

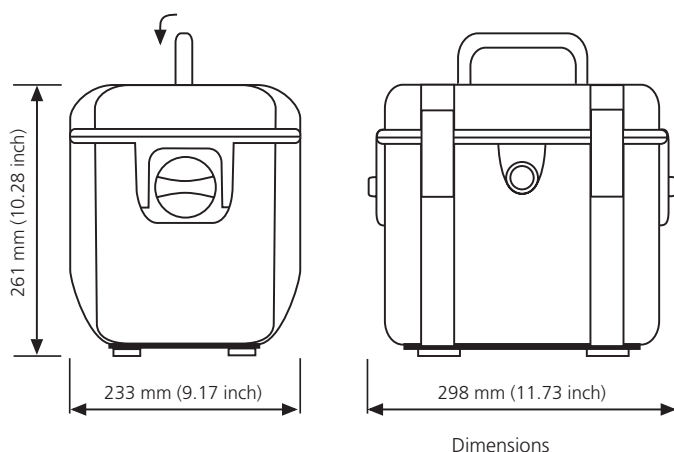
Portable Particle Monitor

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
<i>Operating pressure</i>		
High-pressure connection ¹	5 ... 320 (73 ... 4,640)	bar (psi)
With pump operation	0	bar (psi)
<i>Viscosity range fluid²</i>		
Operating temperature range fluid	5 ... 1000	mm ² /s
<i>Operating conditions</i>		
Temperature	0 ... +60 (+32 ... +140)	°C (°F)
Rel. humidity	-10 ... +60 (+14 ... +140)	°C (°F)
	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 (Sn96,5Ag3Cu0,5NiGe), aluminum oxide, glass (DuPont QQ550), gold, silver-palladium, sapphire, PVC (hoses)	
<i>Power supply device</i>		
Power supply	24	VDC
Power consumption	max. 8	A
<i>Power supply for the according power adaptor</i>		
Power supply	100 ... 240	VAC (50/60 Hz)
Power consumption	max. 4	A
Power at 24VDC-output	max. 221	W
<i>Characteristics battery</i>		
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
<i>Display particle measurement</i>		
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)
<i>Measuring range oil parameter</i>		
Rel. permittivity	1 ... 7	-
Rel. humidity	0 ... 100	%
Conductivity	100 ... 800,000	pS/m
Temperature	-20 ... +120 (-4 ... +248)	°C (°F)
<i>Measuring accuracy</i>		
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 ... 800,000 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
Set, cover for SD and USB	PPCO 300-5090	PPCO 200-5010
Hose set with couplings	PPCO 300-5050	SD-card
Minimess hose 2 m (6.6 ft) M16 x 2	PPCO 100-5280	SCSO 900-5050
Paper rolls for thermal printer	SCSO 900-5075	SD-card reader
Power supply	PPCO 300-5120	SCSO 900-5040
Power cable	PPCO 300-5130	Power cable with non-European plug on demand
Protection caps (2x)	PPCO 300-5080	
Suction connection	PPCO 300-5060	
Protective strainer	PPCO 300-5070	