INTRA-AUTOMATION GmbH

elektronische Meß- und Regelinstrumente

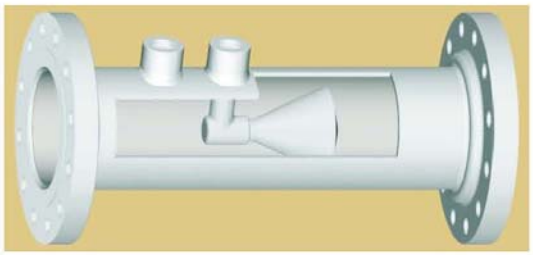
MESS- UND REGELINSTRUMENTE

SCM

CONE TYPEFLOW METER

GENERAL DESCRIPTION

The Cone type flow meter is a differential pressure type flow meter primary device. The Cone type produces a differential across a centered cone in a precision meter tube. The differential pressure is the difference in pressure between the static line pressure P_1 measured at the upstream tap and the pressure from a tap located at the forward section of the cone P_2.



MAJOR FEATURES : entirely new and innovative differential pressure type of flow measurement by ΔP theory.

- An accuracy of ±0.5% in the majority of applications
- A repeatability of ±0.1%.
- A typical range of 15 : 1.
- Minimum Reynolds No. of 8000.
- Used for static mixing by vortex mixing downstream of the cone.
- Used for measuring fluid of water, steam, gas, etc., as well as many other fluids.
- Differential is generally lower than other differential producers and lower permanent loss [approximately 20% of the generated differential pressure], a constant coefficient over a wide Reynolds No. Range.

SPECIFICATIONS :

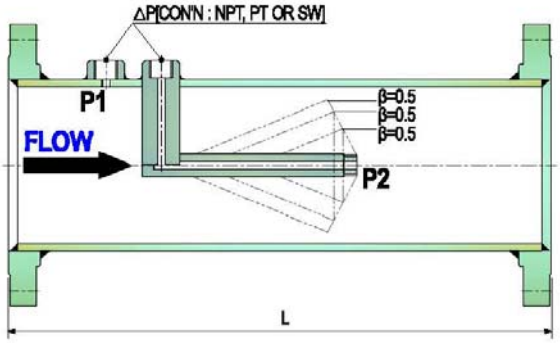
- Applicable Temperature : 370°C[700°F].
- Applicable Pressure : 10kg/cm²[142psi] as a standard and available up to 40kg/cm²[600psi] on request.
- Material : 304SS, 316SS and others also are available on request.
- Straight Run : Upstream = 3D ~ 5D and Downstream = 5D.

$$\beta = \sqrt{\frac{D^2 - d^2}{D}}$$

$$m = \frac{D^2 - d^2}{D^2}$$

$$d = \beta_{v\text{-}cone} \cdot D$$

β = Beta Ratio
m = Area Ratio
D = Pipe Inside Diameter
d = Outside Diameter of Cone.



Intra-Automation GmbH
Otto-Hahn-Strasse 20
41515 Grevenbroich

Mail: info@intra-automation.de
Web: www.intra-automation.de

Tel.: 0 21 81 / 7 56 65 – 0
Fax: 0 21 81 / 6 44 92