TEST INSTRUMENTS

Nilsson Model 400

Soil Resistance Meter

For Accurately Determining Resistivity

Soil resistivity is a value that is important for designing and testing cathodic protection systems. It informs the corrosion engineer or technician about a soil's ability to transfer electrical current. The higher the resistivity, the less conductive the soil and vice versa. The Nilsson 400 meter is a testing instrument designed specifically for measuring soil resistance. Developed around the Wernner four-pin method, it obtains accurate resistance readings, which can be used to calculate soil resistivity.

The Nilsson 400 is manufactured with solid-state integrated circuitry. To determine electrical resistance, the meter induces alternating current into the soil. Because this current is supplied at 97 Hz, which is a very irregular electrical frequency, the meter is insensitive to AC or DC ground currents, which can distort resistance measurements. The testing procedure is initiated by pressing an operator key on the meter. This causes a null indicator needle to swing either left or right of center to let the operator know if the present ohm setting is either too high or too low. Large ohm adjustments are accomplished through a range switch, which permits resistance levels from 0.01 ohm to 1.1 megohm. Once the appropriate level is selected, the operator key is pressed for higher sensitivity. Minor adjustments are made using a large balancing switch containing 100 divisions.

Rugged, lightweight, and completely field tested, the Nilsson 400 will perform in even the most severe operating conditions. The meter is housed in an aluminum case, which provides protection against moisture and mechanical damage. It is designed with a removable cover and an adjustable carrying strap. To prevent erroneous readings, a low-battery indicator light is included on the test panel. The meter is also fully temperature stabilized, which ensures accuracy over a wide temperature range.

Typical Applications

The Nilsson 400 meter is designed to measure soil resistance using the Wernner four-pin method. The test can be performed either in the field or at any testing location with a four-electrode-pin soil box. The meter is completely protected against moisture. It can be placed in wet surfaces without damage, and provides accurate readings under a wide range of temperatures.

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Nilsson Model 400

Soil Resistance Meter

Ordering Procedure

Corrpro is an authorized distributor for Nilsson, and readily stocks the 400 soil-resistance meter. To order this meter for your particular application, indicate that you need the Nilsson resistance meter, and specify the quantity desired. An example is provided to help illustrate this process.

Product Specifications						
NOMINAL DIMENSIONS in. (cm) L	W	H	WT. lbs. (kg)	OPERATING RANGE ohms	POWER	OPERATING POWER CYCLE
9 (22.9)	6 (15.2)	6 (15.2)	7.5 (3.4)	0.01 ohms - 0.02 1.1 megohms	12-Volt Lantern Cell	97 Hz

Ordering Procedure Example	
ITEM	**EXAMPLE**
Quantity	*1*
Product	*Resistance Meter*
Brand	*Nilsson*
Model	*400*

Authorized Distributor for the Following Manufacturer
Nilsson

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