



# Protection against running dry for pumps



*Pumps are used in a variety of processes for supplying liquids from storage containers. A dry run must usually be avoided in order to prevent damage to the pumps. This is done by monitoring the prescribed minimum filling quantity of the liquid.*

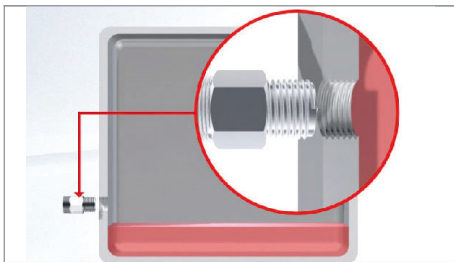


INT275L, INT276LC, INT277LA, INT278LCA

### Product description

The devices of the **INT275 L – INT278 LCA** product range are optical level monitoring devices to be used for all types of liquids. They protect pumps against a dry run caused due to the unavailability of the minimum filling quantity. The common characteristic of the devices of this product range is the physical separation of the threaded optical assembly and the electronic evaluation assembly.

The scope of functionality of the product range comprises a variety of versions with a highly varied functional combinations, starting with the basic function (**INT275 L**) for simple level monitoring ranging up to the premium unit (**INT278 LCA**).



Oil level monitoring

### Functionality

The optical monitoring unit is used for contactless monitoring of the liquid level. Light pulses in the device are interrupted during the transition from the solid to the liquid environment and are reflected during the transition from the solid to the gaseous environment (no liquid).

The relay switches off depending on the degree of reflection. The relay picks up again if the errors are rectified or if the level reaches the desired range. The level monitoring device can be installed directly in the safety chain by connecting the sensor/evaluation/potential-free output.



Screw-in part and electrical part

### Advantages

The installed, passive threaded optical assembly for level scanning and the removable evaluation assembly enable complete level control without the use of movable mechanical components (floating switch).

Other advantages are:

- process monitoring
- complete integration of all functions, no other device required
- self monitoring of the device functions
- installation control
- stand-alone product
- close circuit principle

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