

## SECTION 1 REAR TERMINAL CONNECTIONS

The rear terminal connections for the Dual Setpoint Selection input are shown in Figure 1-1.

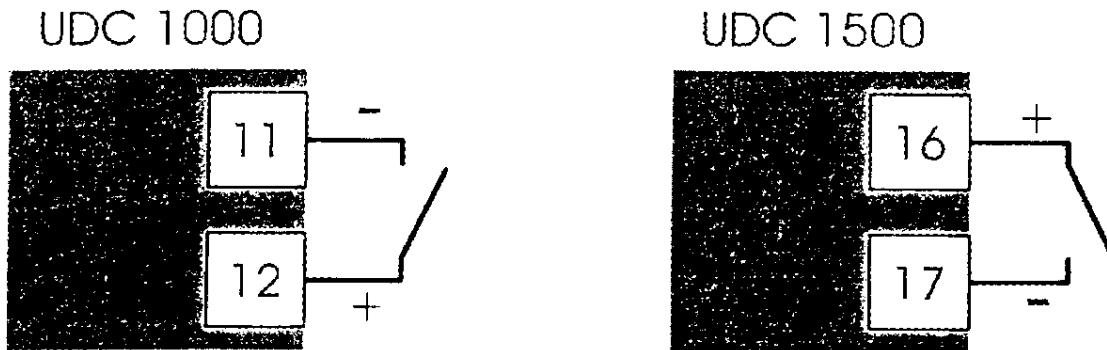


Figure 1-1 Rear Terminal Connections

The input specification is as follows:

Type: Voltage-free or TTL-compatible

**Voltage-Free Operation**  
(connection to contacts of external switch or relay)

Contacts open: Setpoint 1 selected (minimum contact resistance =  $5000\Omega$ )

Contacts closed: Setpoint 2 selected (maximum contact resistance =  $50\Omega$ )

**TTL-Compatible Operation**

Level to select Setpoint 1:  $\sim 0.6V$  to  $0.8V$

Level to select Setpoint 2:  $2.0V$  to  $24V$

Maximum Input Delay  
(OFF - ON): 1 second

Minimum Input Delay  
(ON - OFF): 1 second

## SECTION 2 CONFIGURATION MODE

### 2.1 OPTION SELECTION

When the Hardware Definition Code is displayed in Configuration Mode, press the **SET UP** key to display one of the following Option Selection displays:



Use the Raise or Lower key to select the **duAL** display for dual setpoint operation, then press the **SET UP** key again to return to the Hardware Definition Code display.

### 2.2 ALARM INHIBIT

When this additional Configuration Mode facility is selected, the lower display will show:



and the upper display will show one of:



*No alarms inhibited*



*Alarm 1 inhibited*



*Alarm 2 inhibited*



*Both alarms inhibited*

Use the Raise/Lower keys to select the desired upper display.

On power-up, an "alarm" condition may occur, based on the alarm value, the process variable value and, if appropriate to the alarm type, the active setpoint value. This would normally activate an alarm; however, if the pertinent alarm is inhibited, the alarm indication is suppressed and the alarm will remain inactive. This will prevail until the "alarm" condition returns to the "inactive" state, whereafter the alarm will operate normally. Also, whenever there is switching from Setpoint 1 to Setpoint 2 (or vice versa), similar alarm suppression will occur, if the pertinent alarm is inhibited.

### 2.3 OUTPUT 2/3 USAGE - ALARM HYSTERESIS

To the usage options for Output 2 and Output 3 have been added the following:

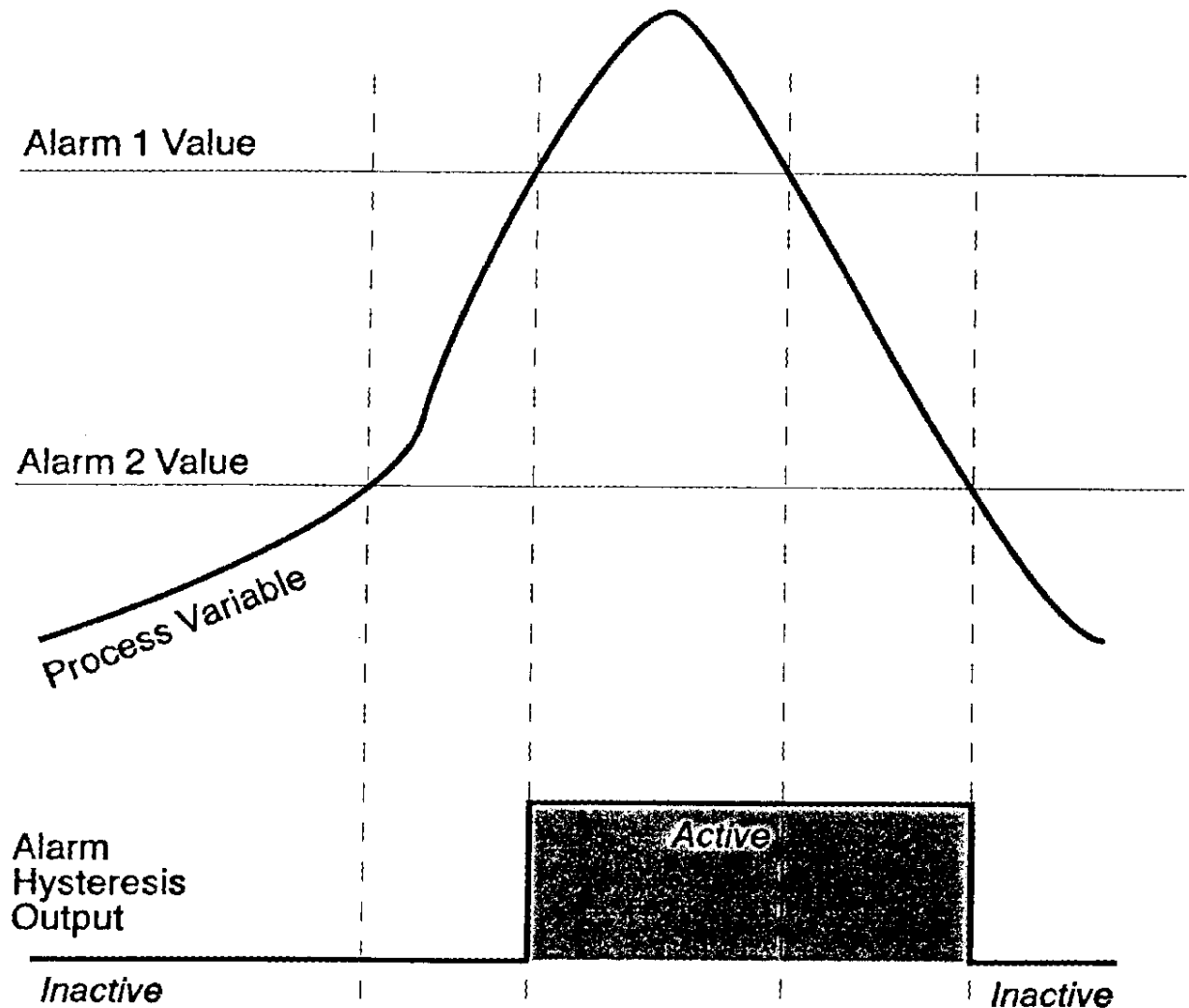


Alarm Hysteresis Output, direct-acting. Available only if relay/SSR output fitted.



Alarm Hysteresis Output, reverse-acting. Available only if relay/SSR output fitted.

The Alarm Hysteresis output is active only when both alarms are active; it becomes subsequently inactive only when both alarms become inactive. Thus, the status of the alarm hysteresis output when one alarm is active and the other alarm is inactive depends upon the alarm status immediately prior to that alarm being activated; thus:



## 2.4 NEW INPUT TYPES

The following input types are available:

### For Thermocouple Inputs:

Type	Input Range	Displayed Code	Type	Input Range	Displayed Code
R	0 - 1650°C	1127	K	-200 - 760°C	6726
R	32 - 3002°F	1128	K	-328 - 1399°F	6727
S	0 - 1649°C	1227	K	-200 - 1373°C	6709
S	32 - 3000°F	1228	K	-328 - 2503°F	6710
J	0.0 - 205.4°C	1415	L	0.0 - 205.7°C	1815
J	32.0 - 401.7°F	1416	L	32.0 - 402.2°F	1816
J	0 - 450°C	1417	L	0 - 450°C	1817
J	32 - 842°F	1418	L	32 - 841°F	1818
J	0 - 761°C *	1419	L	0 - 762°C	1819
J	32 - 1401°F	1420	L	32 - 1403°F	1820
T	-200 - 262°C	1525	B	211 - 3315°F	1934
T	-328 - 503°F	1526	B	100 - 1824°C	1938
T	0.0 - 260.6°C	1541	N	0 - 1399°C	5371
T	32.0 - 501.0°F	1542	N	32 - 2550°F	5324

\* Default state

### For RTD Inputs:

Input Range	Displayed Code	Input Range	Displayed Code
0 - 800°C *	7220	0.0 - 100.9°C	2295
32 - 1471°F	7221	32.0 - 213.6°F	2296
32 - 571°F	2229	-200 - 206°C	2297
-100.9 - 100.0°C	2230	-328 - 402°F	2298
-149.7 - 211.9°F	2231	-100.9 - 537.3°C	7222
0 - 300°C	2251	-149.7 - 999.1°F	7223

\* Default state

### For DC Inputs:

Input Range	Displayed Code	Input Range	Displayed Code
0 - 20mA	3413	0 - 5V	4445
4 - 20mA *	3414	1 - 5V	4434
0 - 50mV	4443	0 - 10V *	4446
10 - 50mV	4499	2 - 10V	4450

\* Default state

## SECTION 3 SET UP MODE - SETPOINT STRATEGY

The Setpoint Strategy range has been increased and (assuming that the Controller has been configured for dual setpoint operation) is as follows:

\* Adjustable value

Strategy	Display	Initial Value Displayed	Value/Le	Value/Leg	Value/Legend
			gend Displayed	end Displayed	Displayed
1 (default)	Upper	PV	SP1 value *	SP2 value *	Ramping SP value †
	Lower	Active SP	SP1	SP2	SPrP
2	Upper	PV	SP1 value *	SP2 value *	Ramping SP value †
	Lower	Active SP *	SP1	SP2	SPrP
3	Upper	PV	SP1 value *	SP2 value *	Ramping SP value †
	Lower	Ramping SP † or active SP	SP1	SP2	SPrP
4	Upper	PV	SP1 value *	SP2 value *	Ramping SP value †
	Lower	blank	SP1	SP2	SPrP
5	Upper	Active SP	SP1 value *	SP2 value *	Ramping SP value †
	Lower	blank	SP1	SP2	SPrP

SET UP

† Appears only if setpoint ramping is not disabled and ramp rate is not switched OFF.

The active setpoint is indicated as follows:



Active Setpoint



Inactive Setpoint