



OIL FLOW METERS FOR MOST DEMANDING APPLICATIONS

Accurate fuel oil receipts.

Fuel consumption monitoring in industrial power generators, boilers, burners.

Flow rate monitoring & control in close loop systems for bearing lubrication etc.



Features

The complete range of products offering the best solutions for the measurement of oil consumption

State-of-the-art design with electronic counter, flow indication, analogue and digital output signals and limiting value switch

Mounting on the pressure or suction side of a pump, with no straight inlets or outlets required

Independent of viscosity and temperature

High vibration resistance

Programme-able unit of measurement – Ltrs / m³ / gallon

Your benefits

The reliable solution with everything from a single supplier

Reliable monitoring and flexible control of the system.

Simplifies burner settings and optimising consumption

Highly flexible mounting with very small space requirements

Accurate measurements

Maximum safety in the shipbuilding and automobile industries

Cost-effective metering point

Metoil Electronic Display Flow Meter with multifunctional display and parameterisable outputs DN 15 ... 80

Electronic display of
totaliser, total and resettable volume
actual flow rate
other flow parameters

Output signals for
volume pulses
actual flow rate
limiting values (Q_{min} , Q_{max})

Simple to operate

Interactive parameter input

Signal

Analog 4 – 20 mA continuous for remote monitoring and control Digital Pulses

External power supply
Battery Back-up option

Housing with threaded or flanged connections
Different Construction Material options for varied applications

Main characteristic data:
flow range 10 ... 48 000 l/h
temperature ranges 130 and 180° C
nominal pressure PN 16, 25 and 40 bar

The advantages of Metoil® fuel oil meters – your benefits

You can decide which of these many benefits are the most important for you:
the optimal solution for every application simple burner setting with flow rate display
simple consumption monitoring with limiting value switch Q_{min}/Q_{max} manual dosing feature, with a resettable counter can be mounted on the pressure or suction side of a pump space-saving installation, because no straight inlet/outlet sections are needed flexible mounting of the meter in horizontal, vertical or inclined positions accurate measurement result, since the reading is independent of the temperature and viscosity of the fluid minimum failure costs due to simple function monitoring, rapid fault analysis and the possibility of simple repairs on site

Areas of application

to measure heating fuel consumption by oil burners (for example, in heating boilers, industrial furnaces, tar processing plants, ships and boilers) to measure propellant fuel consumption by motors and engines (such as diesel locomotives, construction machinery and ships, or in emergency power units, combined heating and power stations) consumption monitoring and optimisation flow measurement for mineral oils optional remote processing and integration into superior systems manual dosing / batching flow measurement for machine and motor/engine oils engine test benches



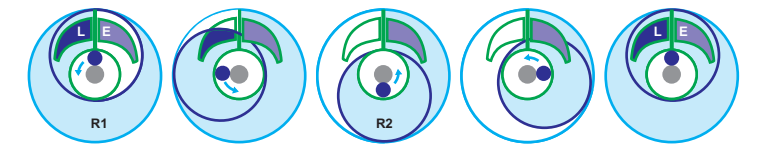
Fuel types

heating fuel extra light / light, medium, heavy
naphtha diesel petrol
and other lubricating liquids

Technical data

Function

Metoil® flow meters work on the volumetric principle of rotary piston meters (positive displacement meters).



The Ring Piston carries out a rotational movement within the flow meter chamber. due to the eccentric movement of the piston, the space within the ring & outer space between the wall of the flow meter is filled through the inlet opening L after the filling sequence, the fuel is emptied through the outlet opening E. The movement of the ring piston is recorded by means of electronic sensors. One Rotation of the flowmeter corresponds to a defined flow rate.

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.

Construction

Piston, roller and driver are the only moving parts in contact with the liquid. Their movement is transmitted by a magnetic coupling through a sealing plate. The hydraulic part is completely separated from the totalising module.

Nominal Diameter	Unit	DN 4	DN 8	DN 15	DN 20	DN 25	DN 40	DN50	DN80
Min. Flowrate	LPH	1	4	15	30	100	300	600	1200
Normal Flowrate	LPH	50	135	500	1000	2000	6000	12000	24000
Max. Flowrate	LPH	80	200	750	1500	4000	12000	24000	48000
Min. counter registration	Ltrs / m ³	0.1	0.1	0.1	0.1	0.1	1	1	1
Indicating range	Ltrs / m ³	999999.9	999999.9	999999.9	999999.9	999999.9	999999.9	999999.9	999999.9
Temperature	deg C	60	60	130/180	130/80	130/80	130/80	130/80	130/80
Nominal Pressure	bar	25/32	25	16/25/40	16/25/40	16/25/40	25/40	25/40	25/40
Connection		Screwed	Screwed	Screwed / Flanged	Screwed / Flanged	Screwed / Flanged	Flanged	Flanged	Flanged



Following options make the selection of the flow meter very easy & at the same time versatile

R P D		XX	X	X	X	X	X	X	X	X	X	X	X	X
Size	DN 4 to DN 80													
Display Type	Mechanical		M											
	Digital Flow Rate only		F											
	Digital Flow Rate & Total		D											
Body Material	Brass			B										
	Cast Iron			C										
	Cast Steel			D										
	SS 304			S										
	SS 316			F										
Measuring Chamber Material	Brass				B									
	SS 304				S									
	SS 316				F									
	PTFE				P									
Piston Material	Anodized Aluminium					A								
	SS 304					S								
	SS 316					F								
	PTFE					P								
	Hard Rubber					H								
	Graphite					G								
Temp. Suitabilty	60 C						60							
	130 C						130							
	180 C						180							
Accuracy	1.0%						1							
	0.5%						0.5							
Seals	FPM							F						
	PTFE							P						
	Viton							V						
	FFKM							K						
Output	No output								O					
	4-20 mA								A					
	Pulse								D					
Input	5 VDC									L				
	10 - 30 VDC									V				
	Battery									A				
Pressure	16 bar											16 B		
	25 bar											25 B		
	32 bar											32 B		
	40 bar											40 B		
End Connection	S crewed												S	
	Flanged PN 16												PN 16	
	Flanged PN 25												PN 25	
	Flanged PN 40												PN 40	
	Flanged # 150												150	
	Flanged # 300												300	
Display Enclosure	IP 63													A
	IP 65													B
	Ex-Proof													E
	IP 66													C



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