **ES-12**
 - **ES-14**



- Auto-hold function:**
 - Stabilized values are automatically recognized and held to provide a standardized data output avoiding reading error.
- Error coding and alarm:**
 - Built-in monitoring circuitry assures reliable performance with an alarm and error code numbers to simplify trouble shooting and correction.
- Analog outputs:**
 - Analog outputs of measured value, link all models to a recorder, which is especially useful for real-time monitoring of production lines.



- Auto-power off:**
 - To preserve batteries meter automatically shuts off after 30 minutes in stand-by but retains all internal functions.
- Designed to be heavy-duty with a drip-proof case:**
 - Tightly sealed joints and connectors resist liquids and the standard cell used is protected against breakage with a plastic sheath.

A New Cell for ES Series

A new, rigid, plastic sheathed cell has been designed for use with an ES series meter. Also, DS-10 series conductivity cells which are optionally provided for common use may be used with ES series conductivity meters.



#3582-10D For general use, cell constant of 1. Dip cell type, measuring range from 1μS/cm to 100mS/cm. Temperature range of 0~80°C. (Standard accessory for the ES series meter).

ES Series Portable conductivity meters



ES-12

ES-14

SPECIFICATIONS (Conductivity meters)

Model	ES-12	ES-14
Measuring principle:		
AC bipolar electrodes	■	■
Measuring range switchover:		
Automatic and Manual	■	■
Measuring range:		
Conductivity		
(0~1.999, 19.99, 199.9 μS/cm and		
0~1.999, 19.99, 199.9, 1999mS/cm)	■	■
Resistivity		
(0~0.500, 5.00, 50.0MΩ•cm)	■	■
NaCl Concentration (0~19.99 wt%)	■	■
Temperature (0~100°C)	■	■
Resolution		
Conductivity: 0.05% F.S.	■	■
Temperature: 0.1°C	■	■
Reproducibility		
Conductivity: ±0.5% F.S. ±1 digit	■	■
Temperature: ±0.1°C±1 digit	■	■
Analog output: Conductivity 0~1V DC F.S.	■	■
: NaCl Concentration		
0~1V DC F.S.		■
: Resistivity		
0~250mV DC F.S.	■	■
Temperature conversion:		
Temperature entry method:		
ATC (0~100°C)	■	■
Reference temperature: Fixed 25°C	■	■
Temperature coefficient input:		
Manual input of selective temperature		
coeff. (0~10.0%/°C)	■	■
Pre-set 2% coeff.		
(2%/°C at 25°C) recall	■	■
Features:		
Auto-hold	■	■
Memory back-up	■	■
Error code display	■	■
Data storage (10 measurements)	■	■
Auto-power off	■	■
Display		
LCD in large characters	■	■
Parameters displayed:		
Conductivity	■	■
Resistivity	■	■
NaCl concentration	■	■
Simultaneous temperature display	■	■
Power source:		
9V DC (Dry battery)	■	■
Physical measurement (approx.)		
Weight:		0.77 lb / 350g
Dimensions (W × D × H):		3.1 × 7.8 × 2.2 in / 78 × 197 × 55mm
Standard accessories:		
Electrode #3852-10D	■	■
Dry battery 6F22	■	■
Output cable	■	■
Operating manual	■	■

Specifications subject to change without notice.
For more information, contact your HORIBA representative.



Please read the operation manual before using this product to assure safe and proper handling of the product.

- The contents of this catalog are subject to change without prior notice, and without any subsequent liability to this company.
- The color of the actual products may differ from the color pictured in this catalog due to printing limitations.

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