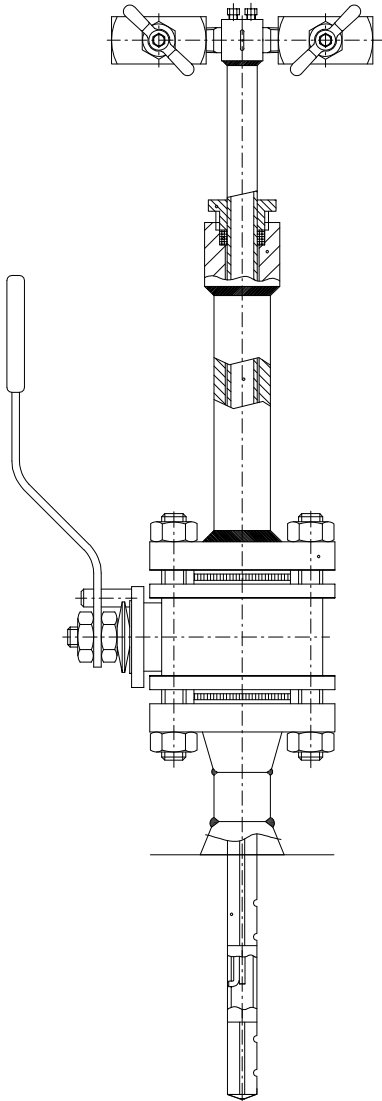


# MULTIPOINT AVERAGING PITOT TUBE

## APT Series



### DESCRIPTION

Multipoint Averaging Pitot Tube – APT (FE) are applied for clean fluids in large size pipe and when static pressure is low.

They allow low permanent pressure loss and allow flow measurement where other instruments applications would be difficult or not applicable (e.g. chimneys).

The instrument is placed vertically on the pipe. The flow rate is obtained knowing the velocity profile in the pipe section. The multiport points allow to average velocity, not detect only the maximum velocity, along the pipe diameter.

### FEATURES

- Complete production control fully integrated inside the company and highly competent local suppliers.
- Qualified welders and welding procedures compliant with ASME IX and EN ISO 15614.
- Completely customizable on client's needs thanks to the support of our technical and sales departments.
- Over 60 years company experience with instruments installed in the entire world.
- Long working life ensured by high quality materials.

PROS	CONS
Suitable for a wide range of fluids, gases and vapours	Applications limited in Pressure and Temperature
Suitable for large size pipes	Minimum Reynolds No. $> 10^4$
Very low permanent pressure loss $< 1\%$	Not high accuracy
Suitable for low upstream static pressure	
Relatively low price	

### APPLICATIONS

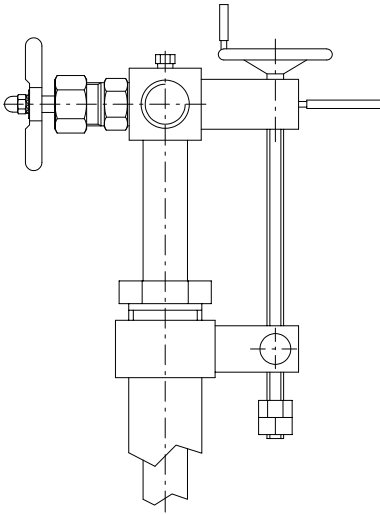
- Oil & Gas plants, Refineries
- Chemical and petrochemical plants
- WATER / GAS treatment and distribution

### TYPICAL PERFORMANCES

- Range:  $1 \div 4$  ( $1 \div 5$ )
- Accuracy:  $\pm 2-4\%$  of F.S.
- Repeatability:  $\pm 0.1\%$

### ACCESSORIES ON REQUEST

- Process connection and end support nozzles
- Bolts & Nuts, Gaskets
- Manifold and Differential Pressure Transmitter



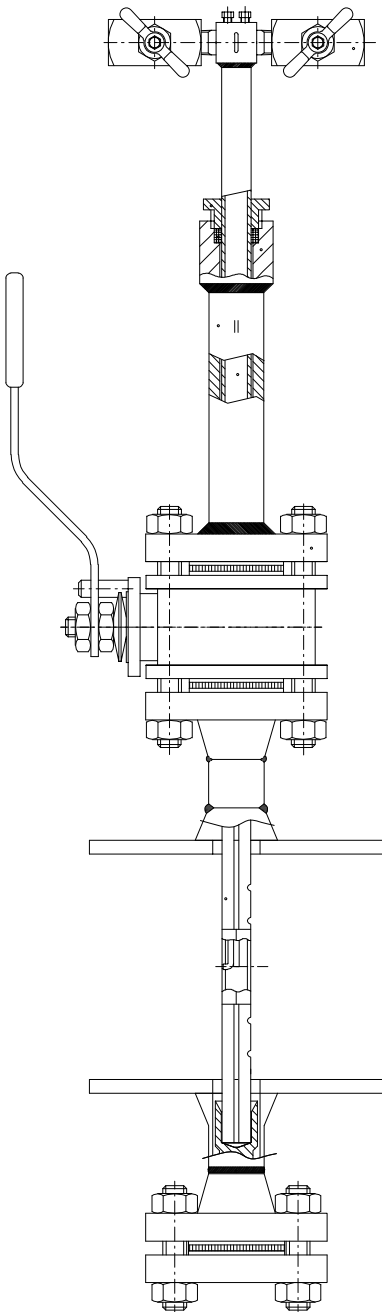
## MODELS

The Multiport Averaging Pitot Tube APT Series is available in different models with the following characteristics:

- Execution: Fixed (F) or Retractable (E)
- Process connection: with Compression Fitting (R) or Flanged (F)
- Probe Type: small (Type 75/76) or large (Type 85/86); with or without End-Support

MODEL	EXECUTION	END-SUPPORT	PROBE TYPE	PROCESS CONNECTION
APT-FR75	Fixed	No	Small	Compression Fitting
APT-FR76	Fixed	Yes	Small	Compression Fitting
APT-FF75	Fixed	No	Small	Flanged
APT-FF76	Fixed	Yes	Small	Flanged
APT-FF85	Fixed	No	Large	Flanged
APT-FF86	Fixed	Yes	Large	Flanged

MODEL	EXECUTION	END-SUPPORT	PROBE TYPE	PROCESS CONNECTION
APT-EF75	Retractable	No	Small	Flanged
APT-EF76	Retractable	Yes	Small	Flanged
APT-EF85	Retractable	No	Large	Flanged
APT-EF86	Retractable	Yes	Large	Flanged



## TECHNICAL SPECIFICATIONS

USE	Liquids, Gases, Vapors	
DIMENSIONS	APT-F 75/76	ND 6" ÷ 72" / DN 100 ÷ 1800
	APT-F 85/86	ND 12" ÷ 108" / DN 300 ÷ 2750
	APT-E 75/76	ND 6" ÷ 40" / DN 100 ÷ 1000
	APT-E 85/86	ND 12" ÷ 60" / DN 300 ÷ 1500
DESIGN	Standard ASME MFC-12M / Diamond shape as per our standard	
ARRANGEMENTS	Flange ANSI B16.5, EN-1092-1 / UNI 2223 / DIN	
RATING	APT-F	ANSI/ASME - 150, 300, 600, 1500 / EN-PN - 10, 16, 25, 40, 63, 100
	APT-E	ANSI/ASME - 150, 300 / EN-PN - 10, 16, 25, 40
PROCESS CONNECTION	Models R	Compression Fitting with half coupling and fitting ND 1"
	Models F	Flanged: ANSI/ASME - RF, FF, (RTJ) – AARH 125 ÷ 250, 63 EN-PN - Type 01, 11, 12 – seal. surface Type A, B1 or B2
INSTRUMENT CONNECTION	Pressure taps type: NPT-F / SW / Flanged FF, RF / Oval Flange for Direct Mounting in DP Transmitter.	
OTHER OPTIONS	<ul style="list-style-type: none"> <li>Stress and vibration analysis</li> <li>Retractable execution up to 150°C</li> <li>Suitable for rectangular section pipe</li> </ul> Our technical and commercial departments are available to discuss any variation or customization not mentioned in this catalogue	

## MATERIALS

GENERAL	As per project specifications, however mainly according to ANSI/ASME/AISI code or according to EN/UNI/DIN codes. Certificates with requirements like NACE MR-0175 e MR-0103 /ISO 15156, Dual grade, and PED. Others to be evaluated on request.
EXTERNAL BODY AND FLANGES	Generally, according to project specification Carbon Steel, Low Carbon Steel, Stainless Steel, Duplex / Super Duplex
PROBE	SS 316, Duplex / Super Duplex, Monel and other on request
BOLTS & NUTS (flanged execution)	A194-B7/2H, A320-L7/7, A193-B16/7, A193-B8/8, Monel, Nichel Alloy. Others on request Coatings: PTFE coated, Galvanizing / Hot Dip Galvanizing
GASKET (flanged execution)	Spiral Wound: according to project specifications Flat: Aramidic Fiber / PTFE / Graphite
ADDITIONAL SUPPLY	Nozzle for process connection, if required Support-end, same material of pipe line, included in the supply



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