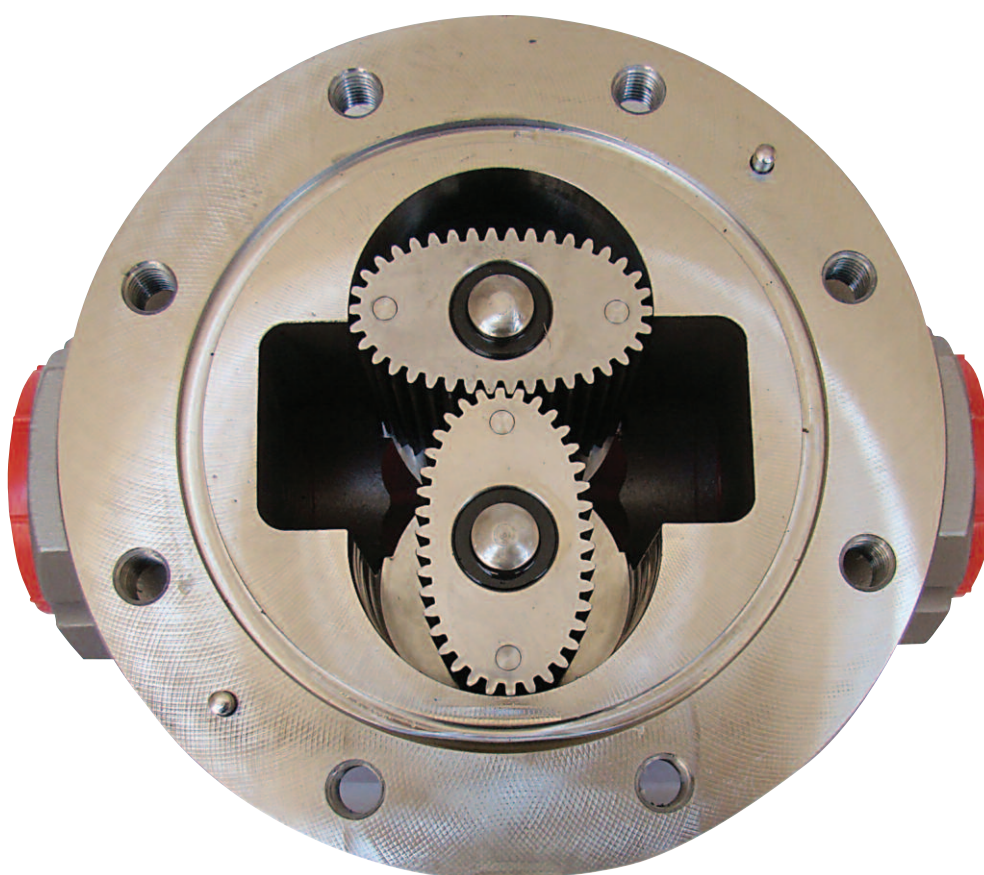




EAC CE



We Make The Difference



ADF series positive displacement flow meters

www.alphadynamic.eu

ADF series Positive Displacement Flowmeters

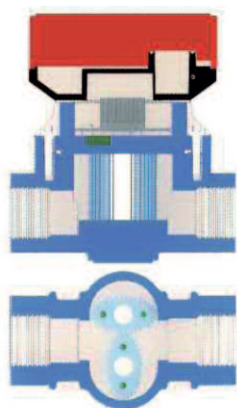
ADF series is a comprehensive range of fully positive displacement flow meters which utilises the time proven oval gear principle. This type of flow meter offers extremely high accuracy (better than $\pm 0.5\%$ of reading), and is unaffected by viscosity (<1 to $>1,000,000$) with low pressure loss. With flow rates from as low as 2 litres per hour up to 1,500 litres per minute, ADF series flow meters

are available in a variety of construction materials and accessories, in either pulser or with various electronic display versions.

Backed by an unprecedented one year warranty, each ADF series flow meter is supplied with a test report to show accuracy. In addition, ADF series flow meters are very low maintenance and suitable for on site servicing when required.



ALPHADYNAMIC provides flow meters for applications in energy, oil and gas, mining, marine, pharmaceutical, food, textiles, cosmetics, petrochemical, transport and construction industries around the world.



Mode of operation

The operation principle is mostly based on the two oval gears of the meter. These are interlocked and displaced by 90° in the housing of the meter.

The medium rotates them as it flows. It is due to the oval gears that a particular amount of liquid is transported in portions.

Also, the magnets that are on the rotors are rotated, while the magnetic impulses are recorded with the assistance of a contact which is located outside of the measurement chamber.

Model	ADF 001 - 1/4"
Meter Type	ADF001 PULSER ADF001 / F012 / F110 Flow rate totaliser ADF001 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 Orings: PTFE, NBR, VITON
Flow rate	2 - 100 L/h / 0.5 - 27 US Gal / h
Maximum Pressure	Stainless steel 316: 34 bar / 495 PSI Aluminium: 15 Bar / 220 PSI
Ports Size	1/4" BSP (G) female threaded
Maximum Temperature	150 °C
Maximum Viscosity	1.000 cPs
Accuracy	±1 %
Repeatability	±0.03 %
Output pulse resolution	Reed switch: 1050 pulse / Lt - 3975 Pulse / US Gallon Hall effect: 1050 pulse / Lt - 3975 Pulse / US Gallon



Model	ADF 002 - 3/8"
Meter Type	ADF002 PULSER ADF002 / F012 / F110 Flow rate totaliser ADF002 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 / PPS (Ryton) Orings : PTFE, NBR, VITON
Flow rate	15 - 550 L/h / 4 - 134 US Gal / h
Maximum Pressure	Stainless steel 316: 34 bar / 495 PSI Aluminium: 15 Bar / 220 PSI
Ports Size	3/8" BSP (G) female threaded
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	±1 %
Repeatability	±0.03 %
Output pulse resolution	Reed switch: 355 pulse / Lt - 1345 Pulse / US Gallon Hall effect: 710 pulse / Lt - 2690 Pulse / US Gallon



Model	ADF 004 - 1/2"
Meter Type	ADF004 PULSER ADF004 / F012 / F110 Flow rate totaliser ADF004 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 / PPS (Ryton) Orings : PTFE, NBR, VITON
Flow rate	1 - 40 L/min / 0.26 - 10.6 US Gal / min
Maximum Pressure	68 bar / 990 PSI
Ports Size	1/2" BSP (G) female threaded
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03 %
Output pulse resolution	Reed switch: 84 pulse / Lt - 318 Pulse / US Gallon Hall effect: 168 pulse / Lt - 636 Pulse / US Gallon





Model	ADF 007 - 1"
Meter Type	ADF 007 PULSER ADF 007 / F012 / F110 Flow rate totaliser ADF 007 / F030 / F130 Batch controller
Materials	Body: PPS (Ryton) Rotors: PPS (Ryton) Orings: PTFE, NBR, VITON
Flow rate	10 - 150 L/min / 2.6 - 40 US Gal / min
Ports Size	1" BSP (G) female threaded
Maximum Pressure	5 Bar / 75 PSI
Maximum Temperature	80 °C
Maximum Viscosity	1.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03 %
Output pulse resolution	Reed switch: 27 pulse / Lt - 120 Pulse / US Gallon Hall effect: 107 pulse / Lt - 405 Pulse / US Gallon



Model	ADF 010 - 1"
Meter Type	ADF 010 PULSER ADF 010 / F012 / F110 Flow rate totaliser ADF 040 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 / PPS (Ryton) Orings: PTFE, NBR, VITON
Flow rate	10 - 150 L/min / 2.6 - 40 US Gal / min
Maximum Pressure	68 Bar / 990 PSI
Ports Size	1" BSP (G) female threaded DN 25 ANSI-150 RF Flanged - PN16 DIN Flanged (on Request)
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03%
Output pulse resolution	Reed switch: 27 pulse / Lt - 120 Pulse / US Gallon Hall effect: 107 pulse / Lt - 405 Pulse / US Gallon

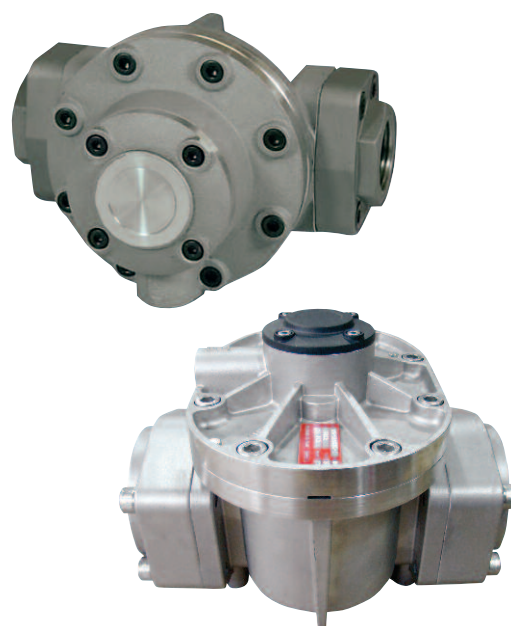


Model	ADF 040 - 1 1/2"
Meter Type	ADF 040 PULSER ADF 040 / F012 / F110 Flow rate totaliser ADF 040 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 / PPS (Ryton) Orings: PTFE, NBR, VITON
Flow rate	15 - 250 L/min / 3.9 - 66 US Gal / min
Maximum Pressure	30 Bar / 495 PSI
Ports Size	1 1/2" BSP (G) female threaded DN 40 ANSI-150 RF Flanged - PN16 DIN Flanged (on Request)
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03%
Output pulse resolution	Reed switch: 14 pulse / Lt - 53 Pulse / US Gallon Hall effect: 56 pulse / Lt - 212 Pulse / US Gallon

Model	ADF 050 - 2"
Meter Type	ADF 050 PULSER ADF 050 / F012 / F110 Flow rate totaliser ADF 050 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 / PPS (Ryton) Orings: PTFE, NBR, VITON
Flow rate	30 - 450 L/min / 3.9 - 66 US Gal / min
Maximum Pressure	Stainless steel 316: 38 bar / 550 PSI Aluminium: 20 Bar / 285 PSI
Ports Size	2" BSP (G) female threaded DN 50 ANSI-150 RF Flanged - PN16 DIN Flanged (on Request)
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03 %
Output pulse resolution	Reed switch: 6.5 pulse / Lt - 25 Pulse / US Gallon Hall effect: 26 pulse / Lt - 99 Pulse / US Gallon



Model	ADF 080 - 3"
Meter Type	ADF 080 PULSER ADF 080 / F012 / F110 Flow rate totaliser ADF 080 / F030 / F130 Batch controller
Materials	Body: Aluminium / Stainless steel 316 Rotors: Stainless steel 316 / PPS (Ryton) Orings: PTFE, NBR, VITON
Flow rate	35 - 750 L/min / 10 - 200 US Gal / min
Maximum Pressure	12 Bar / 175 PSI
Ports Size	3" BSP (G) female threaded DN 80 ANSI-150 RF Flanged - PN16 DIN Flanged (on Request)
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03 %
Output pulse resolution	Reed switch: 2.65 pulse / Lt - 10 Pulse / US Gallon Hall effect: 10.7 pulse / Lt - 40.5 Pulse / US Gallon



Model	ADF 100 - 4"
Meter Type	ADF 100 PULSER ADF 100 / F012 / F110 Flow rate totaliser ADF 100 / F030 / F130 Batch controller
Materials	Body: Aluminium Rotors: PPS (Ryton) Orings: PTFE, NBR, VITON
Flow rate	75 - 1500 L/min / 20 - 400 US Gal / min
Maximum Pressure	10 Bar / 145 PSI
Ports Size	4" BSP (G) female threaded DN 100 ANSI-150 RF Flanged - PN16 DIN Flanged (on Request)
Maximum Temperature	150 °C
Maximum Viscosity	1.000.000 cPs
Accuracy	± 0.5%
Repeatability	±0.03%
Output pulse resolution	Reed switch: 1.1 pulse / Lt - 4.15 Pulse / US Gallon Hall effect: 4.4 pulse / Lt - 16.6 Pulse / US Gallon



Flow instruments



F012

Flow rate indicator / Totalizer

- ▶ Displays total and flow rate simultaneously
- ▶ Large digit selection for flow rate or total
- ▶ Flow rate: seven 17mm (0.67") or 8mm (0.31") digits
- ▶ Total - resettable: seven 17mm (0.67") digits
- ▶ Accumulated total - not resettable: eleven 8mm (0.31") digits
- ▶ Separate engineering units for flow rate and total
- ▶ Selectable on-screen engineering units for flow rate: mL, L, m³, mg, g, kg, ton, GAL, bbl, lb, cf, REV, scf, Nm³, NL, P or no unit
- ▶ Selectable on-screen time units for flow rate: /sec, /min, /hour or /day
- ▶ Auto backup of settings and running totals in EEPROM memory
- ▶ Easy configuration with clear alphanumerical display
- ▶ Very compact design for panel mount, wall mount or field mount applications
- ▶ Rugged GRP field mount enclosure IP67 / NEMA4X
- ▶ Power supply lithium battery powered –intrinsically safe
- ▶ Intrinsically safe ATEX II 1 GD Eexia IIB/IIC T4 100C



F030

Batch Controller with one stage control

- ▶ Large display shows preset value and running batch value simultaneously.
- ▶ Self-learning overrun correction.
- ▶ One control output to drive a valve or pump
- ▶ Easy operation to enter a batch value and to control the process
- ▶ Count-up and count-down function available
- ▶ Green LED backlight with adjustable intensity
- ▶ Actual batched quantity: seven 17mm (0.67") digits
- ▶ Preset value: seven 17mm (0.67") digits during programming and 8mm (0.31") digits during process
- ▶ Total - resettable: seven 17mm (0.67") digits
- ▶ Accumulated total - not resettable: eleven 8mm (0.31") digits
- ▶ Selectable on-screen engineering units for totalizer: mL, L, m³, GAL, USGAL, kg, lb, bbl or no unit
- ▶ Auto backup of settings and running totals in EEPROM memory
- ▶ Operational temperature: -40°C to +80°C (-40°F to 178°F)
- ▶ Very compact design embodied on flowmeter or wall mounted
- ▶ Rugged GRP field mount enclosure IP67 / NEMA4X
- ▶ Power Supply 115 – 230 V AC



F110

Flow rate indicator / Totalizer with analog and pulse outputs

- ▶ Displays total and flow rate simultaneously
- ▶ Analog and pulse outputs
- ▶ Large digit selection for flow rate or total
- ▶ Flow rate: seven 17mm (0.67") or 8mm (0.31") digits.
- ▶ Total - resettable: seven 17mm (0.67") digits
- ▶ Accumulated total - not resettable: eleven 8mm (0.31") digits.
- ▶ Separate engineering units for flow rate and total on the display
- ▶ Auto backup of settings and running totals in EEPROM memory
- ▶ Actual batched quantity: seven 17mm (0.67") digits
- ▶ Selectable on-screen engineering units for totalizer: mL, L, m³, GAL, USGAL, kg, lb, bbl or no unit
- ▶ Operational temperature: -40°C to +80°C (-40°F to 178°F)
- ▶ Very compact design embodied on flowmeter or wall mounted
- ▶ Rugged GRP field mount enclosure IP67 / NEMA4X
- ▶ Power Supply lithium battery powered – intrinsically safe
- ▶ Protocol: Modbus ASCII / RTU, on request
- ▶ Interface: RS232 / RS485 2-wire or 4-wire / TTL on request
- ▶ Intrinsically Safe ATEX: II 1 GD EEx ia IIB/IIC T4 T 100 °C
- ▶ EC – Type examination KEMA 03 ATEX 1074 X



F130 Batch Controller with two stage control

- ▶ Large display shows preset value and running batch value simultaneously
- ▶ Self-learning overrun correction
- ▶ Two-stage control for batching larger quantities
- ▶ Easy operation to enter a batch value and to control the process
- ▶ Count-up and count-down function available
- ▶ Green LED backlight with adjustable intensity
- ▶ Scaled pulse output reflecting accumulated or batched total
- ▶ Actual batched quantity: seven 17mm (0.67") digits
- ▶ Preset value: seven 17mm (0.67") digits during programming and 8mm (0.31") digits during process
- ▶ Total - resettable: seven 17mm (0.67") digits
- ▶ Accumulated total - not resettable: eleven 8mm (0.31") digits
- ▶ Selectable on-screen engineering units for totalizer: ml, L, m³, GAL, USGAL, kg, lb, bbl or no unit
- ▶ Auto backup of settings and running totals in EEPROM memory
- ▶ Operational temperature: -40°C to +80°C (-40°F to 178°F)
- ▶ Very compact design embodied on flowmeter or wall mounted
- ▶ Rugged GRP field mount enclosure IP67 / NEMA4X
- ▶ Power Supply 115 – 230 V AC
- ▶ Protocol: Modbus ASCII / RTU , on request
- ▶ Interface: RS232 / RS485 2-wire or 4-wire / TTL on request



AMR100 Flow rate indicator Totalizer

Features /Benefits

- ▶ Battery or external powered, 6 digit large LCD total & 8 digit cumulative totaliser, 5 digit rate display
- ▶ Robust IP66/67~NEMA 4X Aluminium field & panel mountable housing
- ▶ LCD Backlighting standard
- ▶ Scalable universal pulse or frequency inputs
- ▶ Scaled pulse output PIN protected programming
- ▶ Simple flow chart touch key programming
- ▶ Reverse polarity protection
- ▶ Long battery life





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