Portable Particle Monitor

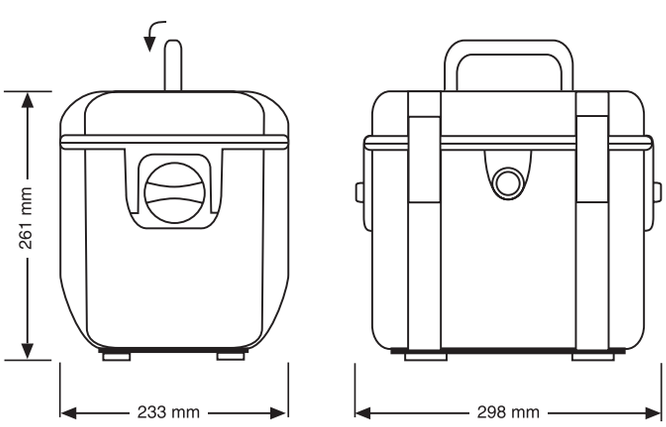
OPCom Portable Oil Lab

Particle Counting - The Easy Way



OPCom Portable Oil Lab

Dimensions



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. In this connection, 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 and SAE AS4059. 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 1.250 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 pack is available in two capacity classes and allows operation of several hours. The used batteries are 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 on one side as well as for the recharger and other accessories on the other side.

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

Paramater	Size	Unit
Operating pressure		
High-pressure connection[1)] With pump operation	5 ... 320 0	bar bar
Viscosity range fluid	5 ... 1000	mm²/s
Operating temperature range fluid [2)]	0 ... +60	°C
Operating conditions		
Temperature Rel. humidity	-10 ... +60 0 ... 95	°C % 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, aluminium, stainless steel, viton, steel, brass, HNBR, NBR, polyurethane resin, epoxy resin, chemical nickel/gold (ENIG), soldering tin (Sn96, 5Ag3CuO, 5NiGe), aluminium oxide, glass (DuPont QQ550), gold, silver-palladium, sapphire, PVC (hoses)	
Power supply device		
Power supply Power consumption	24 max. 8	VDC A
Power supply for the according power adaptor		
Power supply Power consumption Power at 24VDC-output	100 ... 240 max. 4 max. 221	VAC (50/60 Hz) A W
Characteristics battery		
Nominal capacity Loading time Running time when measuring without pump (When measuring with pump the running time decreases depending on the oil viscosity)	6900 < 1 > 24	mAh h h
Measuring range particle measurement according to ISO 4406:1999		
Cleanliness degree Cleanliness degree (calibrated range) Size channels	0 ... 24 10 ... 22 4, 6, 14, 21	ordinal number (OZ) ordinal number (OZ) µm(c)
Measuring range oil parameter		
Rel. permittivity Rel. humidity Conductivity Temperature	1 ... 7 0 ... 100 100 ... 800000 -20 ... +120	- % pS/m °C
Measuring accuracy		
Particle measurement (within the calibr. range) - ISO4 / ISO 6 Particle measurement (within the calibr. range) - ISO14 / ISO 21 Rel. dielectric number[3)] Rel. humidity (10 ... 90 %)[4)] Rel. humidity (<10 %, >90 %)[4)] Conductivity (100 ... 2000pS/m) Conductivity (2000 ... 800000pS/m) Temperature	± 1 ± 2 ± 0,015 ± 3 ± 5 ± 200 Typ. < 10 ± 2	ordinal number (OZ) ordinal number (OZ) - % r.H. % r.H. pS/m % K
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	kg
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)] Viscosity of the fluid must be within the permissible range
[3)] Calibrated to n-Pentan at 25 °C
[4)] Calibrated to air at room temperatur

Order code

OPCom Portable Oil Lab	PPCO 300-1000

Spare parts

Set, cover for SD and USB	PPCO 300-5090
Hose set with couplings	PPCO 300-5050
Minimess cable 2 m M16 x 2	PPCO 100-5280
Paper rolls for themal 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

Optional accessories (not included in the scope of delivery)

Carrier bag for accessories	PPCO 200-5020
Carrying strap	PPCO 200-5010
SD-card	SCSO 900-5050
SD-card reader	SCSO 900-5040
Power cable with non-European plug on demand	