



ALIADPFLOW

Smart Transmitter for Differential Pressure Flowmeter

Model ADF9500 Series

GENERAL

ALIADPFLOW ADF9500 series is a transmitter of differential pressure flowmeter. Differential pressure can be converted into flow value via microcomputer technology and flowrate, totalizer. The differential pressure can be displayed directly in LCD screen. It's equipped with strong output function: 4-20mA, pulse and HART. ADF9500 is widely used in differential pressure sensors such as orifice, venturi, annubar, v-cone etc..

It has high stability and high accuracy.

FEATURES

- ❑ Converter can be rotated at six directions for easy installation
- ❑ Can display flow rate, totalizer and differential pressure at the same time
- ❑ Two years stability of 0.2%
- ❑ 0.075% accuracy
- ❑ Parameter setting by keypad directly
- ❑ 4-20 mA and pulse output, HART communication
- ❑ Automatic zero calibration by press-button
- ❑ Explosion proof and weather proof housing

STANDARD SPECIFICATION

- | | | | |
|-----------------------|---|-----------------------|--|
| ● Process Fluid | : Liquid, Gas or Vapor | ● Display | : 9-digit totalizer, 6-digit flow rate |
| ● Application | : Differential pressure flow measurement | ● Display Unit | : 32 flow engineering unit
5 Digits programmable for special unit |
| ● Pressure Range | : 0 - 2500kPa | ● Keypad | : 3 internal keys for programming
and output setting |
| ● Flow Range | : 0 - 999999 | ● Current Output | : 4 - 20 mA 2 wires
with Hart signal (Compatible) |
| ● Turndown Ratio | : 20 : 1 | | Load : $R_{ohm} = (V_{dc} - 9) * 50$ |
| ● Accuracy | : +/- 0.075% of span | ● Pulse Output | : Scale Pulse |
| ● Stability | : +/- 0.15% of URL for 2 years | ● Power Supply | : 9 - 36 VDC |
| ● Working Temperature | : -25 to +95 °C | ● Damping | : 0 - 32 seconds |
| ● Max. Pressure | : 40 MPa | ● Humidity Limit | : 0 to 100% Relative Humidity |
| ● Material | | ● Turn on Time | : 2 Seconds with minimum damping |
| Flange/Adapter | : Stainless Steel 304 / Stainless Steel 316 | ● Zero Calibration | : Automatic zero calibration by press-button |
| Drains/Vents | : Stainless Steel 304 / Stainless Steel 316 | ● Cable Entry | : M20 Conduit Threads / 1/2" NPT (Female) |
| Diaphragm | : Stainless Steel 316L / Hastelloy B /
Hastelloy C / Monel / Tantalum | ● Temperature Effect | : +/- 0.18% of span per 20 °C |
| Wetted O-Ring | : Buna N / Viton / PTFE | ● Vibration Effect | : +/- 0.05% of URL per g to 200 Hz in any
axis |
| Bolts & Nuts | : Carbon Steel / Stainless Steel 316 | ● EMI/RFI Effect | : Follow SAMA PMC 33.1 from 20 to 1000
MHz and for field strengths up to 30 V/m |
| Mounting Bracket | : Carbon steel / Stainless Steel 304 / 316 | ● Process Connection | : 1/4 - 18 NPT
: 1/2 - 14 NPT (with adapter) |
| Name / Tag Plate | : Stainless Steel 304 / Stainless Steel 316 | ● Ambient Temperature | : -25 to +80 °C |
| Converter Housing | : Low copper cast aluminum alloy with
polyurethane, light blue paint | ● Dimensions | : 102 mm (W) * 188 mm (H) * 130 mm (D) |
| ● Fill Fluid | : Silicone / Fluorine Oil | ● Weight | : 3.5 kg |
| ● Protection Class | : IP67 (Standard)
: Intrinsically Safe EEx ia IIC T5 (Standard)
: Explosion proof Ex D IIB T5 (Optional) | | |
| ● Mounting | : Direct Mounting / Bracket on 2" Pipe | | |



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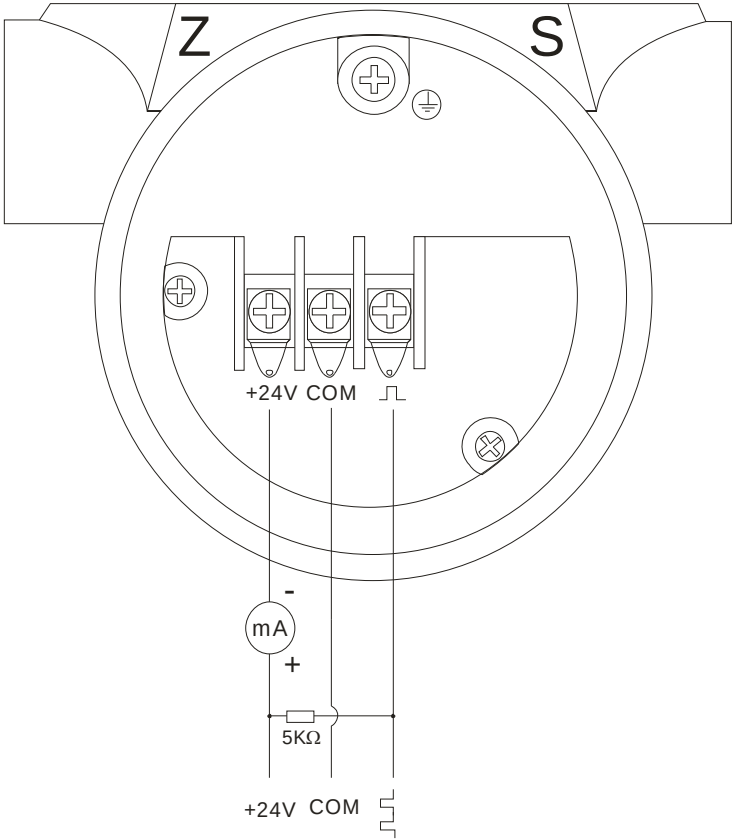


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ADF9500V1.2.1.A4.en

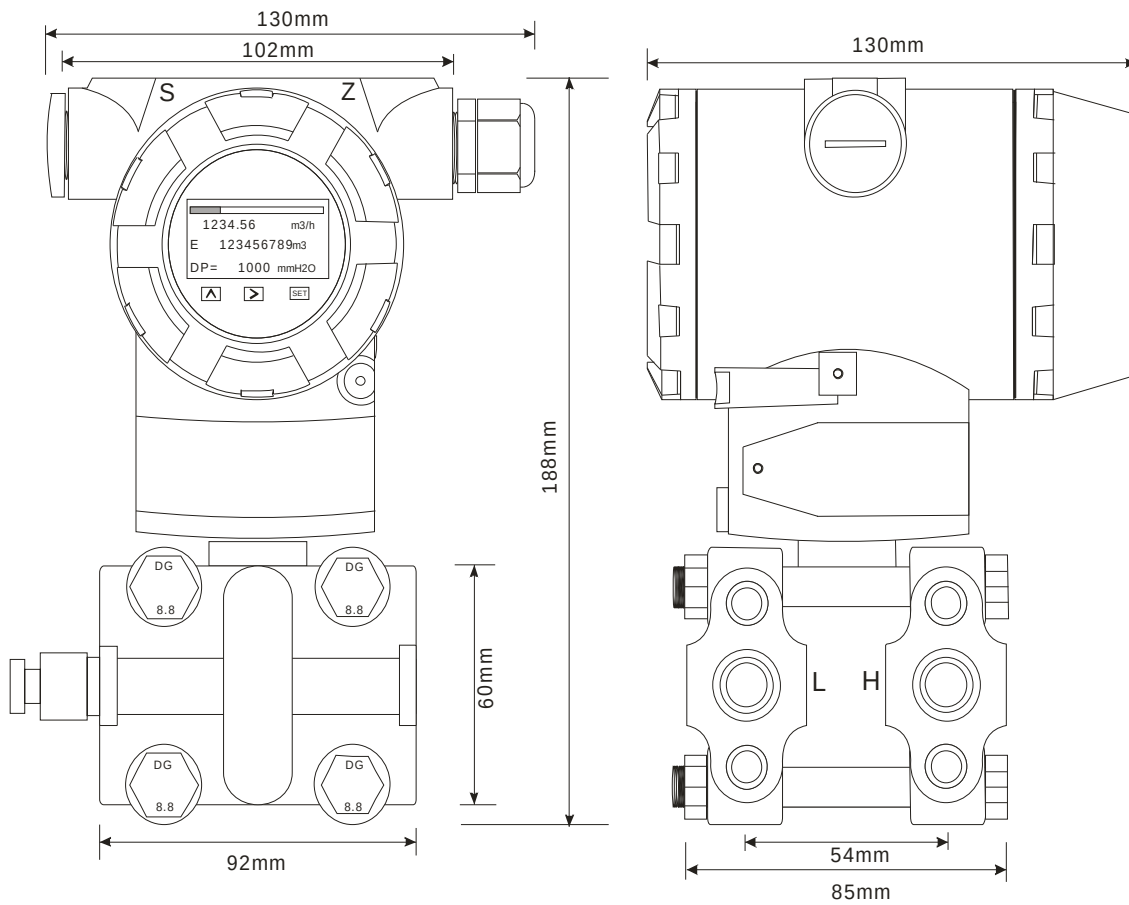
MEASURING RANGE

Range Code	Pressure Range			
	Low Range	High Range	Low Range	High Range
2	0 - 0.16 kPa	0 - 1.0 kPa	0 - 16.32 mmH2O	0 - 102.0 mmH2O
	0 - 1.6 mbar	0 - 10 mbar	0 - 0.6423 InH2O	0 - 4.015 InH2O
	0 - 0.023 psi	0 - 0.145 psi	0 - 0.001 Kg/cm2	0 - 0.010 Kg/cm2
3	0 - 1.0 kPa	0 - 6.0 kPa	0 - 102.0 mmH2O	0 - 611.82 mmH2O
	0 - 10 mbar	0 - 60 mbar	0 - 4.015 InH2O	0 - 24.088 InH2O
	0 - 0.145 psi	0 - 0.87 psi	0 - 0.010 Kg/cm2	0 - 0.061 Kg/cm2
4	0 - 6.0 kPa	0 - 40 kPa	0 - 611.82 mmH2O	0 - 4078 mmH2O
	0 - 60 mbar	0 - 400 mbar	0 - 24.088 InH2O	0 - 160.6 InH2O
	0 - 0.87 psi	0 - 5.802 psi	0 - 0.061 Kg/cm2	0 - 0.408 Kg/cm2
5	0 - 40 kPa	0 - 200 kPa	0 - 4.079 MH2O	0 - 20.39 MH2O
	0 - 400 mbar	0 - 2000 mbar	0 - 160.6 InH2O	0 - 802.9 InH2O
	0 - 5.802 psi	0 - 29.0 psi	0 - 0.408 Kg/cm2	0 - 2.039 Kg/cm2
6	0 - 160 kPa	0 - 1000 kPa	0 - 16.32 MH2O	0 - 101.97 MH2O
	0 - 1.6 bar	0 - 10 bar	0 - 642.3 InH2O	0 - 4014 InH2O
	0 - 23.21 psi	0 - 145 psi	0 - 1.632 Kg/cm2	0 - 10.197 Kg/cm2
7	0 - 400 kPa	0 - 2500 kPa	0 - 40.79 MH2O	0 - 254.9 MH2O
	0 - 4.0 bar	0 - 25 bar	0 - 1605 InH2O	0 - 10036 InH2O
	0 - 58.02 psi	0 - 362.6 psi	0 - 4.079 Kg/cm2	0 - 25.49 Kg/cm2

WIRING DIAGRAM



DIMENSIONS



APPLICATION EXAMPLES



MODEL SELECTION GUIDE

ADF9500 Series												
Example: ADF9500-3-CNS-6NF-NNN-EX/S6												
ADF9500-	X	-X	X	X	-X	X	X	-X	X	X	-XX	Description
Pressure Range	2											0 - 0.16 (0.01) kPa ... 0 - 1.0 kPa
	3											0 - 1.0 (0.06) kPa ... 0 - 6.0 kPa
	4											0 - 6.0 (0.4) kPa ... 0 - 40 kPa
	5											0 - 40 (2.0) kPa ... 0 - 200 kPa
	6											0 - 160 (10.0) kPa ... 0 - 1000 kPa
	7											0 - 400 (25.0) kPa ... 0 - 2500 kPa
Diaphragm Material	-N											Stainless Steel 316L
	-B											Hastelloy B
	-C											Hastelloy C
	-P											Monel
	-T											Tantalum
Process Flanges, Drain/Vent valve Material		N										Stainless Steel 304
		S										Stainless Steel 316
Bolts / Nuts Material		N										Carbon Steel
		S										Stainless Steel 316
Mounting Bracket Material		-N										Carbon Steel
		-4										Stainless Steel 304
		-6										Stainless Steel 316
		-X										Direct mounting, without 2" Mounting Bracket
Wetted O-ring Material		N										Buna-N
		V										Viton
		P										PTFE
Fill Fluid		N										Silicone
		F										Fluorine
Process Connection		-N										1/4" - 18 NPT
		-A										1/2" - 14 NPT (with Adapter)
		-Z										Other
Cable Entry		N										M20 Conduit Threads
		P										1/2" NPT (Female)
		Z										Other
Maximum Pressure Limit		N										4 MPa
		1										6.4 MPa
		2										16 MPa
		3										40 MPa
Option		-NN										None
		-EX										Explosion proof Ex D IIB T5
		-S6										Stainless Steel 316 Name Plate and Tag Plate
		-HT										Hart Signal (Compatible)
		-ZZ										Others