PETROL®

PD Flowmeters since 1970

Single Case PD Flowmeters

Main features / Benefits

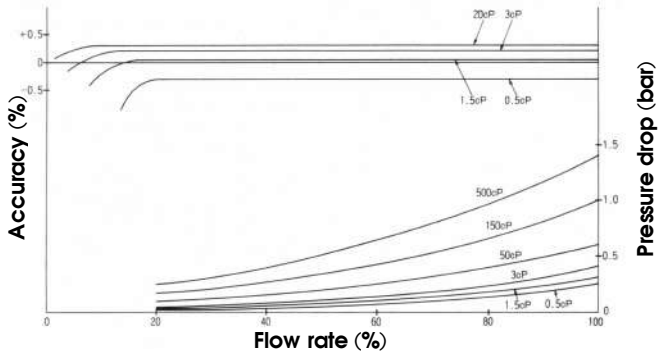
- **Excellent Accuracy and Repeatability:**
  Accuracy: ± 0,15% for fiscal applications and
  ± 0,5% for general purpose
  Repeatability: ± 0,02%
- **Low Pressure Drop:** The straight-through path and floating rotor design create a very low pressure drop at maximum flow
- **Compact Design:** No upstream or downstream pipe lengths are necessary. Pocketless version available
- **Long Service Life:** The rotors never touch each other nor they touch the other parts composing the "base volume" therefore they are not subject to wear. Plus, the magnetic transmission of the rotor's movement eliminates the maintenance and product leakage associated with a mechanical linkage method
- **Production Line:**
  Flange Size 1" ÷ 4"
  Max. Pressure 19 bar
  Max. Temperature 100 °C
  Special versions for higher pressure and temperature available on request
- **Different Construction Materials:** A broad range of materials are available to meet customer application requirements
- **Wide Range of Accessories:** A complete line of accessories is available to meet a broad range of applications
- **Conformity with International Standards:** PED, ATEX, OIML R117, API MPMS, ISO 9001, ISO 14001, ISO 45001, IP/NEMA, LR
- **International Approvals for Fiscal Applications:** Indonesian Approval (MIGAS), Russian Approval, Nigerian Approval (DPR), Chinese Approval (PAC), Hellenic Metrological Approval, Malaysian Approval (NMIM/SIRIM), Kazakhstan Approval, Brazilian Approval (INMETRO), MID Certified as component for use within a measuring system as agreed within WELMEC

Main Application Fields

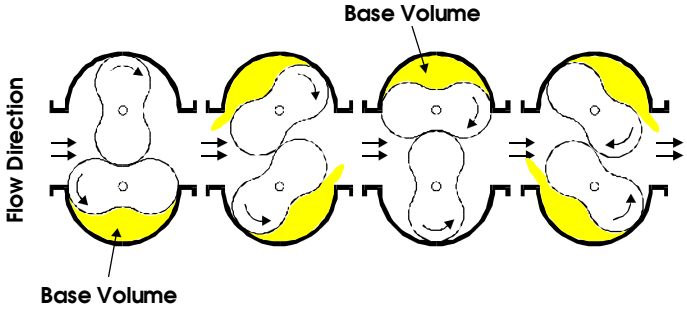
- Petroleum Industry
- Petrochemical Industry
- Chemical Industry
- Pharmaceutical Industry
- Crude Oil Extraction
- Power Plants Industry
- Ships and Steel Making Industry

Please consult factory for special applications

Characteristic Curves



Operating Scheme



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Flow Rate Ranges (m^3/h)

			Petroleum products				Water	Chemical products			
Mod.	Ø line	mPa.s / Service	> 0,5	2	10	150	T < 80 °C	Soda 30%	50	500	2000
51	25	Continuous	0,6 ÷ 2,5	0,5 ÷ 2,5	0,2 ÷ 3,5	0,05 ÷ 3,5	0,5 ÷ 2,3	0,2 ÷ 2,5	0,1 ÷ 3,5	0,02 ÷ 2,5	0,008 ÷ 2
	40	Intermittent	0,6 ÷ 3,5	0,5 ÷ 3,5	0,2 ÷ 4	0,05 ÷ 4	0,5 ÷ 2,8	0,2 ÷ 3,5	0,1 ÷ 4	0,02 ÷ 3,5	0,008 ÷ 2,5
11	25	Continuous	1 ÷ 4,5	0,8 ÷ 4,5	0,3 ÷ 6	0,07 ÷ 6	0,9 ÷ 4	0,3 ÷ 4,5	0,15 ÷ 6	0,04 ÷ 4,5	0,015 ÷ 3,5
	40	Intermittent	1 ÷ 6	0,8 ÷ 6	0,3 ÷ 7	0,07 ÷ 7	0,9 ÷ 5	0,3 ÷ 6	0,15 ÷ 7	0,04 ÷ 6	0,015 ÷ 4,5
12	40	Continuous	2 ÷ 9	1,5 ÷ 9	0,6 ÷ 13	0,15 ÷ 13	1,8 ÷ 8,5	0,6 ÷ 9	0,3 ÷ 13	0,08 ÷ 9	0,03 ÷ 7,5
	50	Intermittent	2 ÷ 13	1,5 ÷ 13	0,6 ÷ 15	0,15 ÷ 15	1,8 ÷ 10,5	0,6 ÷ 13	0,3 ÷ 15	0,08 ÷ 13	0,03 ÷ 9
22	50	Continuous	2,5 ÷ 14	2 ÷ 14	1 ÷ 20	0,25 ÷ 20	2,3 ÷ 13	1 ÷ 14	0,5 ÷ 20	0,12 ÷ 14	0,05 ÷ 12
	65	Intermittent	2,5 ÷ 20	2 ÷ 20	1 ÷ 24	0,25 ÷ 24	2,3 ÷ 16,5	1 ÷ 20	0,5 ÷ 24	0,12 ÷ 20	0,05 ÷ 14
53	50	Continuous	5 ÷ 25	4 ÷ 25	2 ÷ 35	0,5 ÷ 35	4,5 ÷ 22,5	2 ÷ 25	1 ÷ 35	0,25 ÷ 25	0,1 ÷ 20
	80	Intermittent	5 ÷ 35	4 ÷ 35	2 ÷ 40	0,5 ÷ 40	4,5 ÷ 28	2 ÷ 35	1 ÷ 40	0,25 ÷ 35	0,1 ÷ 25
13	50	Continuous	6,5 ÷ 35	5 ÷ 35	2,5 ÷ 50	0,6 ÷ 50	6 ÷ 34	2,5 ÷ 35	1,2 ÷ 50	0,3 ÷ 35	0,12 ÷ 30
	80	Intermittent	6,5 ÷ 50	5 ÷ 50	2,5 ÷ 60	0,6 ÷ 60	6 ÷ 42	2,5 ÷ 50	1,2 ÷ 60	0,3 ÷ 50	0,12 ÷ 35
14	80	Continuous	13 ÷ 65	10 ÷ 65	4,5 ÷ 90	1,2 ÷ 90	12 ÷ 60	4,5 ÷ 65	2,3 ÷ 90	0,6 ÷ 65	0,25 ÷ 55
	100	Intermittent	13 ÷ 90	10 ÷ 90	4,5 ÷ 110	1,2 ÷ 110	12 ÷ 75	4,5 ÷ 90	2,3 ÷ 110	0,6 ÷ 90	0,25 ÷ 65
24	80	Continuous	18 ÷ 90	14 ÷ 90	6 ÷ 125	1,5 ÷ 125	16 ÷ 80	6 ÷ 90	3 ÷ 125	0,75 ÷ 90	0,3 ÷ 75
	100	Intermittent	18 ÷ 125	14 ÷ 125	6 ÷ 150	1,5 ÷ 150	16 ÷ 100	6 ÷ 125	3 ÷ 150	0,75 ÷ 125	0,3 ÷ 90

Ø Line is the dimension of the flange coupled to the pipe - Notes on flange identification code: flange size different from standard flange size identified from the digits just after the first digit of each model (i.e. **51**: 1" flange) are identified adding the below code after pd flowmeter model:- S:1/2", CD:3/4", A:1", AA: 1"1/4, AB:1"1/2, B:2", BC:2"1/2, C:3", D:4", F:6"" (i.e model 13**D** is flanged 4")

Identification Code

FB A 13 - 12 - F 8

- **FB** Single Case PD flowmeter
- **A** Max operating pressure 10 bar
- **13** PD flowmeter model
- **12** Counter model
- **F** Body material
- **8** Rotors material

Body Materials

Code	Body/covers
A	Cast iron
B	Aluminium
C	Carbon steel
D	Ductile iron
F	Aisi 316
G	Aisi 316L
P	Pvc

Rotors Materials

Code	Rotors
3	Aluminium
5	Cast iron
8	Aisi 316
9	Aisi 316L
V	Pvc

Counters

Mod. 12	Mechanical counter with 10 figures non reset type totalizer (8 on digits plus 2 on dial).
Mod. 22	Mechanical counter with 8 figures reset type totalizer (6 on digits plus 2 on dial) and with 8 digits non reset type totalizer.
Mod. VR	Counter with 5 large figures reset type totalizer, 8 digits non reset type totalizer, 5 figures settable through single push buttons preset counter (optional) and 5 digits zero-start or 7 digits accumulative type ticket printer (optional).
Mod. E	Electronic counter for fiscal applications with optional preset and temperature compensation functions.
Mod. F	Intrinsically safe digital totalizer and flow indicator with optional pulse output and/or 4÷20 mA output.
Mod. K	Explosion proof digital totalizer and flow indicator with optional pulse output and/or 4÷20 mA output.
Mod. H	Hart transmitter with digital indicator (EEx-d or EEx-ia).

Counter Models

Mod. 12

Mod. 22

Mod. VR

Mod. F/H

Mod. K/H

Mod. E

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