

# Data Sheet

**DIESSEL**  
One step ahead ...

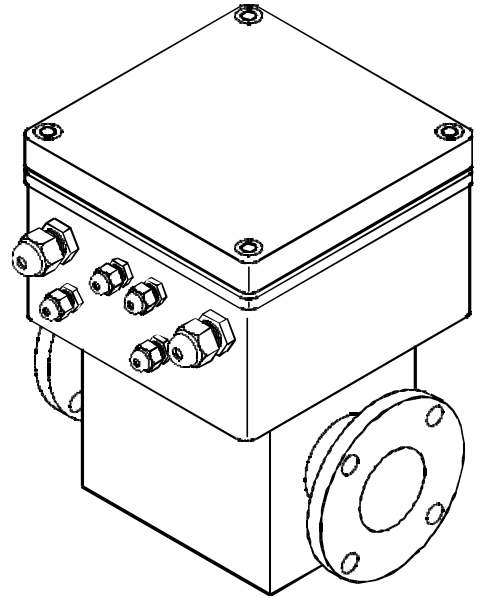
## Description

The electromagnetic flow meter type **IZM-L** is used to measure the flow and the volume of liquids with a very high accuracy. The measurement is carried out independently of pressure, temperature, viscosity and composition of the product.

Due to the even metering pipe the measurement is wear-resistant, extremely robust and for this reason very insensitive to disturbances. The metering device hardly reduces the process pressure. The metering device is ready to measure as soon as you switch it on.


Special calculation methods and newly developed electronic circuit methods result in a reliable and precise measurement of the flow which is hardly influenced by process and environmental conditions.

The volume data are digitally available as pulse sequence. For the flow rate an analog signal can be used (option).



The **IZM-L** is delivered in integrated design. For this reason it can be easily installed. The required **power supply** is 115/230V alternating current or 24 V direct current.

## Special features

- high metering accuracy / reproducibility
- typical tolerance: 0.25%
- practically no pressure loss
- wide temperature range
- wide flow range of 0.2 – 6 m/s
- measurement independent of density, viscosity, pressure and temperature
- wear-resistant measurement method
- easy commissioning without additional operating devices
- self-check with automatic error diagnosis
- measurement in forward and reverse flow direction
- volt-free output of signals, insensitive to disturbances, with scaled volume pulses
-  -sign and EMC design

## General information

Every liquid product with a minimum conductivity of 5  $\mu\text{S}/\text{cm}$  can be measured.

This measurement method enables you to measure both laminar and turbulent flows.

For a correct measurement it is important that the metering pipe is permanently filled.

Possibly required control devices or other facilities must be installed behind the electromagnetic flow meter. We recommend to carry out the installation in an ascending pipe.

When installing in horizontal position, the electrode axis, too, must run horizontally.

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**Electromagnetic  
Flow Meter  
IZM-L**

**D 12.75 E**

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Page -1- of -2 pages

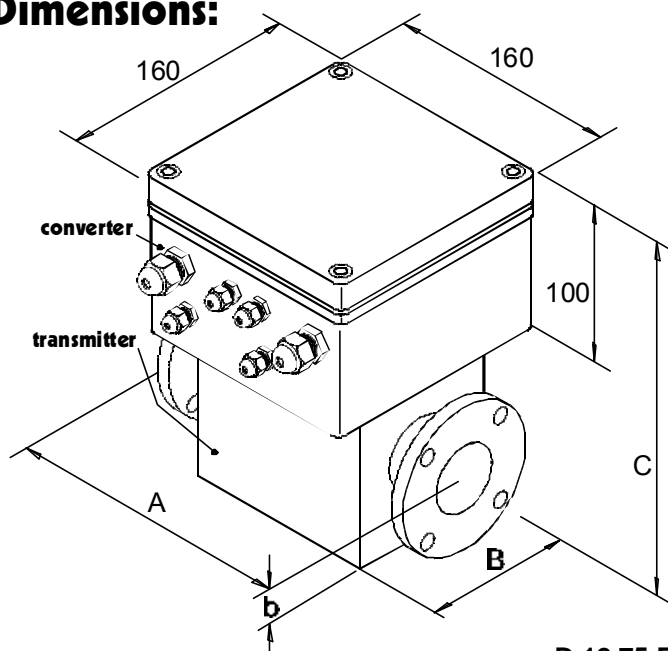
## Technical Data

Product conductivity	min. 5 $\mu\text{S}/\text{cm}$	Admissible pressure	0.5 bar min. abs. at 20°C, 10 bar max. (higher pressures on demand)
Product temperature	80°C max.	Cleaning temp.	120°C for 30 min. max.
Transmitter housing	German mat. 1.4301	Housing	Aluminium cast
Lining	Teflon	Connection (standard)	FG small flange
Ambient temperature	-15°C ... +55°C	Protection class	IP 67
Power supply	a) 115/230 V AC 0.10 A / 0.05 A b) 16...34 V DC 0.4...0.2 A	Power consumption	10 VA / 10 watts max.
Digital outputs	1 x Optocoupler volume pulses	Serial interface	RS485 <b>DIESSEL</b> CS3-BUS
Digital switching input (count-interruption)	U = 10...30 V	$f_{\text{max}}$ = 10 Hz	
Digital pulse output	$U_{\text{B}}$ = 10...30 V $U_{\text{aus}}$ = $U_{\text{B}}$ - 1,2 V	$I_{\text{off}}$ = 80 mA max. $f_{\text{max}}$ = 1000 Hz	0.001...10,000 Imp./litre
Analog output (option)	4...20 mA (Flow rate see below)	Linearity # 0.1 % Accuracy # 0.1 % Max. load = 500 S	

## Table of flow ranges:

DN	Total flow range	with option „Analog output“ Flow rate max. (at 20 mA)		Flow at velocity 1 m/s	Metering tolerance		Unit
		S6 [5] = ON	S6 [5] = OFF		< 0.25%	< 1%	
25	150 - 12,000	3,000	6,000	1,800	> 300	> 150	l/h
40	600 - 35,000	10,000	20,000	4,500	> 1,200	> 600	l/h
50	700 - 45,000	15,000	30,000	7,000	> 1,400	> 700	l/h
65	1,200 - 75,000	25,000	50,000	12,000	> 2,400	> 1,200	l/h
80	1,800 - 120,000	35,000	70,000	18,000	> 3,600	> 1,800	l/h
100	2,800 - 200,000	50,000	100,000	28,000	> 5,600	> 2,800	l/h

## Dimensions:



DN	A [mm]	B [mm]	b [mm]	C [mm]	Weight [kg]
25	200	100	50	200	9
40	200	130	65	230	11
50	200	130	65	230	11
65	200	165	82.5	265	15
80	200	165	82.4	265	17
100	250	190	95	290	21