Radio-Isotope density meter for pipeline

PIRICA-S1

PIRICA-S1 is the new generation radio-isotope (Nuclear) density meter for piping installation.
Compared with a conventional density meter, it's much more miniaturized and lighter.
So, everyone can measure easily and safely.

SRE Soil and Rock Engineering Co.,Ltd.

New density meter for pipeline
Small size, Light weight, High precision

PIRICA-S1 is the new generation radio-isotope (Nuclear) density meter for pipeline. It can measure and continuously monitor the density of samples (sludge, mud, cement fluid, PC grout and bank sand etc.), in real time. Compared to conventional meters, it has improved equipment size, weight, cost and ease of handling, maintaining measurement precision.

■Features

1. You can apply **PIRICA-S1** in various applications such as soil improvement, shield tunnel construction, grout method and other slurries.

2. The size of the main body is about 1/5 and the weight is about 1/7. (compared with our products) You can easily transport and install.

3. Temperature resistance and waterproofness have been improved by adopting the waterproof aluminum enclosure of heat dissipation specification.

4. By adopting a low energy gamma ray source, it's become safer to use.

■Specification

● Compared with 750ml standard wine bottle

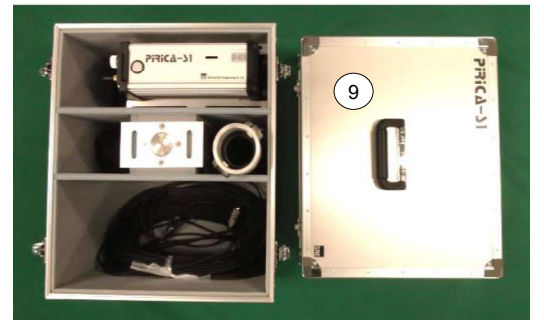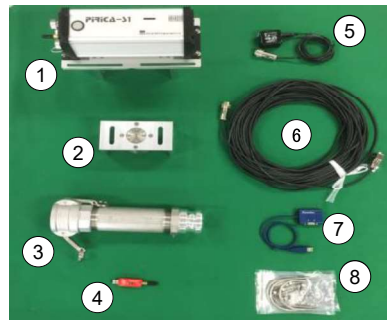| Gamma ray detector	Scintillation method
Gamma ray source	^{133}Ba(Barium133) ,1MBq
Applicable pipe	1~8 inches(25A～200A) steel pipe
	3 inches or less Measurement piping of both end camlock connection is included. ※Rubber or flexible pipes with varying outer diameters are not applicable.
Measurement target	Liquid , Slurry (without aeration)
Measurement range	Density 1.0~2.5 g/cm^3 It can be converted into concentration, W/C, unit water amount, etc.
Measurement accuracy	Standard deviation 0.004g/cm^3 (0.2% in terms of W/C , ^{133}Ba, 2.000g/cm^3, 300sec, 2 inches pipe)
Power supply	Built-in Li-ion battery 16000mAh (Approximately 24 hours can be measured by charging for 6 hours)
	DC5V or AC100V(50/60Hz) , AC adapter included
Display and recording	Personal Computer (OS : Microsoft Windows , NET Framework 2.0 Runtime Required)
Output	Gamma ray count rate, Wet density , Pressure (options)
Data communication	Wired : RS422 compliant ,Current output DC4-20mA
	Wireless : Bluetooth class1（communication distance about 100m）
Operating environment	0～40 °C (with no condensation)
Prevention function	Detector: Waterproof, Dustproof (equivalent to protection grade IP 65)
Weight	Complete set: 4.4kg (including radiation source, excluding piping)
Dimension	Detector: 85×279×92mm (excluding convex parts)
	Complete set：126×279×223mm (Assembling for 2 inches piping)

※Options: Warning lamp, Data communication, Pressure sensor

■Components

①	Detection unit
②	Radiation source unit
③	Pipe attachment
④	Bluetooth USB adapter
⑤	AC adapter (Battery charger)
⑥	Cable for wired communication (30m)
⑦	Serial communication converter (For wired data communication)
⑧	Attached screw
⑨	Trunk case

●The content of this leaflet is as of May 2018. ●Product specifications may be subject to change. ●Colors may differ slightly for printing.