

COMHAS

AT-102-MSX AT-102S-MSX

ATEX/IECEX Exd Magnesense®
low differential pressure transmitter



Monitors Differential
Pressure, Air Velocity and
Volumetric Flow

All pressure ranges can be
configured in
unidirectional or
bidirectional modes,
providing a total of 32
ranges

Display
LCD
optional

ATEX

CE 0080

II 2G Ex db IIC T5, T6 Gb -60°C ≤ Ta ≤ +50°C (T6)
-60°C ≤ Ta ≤ +60°C (T5)

II 2D Ex tb IIIC T75 °C Db

Certificate: INERIS 21 ATEX 0033 X

IECEX

Ex db IIC T5, T6 Gb -60°C ≤ Ta ≤ +50°C (T6)
-60°C ≤ Ta ≤ +60°C (T5)

Ex tb IIIC T75°C Db

Certificate: IECEX INE 21.0064X

Specifications

Service:	air and compatible gases and dry gases. Not suitable for combustible gases.
Wetted parts:	consult factory.
Temperature limits:	MSX®: from -4 to 158°F (-20 to 70°C). case: -76 to 140°F (-60 to 60°C)* T5 (-60 to 50°C) T6
Pressure limits:	Ranges 0 and 1: 3.6 psi max operation, 6 psi burst; Ranges 2 and 3: 6 psi max operation, 6 psi burst. Pls check table 2
Accuracy:	±1% FS
Stability:	±1% f.s. / year.
Power requirements:	10 to 35 VDC (2-wire); 17 to 36 VDC or isolated 21.6 to 33 VAC (3-wire).
Output signals:	4 to 20 mA (2-wire); 0 to 5 V, 0 to 10 V (3-wire).
Response time:	instantaneous (default) or 3 s (selectable). Provides a 95% response time of 1.5 to 45 seconds (additional delay in response time due to flame arrestors; from full scale to ø up to 5 sec.
Zero & span adjustments:	Digital push button (to be made in safe area).
Loop resistance:	Current output: 0-1250 Ohm max. Voltage Output: min. load resistance 1 kOhm.
Current consumption:	21 mA max..
Display (optional):	4 digit LCD.
Electrical connections:	4-wire removable European style terminal block for 16 to 26 AWG
Housing material:	aluminum (stainless steel optional).
Finishing:	texture epoxy coat RAL7015 (aluminum case) RAL 5015 (top cover)
Pressure connections:	1/8" NPT F brass (stainless steel optional).
Electrical connections:	2 x 1/2" NPT F standard (cable gland not included).
Enclosure rating:	IP66
Dimensions:	see drawing below
Weight:	from 5,5 to 16 kg

* Operating ambient temperature is defined also according to the options and pressure instrument choosed.

CAUTION FOR USE ONLY WITH AIR OR COMPATIBLE GASES!

IMPORTANT NOTES FOR INSTALLATION:

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

Make sure after cabling to close tight cover and cable gland, in order to keep IP66 rating (only without venting valve).

Open cover only after de-energizing instrument.

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

1. Model configuration

[illegible]

n/a: NOT AVAILABLE

FC : Factory calibration certificate
NIST : NIST traceable calibration certificate

2. Max static pressure admitted - Pressure ports and venting valve configuration

		Simplified scheme of pressure port / breathing device (venting valve)				Maximum pressure value with:	
						only one pressure port connected	both pressure ports connected
Code	VS0	PRESSURE PORTS	STD	Enclosure breathing device (venting valve)	None	10 kPa	10 kPa
	VS1		STD		STD	20 kPa	15 kPa
	VS2		STD		LD	40 kPa*	20 kPa

Pls check also max static pressure of instrument on spec. as it may be smaller than 10 kPa

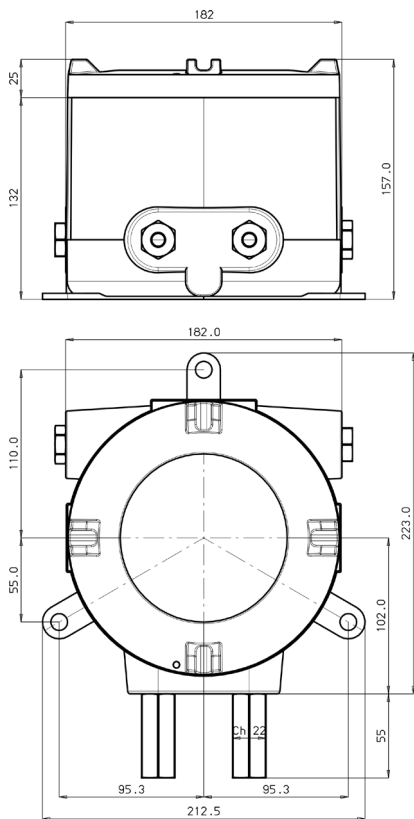
* Not to be used with range 0 and 1 as max static of MSX with range 0 and 1 is 3,5 psi (24,82 KPa)

Dimension

Aluminum case

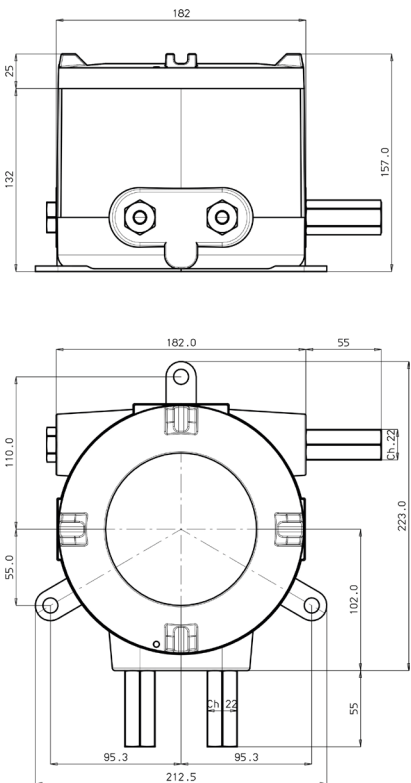
VS0

STD pressure port/no venting valve



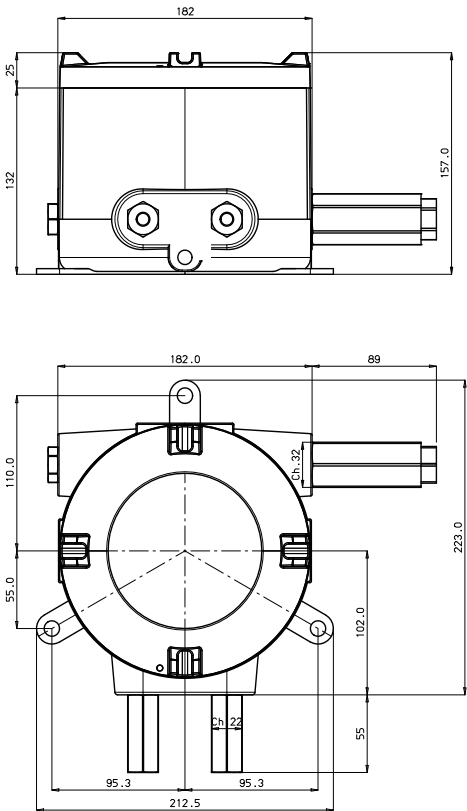
VS1

STD pressure port/ STD venting valve



VS2

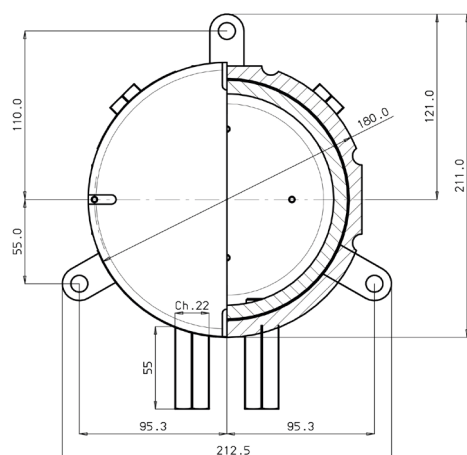
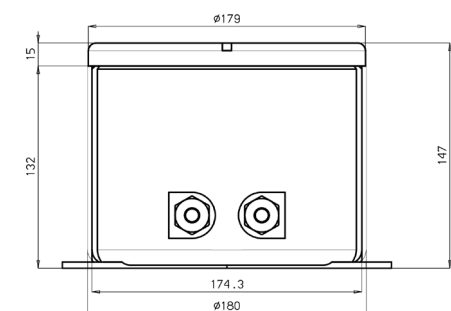
STD pressure port/ LD venting valve



Stainless steel case

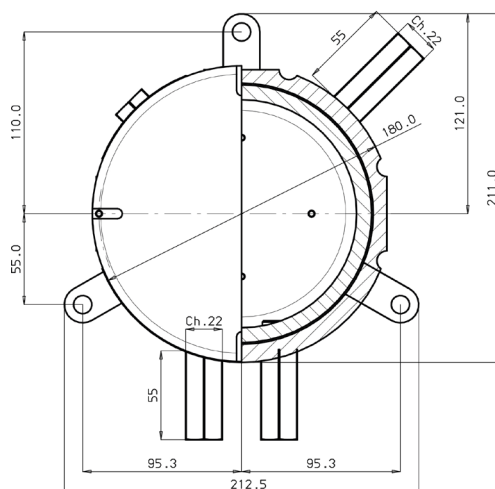
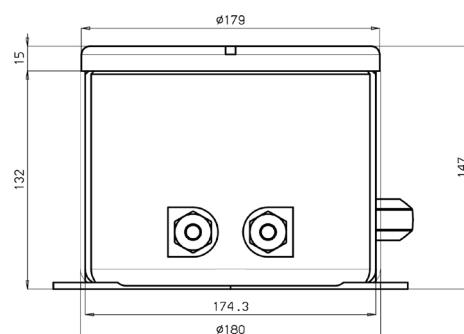
VS0

STD pressure port/no venting valve



VS1

STD pressure port/ STD venting valve



VS2

STD pressure port/ LD venting valve

