

Own the flow

AQUAMETRO



FUEL OIL METERS

CONTOIL® DN 15 - 50

YOUR PROJECT - OUR HIGH-QUALITY PRODUCTS

Since 1928, Aquametro has been among the leading manufacturers and suppliers of measurement, optimization and monitoring solutions for all kinds of fluids on ships, vehicles and industrial applications.

Our range consists of more than 100 different oil fuel meters and management systems which have been developed specially for ships, transport vehicles and other heavy machinery in the shipping and industrial sector.

Aquametro operates from its headquarters in Therwil/Switzerland and Rostock/Germany as well as from Singapore for the Asian market. With further subsidiaries in South Korea and China and representation offices in India and Japan plus a global service network and numerous sales partners around the world we can offer you seamless, professional and solution-driven support.



Shipping

Wherever you go in the marine and river ship industry, you'll find Aquametro. On all oceans and rivers, our products and solutions are hard at work.



Vehicles

Precise monitoring of the fuel consumption in all diesel driven vehicles as well as stationary genset and boiler is an important task with an ever growing ecological awareness.



Industrial

Aquametro provides specific products and solutions that help our customers to measure all chemical and industrial liquids at high accuracy and process safety.

THE RIGHT CHOICE

For flowrates 20l/h up to 30.000l/h

Hydraulic		Meter DN size						
		Nominal diameter	DN mm	15	20	25	40	50
			inch	1/2	3/4	1	1 1/2	2
Installation length		mm		165	165	190	300	350
Connection thread on meter		inch		3/4	1	1 1/4	2	-
Nominal pressure threaded ends	PN	bar		16	16	16	16	N/A
Nominal pressure flanges	PN	bar		25 / 40	25 / 40	25 / 40	25 / 40	25 / 40
Max. medium temperature	T _{max}	°C		130 / 180				
Maximum flow rate	Q _{max} ¹⁾	l/h		600	1500	3000	9000	30000
Continuous flow rate	Q_{cont}²⁾	l/h		400	1000	2000	6000	20000
Minimum flow rate	Q _{min}	l/h		20	40	75	225	750
Approx. starting flow rate		l/h		4	12	30	90	300
Max. permissible error of actual value ¹⁾	VZF II, VZO, DFM			±1.0 %	±1.0 %	±1.0 %	±1.0 %	±1.0 %
	VZFA II, VZOA			±0.5 %	±0.5 %	±0.5 %	±0.5 %	±0.5 %
	VZFA II linearized			±0.3 %	±0.3 %	±0.3 %	±0.3 %	±0.3 %
Repeatability				±0.1 %	±0.1 %	±0.1 %	±0.1 %	±0.1 %
Measuring chamber volume		cm ³		12	36	100	330	1200
Safety filter mesh size		mm		0.400	0.400	0.400	0.800	0.800
Weight with threaded ends ³⁾		kg		2.2	2.5	4.2	17.3	-
Weight with flanges PN 25		kg		3.8	4.5	7.5	20.3	41.0
Weight with flanges PN 40		kg		4.4	5.5	7.8	20.5	42.0

1) Manufacturer's specification, valid for the reference conditions as specified under reference conditions. Do not use this value for the design.

2) For burners and engines or motors, the fuel oil meter must be selected on the basis of the permanent flow rate. For higher viscosities, or if the meter is installed on the suction side, the pressure drop and any reduction in the measuring range must be taken into consideration.

3) Weight without couplings.

CONTOIL® CE MID 2014/32/EU fuel oil meters are also available for verified applications where an approved measurement

» Conformity approved read out



Electronic display

CONTOIL® VZF/A II with multifunctional display and adjustable outputs

Output signals for electronic display:

- » Volume and mass pulses
- » Actual flow rate and mass flow
- » Temperature display
- » Limiting values (Q_{min} , Q_{max})
- » Status switch (alarm, error)
- » External power supply 24 VDC or 4 - 20 mA; 2 wire current loop
- » Simple to operate



Mechanical display

CONTOIL® VZO/A total volume display

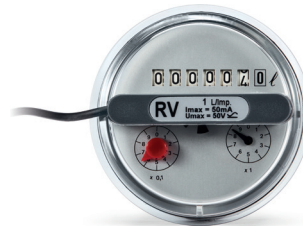
Total volume display on roller counter



CONTOIL® VZO/A RV/IN total volume display and remote transmission

Total volume display on roller counter with

- » Reed pulse (RV) for remote totalization
- » Inductive pulse (IN) for control purposes

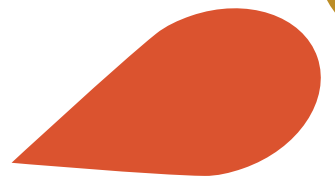


Blind unit with pulse output

CONTOIL® DFM compact design for remote display transmission

Pulse value for remote totalizing



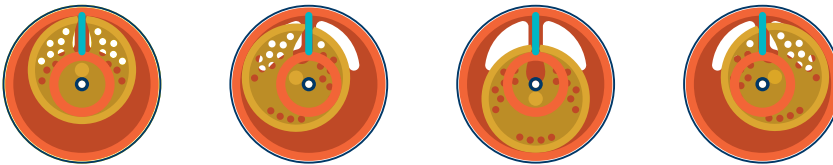


OPERATING PRINCIPLE

Function

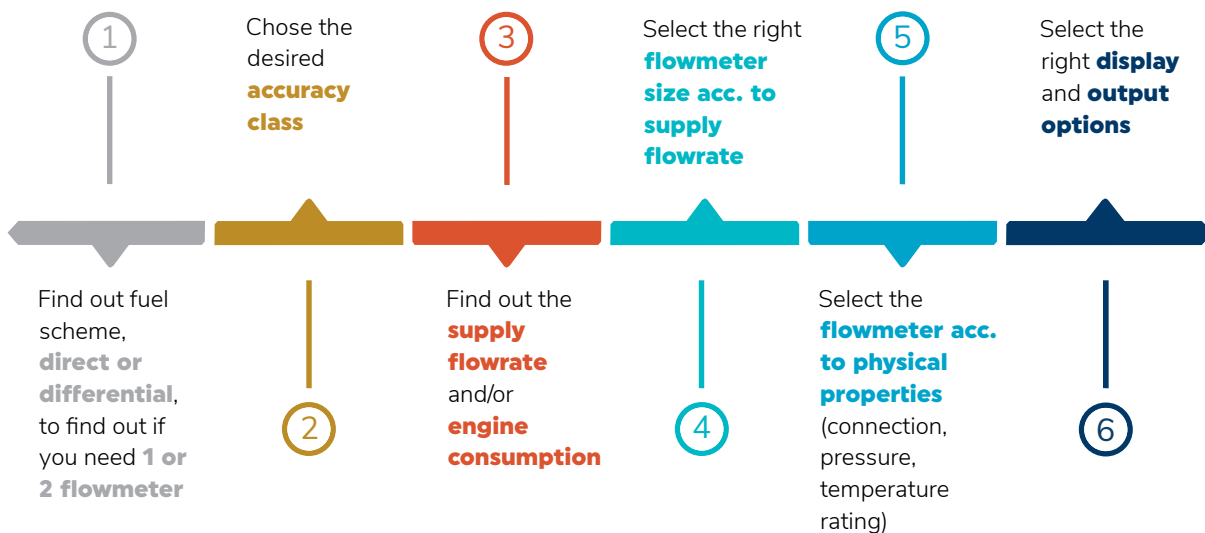
CONTOIL® fuel oil meters work on the volumetric principle of rotary piston meters (positive displacement meters). The main features of this measuring principle are large measuring ranges, high accuracy, suitability for high viscosities and independence from power supply.

Flow disturbances do not influence proper operation.



Leading manufacturers of oil burners and operators of heating systems, ships or diesel engines rely on CONTOIL® fuel oil meters - and with good reasons.

SELECTION CRITERIA



CALIBRATION AND CERTIFICATION

High precision measuring systems

As an authorised and recognised calibration laboratory for Switzerland and Germany, we maintain an independent, Europe-wide accredited calibration laboratory for oil quantities according to ISO / IEC 17025.

We propose test and calibration services for all our meters and volume measuring parts as well as their additional components on our own test and calibration equipment. A calibration certificate according to EN 17025 documents the quality of our products and systems





You will find detailed technical data on the product range and project planning notes in our technical documentation.



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