



PI-MPOZ 02 level meters and signaling devices

PI-MPOZ 02 level meters and level switches are used for contactless, continuous measurements the level of liquids, powders, aggregates and solids. Bundle, after passing the test piece measurement space, it falls on the detector processing the changes of radiation into magnitude level. The digital-analog output signals can be used for control valves, pumps or other actuators regulating the measured level.

Application

- measurement of the level of concentrated acids, bases, salt solutions and suspensions;
- monitoring of the crystallization and polymerization process;
- measurement of the level of solids, including aggregate, on conveyor belts;
- measurement of the level of mishaps;
- measurement of the degree of filling in tanks, cylinders.

Functions

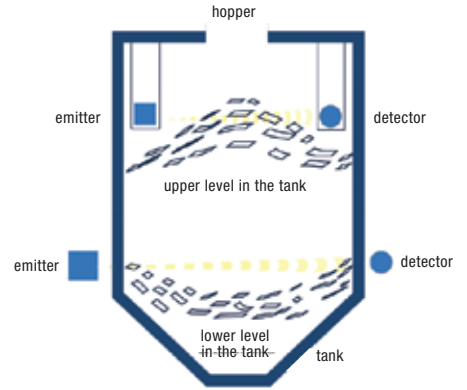
- measurement and signaling of the measured level;
- the measurement result is shown on the digital display and analog-digital outputs;
- continuous operation adapted to the prevailing industrial conditions;
- automatic registration and archiving of results;
- automatic temperature correction;
- protocols: MODBUS RTU, HART.

Measurement method

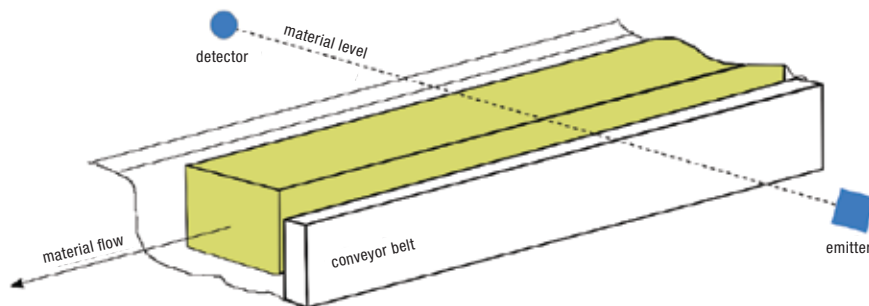
The emitted ionizing radiation is absorbed as it passes through the tested material. The level of absorption depends on the optical path length which radiation in a given substance overcomes and on the parameters of the tested substance - density, concentration, chemical composition, temperature. The constant distance between the emitter and the detector allows the measurement of the measured parameters as a function of the absorption of radiation in the tested material.

Measuring system

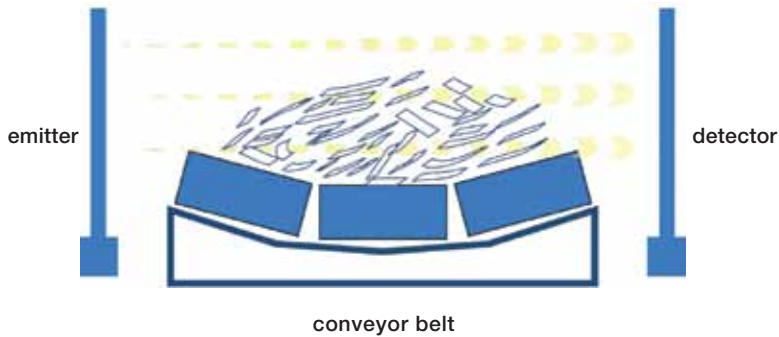
The measuring system consists of an emitter, detector and control panel.



Level meter and level switch PI-MPOZ 02 located on the bulk material tank



PI-MPOZ 02 level meter and indicator located on the conveyor belt.



Level meter and level switch PI-MPOZ 02 situated on a conveyor belt - principle of operation.

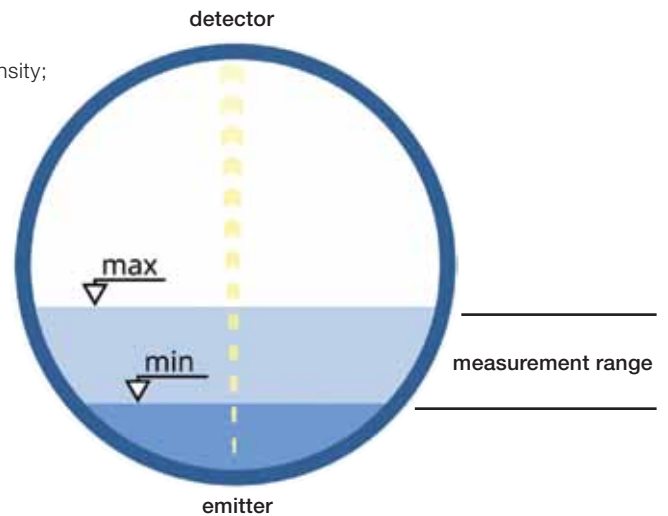
Device design

Each device is tailored to the specific needs and requirements of the user. To achieve this, it is necessary to study in which conditions and with which substances the meter is to work. This approach guarantees the safety and maximum accuracy of the device at the minimum power of the emitter.

Parameters to be determined at the design stage:

measured quantities;

- measurement range;
- required accuracy;
- product temperature range;
- external dimensions of the measured object;
- for suspensions: solids density, liquid density, minimum / maximum density;
- for liquids: measuring range in g / cm³, minimum / maximum concentration, chemical formula (if possible);
- ambient temperature and humidity range;
- type of device input / output signals;
- type of communication protocol.



Level meter and level switch PI-MPOZ 02 located on the container with liquid material.



POLON - IZOT sp. z o.o. continues business activities of world-known company POLON United Nuclear Devices Works, established in 1956 which functioned as Office of Nuclear Technology Devices.

We closely co-operate with Central Radiological Safety Laboratory (Warsaw), Radiochemistry and Nuclear Technology Institute (Warsaw), Atomic Energy Institute (Świerk) and Institute of Physics at Warsaw University. Our long experience in narrow specialization allows us to reduce production costs, what gives our products very competitive price.

The company holds Permits of the Ionization Radiation Application Supervision Department of the National Atomic Agency of Poland for the manufacture of isotopic equipment and XRF spectrometers.

POLON - IZOT sp. z o.o. | ul. Michała Spisaka 31 | 02 - 495 Warszawa
tel. +48 22 724 74 64 | fax +48 22 724 94 31 | e-mail: biuro@polonizot.pl