

CORONA E (PHASED OUT)

Electronic Meter | Multi-Jet

DIEHL
Metering



APPLICATION

Fully electronic compact water meter with impeller scanning for recording volume. Highly accurate recording of all billing data at medium temperatures up to 90 °C.

FEATURES

- ▶ Electronic sensor control for recording flow rate
- ▶ Lithium battery, lifetime up to 12 years
- ▶ Optical ZVEI interface equipped as standard
- ▶ Adjustable reading date for billing
- ▶ Rotatable integrator
- ▶ Single-line 7-digit display for easy meter reading

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ELECTRONIC - BASIC FEATURES

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Ambient class	OIML R49 class C / MID E2 + M1
Protection class	IP 54 or IP 68 for cold and warm water meter
Interfaces standard	Optical ZVEI
Interfaces optional ¹	M-Bus, L-Bus, pulse

¹ Possible combinations

- M-Bus / pulse / pulse
- L-Bus / forward pulse
- only M-Bus

Note: IZAR@SET / HYDRO-SET Software for configuration of meters, readout of measured values and printout of meter logs. Available under www.diehl.com/metering (Products - downloads)

TECHNICAL DATA DISPLAY

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Display indication	LCD, 7-digit
Unit	m ³ /h - l/h - m ³ - l
Total values	99,999.99
Values displayed	Flow rate

SUPPLY VOLTAGE

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Operating voltage	UN	VDC	3.0 (lithium battery)
Battery lifetime			Up to 12 years
Nominal power	PN	μW	30

INTERFACES - OVERVIEW

CORONA E (phased out)	
Optical	ZVEI interface for communication, M-Bus protocol
M-Bus	According to EN 1434-3. Data reading and parametrization are via two wires with polarity reversal protection. (Meter is powered with energy via M-Bus Master)
L-Bus	Interface for the radio module IZAR RADIO EXTERN
Pulse	Output for volume

PULSE INTERFACE - SPECIFICATION

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Pulse rates	l/pulse	Decadic 0.1 ... 100
Display		2 digits after comma
Pulse value 1	l/pulse	0.1 (factory setting)
Pulse value 2	l/pulse	1 (factory setting)
Pulse variants		Two forward pulses; one forward and one backward pulse; pulse and direction signal

Note: In the field the pulse values can be configured as desired in the specified value range.

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VOLUME- / PULSE

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Output type	Open collector	
Max. frequency	Hz	90
Max. input voltage	V	30
Max. input current	mA	27
Max. voltage drop at active output	V/mA	2/27
Max. current through inactive output	µA/V	5/30
Max. reverse voltage without destroying outputs	V	6
Min. pulse duration	ms	5.5 (at max. frequency of 90 Hz)
Max. pulse duration	s	2
Min. pulse pause	ms	5.5

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GENERAL

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Temperature range	°C	30 (for cold water meter) / 90 (for warm water meter)	
Ambient operating temperature	°C	1 ... 55	
Ambient storage temperature	°C	-20 ... 55	
Nominal pressure	PN	bar	10 / 16
Mounting position	In any position		

TECHNICAL DATA

Nominal diameter	DN	mm	15	15	15	20	20	20
Permanent flow rate	Q ₃	m ³ /h	2.5	2.5	2.5	4	4	4
Overall length	L	mm	110	130	165	105	130	190
Overload flow rate	Q ₄	m ³ /h	3.125	3.125	3.125	5	5	5
Transitional flow rate	Q ₂	l/h	32	32	32	51	51	51
Minimum flow rate	Q ₁	l/h	20 ¹	20 ¹	20 ¹	32 ¹	32 ¹	32 ¹
Starting flow rate		l/h	3 - 4	3 - 4	3 - 4	5 - 6	5 - 6	5 - 6
Pressure loss at Q ₃	Δp	mbar	615	615	615	620	620	620
Flow rate at 0.1 bar pressure loss		m ³ /h	0.962	0.962	0.962	1.607	1.607	1.607

¹ at R 125

APPROVAL

Nominal diameter	DN	mm	15	15	15	20	20	20
Permanent flow rate	Q ₃	m ³ /h	2.5	2.5	2.5	4	4	4
Overall length	L	mm	110	130	165	105	130	190
MID (DE-07-MI001-PTB008) - T30			•	•	•			
MID (LNE 12552) - T90			•	•	•			
MID (LNE 13629) - T30/T90						•	•	•
Dynamic range (Q ₃ /Q ₁)	R		80 / 100 / 125	80 / 100 / 125	80 / 100 / 125	80 / 100 / 125	80 / 100 / 125	80 / 100 / 125

REACH

Information pursuant to Article 33 (1) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006:

This product series contains articles with the following substances in a concentration of more than 0.1% weight by weight (w/w):

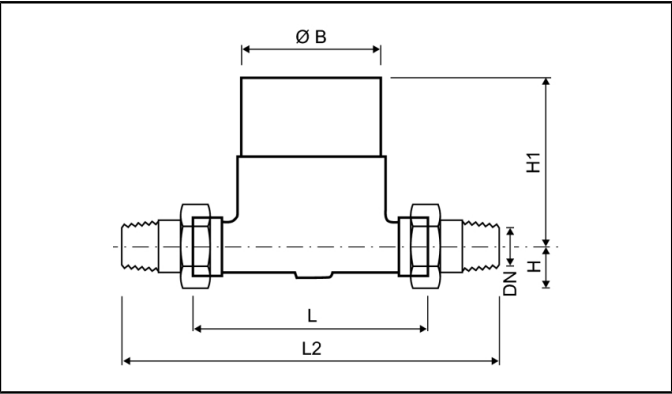
- Lead (CAS no.: 7439-92-1)

- 1,2-dimethoxyethane (CAS no.: 110-71-4)

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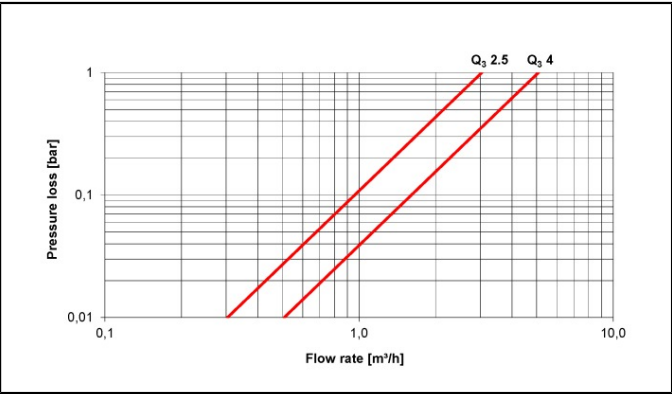
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DIMENSIONS

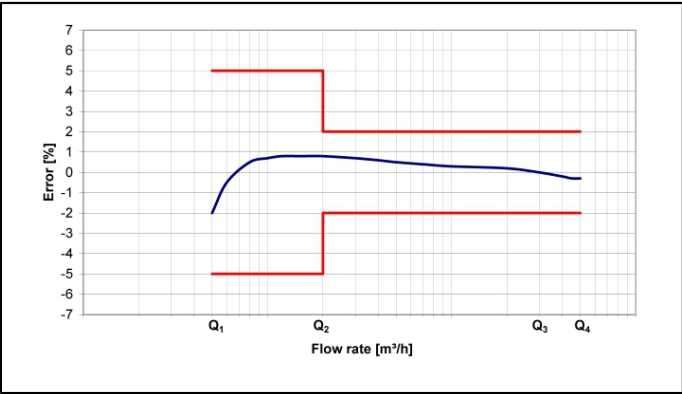


Nominal diameter	DN	mm	15	15	15	20	20	20
Permanent flow rate	Q ₃	m ³ /h	2.5	2.5	2.5	4	4	4
Overall length	L	mm	110	130	165	105	130	190
Overall length with coupling	L2	mm	186	206	241	181	206	266
Connection thread on meter		Inch	G¾B	G¾B	G¾B	G1B	G1B	G1B
Connection thread of coupling		Inch	R½	R½	R½	R¾	R¾	R¾
Height	H	mm	20	20	20	20	20	20
Height	H1	mm	75	75	75	75	75	75
Diameter	Ø B	mm	62	62	62	62	62	62
Weight without coupling		kg	0.8	1	1.3	0.8	1	1.5
Weight with coupling		kg	1	1.2	1.5	1.3	1.5	2

PRESSURE LOSS GRAPH / TYPICAL ERROR GRAPH



Pressure loss graph



Typical error graph