Portable Rail Expansion Gap Meter

M 8111

Outline

The MODEL 8111 is a Portable Rail Expansion Gap Meter, which is used for manual measurement of rail expansion gap and rail temperature.

This device is available for simple and convenient gap measurement and verification of gap data in unused area of an automatic expansion gap measurement device.

The measurement section consists of gap measurement sensor, temperature measurement sensor, and signal procession from a sensor.

This MODEL 8111 is available handy gap meter which is designed for high performance and scalabitity, by specialists in rail expansion gap measurement.

Features

- Easy to operate by large display and big operation buttons

- Available for accurate temperature measurement of rail leg by a separated temperature sensor.

- Simple operation for gap and temperature measurement for easy using

- Has communication function with high-order system. And spots and line information are simply displayed on LCD monitor

- Has alarm function to alert for forgetting to measure temperature

- Measured data is supervised by using PC

- The battery is low power consumption and lasts longer

Specifications

Sensor section

Rail Expansion Gap Sensor		Temperature Sensor	
Measurement method	: Contact method, potentiometer By inserting a triangular gauge to a gap, inserting value is measured by a potentiometer.	Measurement method	: Pressing method, thermocouple type K (Chromel – Alumel)
Measurement range	: 0.0 to 20.0mm	Measurement range	: -10 to 70℃
Output voltage	: 0.2V/mm	Accuracy	: ±2℃（1 to 70℃）
Dimensions			: ±3℃（-10 to 0℃）
Triangular gauge	: Angle 30° 40(H)x20(W)mm	Dimensions	
Handle	: Φ38x200mm	Contact section	: Φ15×20mm
Cable length	: 500mm	Handle	: Φ12×120mm
Weight	: Approx, 400g	Cable length	: 650mm
		Weight	: Approx, 100g

Measurement Section

Rail gap		Battery	: 2 units of AA alkaline battery (10 hours of continuous use at20℃)
Range	: 0.0 to 20.0mm		
Unit	: 0.1mm	Display	: 20 characters by 4 lines on LCD (10 characters in 2-byte) With a backlight Both LCD and backlight are automatically turned off in no operation for 20 seconds.)
Accuracy	: ±0.5mm With chamfering correction function		
Rail temperature			
Range	: -10 to 70℃		
Unit	: 0.1℃ (At data 1℃)		
Accuracy	: In accordance with the specification of the temperature sensor	Alarm	: Warning alarm for remeasurement of temperature
Time	: Within 3 seconds	Temperature range	: 0 to +50℃, 30 to 90%RH, Without condensation
Atmosphere temp.		Dimensions	: 158(H)x95(W)x46(D)mm, Excluding projections
Range	: 0 to 50℃		
Unit	: 0.1℃(At data 1℃)	Weight	: Approx, 500g
Accuracy	: In accordance with the specification of the temperature sensor		
Time	: Within 3 seconds		

Communication with PC

Protocol	: RS-232C compliance
Download of spot breakdown information	Group selecting, 63 at the maximum Spots 512 at the maximum per 1 group
Upload of measured data	Group selecting, 63 at the maximum Spots 512 at the maximum per 1 group
Download of line information (by dedicated software)	
Upload of single measurement (by dedicated software)	

Number of data	
Group measurement	
Group selecting	: 63 at the maximum
Spots	: 512 at the maximum per 1 group
Single measurement	
Spots	: 512 at the maximum

Accessories

2 units of AA alkaline battery, Instruction manual, Dedicated software into CD-ROM

Options

RS-232C communication cable

NOTES: Specifications, design and so forth are subject to change without notice for further improvement