NIVELCO

30 YEARS

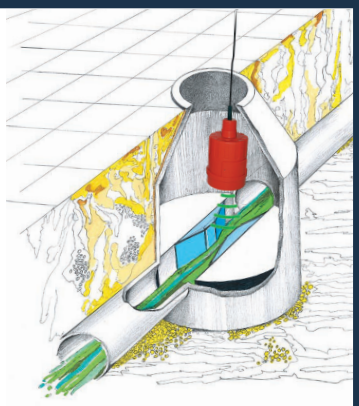
NIVOSONAR

OPEN CHANNEL FLOW METERS

3 YEARS WARRANTY

OUR PROFESSION IS YOUR LEVEL

FLOW MEASUREMENT



GENERAL DESCRIPTION

The **NIVOSONAR GPA** enables flow measurements on gravitational sewers, brook channels, irrigation channels or any other open channel with the help of a **PARSHALL** flume. The flume with **EasyTREK** integrated ultrasonic transmitter and **MultiCONT** process controller is able to create a complete flow-measurement system. The measuring flume is easy to install in new or existing channel structures.

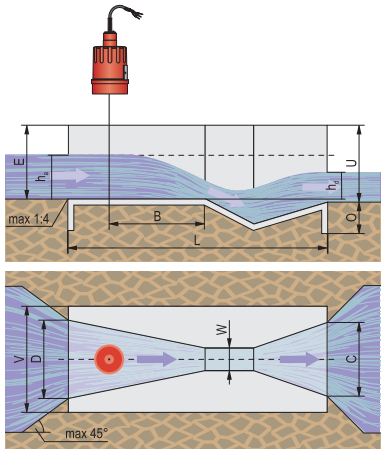
The **PARSHALL** flume is a rigid structure, manufactured out of polypropylene with narrow tolerances to ensure high accuracy of metering, therefore during transport and installation great care should be taken to prevent the flume from getting deformed.

APPLICATION

With the **PARSHALL** flume applied as a reducing element, the stagnation pressure causes the liquid level to rise. This change in level is in proportion with the velocity of the liquid and the flow rate. **EasyTREK** ultrasonic level transmitter measures the change in level and transmits measurement data via HART communication to the **MultiCONT** multichannel process controller. **EasyTREK** transmitters can be remote programmed via HART by **MultiCONT** and data logging can be also realized besides displaying or transmitting measurement data on RS 485 line into PC.

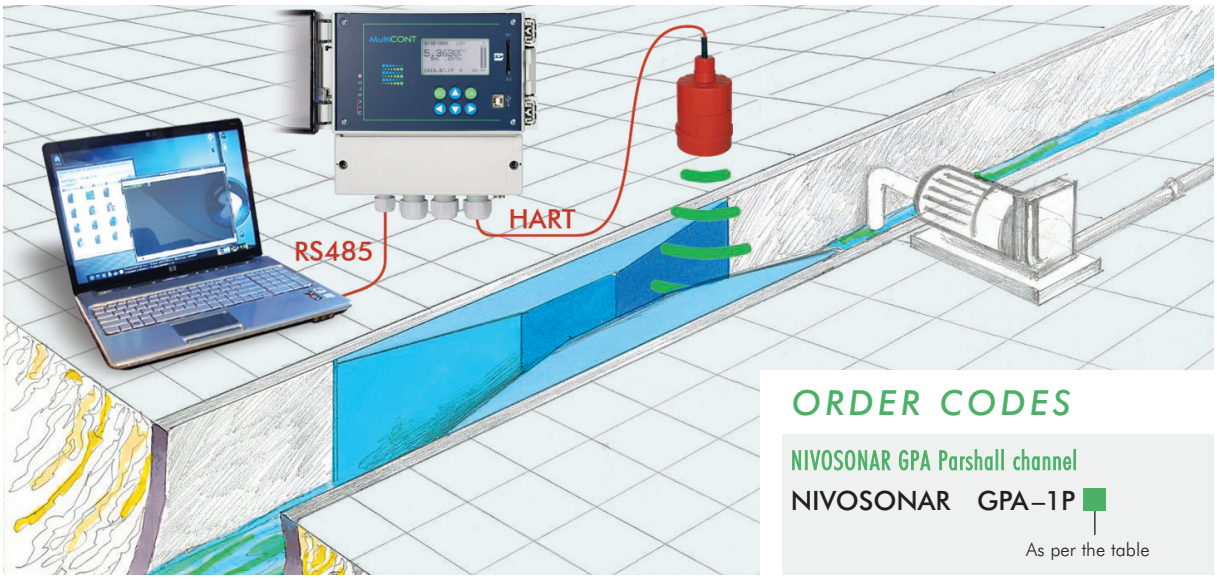
TYPE		NIVOSONAR GPA								
		P1	P2	P3	P4	P5	P6	P7	P8	P9
Q_{min}	m³/h	0.936	1.872	2.808	5.472	8.1	10.476	15.84	20.88	31.32
Q_{max}	m³/h	22.392	54.36	196.56	604	1324.8	2152.8	3232.8	4359.6	6627
W	cm	2.54	5.08	7.62	15.24	22.86	30.48	45.7	61	91.4
B	cm	30	34	39	53	75	120	130	135	150
C	cm	9.29	13.49	17.8	39.4	38.1	61	76.2	91.44	121.9
D	cm	16.75	21.35	25.88	39.69	57.47	84.46	102.6	120.7	157.2
E	cm	23	26.4	46.7	62	80	92.5	92.5	92.5	92.5
L	cm	63.5	77.5	91.5	152.4	162.6	286.7	294.3	301.9	316.9
O	cm	5	5	5	10	10	10	10	10	10
U	cm	24.8	28.6	49.2	69.6	87.6	100.1	100.1	100.1	100.1
V	cm	30.7	35.35	39.9	54	80	100	120	140	180
m	kg	9	10.6	19.1	49	81	146	183	231	252
hd/ha		0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
a		0.0609	0.1197	0.1784	0.354	0.521	0.675	1.015	1.368	2.081
b		1.552	1.553	1.555	1.558	1.558	1.556	1.560	1.564	1.569

$Q = a \cdot h_a^b$ [m³/s] (where h_a is the measured level in meters)



ACCURACY

Accuracy of NIVELCO's flow measurement system is depended on the proper installation. Under optimal circumstances 1.5 – 2 % accuracy can be achieved by proper installation and suitable laminar flow conditions.



ORDER CODES

NIVOSONAR GPA Parshall channel

NIVOSONAR GPA–1P ■

As per the table

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