# AT1-668

Explosion-proof ATEX/IECEx Exd differential pressure transmitter









- Measuring low pressures with a  $\pm 1\%$  accuracy can withstand up to 10 psig overpressure with no damage to the unit Variable capacitance sensor design provides excellent sensitivity and long-term stability

АТЕХ	C€ 1370         II 2G Ex d IIC T6 Gb         II 2D Ex tb IIIC T85°C Db, -60°C≤T amb≤+60°C         Certificate: BVI 14 ATEX 0072
IECEx	Ex d IIC T6 Gb Ex tb IIIC T85°C Db Certificate: IECEx EPS 14.0082
ENCLOSURE RATING	IP66 (IP65 with option OPV)



### **AT1-668 SPECIFICATIONS**

Service:	air and non-conductive gases
Accuracy:	±1% of full scale (RSS), includes non-linearity, hysteresis, and non-repeatability
Temperature limits:	transmitter: 32 to 122°F (0 to 50°C)
	case: -76 to 140°F (-60 to 60°C)*
Pressure limits:	10 psig (0.69 bar)
Compensated temperature range:	
Thermal effects:	0.033% f.s.°F (0.18% f.s.°C)
Supply voltage:	12-30 VDC
Output:	4 to 20 mA, 2-wire
Zero and span adjustment:	$\pm$ 1 mA, non-interactive
Response time:	<60 msec (additional delay in response time due to flame arrestors from full scale to 0) up to
	90 sec depending on model range.
Loop resistance:	0-800 ohms
Electrical connection:	terminal strip
Housing material:	aluminium (stainless steel optional).
Finishing:	texture epoxy coated RAL 7038 (only aluminium case)
Pressure connections:	1/8" NPT F brass (stainless steel optional). In presence of acetylene it is necessary to use
	stainless steel.
Electrical connections:	2 x 1/2" NPT F standard (cable gland not included)
Dimensions:	see drawing below
Weight:	3.4 Kg ab.

 $<sup>^{*}</sup>$  Operating ambient temperature is defined also according to the options and pressure instrument choosed.

CAUTION FOR USE ONLY WITH AIR OR COMPATIBLE GASES! CONTACT FACTORY FOR USE WITH GASES, OTHER THAN AIR AND NITROGEN.

## IMPORTANT NOTES FOR INSTALLATION:

Cables must be fitted through 1/2" NPT cable gland or Atex/IECEx conduit (not supplied withinstrument).

Make sure after cabling to close tight cover and cable gland, in order to keep IP66 rating (IP65 with option OPV, pressure reliev valve).

Open cover only after de-energising instrument.

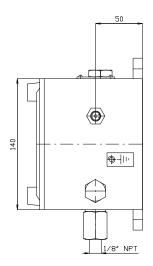
Attention: check local safety rules and warnings on unit and manual for a correct use of the instrument in hazardous area.

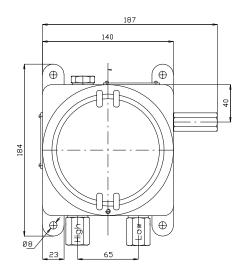


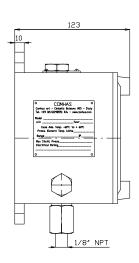
# STANDARD RANGES 616KD

MODEL	OPERATING RANGES	MAX PRESSURE
668-1	0 - 0,25 in w.c.	1
668-2	0 - 0,5 in w.c.	2
668-3	0 - 1 in w.c.	3
668-4	0 - 2,5 in w.c.	4
668-5	0 - 5 in w.c.	5
668-6	0 - 10 in w.c.	6
668-7	0 - 25 in w.c.	7
668-8	0 - 50 in w.c.	8
668-9	0 - 100 in w.c.	9
668-10	0,1- 0 - 0,1" in w.c.	10
668-11	0,25 - 0 - 0,25" in w.c.	11
668-12	0,5 - 0 - 0,5" in w.c.	12
668-13	1 - 0 - 1" in w.c.	13
668-14	2,5 - 0 - 2,5" in w.c.	14
668-15	5 - 0 - 5" in w.c.	15
668-16	10 - 0 - 10" w.c.	16
668-17	25 - 0 - 25" w.c.	17
668-18	50 - 0 - 50" w.c.	18

## **DIMENSIONS**







Consult factory for different holes layout.



### **MODEL CONFIGURATION 616**

CODE	AT1 -	66	8	-	1		-	В				-	
Housing		66	8										
Ranges	0 - 0.25 in w.c.				1								
	0 - 0.5 in w.c.				2								
	0 - 1 in w.c.				3								
	0 - 2.5 in w.c.				4								
	0 - 5 in w.c.				5								
	0 - 10 in w.c.				6								
	0 - 25 in w.c.				7								
	0 - 50 in w.c.				8								
	0 - 100 in w.c.				9								
	0.1- 0 - 0.1" in w.c.				0								
	0.25- 0 - 0.25" in w.c.				1								
	0.5- 0 - 0.5" in w.c.				2								
	1 - 0 - 1" in w.c.				3								
	2.5 - 0 - 2.5" in w.c.				4								
	5 - 0 - 5" in w.c.				5								
	10 - 0 - 10" w.c.				6								
	25 - 0 - 25" w.c.				7								
	50 - 0 - 50" w.c.				8								
<b>Housing</b> Alluminium						А							
material	Stainless steel (s.s. connection included)					S							
Housing options	Blind				В								
	Glass window							n/a					
	1/8" NPT F brass pressure port								1				
	1/8" NPT F stainless steel (only for aluminium housing)												
	Standard - without overpressure relief valve									Х			
	Overpressure relief valve* (material: same as pressure ports)							OPV					
	Stainless steel tag										T2		
Other options	See "other options" - Possible more than one option												

<sup>\*</sup>IP65 in case of relief valve installation (OPV). Relief valve is used to keep atmospheric pressure inside the case.

Suggested in case of risk of having static pressure ≥19 Bar (static pressure admitted is indicated on tag and it will be anyway always <19 bar).

Accessories: Atex cable gland.

Dimensions may change without any advice.

