

Description

Combined with an electromagnetic transmitter and a second electromagnetic measuring device, converter type **IZM-R** can realize some simple control tasks (ratio control for 2 components). The use of an amplifier box for the control of valves and/or pumps offers the additional possibility of an automatic quantity preselection for the mixture. The device is operated by the aid of an alphanumeric display and a membrane keypad.

The following values can be displayed:

Standard:

- individual quantity
- preset quantity
- daily quantity
- total quantity (not resettable)
- instantaneous flow rate
- possible error message

In addition:

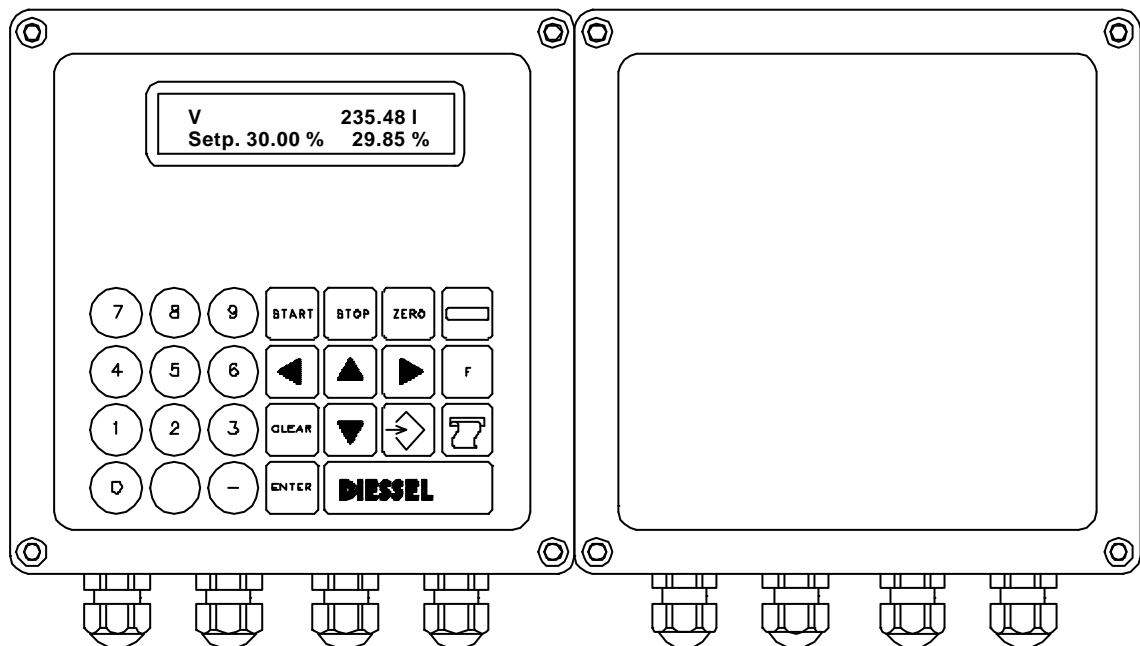
- mixing ratio - setpoint
- mixing ratio - actual value
- modulating valve position
- instantaneous system status
- actual control deviation

Parameters (e.g. control parameters, behaviour upon disturbance, etc.) can be input via menu-driven images (see B12.70E and/or B46.64E). Control via external signals (start and stop) is possible.

The amplification of the control signals in the amplifier box enables the direct control of solenoid valves for the operation of pneumatic valves. Apart from that, a contact is available for the pump control or the control of a motor-driven valve. A modulating valve for the flow rate control of the slave stream can be connected to the analog output (0 or 4 - 20 mA). The modulating valve may be either pneumatically operated (requires an additional compressed-air supply) or electrically operated.

An external contact permits the valves and the pump to be controlled during the cleaning process independent of a preset quantity.

Fig. (2 separate field housings)



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Electro**MAG**netic Flow **METER**

IZM

Type: **R** with controlling and amplifier box

D 46.64 E

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Examples for applications of in-line blending:

- a) reception of raw materials with simultaneous blending
- b) automatic filling of tanks with simultaneous blending
- c) production of 2-components mixtures
- d) dosing tasks (yeast into wort, culture into milk, etc.)
- e) product distribution

Standard functions:

The digital blending controller type "IZMS Reg" offers a large number of standard functions that can partially be parameterized via the keypad, e.g.:

- ratio control of 2 components
- compensation of control deviations yes/no
- stop of mixing in case of disturbance yes/no with adjustable time delay
- automatic start of the slave stream upon the start of the main stream
- values of the setting outputs exactly upon the start and in case of stop and special functions (e.g. cleaning)
- flow monitoring
- start and stop via keypad or by key activation (control panel or external)
- outputs for 1 pump and 1 valve per component and for disturbance
- indication of volumes, flow rates, etc.
- indication of error messages in clear text
- protection of setpoints, control parameters, etc. from unauthorized access
- preselection of the production quantity with automatic stop

Technical data

Control outputs	<p>3 x optocoupler 10 - 30 V, 10 mA max. are processed in the amplifier box for the realization of the following functions:</p> <p>1 x volt-free contact 50 VA max., 230 V AC, 1 A max. for error output</p> <p>1 x volt-free contact 50 VA max., 230 V AC 1 A max. (non-inductive) for slave stream</p> <p>2 x volt-free contact 50 VA max., 230 V AC 1 A max. (non-inductive) for main stream for the control of a valve and a pump contactor</p>
Analog output	0/4...20 mA (aktive), load 500 Ω max.
Control inputs	4 x optocoupler; 10 - 30 V-, Ri = 1,5 kilohms for start, stop, CIP, count interruption
Pulse output	Optocoupler 10 - 30 V, 10 mA max.
Analog output	0 (4) ... 20 mA (active), max. load 500 ohms
Serial interface	RS 485 with protocol for internal DIESSEL CS3-Bus (57600 bd) for the connection of the second electromagnetic flow meter (slave stream)
Protection	Cast aluminium housing: IP 65
Dimensions in mm (W x H x D)	Aluminium housing: 316 x 157 x 100 mm for converter and amplifier box
Ambient temperature	0 ... +50 °C
Auxiliary energy	230 V (115 V), 50-60 Hz or 24 V DC max., residual ripple 5 %
Power consumption	Approx. 30 VA (including transmitter)