

Swirl Flowmeter BROCHURE

JUNHO 2013

Tel: (+351) 21 843 64 00
Fax: (+351) 21 843 64 09
geral@bhb.pt www.bhb.pt



Measurement made easy

Swirl flowmeter FS4000

Compact, reliable and robust

Power and productivity
for a better world™



Swirl flowmeter FS4000

Simply fits your purpose

The most important data at a glance

Accuracy for liquids	± 0.5% of rate
Accuracy for gases and steam	± 0.5% of rate
Process connection	Flange design
Meter sizes (mm and inches)	DN 15 (1/2") – DN 400 (16")
Media temperature	-55...280 °C (-67...536 °F)
Media viscosity	max. 30 cP
Required straight pipe runs	Upstream/downstream
After a reduction	3 x DN / 1x DN
After elbows (3 dimensions)	3 x DN / 1x DN
After a control valve	5 x DN / 1x DN
Ex approvals	ATEX, IECEx zone 1/2 and 21/22
	cFMus class 1 div. 1
	NEPSI zone 1/2
Communication	HART, Profibus PA, FF



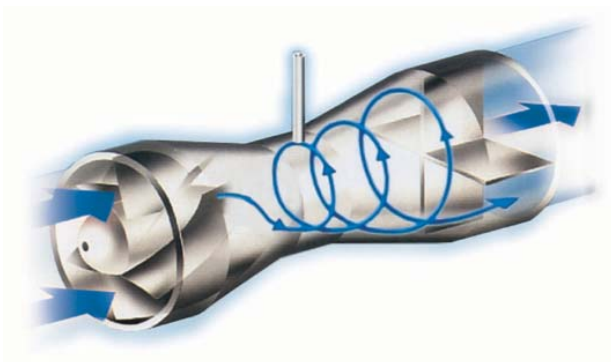
Swirl Flowmeter FS4000

Reliability and performance

Highest measuring accuracy, functional design, easy and compact installation.

Unique swirl technology for your application!

- Digital signal processing for volume flow, totalization and pulse outputs leads to high reliability and flexibility
- Almost independent on the installation situation, swirl flowmeters can be installed where no other measuring principle can work properly
- High rangeability that extends low flow capability at high accuracy
- Lowest installation cost due to minimal upstream and downstream sections
- Lowest lifetime cost: No wear or maintenance because of no moving parts

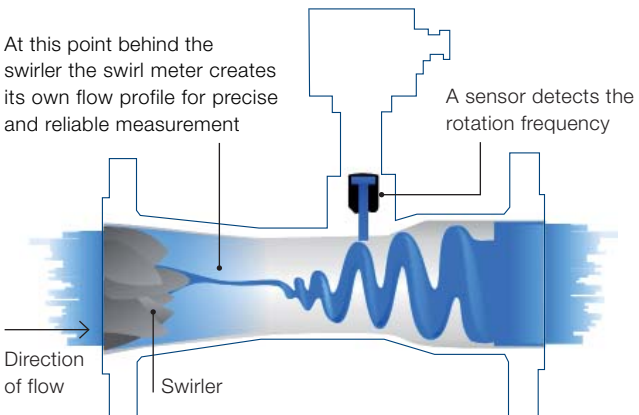


Swirl flowmeter FS4000

Highly reliable measurement

Swirl – The flowmeter with a different twist.

Swirl flowmeters combine the advantages of turbine and vortex flowmeter technologies. They have a high turndown ratio and high accuracy (turbine). And they are highly reliable, robust and maintenance free (vortex).



Swirl flowmeter FS4000

For versatile applications

The functional design makes swirl flowmeter FS4000 adaptable to all processes and conditions.

Swirl flowmeters are used for measurement of gas, steam and liquids.

- Digital signal processing for volume flow, totaling, temperature compensation and pulse outputs leads to high reliability and flexibility
- High rangeability that extends low flow capability
- Ideally adapted measuring ranges to pipe size:
 - flow speed in gases 1.3 to 40 m/sec
 - flow speed in liquids 0.2 to 5 m/sec
- Highly insensitive to dirt and pollution bearing mediums
- Lower pressure loss than reducer vortex flowmeters
- Lowest installation cost because of 2-wire technology

Space saving swirl meters in steam application



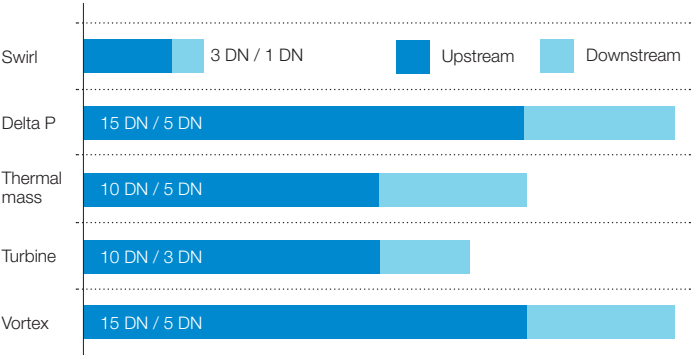
Swirl flowmeter FS4000

Compact installation

Shortest straight inlet and outlet sections save installation space of up to 90%.

Swirl flowmeters create their own flow profile inside the meter, minimizing upstream and downstream straight pipe requirements. Compared to traditional DP flow measurements or vortex metering, up to 90% of straight pipe run can be saved without any loss of accuracy. Even installations that would seem otherwise impossible can be realized with FS4000 swirl flowmeters.

Straight pipe run required



Swirl flowmeter FS4000

Maintenance free and robust

With no moving parts and no special need for straight pipe run, swirl flowmeter FS4000 is the ideal replacement for mechanical meters.

Since only the measuring medium is forced into rotation by a stationary inlet swirler, the swirl meter has no moving parts. This leads to long-term stability without any wear. Additionally the swirl flowmeter will not be damaged by intervals of two-phase media, e.g. gas bubbles in liquids or liquid content in gas.



Contactos/Contacts:

Comercial/Commercial:

Fernando Mena Costa

e-mail: fcosta@bhb.pt

Tel: (+351) 21 843 64 00

Fax: (+351) 21 843 64 09

Assistência/Service:

Patricia Costa

e-mail: ppcosta@bhb.pt

Tel: (+351) 21 843 64 00



Note:

ABB the owner of this document, reserves the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

Copyright© 2011

ABB. All rights reserved

Tel: (+351) 21 843 64 00
Fax: (+351) 21 843 64 09
geral@bhb.pt www.bhb.pt