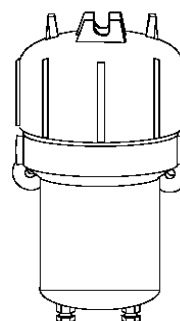
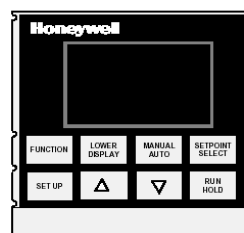


7866 Digital Gas Analyzer Thermal Conductivity Single Range

Model Selection Guide

- Utilizes thermal conductivity technology
- Measures:
 - % H₂ in air, N₂, CO₂ or O₂;
 - % CO₂ in air, N₂ or O₂
 - % O₂ in hydrogen
 - % He in air
- Analyzer includes Sensor, control unit and power supply
- See Prouct Spec 70-82-03-46 for further details



Instructions

- Select the desired key number. The arrow to the right marks the selection available.
- Make one selection from Tables using the column below the proper arrow.
A dot (•) denotes unrestricted availability.

Key Number	I	II	III	IV	V
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

KEY NUMBER

Description	Selection	Availability			
7866 Digital Thermal Conductivity Gas Analyzer consisting of:	07866DO2	↓			
a) 07866DS2 Sensor Assembly (includes housing)					
b) 07866DC2 Digital Control Unit	07866DC2		↓		
7866 Replacement Digital Control Unit Only	07866SS2			↓	
7866 Replacement Sensor Assembly - 2 Port (<i>Electronics Only</i>)	07866SS4				↓
7866 Replacement Sensor Assembly - 4 Port (<i>Electronics Only</i>)					

TABLE I - SENSOR POWER SUPPLY & LINE VOLTAGE

None	0		•	•	•
Input Voltage 105 - 125 VAC, 50 - 400 Hz.	2	•	•		
Input Voltage 210 - 250 VAC, 47 - 520 Hz.	4	•	•		

TABLE II - OUTPUT (PV RANGE)

None	0		•	•	•
0-20 mA	1	•	•		
4-20 mA	2	•	•		

0	0	0	0
7	7	7	7
8	8	8	8
6	6	6	6
6	6	6	6
D	D	S	S
O	C	S	S
2	2	2	4

TABLE III - COMMUNICATIONS

Selection

None	000	•	•	•	•
RS422/485/MODBUS	101	•	•		

TABLE IV - BACKGROUND GAS (Note: *On replacement control unit, selection must be same as selection on original unit*)

Air, N ₂ , CO ₂ , or O ₂ where component being measured is % H ₂	1	j	j	j	j
Air, N ₂ , or O ₂ where component being measured is % CO ₂	2	k	k	k	
H ₂ where component being measured is % O ₂	4	l	l	l	
Air where component being measured is % He	5	m	m		m

TABLE V - RANGE (Note: *On replacement control unit chassis, selection must be the same as selection on original unit*)

When measuring % H ₂ in Air, N ₂ , or O ₂ ; % H ₂ @:					
0-1	001000	c	•	•	
0-2	002000	c	•	•	
0-5	005000	c	•	•	
0-10	010000	c	•	•	
0-15	015000	c	•	•	
0-20	020000	c	•	•	
0-30	030000	c	•	•	
0-75	575000	c	•	•	
0-100	503000	c	•	c	
50-100	103000	h	•		•
80-100	080000	h	•		•
85-100	516000	h	•		•
90-100	506000	h	•		•
95-100	095000	h	•		•
98-100	098000	h	•		•
60-80	515000	c	•	•	
40-80	548000	c	•	•	
45-55	514000	c	•	•	
20-50	050000	c	•	•	
When measuring % CO ₂ in Air, N ₂ , or O ₂ ; % CO ₂ @:					
0-10	010000	c	•	•	
0-15	015000	c	•	•	
0-20	020000	c	•	•	
0-30	030000	c	•	•	
0-40	518000	c	•	•	
0-100	519000	c	•	•	
When measuring 0-100 % H ₂ in CO ₂	111000	c	•	•	
When measuring 70-100 % He in Air	510000	h	•		•
When measuring 95-100 % O ₂ in H ₂	090000	c	•	•	
Special application: 0-75% dissociated ammonia	075000	c	•	c	

		0	0	0	0
		7	7	7	7
		8	8	8	8
		6	6	6	6
		6	6	6	6
		D	D	S	S
		O	C	S	S
		2	2	2	4
TABLE VI - SENSOR UNIT	Selection				
None	0		•		
Sealed Reference - 2 Port - Explosion Proof	3	•		•	
Flowing Reference - 4 Port - Explosion Proof	7	•			•

TABLE VII - FACTORY USE ONLY

Reserved for Use by Fort Washington	0	•	•	•	•
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TABLE VIII - OPTIONS

None	000	•	•	•	•
Linen Tags: 15 characters max. On each of three lines: Specify legend. One mounted on control unit; one on sensing unit	206	•	•	•	•
Stainless Steel Tag: 15 characters max. On each of three lines: specify Specify legend. One mounted on control unit; one on sensing unit	208	•	•	•	•

ACCESSORY PARTS

Description	Part Number
Replacement Power Supply - Input Voltage 105-125VAC, 50-400 Hz	51450915-501
Replacement Power Supply - Input Voltage 210 -250VAC, 47-520 Hz	51450915-502
DIN Adaptor Plate	30755223-002

Restrictions Letter	Available Only With		Not Available With	
	Table	Selection	Table	Selection
c	VI	3		
h	VI	7		
j			V	090000, 510000, 518000, 519000
k	V	010000, 015000, 020000, 030000 518000, 519000		
l	V	090000		
m	V	510000		

SELECTION GUIDE (Note 1)

Single % Range	Measurement Component	Background	Background Gas Code	Range	Sensing Unit
0-1	% H ₂	Air or N ₂ or O ₂	1	001000	3
0-2				002000	
0-5				005000	
0-10				010000	
0-15				015000	
0-20				020000	
0-30				030000	
0-75				575000	
0-100				503000	↓
50-100				103000	7
80-100				080000	7
85-100				516000	7
90-100				506000	7
95-100				095000	7
98-100				098000	7
60-80				515000	3
40-80				548000	3
45-55				514000	3
20-50	↓	↓	↓	050000	3
0-10	% CO ₂	Air or N ₂ or O ₂	2	010000	3
0-15				015000	
0-20				020000	
0-30				030000	
0-40				518000	
0-100	↓	↓	↓	519000	↓
0-100	% H ₂	CO ₂	1	111000	3
70-100	% He	Air	5	510000	7
95-100	% O ₂	H ₂	4	090000	3
0-75 dissociated ammonia	% H ₂	N ₂	1	075000	3
Triple Range: For hydrogen cooled generator applications, See GA-21 for pricing on 7866DHH2 and GA-3 for <i>Optional</i> 7872 Sampling System.					

NOTES:

1. This Selection Guide is included to assist in the model selection process for 7866 Digital Thermal Conductivity Gas Analyzers.