

## MONITORING OF AIR SATURATION IN HYDRAULIC FLUIDS

### AIR-OPTOSEN® Control Unit Characteristics

**HMI:** 4x20 character LCD and simple 6 button control panel

**Software:** PC compatible. Win98, NT, 2000 and XP

**I/O analog:** 2 Input 4-20mA, 2 Output 4-20mA

**Relays:** 4 Potential-free relays, up to 8 A and 250 V

**Communications:** RS232 to PC, RS485 Half duplex

**Storage:** 2 Mb

**Probe inputs:** Up to 4 probes

**Power:** 24V DC or 230 V AC

**Casing:** IP66, 180 x 130 x 100 mm Ø or 19" rack

**Temperature range:** 0 to 50 °C



### AIR-OPTOSEN® Probe Characteristics

**Sensor:** Dissolved oxygen

**Parameter:** Air saturation pressure or percent air saturation

**Units:** Bar or % sat. (1 bar = 100% sat.)

**Range:** 0 - 8 Bar Psat, 0 - 800% air saturation

**Resolution:** 0.01 Bar, 1% sat. (@ 2.5 Bar and 25°C)

**Drift:** < 1% per week (@ 2.5 Bar and 25°C)

**Pressure range:** 0 - 8 Bar

**Temperature operating range:** 5 to 45 °C

**Temperature storage range:** -40 to 80 °C

**Temperature compensation:** Pt-100 Built-in

**Calibration:** 1 point

**Material:** Nylon or SS 316

**Dimensions:** 65 x 25 mm Ø.

**Weight:** 200 g

**Connection with controller:** 10 m optical cable



## INSTALLATION

- The probe can be installed in a deposit or a pipe using a standard coupling nut.
- The control unit is provided in a 19' rack format for panel installation or, alternatively, in a polycarbonate IP66 box that can be easily mounted on a wall.

## OPERATION

- By means of a push button box, the user can configure the analogue inputs and outputs, the action levels of the relays or select the measurement units in a simple and user friendly fashion.
- The equipment can also be configured using a PC application compatible with Windows 98 or higher
- Once the desired measurement mode has been configured, the equipment operates autonomously, saving data into memory and/or delivering said data via analogue outputs or communication ports.

## MAINTENANCE

- The probe can be calibrated easily by taking a reading of air-equilibrated hydraulic fluid.
- Calibration is recommended prior to its installation and subsequently with a periodicity of between 2 and 8 weeks, depending on operational conditions.