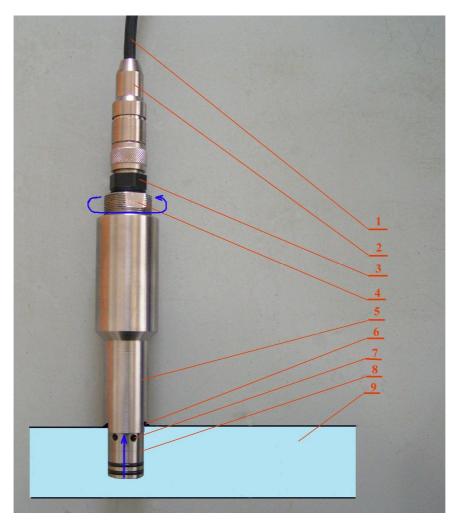
## 1-CUBE s. r. o.

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## Welded coupling providing sensor exchange without shutdown

We manufacture welded couplings for different types of sensors into pipeline or bioreactor. Coupling makes possible to change the sensor without shutdown and at the same time sensor protection during sanitization. During the exchange of the sensor the shutdown is not nessecary thanks to the possibility to unscrew the sensor. During the sanitization the sensor is not involved with the sanitizing medium thereby the lifetime of the sensors (particularly with optical sensors measuring O2 content) is markedly extended and at the same time the calibrating intervals are prolonged too.



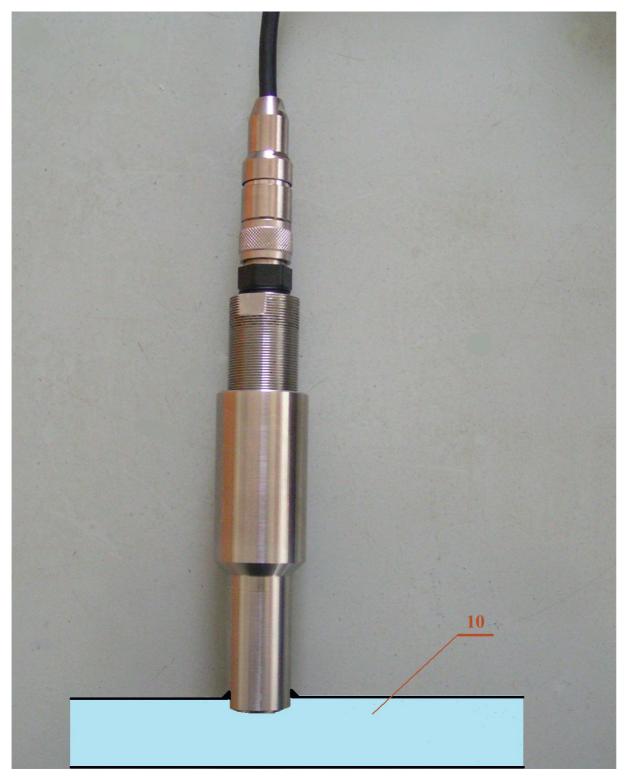
Pic.1

Position 1– connector cable of oxygen sensor Position 2- connector of oxygen sensor Position 3- oxygen sensor VISIFERM DO Position 4- coupling internal part Position 5- coupling external part Position 6- welding of coupling into tube Position 7- measuring chamber inlet by which medium gets into measuring chamber Position 8- measuring chamber Position 9- pipeline

Oxygen sensor screw during operation is realized once its connector is disconnected (position 2), by turning of the internal part of the coupling (position 4) facing the blue indicator. The measuring chamber (position 8) is

inserted into the internal part of the coupling and seal of the internal part of the coupling with the help of two orings (see pic. 1) therefore no shutdown is necessary.

Once the internal part of the coupling is screwed on, the oxygen sensor can be exchanged without shutdown likewise the sanitization can be run without the optical sensor gets in touch with the sanitizing medium during sanitisation (see pic. 2).



Pic.2