



# W-Series

Short Form Data Sheet

**VACUUM**

BETA products are manufactured in The Netherlands

**Enclosures:**

**Cast Aluminum:**

Oven baked powder coating  
hammer tone grey

**Also available in  
SS 316**

Wheaterproof IP 66 -  
EN 60529

(Nema 4X)

**Repeatability:**

typical 0.2% of Full Scale

**Standard unit:** Barg

**Optional:** PSI / Kg / Pa

**Standard process conetion:**  
1/4" NPT F or BSP F

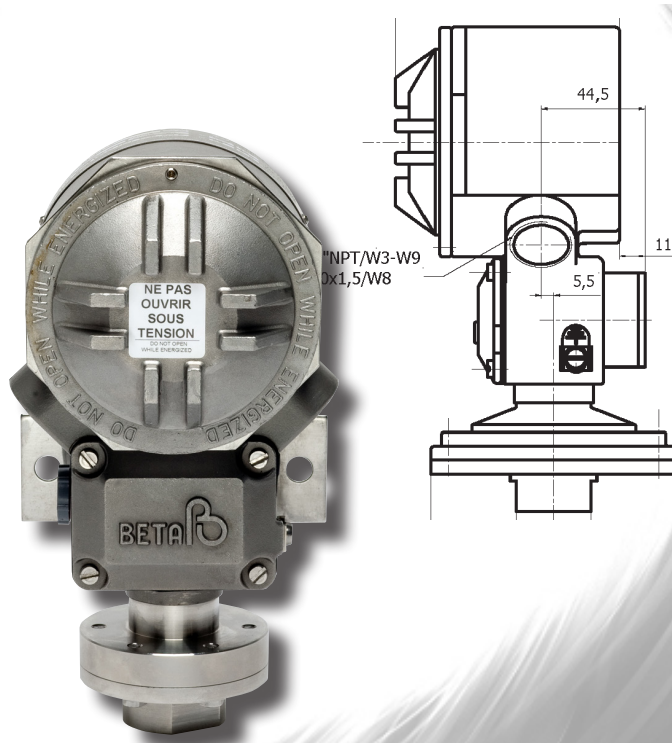
**Standard Diaphragm/O-ring:**  
Buna N / Buna N

**For wetted parts:**  
more possibilities available,  
see full catalogue

**BETA SWITCHES ARE,  
BUILD TO LAST!**

**Do you want to know more:**

Please contact your local dealer  
and ask for the General Bulletin.  
Or contact us directly!



**Ranges** for Vacuum switches

RANGE CODE	ADJUSTABLE RANGE <sup>1)</sup> (INCR. VAC. TO PRESS.)		MAX. DEADBAND (VAC. / PRESS.)		MAX. VACUUM		MAX. OVERRANGE PRESSURE		PROOF PRESSURE	
	Bar / mBar	mBar	mBar	mBar	Bar / mBar	Bar	Bar	Bar	Bar	
V 301 L <sup>2)</sup>	-10 to -3	mBar	1	mBar	-500	mBar	+10	Bar	+15	Bar
V 304 L	-60/0/+150	mBar	4/4/6.5	mBar	-500	mBar	+30	Bar	+35	Bar
V 404 M	-400/0/+400	mBar	16/16/25	mBar	-1	Bar	+125	Bar	+140	Bar
V 406 M	-980/0/+1000	mBar	30/30/40	mBar						
V 506 H	-1/0/+6	Bar	80/80/25	mBar						

<sup>1)</sup> For setpoint around zero bar gauge, consult factory.

<sup>2)</sup> Only available with L1 -microswitch element. K1 possible consult factory).

[www.beta-b.nl](http://www.beta-b.nl)



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More Short Form Data Sheets on Vacuum, Differential and Temperature Switches are available.

Doc. no.: SP 412/307/5K-(FC)

**Making the modelcode: Follow steps 1 to 5**

**1 Selection of enclosure type.**

Conduit	Material	Enclosure code
3/4" NPT F	Aluminium	<b>W3</b>
M20x1.5	SS 316	<b>W8</b>
3/4" NPT F	SS 316	<b>W9</b>

**2 Selection of range code, see front page**

**3 Selection of process connection.**

Size	Material	Code
1/4"NPT F	Aluminium *	<b>A1N</b>
1/2"NPT F	Aluminium *	<b>A2N</b>
1/4"NPT F	SS316	<b>S1N</b>
1/2"NPT F	SS316	<b>S2N</b>
1/2"NPT M	SS316	<b>S7N</b>

Process conn. size max. 1/2"  
Piston & Spring (both wetted) standard in SS 316.

Above standard process connections are also available in: "BSP"  
For example: 1/2" BSP F (3316) = **S2B**

Process connections are also available in other materials like, Monel, PVC, Hastolley, Titanium etc.

**4 Selection of wetted parts\***

Diaphragm	O-ring	Code
Buna N	Buna N	<b>B1</b>
Viton	Viton	<b>V2</b>
SS316	Buna N	<b>S1</b>
SS316	Viton	<b>S2</b>
SS316	Neoprene	<b>S3</b>
SS316	EPDM	<b>S6</b>
Tantalum	Buna N	<b>T1</b>

\* **WETTED PARTS ARE NOT GUARANTEED,** against corrosion or permeation since processes vary from plant to plant and concentration of harmful fluids, gasses or solids vary from time to time in a given process. Empirical experience by users should be the final guide and alternate materials based on this are generally available. The diaphragm / O-Ring combinations are for process temperatures of -5°C to +90°C, unless otherwise indicated. For process temperatures beyond these limits please contact your BETA Switch Representative

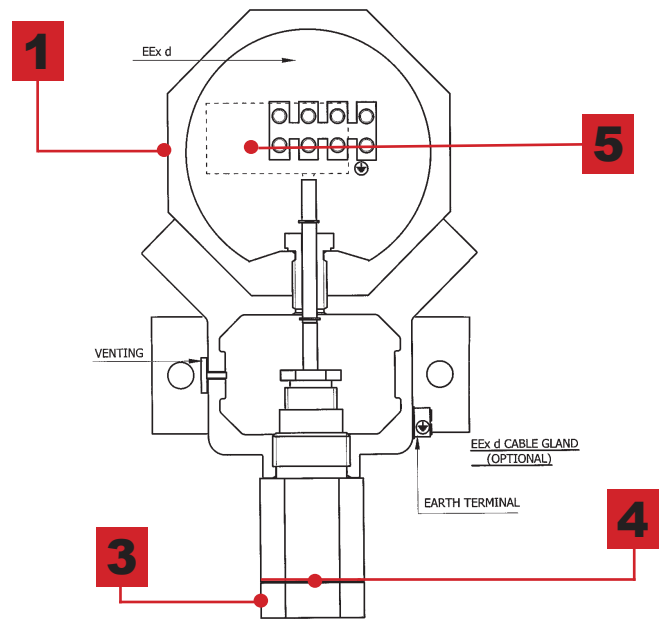
**Accessoires:**

2" Pipe mount bracket set available.

- Contents:  
1. 2 x Bracket +  
2. 2 x bolts M8 x 100 mm + nut

Disclaimer :  
This pipe mount bracket is solely intended for use in combination with BETA Pressure & Temperature Switches.

Foundation vibrations, as well as process vibrations, can disturb the proper functioning of the mounted instrument, the use of this bracket does not prevent or diminishes such occurrence.



**5 Selection of microswitches**

Rating		Use:	Switch Code: <sup>1)</sup>
VAC.	VDC. <sup>3)</sup>		
480/ 15A	28/ 0.5A	<b>Standard</b>	<b>K1</b> <sup>2)</sup>
480/ 10A	28/ 0.5A	Standaard for L-serie	<b>L1</b> <sup>2)</sup>
480/ 15A	125/ 0.5A	Normal DC-service	<b>U1</b> <sup>1) 2)</sup>
125/ 1A	28/ 0.5A	For use in H <sub>2</sub> S environment and/or for (EEx)i applications. <sup>3)</sup>	<b>G1</b> <sup>**</sup>
250/ 0.1A	30/ 0.1A		<b>Y1</b> <sup>1)</sup>
250/ 0.1A	30/ 0.1A	Environmental proof(IP 67)	<b>O1</b> <sup>1)</sup>
250/ 2A	30/ 2A		<b>N1</b> <sup>1)</sup>

1) For D.P.D.T action, second code figure should be specified as "2"

For example: Y1 = S.P.D.T./ Y2 = D.P.D.T

2) VDE certified acc. to DIN EN 61 058-1:1992+A1:1993.

3) Indicated ratings are for resistive DC load only.

\*\* DC Rating not U.L. listed, although experience and third party testing confirm the D.C Voltage ratings. Consult your local BETA switch Representative.

**6 Selection of options**

Description	Option code
Cable gland	<b>C</b>
Stainless steel tag key ringed to enclosure (Tag has 2 lines - 16 characters per line)	<b>S</b>
Epoxy coating of switch. (External) Only in combination SS 316 process connection	<b>Y</b>