SKU: OP4311

VOLT AISI 316 Metering Station – Orifice Plate
VOLT AISI 316 Metering Station - Blende
VOLT Estación de Medición AISI 316 - placa de orificio
VOLT AISI station de comptage 316 - Plaque à orifice

- 21/2" - 12" Stainless Steel Orifice Plate with Test Points and Extensions
- 21/2" - 12" Edelstahl- Blende mit Testpunkte und Erweiterungen
- 21/2" - 12" Placa de acero inoxidable con orificio Puntos de prueba y Extensiones
- 21/2" - 12" Acier inoxydable Plaque à orifice avec Points de test et extensions

Stainless Steel Metering Station – PN16

Description:
Stainless steel wafer metering station
Diameters from 21/2" to 12"
For EN1092 PN16 flanges
Design according to BS7350
Tolerance on nominal Kvs ±5% (test according to BS7350)
Gost compliant
PN25 rated

Working conditions:
- Water: -10°C to +130°C
  below 0°C only for water with added antifreeze fluids
  over 100°C only for water with added anti-boiling fluids

Description
AISI 316, Stainless Steel Metering Station. To fit PN16 Flanges, PN25 Rated, Fitted with 2 Test Points and Extensions,
Water: -10°C to +130°C
below 0°C only for water with added anti-freezing fluids
over 100°C only for water with added anti-boiling fluids

Beschreibung
AISI 316 , Edelstahl- Messstation . Um PN16 Flansche, PN25 bewertet , Ausgestattet mit 2 Testpunkte und Erweiterungen fit ,
Wasser: -10 ° C bis + 130 ° C
unter 0 ° C nur für Wasser mit Zusatz von Frostschutzflüssigkeiten
über 100 ° C nur für Wasser mit zugesetztem Anti siedenden Wassers

Descripción
AISI 316 , la estación de medición de acero inoxidable . Para encajar PN16 Bridas PN25 , Calificación , equipado con 2 Puntos de prueba y extensiones ,
Agua: -10 ° C a + 130 ° C
por debajo de 0 ° C sólo para el agua con líquidos anticongelantes añadido
más de 100 ° C sólo para agua con añaden fluidos contra de ebullición

Description
AISI 316 , la station de mesure en acier inoxydable . Pour adapter PN16 Brides, PN25 notées , équipé de 2 Points de test et extensions ,
Eau: -10 ° C à + 130 ° C
en dessous de 0 ° C seulement pour l'eau avec des liquides antigel ajoutée
plus de 100 ° C seulement pour l'eau avec ajoutés fluides antiébullition

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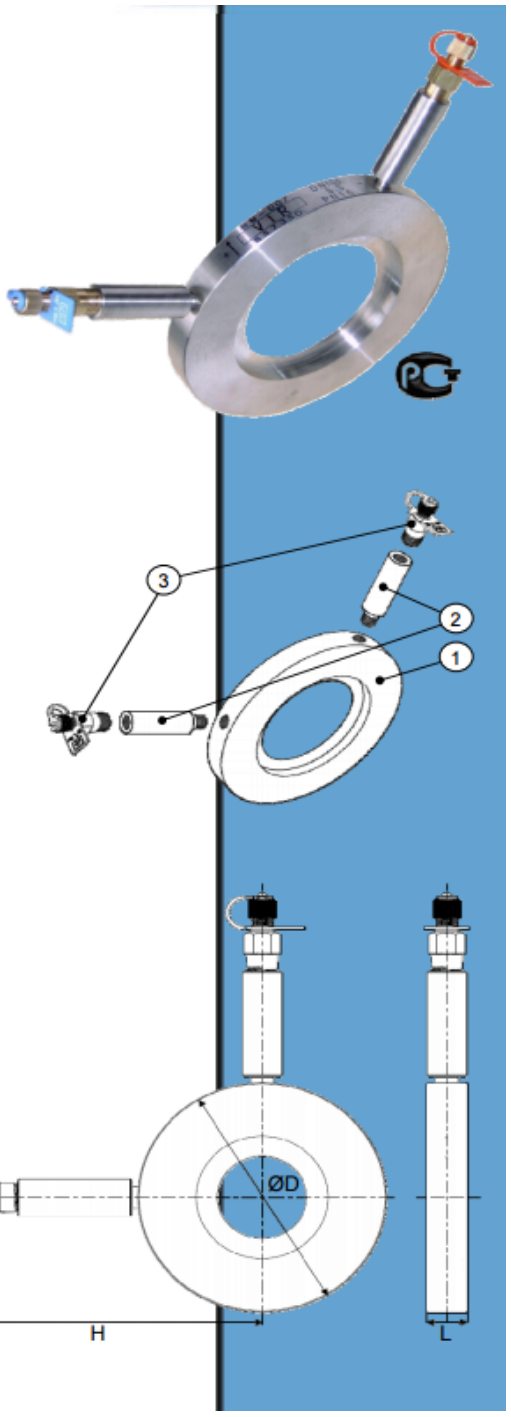
Stainless Steel Metering Station – Orifice Plate

Description

Stainless steel wafer metering station
For EN1092 PN16 flanges
Design according to BS7350
Tolerance on nominal K_{vs} ±5% (test according to BS7350)
Gost compliant

PN16 (PN10 for DN≥350)

Working conditions:
- Water: -10°C to +130°C
  below 0°C only for water with added antifreezing fluids
  over 100°C only for water with added anti-boiling fluids



Part List

N.	Part	Material	Norm
1	Body	Stainless steel	AISI 316[1]
2	Extension	Stainless steel	AISI 316[1]
3	Test point	DZR Brass[2]	EN12164 CW602N

[1]AISI 304 for DN≥450
[2]Test points with EPDM gaskets and polypropylene ties

Dimensions

DN	H (mm)	L (mm)	ØD (mm)	Weight (g)	Flow (l/s)
020	122	18	63	564	0,138-0,325[1]
025	127	18	73	687	0,258-0,603[1]
032	132	18	84	822	0,54-1,25[1]
040	137	18	94	972	0,81-1,88[1]
050	145	18	109	1142	1,52-3,51[1]
065	154	18	127	1468	3,02-6,95[1]
080	162	18	143	1762	6,40-15,36[1]
100	172	18	163	1967	10,85-26,04[1]
125	187	18	193	2560	16,85-39,75[1]
150	200	18	219	2950	23,71-56,91[1]
200	227	18	274	4140	41,86-100,47[1]
250	255	18	330	5350	66,58-156,78[1]
300	283	18	385	6830	94,16-255,99[1]
350	313	21	445	11000	96-261
400	338	21	496	14000	117-320
450	368	21	556	17000	150-408
500	399	21	618	21000	186-506
600	458	25	735	35000	245-667

[1]Suggested flow range applicability (BS7350)

If used with measuring manometers different from those proposed by VIR please verify that sensibility of the measuring device is compatible with indicated minimum flow (see flow measurement paragraph)

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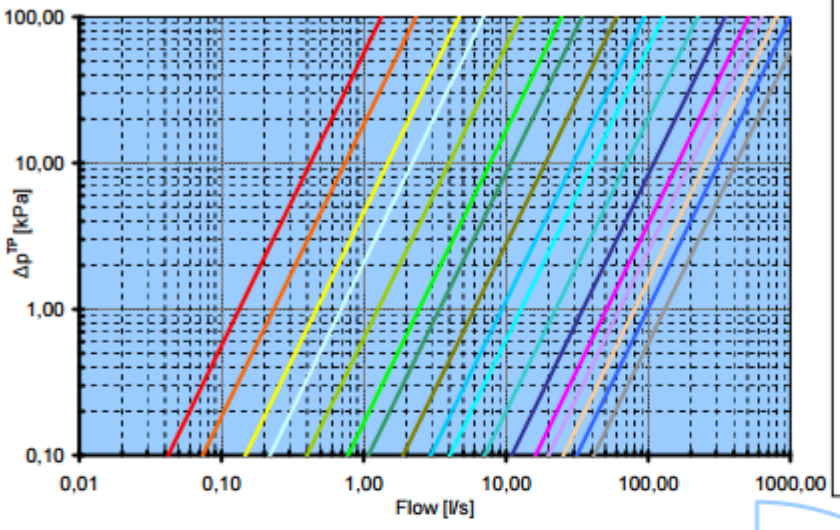
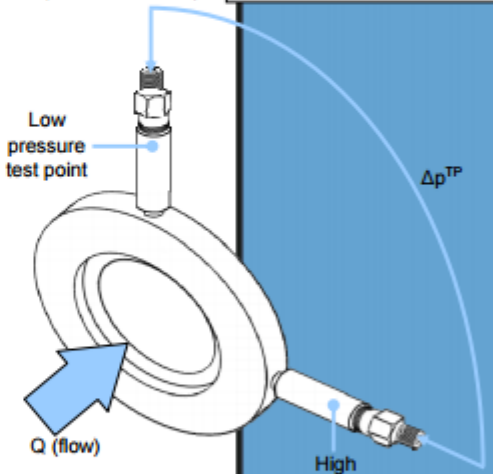
Flow Measurement



DN20,	K_{vs} 4,8
DN25,	K_{vs} 8,4
DN32,	K_{vs} 16,8
DN40,	K_{vs} 25,0
DN50,	K_{vs} 45,4
DN65,	K_{vs} 88,2
DN80,	K_{vs} 123,0
DN100,	K_{vs} 215,6
DN125,	K_{vs} 336,9
DN150,	K_{vs} 458,6
DN200,	K_{vs} 803,9
DN250,	K_{vs} 1249,0
DN300,	K_{vs} 1836,0
e DN350,	K_{vs} 1849,0
DN400,	K_{vs} 2264,0
DN450,	K_{vs} 2886,0
DN500,	K_{vs} 3582,0
DN600,	K_{vs} 4716,0

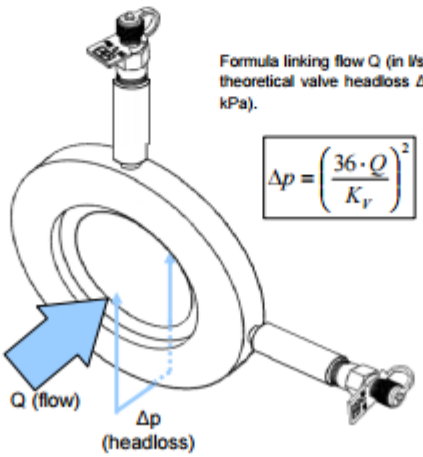
Formula linking flow Q (in l/s) and Δp measured at test points (in kPa).
Minimum flow that can be measured for each diameter may be calculated by using in the formula minimum Δp that can be measured by used manometer.
Valves are anyway designed for best performances when used on range previously suggested and as indicated by BS7350.

$$Q = \frac{K_{vs} \cdot \sqrt{\Delta p^{TP}}}{36}$$



Headloss calculation

DN	K_v (m^3/h)
020	6,2
025	11,5
032	23,6
040	36,0
050	71,3
065	151,7
080	226,3
100	368,7
125	565,9
150	779,7
200	1415,0
250	2160,0
300	3195,0
350	3217,0
400	3941,0
450	5025,0
500	6235,0
600	8212,0



Formula linking flow Q (in l/s) and theoretical valve headloss Δp (in kPa).

$$\Delta p = \left(\frac{36 \cdot Q}{K_v} \right)^2$$

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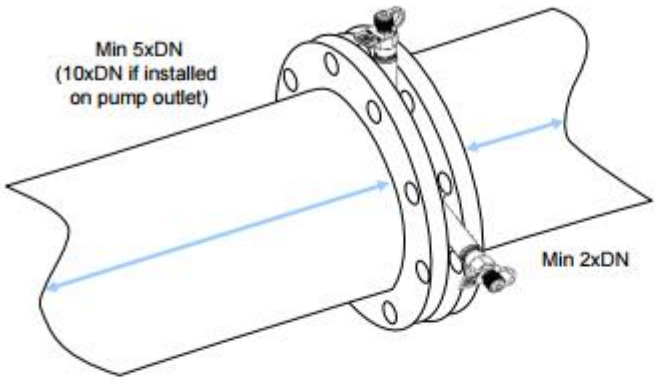
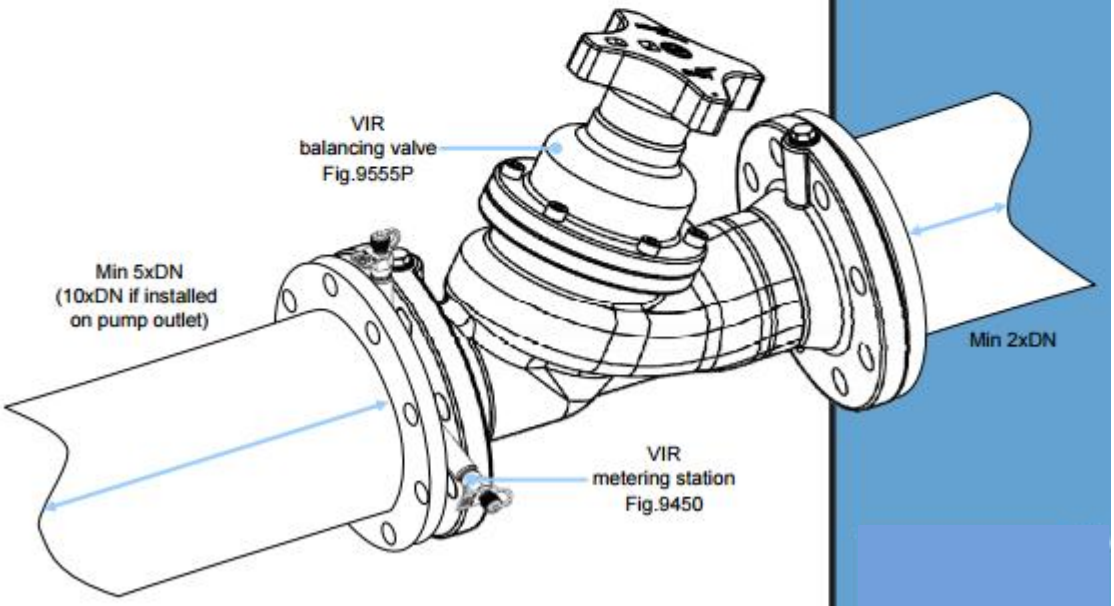
Installation

To obtain the best performances valve must be installed on a pipe with its same nominal size preceded and followed by straight pipe lengths as per figure indications.



The metering station can be installed together with balancing valve of same DN (in example VIR Fig.9565P composed by metering station Fig.9450 + balancing valve Fig.9555P) according following configuration.



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