

WEDGE FLOWMETER WGE

Quality Management System, Environment and Safety



# WGE Wedge Flowmeters (Patent pending)



The wedge flowmeter WGE Series is a fluid metering device for inline installation able to manage an accurate and repeatable fluid measurement.

It is based on the proven technology of differential pressure principle; it can work as bi-directional unit so that reversing the mounting it is possible to double the working life.

The instrument WGE can be supplied from machined barstock and it's suitable for Oil & Gas in upstream, midstream and downstream applications. Its housing is dust and sand tight, protected against sea wave effects as defined by IEC IP67, and suitable for tropical climate operation as defined by DIN 50015.

WGE is not sensitive to vibrations and entrained gas. It shows a high resistance to wear and the installation is easy and fast.

#### **APPLICATION FIELDS:**

Installed for typical service as water, steam, gases, clean liquids as well as on the most difficult ones: heavy fuel oils, waste water, asphalt, abrasive soluctions, chemicals, aggressive fluids, high viscosity liquids, slurries, fluid with low Reynolds numbers (> 400) as well as for very high ones.



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## **TECHNICAL FEATURES**

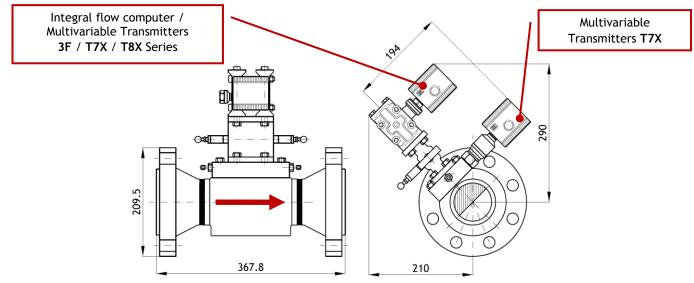
Mechanical features:	
Manufacturing size:	3/4"÷ 8"
Process connections:	Wafer, screwed, flanged as per ASME, API, DIN, etc
Operating pressures:	up to 3000 psi (210 bar) (*)
Process temperature:	WGE body: -40°÷ 280°C With integral manifold: -40°C ÷ 180°C
Storage temperatures:	-40°C ÷ 120°C
Mounting:	Horizontal pipe, pressure taps at 45 $^{\circ}$ from top (90 $^{\circ}$ is possible)
Straight Pipe Lenght:	Inlet: 4÷10 x ØIN; Outlet: 2÷3 x ØOUT
Performances:	
Accuracy:	< ± 1 % FS / < ± 0,5 % FS on request
Rangeability:	5:1 or 10:1
hangeubrity.	(when equipped with Flow Computer unit)
Materials:	
Constructions material:	Standard: AISI 316L; Options: AISI 4130, DUPLEX
Wetted parts:	AISI 316L NACE MR0175 / ISO 15156 compliance
Body:	AISI 316L, AISI 4130, duplex, brass (for lower sizes only)
Nameplate:	Stainless Steel
NOTES:	
(*) For higher pressure, please contact us.	

### OTHER FEATURES

- Valcom® compact construction eliminates impulse piping and nipples;
- Integral 3/5 way stainless steel AISI 316 manifold and mounting flange;
- Units delivered preassembled and tested;
- PTFE gaskets, stainless steel bolts and washers as standard; •
- 3-F/T8 flow computer suggested with rangeability up to 10:1.

Compliant with Directive 2004/108/EC (EMC).

# **DIMENSIONS (EXAMPLE)**



Example layout of a 3" ASME 600 flanged unit with 3 ways manifold. Mounting of Pressure, Temperature and Differential Pressure Transmitters is 45°.

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# ORDERING CODE

WGE	edge flowmeter	
	iguration type	
	WGE basic (ΔP) WGE (ΔP + P)	
	WGE ( $\Delta P + P + T$ )	
	WGE + Flow computer	
	Other	
02 Pi	nominal diameters	
	3/4"	
	1" 2"	
	2" 3"	
	4"	
	6"	
	8"	
	Other	
03 Pi		
	ASME 150	
	ASME 300 ASME 600	
	ASME 600 ASME 900	
	PN 10/16	
	PN 25/40	
	PN 100	
	Screwed cylindrical	
	Screwed NPT Other	
04 Bo	material	
04 D0		
	AISI 316L AISI 316 NOR	
	Hastelloy C	
	Duplex	
	Brass	
	Other	
05 We	ge material	
	AISI 316L	
	AISI 316 NOR	
	Hastelloy C	
	Duplex	
	Brass	
0( D:	Other	
U6 Pr	sure taps	
	For integral mounting	
	1/2" NPT-F	
	1/2" cylindrical female	
	1 1/2" flanged (*) 2" flanged (*)	
	DN40 flanged (*)	
	DN50 flanged (*)	
	Other	

#### NOTES:

(\*) Rating of pressure taps is the same as process connections.

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### WEDGE FLOWMETER CONFIGURATIONS:





WGE-A small version 3/4" screwed.



Wedge body



WGE-A M3 three way manifold and T7D differential pressure transmitter in side position.

**COMPATIBLE INSTRUMENTS:** 



WGE-B M3 three way manifold and T7D vertical configuration for static pressure and differential pressure measurement.



WGE-C M5 five way manifold with T7D for differential pressure, static pressure and 27T for temperature measurement.



T7D Series Differential pressure transmitter



T7N / T7T Series Level, pressure / temperature transmitter



3-Flow / T8 Series Flow computer

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