

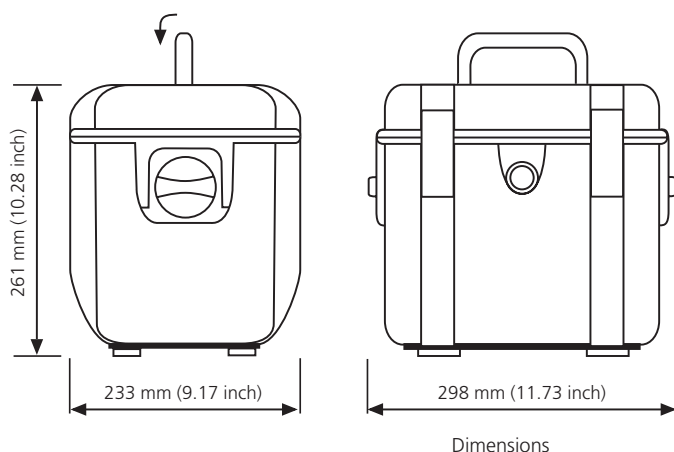
Portable Particle Monitor

OPCom Portable Oil Lab

Particle Counting - The Easy Way



OPCom Portable Oil Lab



Description

Mobile oil laboratory for oil cleanliness and condition monitoring - easy, compact and cost-efficient

The OPCom Portable Oil Lab is a mobile oil laboratory for service, with which the oil cleanliness and the oil condition in hydraulic and lubrication systems can be measured quickly and easily.

Sampling can be carried out directly via a pressure line or via the integrated pump. Measurement can be effected either manually or automatically in an adjustable time interval.

The OPCom Portable Oil Lab enables particle measuring according to the latest standard and displays the cleanliness classes according to ISO 4406:1999, SAE AS4059, NAS 1638 and GOST 17216. In addition, the relative humidity and oil temperature are displayed. Optionally, further information on the oil condition, taken from the conductivity and polarity of the oil, can be shown via the integrated display.

All functions of the OPCom Portable Oil Lab can intuitively be operated via the integrated keypad. The internal data memory allows saving of more than 1250 data records, which may comfortably be transferred to a processor via USB adapter or SD card. Furthermore, the OPCom Portable Oil Lab includes an integrated printer to print any data record on the spot.

The real-time clock, integrated in the OPCom Portable Oil Lab, adds a time-stamp to all measured data in order to facilitate a later allocation. The measured data can additionally be marked with a freely definable indication of the measuring point.

The integrated powerful battery is available in two capacity classes and allows operation of several hours. The used battery is characterized by a low self-discharge, long operating state as well as a recharging of less than one hour. The compact particle counter is supplied with a power supply, hoses and couplings. Amongst others, the OPCom Portable Oil Lab can additionally be delivered together with a convenient carrying bag with separated pockets for hoses and samples as well as for the recharger and other accessories.

The portable oil service device OPCom portable Oil Lab offers an intelligent and cost-efficient possibility for monitoring of your system and oil parameters.

Technical data

| Parameter | Size | Unit |
|---|---|-------------------------|
| Operating pressure | | |
| High-pressure connection ¹ | 5 ... 320 (73 ... 4,640) | bar (psi) |
| With pump operation | 0 | bar (psi) |
| Viscosity range fluid ² | 5 ... 1000 | mm²/s |
| Operating temperature range fluid | 0 ... +60 (+32 ... +140) | °C (°F) |
| Operating conditions | | |
| Temperature | -10 ... +60 (+14 ... +140) | °C (°F) |
| Rel. humidity | 0 ... 95 | % r.H. (non-condensing) |
| Compatible fluids | mineral oils (H, HL, HLP, HLPD, HVLP), synthetic esters (HETG, HEPG, HEES, HEPR), polyalkylenglycols (PAG), zinc and ash-free oils (ZAF), polyalphaolefins (PAO) | |
| Wetted materials | chrome, aluminum, stainless steel, Viton, steel, brass, HNBR, NBR, polyurethane resin, epoxy resin, chemical nickel/gold (ENIG), soldering tin (Sn96, 5Ag3CuO, 5NiGe), aluminum oxide, glass (DuPont QQ550), gold, silver-palladium, sapphire, PVC (hoses) | |
| Power supply device | | |
| Power supply | 24 | VDC |
| Power consumption | max. 8 | A |
| Power supply for the according power adaptor | | |
| Power supply | 100 ... 240 | VAC (50/60 Hz) |
| Power consumption | max. 4 | A |
| Power at 24VDC-output | max. 221 | W |
| Characteristics battery | | |
| Nominal capacity | 7500 | mAh |
| Loading time | < 1 | h |
| Running time when measuring without pump (When measuring with pump the running time decreases depending on the oil viscosity) | > 24 | h |
| Display particle measurement | | |
| ISO 4406:99 | 0 ... 28 (calibrated area 10...22) | ordinal number (OZ) |
| SAE AS 4059E | 000 ... 12 | ordinal number (OZ) |
| NAS 1638 (based) ³ | 00 ...12 | ordinal number (OZ) |
| GOST 17216 (based) ³ | 00 ...17 | ordinal number (OZ) |
| Size channels | 4, 6, 14, 21 | µm(c) |
| Measuring range oil parameter | | |
| Rel. permittivity | 1 ... 7 | - |
| Rel. humidity | 0 ... 100 | % |
| Conductivity | 100 ... 800000 | pS/m |
| Temperature | -20 ... +120 (-4 ... +248) | °C (°F) |
| Measuring accuracy | | |
| Particle measurement (within calibr. range) - ISO 4 / ISO 6 | ± 1 | ordinal number (OZ) |
| Particle measurement (within calibr. range) - ISO 14 / ISO 21 | ± 2 | ordinal number (OZ) |
| Rel. dielectric number ⁴ | ± 0.015 | - |
| Rel. humidity (10 ... 90 %) ⁵ | ± 3 | % r.H. |
| Rel. humidity (<10 %, >90 %) ⁵ | ± 5 | % r.H. |
| Conductivity (100 ... 2000 pS/m) | ± 200 | pS/m |
| Conductivity (2000 ... 800000 pS/m) | Typ. < 10 | % |
| Temperature | ± 2 | K |

| Parameter | Size | Unit |
|---------------------------|--|----------|
| Interfaces | USB-B, SD-card (SD or SD-HC in FAT/FAT16/FAT32-data format) | |
| Size internal data memory | 1250 readings (with time stamp) | |
| Weight | < 10 (22) | kg (lbs) |
| Scope of delivery | Manual, power supply 100-240V, power cable, low-pressure hose set incl. connection couplings, high-pressure hose | |

¹ Depending on the oil viscosity

² Depending on the permissible operating pressure

³ From software version 1.70.15 upwards

⁴ Calibrated to n-Pentan at 25 °C (77 °F)

⁵ Calibrated to air at room temperature

Order code

| | | | |
|------------------------------------|---------------|---|---------------|
| OPCom Portable Oil Lab | PPCO 300-1000 | Optional accessories (not included in the scope of delivery) | |
| | | Carrier bag for accessories | PPCO 200-5020 |
| Spare parts | | Carrying strap | PPCO 200-5010 |
| Set, cover for SD and USB | PPCO 300-5090 | SD-card | SCSO 900-5050 |
| Hose set with couplings | PPCO 300-5050 | SD-card reader | SCSO 900-5040 |
| Minimess hose 2 m (6.6 ft) M16 x 2 | PPCO 100-5280 | Power cable with non-European plug on demand | |
| Paper rolls for thermal printer | SCSO 900-5075 | | |
| Power supply | PPCO 300-5120 | | |
| Power cable | PPCO 300-5130 | | |
| Protection caps (2x) | PPCO 300-5080 | | |
| Suction connection | PPCO 300-5060 | | |
| Protective strainer | PPCO 300-5070 | | |