

TERM OF REFERENCE (TOR) BARANG



No. PR: CBT/PR-26/INV/0497


1. TUJUAN PENGADAAN

Untuk pengadaan DENSITY METER ANTON PAAR DMA 4002.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium **SBU Laboratorium sub bagian AKU**.

SPESIFIKASI TEKNIS

Nama barang ^{a)}	Density Meter + Heating Attachment
Merk	Anton Paar
Type	DMA 4002 LABORATORY DENSITY METER Cat No. 325153
Persyaratan tambahan	<p>For the determination of density and density-related values of liquids and gases using Anton Paar's patented Pulsed Excitation Method based on the oscillating U-tube technology. Includes state-of-the-art technologies exclusively available from Anton Paar :</p> <p>ThermoBalance™ for fast temperature changes without readjustments. FillingCheck™ and U-View™ for error-free measurements. Automatic and rapid fullrange viscosity correction. Modular system for easy expansion, e.g. to include automatic sample filling units.</p> <p>The Next-Level Density Meter's patented Pulsed Excitation Method (PEM), the beating heart of the instrument, takes digital density measurement to another level. When stable oscillation of the U-tube is achieved, the excitation is switched off, allowing the oscillation to freely fade out. The excitation fade-out sequence repeats continuously, creating a pulsing oscillation pattern. This natural U-tube oscillation along with evaluation of the oscillation pattern provides the instrument with much more information than the conventional Forced Oscillation Method. That's why the Next-Level Density Meter is so precise, and offers such repeatability and reproducibility. The PEM method also allows for filling error detection with FillingCheck™, and for reliable bubble and particle detection, increasing efficiency and permitting improved viscosity correction.</p> <p>TECHNICAL SPECIFICATION Measuring range : Density : 0 to 3 g/cm³ Temperature : 0 to 100 °C (32 to 212 °F) Pressure range : 0-50°C (32 to 122 °F): max 10 bar (0 to 145 psi) absolute pressure >50°C (>122 °F): max 5 bar (72.5 psi) absolute pressure</p>

	<p>Accuracy : Density : 0.00005 g/cm³ Temperature : 0.02 °C</p> <p>Repeatability s.d.: Density : 0.00001 g/cm³ Temperature : 0.01 °C</p> <p>Reproducibility : Density : 0.00005 g/cm³</p> <p>Digital Resolution : Density : 0.00001 g/cm³</p> <p>FEATURES</p> <ul style="list-style-type: none"> - Power features : U-Dry, U-Pulse, Syringe Illumination, Status Light, U-View™, FillingCheck™, ThermoBalance™, full-range viscosity correction - Special functions: "QM compliance, temperature scan, built-in ambient pressure sensor - Optional accessories: Aerosol Adapter, Heating Attachment <p>TECHNICAL DATA</p> <p>Minimum measuring time : 20 s Minimum sample volume : approx. 1 mL Dimensions (L x W x H) : 526 mm x 347 mm x 230 mm (20.7 in x 13.7 in x 9 in)</p> <p>Weight : 22.04 kg (48.6 lbs) Power supply : AC 100 to 240 V, 50/60 Hz, fluctuation ±10 %, 190 VA Display : 10.1" TFT WXGA (1280 x 800 px); PCAP touchscreen Controls : touchscreen, optional keyboard, mouse, and bar code reader Communication interfaces : 4 x USB, Ethernet, CAN, RS232 Internal storage : more than 10,000 measuring values with camera images</p> <p>HEATING ATTACHMENT</p> <p>The purpose of heating attachment is to heat the PTFE filling adapters, allowing samples that are normally solid or very viscous at room temperature to be injected easily at higher temperatures.</p> <p>Sertifikat kalibrasi menggunakan laboratorium kalibrasi PT SUCOFINDO, kecuali ada pernyataan tertulis dari laboratorium kalibrasi PT SUCOFINDO bahwa tidak bisa melakukan kalibrasinya.</p>
Gambar	
Jumlah	1 Unit

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1. TUJUAN PENGADAAN


Untuk pengadaan DENSITY METER ANTON PAAR DMA 4002.

Kebutuhan pengadaan untuk kegiatan portofolio Laboratorium **Cabang Surabaya**.

2. SPESIFIKASI TEKNIS

Nama barang ^{a)}	Density Meter
Merk	Anton Paar
Type	-
Persyaratan tambahan	<p>For the determination of density and density-related values of liquids and gases using Anton Paar's patented Pulsed Excitation Method based on the oscillating U-tube technology. Includes state-of-the-art technologies exclusively available from Anton Paar :</p> <p>ThermoBalance™ for fast temperature changes without readjustments. FillingCheck™ and U-View™ for error-free measurements. Automatic and rapid fullrange viscosity correction. Modular system for easy expansion, e.g. to include automatic sample filling units.</p> <p>The Next-Level Density Meter's patented Pulsed Excitation Method (PEM), the beating heart of the instrument, takes digital density measurement to another level. When stable oscillation of the U-tube is achieved, the excitation is switched off, allowing the oscillation to freely fade out. The excitation fade-out sequence repeats continuously, creating a pulsing oscillation pattern. This natural U-tube oscillation along with evaluation of the oscillation pattern provides the instrument with much more information than the conventional Forced Oscillation Method. That's why the Next-Level Density Meter is so precise, and offers such repeatability and reproducibility. The PEM method also allows for filling error detection with FillingCheck™, and for reliable bubble and particle detection, increasing efficiency and permitting improved viscosity correction.</p> <p>TECHNICAL SPECIFICATION Measuring range : Density : 0 to 3 g/cm³ Temperature : 0 to 100 °C (32 to 212 °F) Pressure range : 0-50°C (32 to 122 °F): max 10 bar (0 to 145 psi) absolute pressure >50°C (>122 °F): max 5 bar (72.5 psi) absolute pressure</p>

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Gambar	
Jumlah	1 Unit

Pelayanan Purna Jual/ Maintenance

Penyedia Eksternal harus memberikan garansi selama 12 bulan/1 tahun sejak dibuatnya Berita Acara Uji Coba.

Yang dimaksud dengan garansi adalah:

- Garansi suku cadang selama 12 bulan/1 tahun dan service selama 12 bulan/1 tahun;
- Tersedianya suku cadang;
- Tersedianya teknisi yang berpengalaman dan tercatat sebagai pegawai tetap, untuk perbaikan alat dan sanggup datang segera jika diperlukan;
- Selama masa garansi bila perbaikan-perbaikan dilakukan diluar SUCOFINDO dalam jangka waktu yang cukup lama, maka pemasok berkewajiban untuk meminjamkan peralatan pengganti, supaya operasional SUCOFINDO tidak terganggu.