Flow Rate Evaluation Meter

DMZ 200

For evaluation of 2 water meters or 1 combination water meter with data logger option

Application

The Flow Rate Evaluation Meter DMZ 200 is deployed together with reed or optical pulse generators incorporated in, for example, water meters as a versatile, intelligent flow rate meter in all areas of water technology – in applications that require flow rates to be determined and recorded with precision as well as simplicity of use and high levels of operational reliability.

Description

The Flow Rate Evaluation Meter DMZ 200 assigns the frequency signal supplied by a pulse generator to a corresponding flow rate unit and direction of flow.

It is optionally possible to connect one or two water meters or a combination water meter. When using optical sensors it is also possible to determine the direction of flow of the water.

The displayed value is calculated according to the input frequency.
In addition, it is possible to scale a percentage display for each meter input according to requirements.
The value at the analogue outputs changes in line with this scaling, with 100% corresponding to 20 mA at the output.

It is possible to define limit values that trigger the alarm relay, for example, to detect pipe fractures.

Uninterrupted monitoring of the measurement system facilitates a high level of operational reliability.
When utilizing optical sensors, fault states – wire breaks or short-circuits in the measurement lines – are displayed in clear text as well as indicated as a potential-free fault signal.

For user convenience it is possible to configure all functions in a menu-assisted environment using just three buttons – eliminating the need for an additional programming device.
An integrated DC voltage source supplies the requisite auxiliary power supply to the pulse generators.

Features

General:

- ❒ Graphic display for measurement values
- ❒ Clear text display of system status and configuration
- ❒ Intuitive, menu-assisted operation
- ❒ 2 pulse inputs suitable for reed and optical pulse generators (Namur)
- ❒ 2 analogue outputs 0/4... 20 mA
- ❒ 3 relay outputs
- ❒ Integrated real-time clock
- ❒ Uninterrupted monitoring of measurement system
- ❒ Retains parameter settings if the mains power supply should fail (EEPROM)
- ❒ Integrated data logger including SD card and archiving function (optional)
- ❒ Mounts in front panel or onto mounting plate (DIN top-hat rails)
- ❒ Membrane keypad and lockable front panel

Measurement value and scaling:

- ❒ User definable pulse generator value
- ❒ User selectable units, e.g. l/s, m3/h etc.
- ❒ User scaling of percentage upper value
- ❒ Direction of flow detection (bipolar)
- ❒ User selectable pulse output value
- ❒ Max./min. value recording (indicator) including time stamp
- ❒ Totaliser

Miscellaneous:

- ❒ Precise setting of limit value to trigger alarm
- ❒ Output simulation option to test the function of connected plant components
- ❒ Alarm indication history
- ❒ Start counter status can be set to synchronise with water meter reading
- ❒ Selectable menu language
- ❒ Evaluate SD card archive, for example with MS Excel®

PFEIFFER
e-mail: info@pfeiffer-electronic.de
Internet: http://www.pfeiffer-electronic.de
Electronic GmbH D-35753 Greifenstein, Talblick 2, Phone: +496477-9112-0, Fax: +496477-9112-29

Technical data

Power supply

Operating voltage	230 V / 50 Hz
Power consumption	12 VA; 7.5 W

Display

Display	Graphic LCD, 128x64 pixels, backlit
Update measured value	Every 2 s
	5 LEDs for relay status indication

Operation 3 x front-side keys and menu navigation

Meter input

Number	2 x REED / Namur (DIN EN 50227)
Active input	DMZ 200 supplies sensor with power
Terminal voltage	Approx. 8.1 VDC
Current limit	Approx. 10 mA

Analog output

Number:	2 x 0/4... 20 mA (electrically isolated)
Max. burden	500 Ohms
Linearity error	Referenced to 0.08 % 20 mA

Relay output

Number	3 function relays with NO contacts 1 fault/alarm relay with CO contact
Switching capacity	≤ 200 VA

Memory

Parameters	EEPROM
Data / measurement	SD card (optional)

Temperature

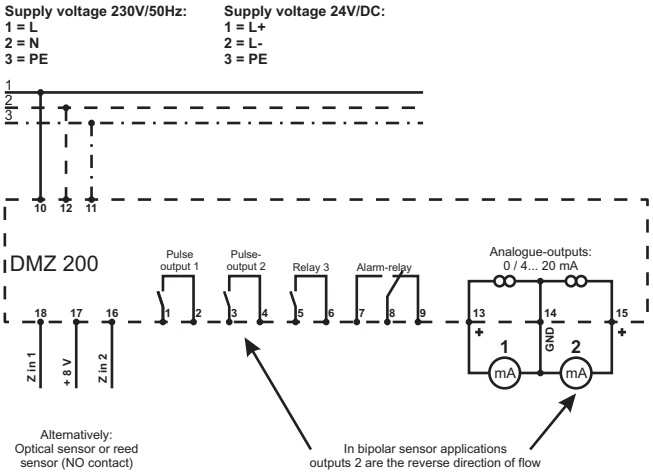
Operating temperature	+ 10 ... +45 °C

Surge voltage protection Overvoltage category II / protection class II

Housing

Material	Plastic, ABS
Terminals	Screw terminals max. 1.5 mm2
Weight	320 g
Degree of protection	Device IP54 (panel-mounted in rubber sealed housing, behind transparent panel)

Electrical connection



Dimensions