

## Metallic flowmeter SC250



The measuring system is composed of a cylindrical tube and a cone-shaped float. When upstream flow reaches an appropriate velocity displaces the float upwards. The position of the cone is magnetically transmitted to an indicator, and the measured value is read off from the position on a scale.

Specially designed for opaque, inflammable, corrosive fluids, as well as for adverse pressure and temperature conditions.

### Technical data:

<b>Body:</b>	Fully metallic. Plastic coated aluminium case. Flanges, measuring tube, calibrated ring, float and seals seating in stainless steel AISI316..
<b>Connections:</b>	Flanges according to DIN DN-15 up to DN-150, PN-16/PN-40. Upon request ANSI flanges, sanitary threads... Total length flanges included : DN-15...DN-125 : 250 mm. DN-150 : 300 mm.
<b>Temperature service:</b>	Stainless steel: -50+200 °C. PTFE: -20+125 °C. PVC: 0-50 °C.
<b>Pressure service:</b>	PN-40: DN-15...DN-65. PN-16: DN-80...DN-125. PN-10: DN-150.

### Ranges water in litres/hour – m<sup>3</sup>/hour

2,5...25	4...40	6...60	10...100	16...160
25...250	40...400	60...630	100...1000	160...1600
250...2500	400...4000	500...6300	1...10	1,5...15
2...20	2,5...25	4...40	6...60	10...100
12...120	15...150	20...180		

### Ranges air (atm. Press.) in N m<sup>3</sup>/hour

0,07...0,7	0,12...1,2	0,18...1,8	0,3...3	0,5...5
0,7...7,5	1,2...12	1,8...18	3...30	5...50
7...75	12...120	15...180	30...300	60...600
120...1200	180...1800	300...3000	450...4500	500...5400

Note: Also available in litres/minute upon request.

## Operating principle

The system is composed by a CALIBRATED RING and a CONIC FLOAT. When the flow moves upstream the float is displaced to a balance point, according to:

Weight of the float:  $P_f$   
 Thrust of the fluid:  $E$   
 Free pass area:  $A_l$

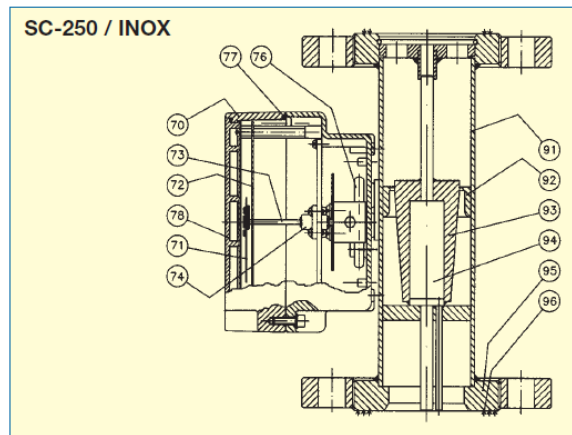
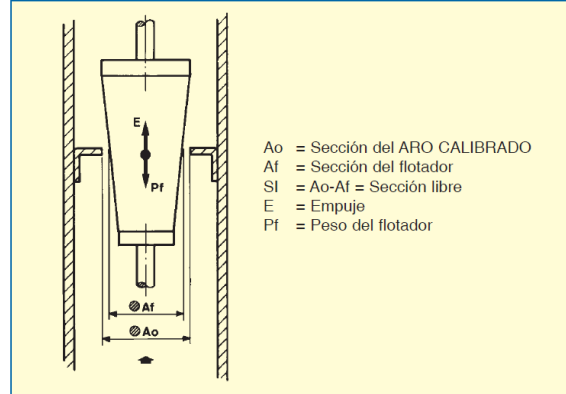
The proportional are related to the flow will be:

$$A_l = A_c - A_f$$

where:

$A_c$  = tube section  
 $A_f$  = float section

Each height of the float is in balance with a new pass section, which answers to a new flow rate.



## Materials

Nº	Designation	Materials	Nº	Designation	Materials
70	Case	Plastic coated Al.	78	Window	Policarb. / Glass
71	Indicating pointer	Aluminium	91	Measuring tube	AISI 316L
72	Dial	Aluminium	92	Calibrated ring	AISI 316L
73	Shaft	AISI-316	93	Float	AISI 316L
74	Bearing	AISI-316	94	Float magnet	Nialco
76	Magnetic stop	Neodimium	95	Flanges	Steel / AISI316L
77	Seal	Acrylic-Nitrile	96	Seal seating	AISI 316L