

SmartLine®

## VersaFlow Converter TWS 9000

SM12 Modular I/O (only for VersaFlow Sonic 1000 clamp-on)

Model Selection Guide  
36-SM-16-07

Issue 21

## Model Selection Guide with Price Data

Honeywell Proprietary

- Installation at any location without process interruption
- Robust design for maximum reliability
- Easy and accurate sensor mounting using Aluminum or SS rail
- Low operating and installation costs
- Minimal maintenance with efficient re-greasing concept
- Rapid signal processing even with product and temperature changes and sudden changes in density
- Accurate plug & play replacement of electronics



### Instructions

Select the desired key number. The arrow to the right marks the selection available. Make the desired selections from Tables I through VIII using the column below the proper arrow. A dot (•) denotes availability.

Table	I	II	III	IV	V	VI	VII
SM12	4	---	--	--	--	---	----

List Price equals the sum of prices for all selections made.

KEY NUMBER	Description	Selection	Availability
SM12		SM12	↓

TABLE I		
Flow converter	4	•

TABLE II		
Type	TWS 9000 F, die cast aluminium field housing with local display TWS 9000 W, polyamide wall housing with local display	H _ _ • N _ _ •
Power Supply	12 - 24 V DC 24 V DC / AC (19-29V) 100-230 V AC (85-250 V AC, 50/60 HZ)	_ 1 _ • _ 4 _ • _ A _ •
Approvals	None, Non-Ex ATEX Ex zone 1 (terminal compartment "d" - F) ATEX Ex zone 1 (terminal compartment "e" - F) QPS Class 1 Div 1 (US) QPS Class 1 Div 1 (Canada) IECEX zone 1 (terminal compartment "d" - F) IECEX zone 1 (terminal compartment "e" - F)	_ _ 0 • _ _ 1 a _ _ 2 a _ _ 4 q _ _ B q _ _ F q _ _ G q

TABLE III		
Cable Connection	3 x 1/2" NPT 3 x PF 1/2" 3 x M20 x 1,5	4 _ • 5 _ • 6 _ •
Program Language	German English US French Spanish Italian Portuguese Dutch Swedish Chinese Russian	_ 1 • _ 3 • _ 4 • _ 8 • _ H • _ K • _ L • _ M • _ R • _ S •

TABLE IV		
Custody Transfer	None	0 _ •
Process Diagnostics	Standard	_ 0 •

TABLE V		
Converting Housing	Standard, Honeywell grey St. st. 1.4408/SS316 (for Field)	1 _ • 2 _ a
No Selection	None	_ V •

The minimum value of orders acceptable for Honeywell is USD 500. Handling fee is the amount of the difference between USD 500 and the actual purchase price.

TABLE VI

				Selection Availability
<b>Communication</b>	Module IO CO a + PO act / hc	(CO-active+PO-active/high current)	(See Note 1)	4 __ r
	Module IO CO a + PO pas / hc	(CO-active+PO-passive/high cur.)	(See Note 1)	6 __ s
	Module IO CO a + PO pas / Na	(CO-active+PO-passive/Namur)	(See Note 1)	7 __ t
	Module IO CO p + PO act / hc	(CO-passive+PO-active/high cur.)	(See Note 1)	8 __ u
	Module IO CO p + PO pas / hc	(CO-passive+PO-passive/high cur.)	(See Note 1)	B __ v
	Module IO CO p + PO pas / Na	(CO-passive+PO-passive/Namur)	(See Note 1)	C __ w
	IO: RS485 Modbus			G __ y
<b>First I/O Module</b>	None, No IO module			_ 8 _ •
	Current Output - active			_ A _ •
	Current Output - passive			_ B _ •
	Pulse Output - active / high current			_ C _ •
	Pulse Output - passive / high current			_ E _ •
	Pulse Output - passive / Namur			_ F _ •
	Control Input - active / high current			_ G _ •
	Control Input - active / Namur			_ H _ •
	Control Input - passive / high current			_ K _ •
<b>Second I/O Module</b>	None, No IO module			_ _ 8 •
	Current Output - active			_ _ A •
	Current Output - passive			_ _ B •
	Pulse Output - active / high current			_ _ C •
	Pulse Output - passive / high current			_ _ E •
	Pulse Output - passive / Namur			_ _ F •
	Control Input - active / high current			_ _ G •
	Control Input - active / Namur			_ _ H •
	Control Input - passive / high current			_ _ K •

TABLE VII

<b>Sensor Configuration</b>	Single path; pipe for 1 VersaFlow Sonic 1000 sensor.	0 _ _ •
	Dual path; pipe for 2 VersaFlow Sonic 1000 sensors	1 _ _ •
<b>Tagplate(F&amp;W only)</b>	Standard, None	_ 0 _ •
	316/ 1.4401 tagplate (120 x 46 mm) 4 lines 25 characters per line max.	_ 2 _ •
	316 / 1.4401 tagplate (67 x 25 mm) 4 lines 25 characters per line max.	_ 3 _ •
<b>Instruction Language</b>	None	_ _ 0 •
	German	_ _ 1 •
	English	_ _ 3 •
	French	_ _ 4 •
<b>Destination</b>	Standard, None	_ _ _ 0 •
	Belarus	_ _ _ K •
	Kazakhstan	_ _ _ B •
	Russia	_ _ _ R •

RESTRICTIONS

Restriction		Available only with	Not available with	
Letter	Table	Selection	Table	Selection
a	II	H _ _		
q	II	H _ _		
	III	4 _ 6 _		
r	VI	_ 8 8, _ A 8, _ A A, _ A C, _ A G, _ C 8, _ C C, _ C G, _ G 8, _ G G		
s	VI	_ 8 8, _ A 8, _ A A, _ A E, _ A K, _ E 8, _ E E, _ E K, _ K 8, _ K H		
t	VI	_ 8 8, _ A 8, _ A F, _ A H, _ A A, _ F 8, _ F F, _ F H, _ H 8, _ H H		
u	VI	_ 8 8, _ B 8, _ B B, _ B C, _ B G, _ C 8, _ C C, _ C G, _ G 8, _ G G		
v	VI	_ 8 8, _ B 8, _ B B, _ B E, _ B K, _ E 8, _ E E, _ E K, _ K 8, _ K K		
w	VI	_ 8 8, _ B 8, _ B B, _ B F, _ B H, _ F 8, _ F F, _ F H, _ H 8, _ H H		
y	VI	_ 8 8, _ A 8, _ A A, _ A C, _ A K, _ C 8, _ C C, _ C K, _ K 8, _ K K		

Note 1: Only the following combinations are available for the Communication, first I/O Module and second I/O Module.

Modular I/O			Modular I/O			Modular I/O			Modular I/O		
Comm	1st	2nd	Comm	1st	2nd	Comm	1st	2nd	Comm	1st	2nd
4	8	8	6	8	8	7	8	8	8	8	8
	A	8		A	8		A	8		B	8
		A			A			A			B
		C			E			F			C
		G			K			H			G
	C	8		E	8		F	8		C	8
		C			E			F			C
		G			K			H			G
	G	8		K	8		H	8		G	8
		G			H			H			G

Modular I/O			Modular I/O		
Comm	1st	2nd	Comm	1st	2nd
B	8	8	C	8	8
	B	8		B	8
		B			B
		E			F
		K			H
	E	8		F	8
		E			F
		K			H
	K	8		H	8
		K			H

Fieldbus I/O		
Comm	1st	2nd
	8	8
		8
	A	A
		C
		K
		8
	C	C
		K
	K	8
		K