



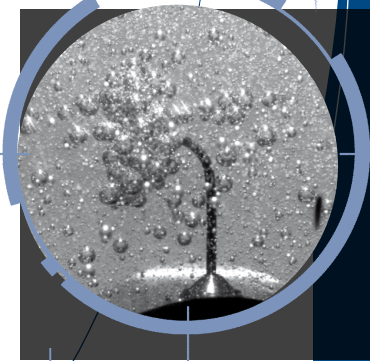
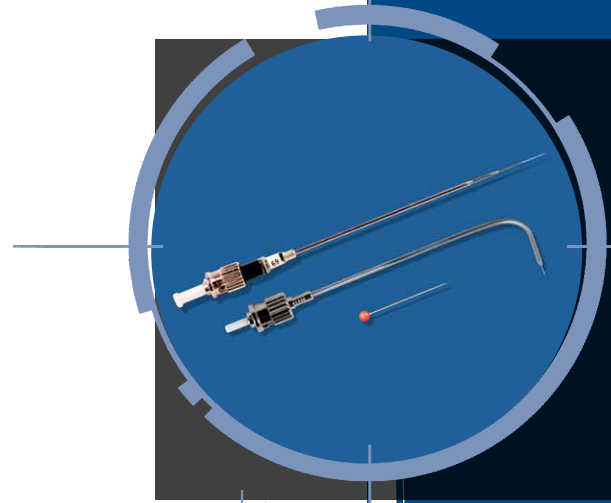
POP

Optical single probe for two-phase
flow measurements within
Bubbly flows & Sprays.

Simultaneous measurements
of bubble or drop concentration, velo-
city and size.

Unique technology, suitable
for granulometry measurements
in very dense environments/flows.

Complementary to existing tools for
dense flow and spray analysis

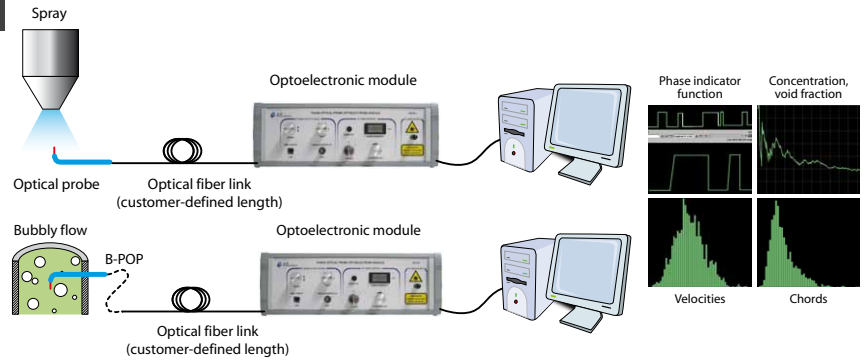


Tel: +86 021 6662 1556 ext.807
michael.chu@worldwide-china.com
sales@worldwide-china.com



Working principle

Working principle



The operation of POP relies on measuring the reflection of a laser beam at the probe tip. The sensor is sensitive to the refractive index of the surrounding phase and detects the phase changes at a given location. Velocity measurements are based on the propagation of the liquid-gas interface along the sensing tip (rising time of the signal). POP works by contact and does not require any light propagation outside the probe, thus enabling operation in extremely dense environments.

Technical specifications

Technical specifications

- **Range of concentration:** $0 \leq \leq 100\%$
- **Velocity range:** $0.1 \leq U \leq 25$ m/s (can be increased on demand)
- **Typical inclusion detection sizes:**
 - Bubbles > 500 μm
 - Drops > 15 μm
- **Typical uncertainties:**
 - $\pm 5\%$ on concentration
 - $\pm 15\%$ on velocity and size
- **Data processing:**
 - Real-time on bubbly flows
 - Post-processing on sprays
- **PC or laptop connectivity:**
 - USB, PCIe or ExpressCard

Contact us

Contact us



- Tel: +86 021 6662 1556/7/8/9 ext.807
- E-mail: michael.chu@worldwide-china.com