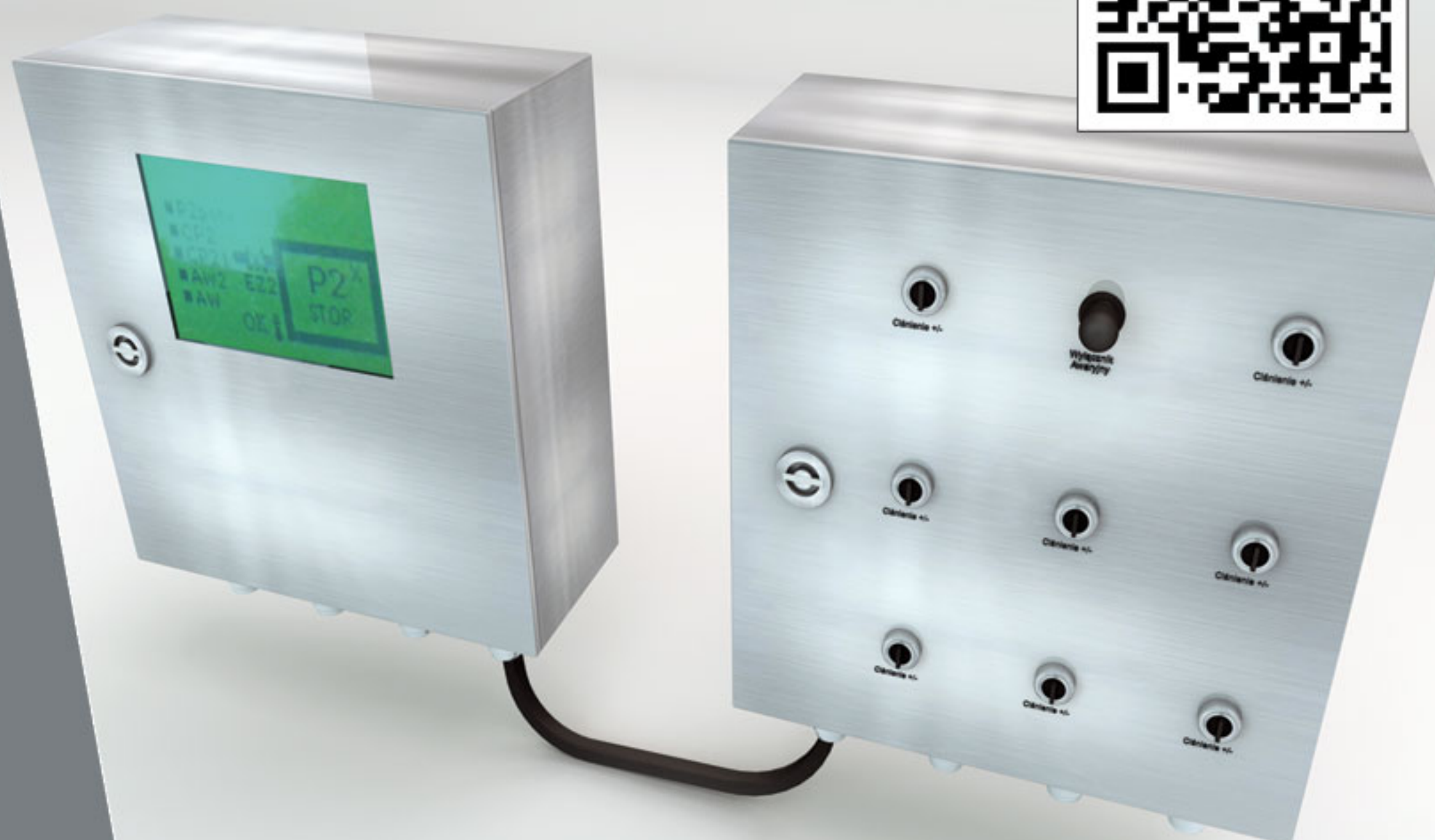


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Intrinsically Safe Modular Industrial Controller series

WT-IMSP



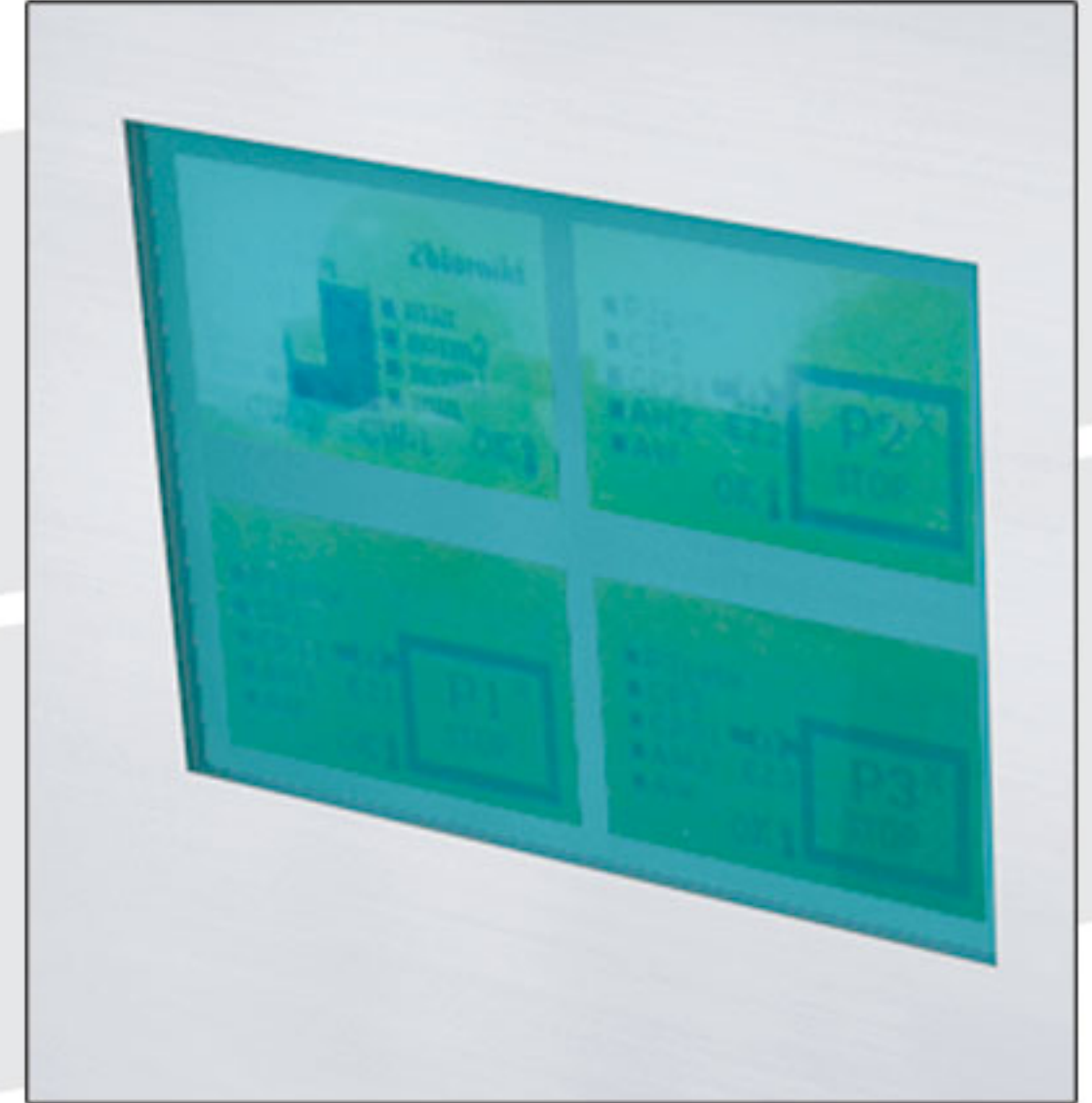
Intrinsically Safe Modular Industrial Controller series WT-IMSP

The WT-IMSP controller is an intrinsically safe device designed for use in extremely difficult industrial conditions. The device was based on a long experience of WICHARY Technologies in equipment control systems, especially for underground mining, rail transport, recycling, food industry and petrochemistry. The device is compliant with all necessary requirements for potentially explosive atmospheres under the 94/9/EC (ATEX) directive for group I category M1 / M2 and for group II.

Design and functionality

The modular design of the WT-IMSP intrinsically safe controller allows to custom-tailor the device to fit the needs of customers from various industries. Examples of how the controller can be applied:

- air conditioning systems control
- main drainage pumps control
- high pressure pump units control
- sprinkling and cooling systems pumps control
- filtration stations control
- belt conveyors control
- possibility of data processing and long distance transmission
- rail traffic control
- waste separation and materials recovery lines
- rail axle counters.



The WT-IMSP intrinsically safe controller is available in two models:

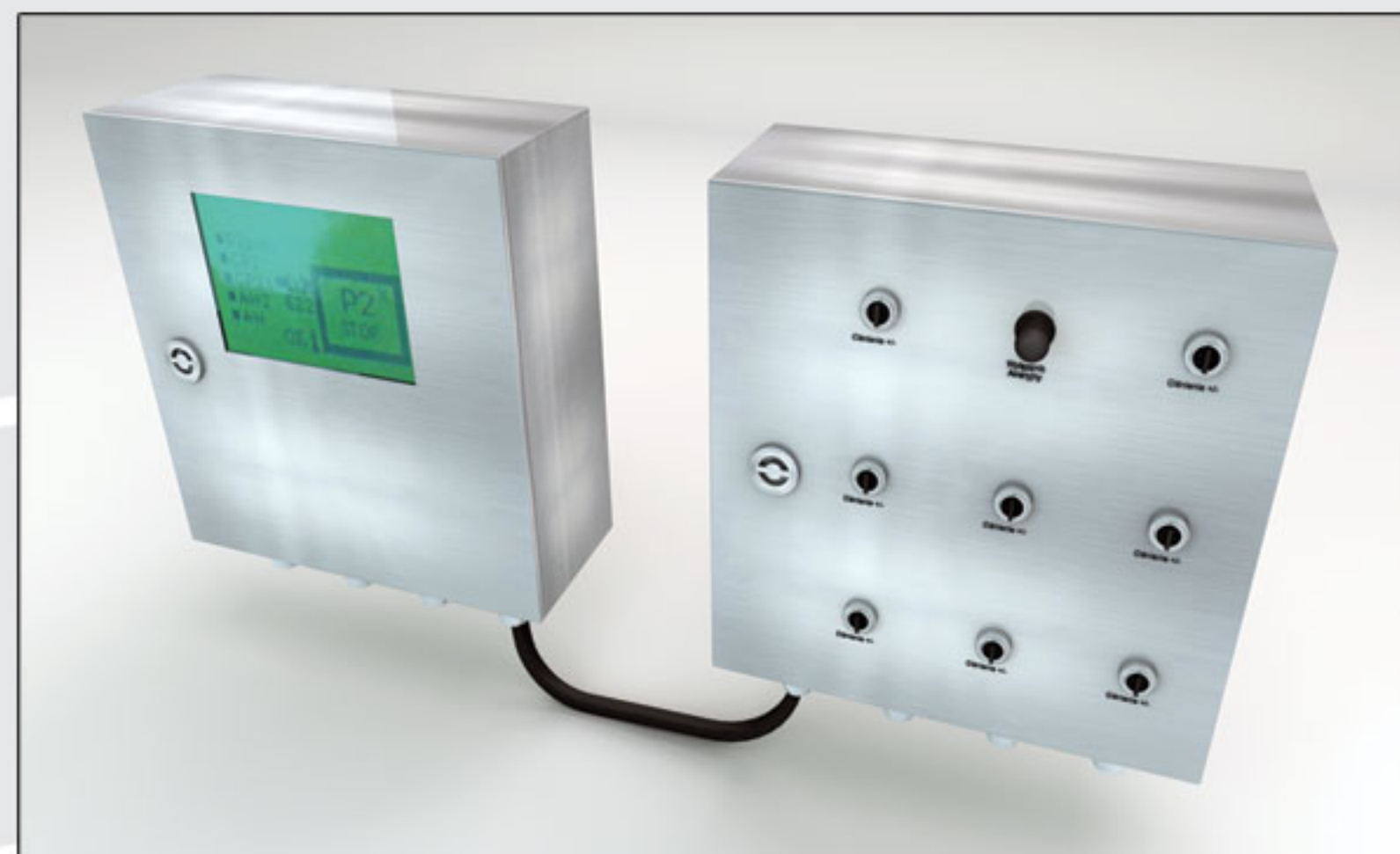
WT-IMSP I

- enclosure external dimensions 500 x 500 x 250 mm
- possibility of installing up to 15 modules
- 12 manipulation switches (24 contacts)
- LCD display 4 x 128 x 64 pixels
- remote control option



WT-IMSP II

- dimensions 200 x 200 x 125 mm
- possibility of installing up to 6 modules
- LCD display 1 x 128 x 64 pixels
- independent control panel with 9 manipulation switches (18 contacts)
- possibility of extending the system with further WT-IMSP II controllers by connecting them using network protocols.



Major advantages of WT-IMSP controllers

- stainless steel enclosure (IP 54)
- large LCD display
- modular controller design - quick module installation on TS32 or 35 rail
- unrestricted configuration, as to the type and number of modules
- user-programmable ATmega processor
- data exchange between the CPU and the modules through a buffered I²C bus

By using the Modbus RTU communication protocol, WICHARY Technologies developed a remote control system for pump units in underground workings for distances as long as 10 km and the visualisation and archiving of data into the surface mine control (dispatching) system together with the possibility to change their parameters. Data transmission is provided using the current mine's communications system.

The control (dispatching) system displays the schematic representation of the control process including the work parameters of all sensors, helping to prevent and quickly rectify emergency situations.

Basic modules in the WT-IMSP controller:

1. IMSP-CPU

Processor module of the controller

2. IMSP-DI

Digital (binary) inputs module with line testing

3. IMSP-AI

Analog current inputs module (4-20 mA)

4. IMSP-AF

Analog frequency inputs module (5-15 Hz)

5. IMSP-DO

Digital (binary) outputs module

6. IMSP-AO

Analog current outputs module (4-20 mA)

7. IMSP-LCD

Graphic display module.

Dostępne moduły dodatkowe:

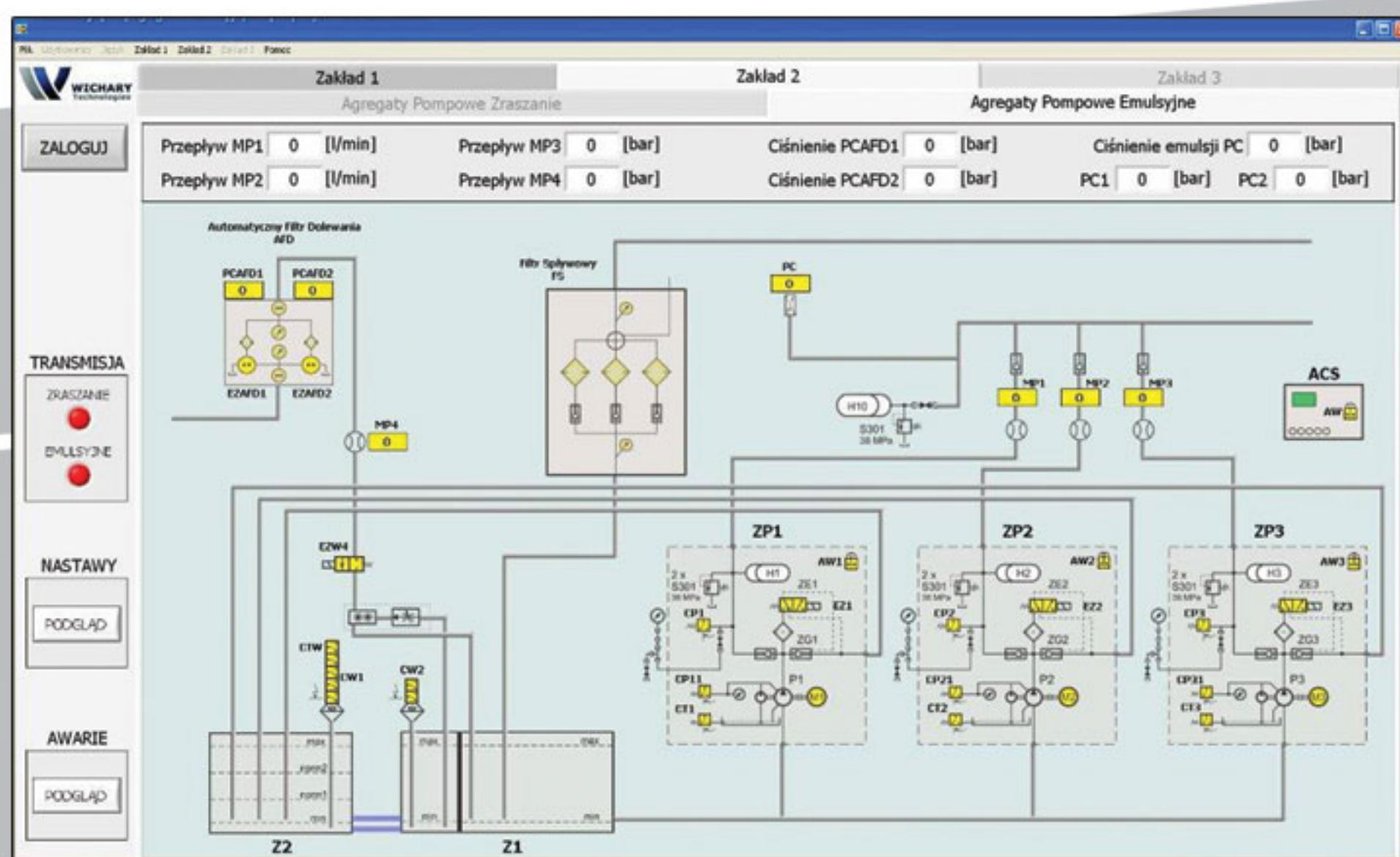
1. IMSP-BTHC

Bluetooth® communication

2. IMSP-FIBC

optical fibre communication

The controller is powered from an intrinsically safe power supply unit with appropriate certification and approvals for use in potentially explosive atmospheres.





TECHNOLOGIES OF TOMORROW

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The company uses an integrated quality management system ISO 9001 and work safety standard PN-N18001..

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