

Oil meters

Controlling oil consumption



Oil meters

- Wide range of sizes from 4mm to 50mm
- Accuracy of $\pm 1\%$ of reading with a repeatability of $\pm 0.2\%$
- Available with screwed and flanged end connections
- Pulse output units available for interface with management systems and remote readouts

Oil Meters from ABB provide an accurate, reliable and economical way of obtaining all the information a user needs to control oil usage and energy costs.

Available in sizes from 4mm to 50mm, covering flow rates between 1 l/h and 30,000 l/h, the meters handle a wide range of viscosities, for a variety of applications including checking and totalising fuel for burners, furnaces and diesel engines, recording draw off from storage tanks, and measuring and controlling oil in batch or continuous petro-chemical process plant.

Sizes 4mm to 25mm are available with screwed end connections and 15mm to 50mm meters are available with flanged end connections. Registration is available in litres.

Strainer

The unit has an inbuilt safety filter but for maximum performance a strainer should be installed upstream in applications where impurities are likely to occur.

Maximum mesh width for strainers:

Meter size	Mesh width
4mm	0.080mm
8mm	0.100mm
15mm	0.250mm
20mm	0.400mm
25mm	0.400mm
40mm	0.600mm
50mm	0.600mm

Pulsed Output

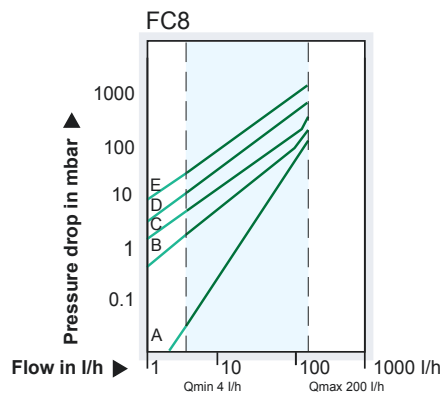
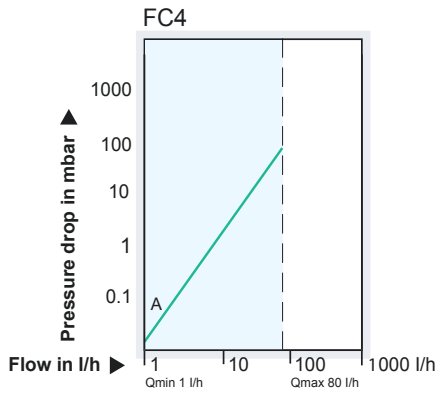
Flow data generated by ABB oil meters can be read manually at the point of flow or as part of a complex instrumentation and control system. All oil meters from ABB have been designed to interface with management systems and remote read equipment.

There are two pulse units available with the range. The low-speed reed switch pulser (RV) provides a volt-free signal suitable for a batching unit or remote totaliser and the high speed inductive pulser (IN) is for use with rate-of-flow indicators and other real-time instrumentation.

Specifications

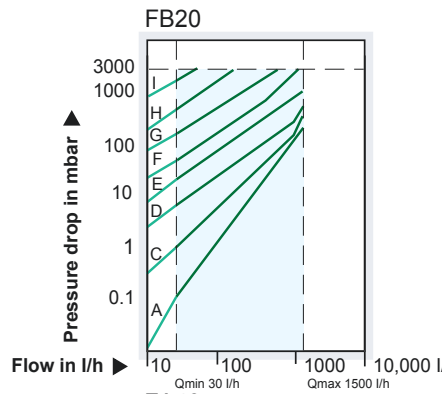
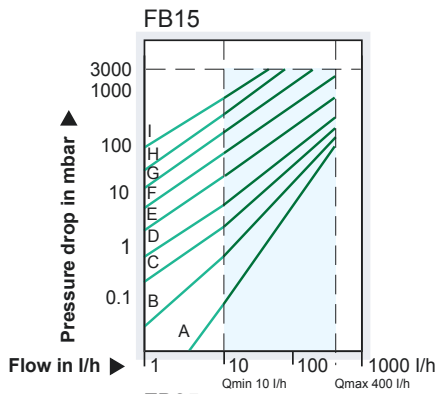
Meter Type		FC4	FC8	FB15	FB20	FB25	FA40	FA50
Nom. Diameter	mm	4	8	15	20	25	40	50
Maximum flow	l/h	80	200	600	1500	3000	9000	30000
Continuous flow	l/h	50	135	400	1000	2000	6000	20000
Minimum flow	l/h	1	4	10	30	75	225	750
Startup approximately	l/h	0.5	1.6	4	12	30	90	300
Nominal pressure	bar	25	25	16	16	16	16	16
Maximum operating temperature	°C	60	60	130	130	130	130	130
Version for								
- light grade heating oil		●	●	●	●	●	●	●
- medium grade heating oil		●	●	●	●	●	●	●
- heavy grade heating oil		-	-	-	●	●	●	●
- diesel fuel oil		●	●	●	●	●	●	●
Version with impulse transmitter								
- reed pulser (RV)		●	●	●	●	●	●	●
- inductive pulser (IN)		-	-	●	●	●	●	●
Pulse value - reed pulser	pulse/litre	1/0.1	1/0.1	1/1	1/1	1/1	1/10	1/10
- inductive pulser	pulse/litre	-	-	1/0.01	1/0.01	1/0.1	1/0.1	1/1
Weight (less connections)	kg	0.65	0.75	2.1	2.5	4.2	20.5	40

Pressure Loss Curves



Viscosities (4mm & 8mm)

- A: 4.5mPa.s
- B: 50mPa.s
- C: 100mPa.s
- D: 200mPa.s
- E: 500mPa.s

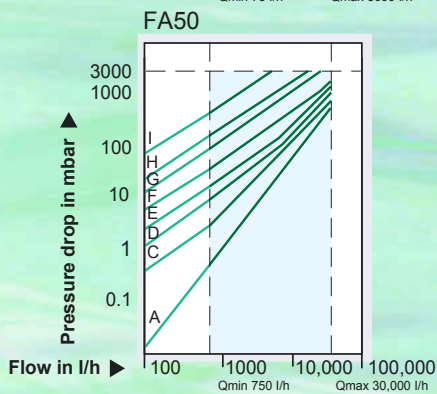
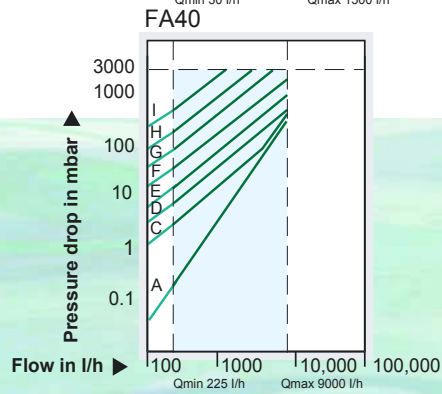
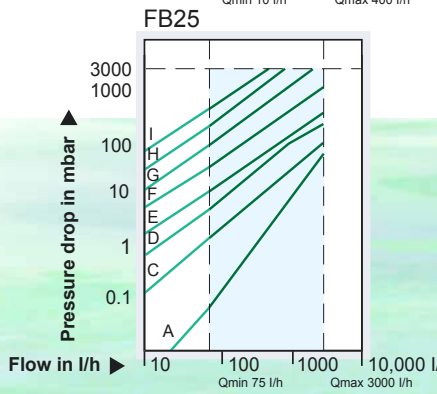


Permissible pressure drop: max. 1 bar

Recommended pressure drop: max. 3 bar

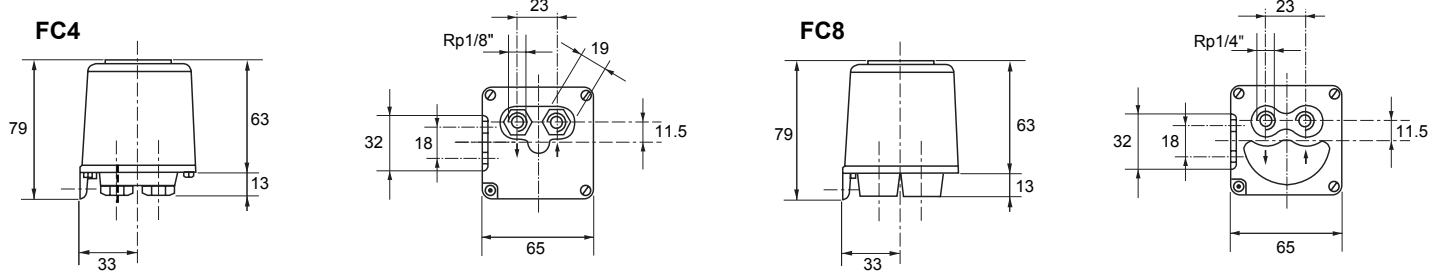
Viscosities (15mm - 50mm)

- A: 4.5mPa.s
- B: 25mPa.s
- C: 50mPa.s
- D: 100mPa.s
- E: 200mPa.s
- F: 500mPa.s
- G: 1000mPa.s
- H: 2000mPa.s
- I: 5000mPa.s



Oil meters Specifications

Dimensions

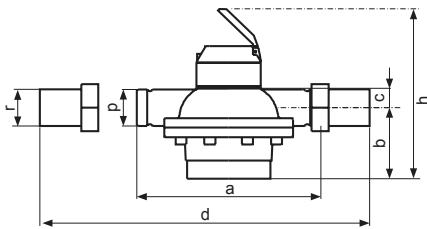


15mm \varnothing 50mm

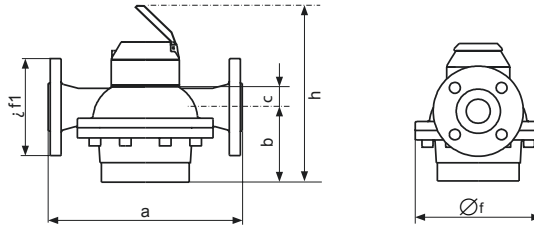
Meter	Size	a	b	c	d	$\varnothing f$	$\varnothing f1$	p	r	Standard register	With pulsers fitted	
										h* (RW)	h* (RV)	h* (IN)
FB15	15mm 1/2"	165	45	20	260	105	95	G3/4"	G1/2"	180	210	260
FB20	20mm 3/4"	165	54	20	260	105	105	G1"	G3/4"	210	220	270
FB25	25mm 1"	190	77	24	305	130	115	G1 1/4"	G1"	220	240	290
FA40	40mm 1 1/2"	300	116	37	440	210	150	G2"	G1 1/2"	310	340	360
FA50	50mm 2"	350	166	43	510	280	165	G2 3/8"	G2"	375	390	410

* Refers to dimensions with lid open

With screwed connections



With flanged connections

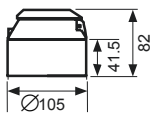
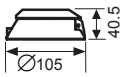


Standard registers RW

Register without pulser

DN 15, 20, 25

DN 40, 50

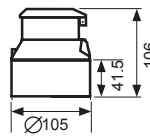
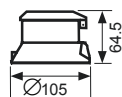


Pulse output registers RV

Register with pulser and meter heading and magnetic protection ring

DN 15, 20, 25

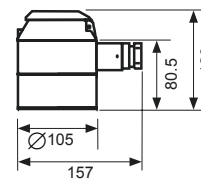
DN 40, 50



Pulse output registers IN (NAMUR DIN 19234)

Pulser inductive

DN 15, 20, 25, 40, 50



The Company's policy is one of continuous improvement and the right is reserved to modify the specifications without notice.

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