



Parameter Selection and Editing

1

Use to select parameter

2

Use to adjust parameter value (display will flash)

3

Press to accept new value

4

Press to confirm (display becomes static)

to display:

Configuration Mode Parameter Sequence

Parameter	Legend	Adjustment Range
Input Range		Defined by four-digit code (see Input Codes below).
Alarm 1 Type		Process High Alarm Process Low Alarm
Alarm 2 Type		Not used Process High Alarm Process Low Alarm
Alarm 3 Type		Not used Process High Alarm Process Low Alarm
Output 1 Use		Alarm 1, non-latching, direct-acting Alarm 1, non-latching, reverse-acting Alarm 1, latching, direct-acting Alarm 1, latching, reverse-acting Logical OR of Alarms 1/2, direct-acting Logical OR of Alarms 1/2, reverse-acting
Output 2 Use ¹		Alarm 2, direct-acting ⁵ Alarm 2, reverse-acting ⁵ Alarm 3, direct-acting ⁵ Alarm 3, reverse-acting ⁵ Logical OR of Alarms 1/2, direct-acting ⁵ Logical OR of Alarms 1/2, reverse-acting ⁵ Logical OR of Alarms 1/3, direct-acting ⁵ Logical OR of Alarms 1/3, reverse-acting ⁵ Logical OR of Alarms 2/3, direct-acting ⁵ Logical OR of Alarms 2/3, reverse-acting ⁵ Recorder Output (PV) ⁶
Output 3 Use ²		Alarm 2, direct-acting ⁷ Alarm 2, reverse-acting ⁷ Alarm 3, direct-acting ⁷ Alarm 3, reverse-acting ⁷ Logical OR of Alarms 1/2, direct-acting ⁷ Logical OR of Alarms 1/2, reverse-acting ⁷ Logical OR of Alarms 1/3, direct-acting ⁷ Logical OR of Alarms 1/3, reverse-acting ⁷ Logical OR of Alarms 2/3, direct-acting ⁷ Logical OR of Alarms 2/3, reverse-acting ⁷ Transmitter Power Supply ⁸
Communications Baud Rate ³		1200, 2400, 4800 or 9600 Baud
Communications Address ³		1 to 32

Parameter	Legend	Adjustment Range
Communications Protocol ³		ASCII MODBUS, odd parity MODBUS, even parity MODBUS, no parity
Cold Junction Compensation Enable/Disable ⁴		Enabled Disabled

- NOTES
- Applicable only if Output 2 is configured/fitted.
 - Applicable only if Output 3 is configured/fitted.
 - Applicable only if the serial communications option is configured/fitted.
 - Applicable only if a thermocouple input is configured/fitted.
 - Applicable only if Output 2 is configured as a relay output.
 - Applicable only if Output 2 is configured as a DC linear output.
 - Applicable only if Output 3 is configured as a relay output.
 - Applicable only if Output 3 is configured as a transmitter power supply output.

Input Codes

Thermocouple Inputs								
Type	Range	Code	Type	Range	Code	Type	Range	Code
R	0 - 1650°C	1127	T	-200 - 262°C	1525	L	0 - 450°C	1817
R	32 - 3002°F	1128	T	-328 - 503°F	1526	L	32 - 841°F	1818
S	0 - 1649°C	1227	T	0.0 - 260.6°C	1541	L	0 - 762°C	1819
S	32 - 3000°F	1228	T	32.0 - 501.0°F	1542	L	32 - 1403°F	1820
J	0.0 - 205.4°C	1415	K	-200 - 760°C	6726	B	211 - 3315°F	1934
J	32.0 - 401.7°F	1416	K	-328 - 1399°F	6727	B	100 - 1824°C	1938
J	0 - 450°C	1417	K	-200 - 1373°C	6709	N	0 - 1399°C	5371
J	32 - 842°F	1418	K	-328 - 2503°F	6710	N	32 - 2550°F	5324
J	0 - 761°C	1419	L	0.0 - 205.7°C	1815			
J	32 - 1401°F	1420	L	32.0 - 402.2°F	1816			
RTD Inputs								
Range	Code	Range	Code	Range	Code	Range	Code	Code
0 - 800°C	7220	-100.9 - 100.0°C	2230	0.0 - 100.9°C	2295	-328 - 402°F		2298
32 - 1471°F	7221	-149.7 - 211.9°F	2231	32.0 - 213.6°F	2296	-100.9 - 5373.3°C		7222
32 - 571°F	2229	0 - 300°C	2251	-200 - 206°C	2297	-149.7 - 999.1°F		7223
DC Linear Inputs								
Range	Code	Range	Code	Range	Code	Range	Code	Code
0 - 20mA	3413	0 - 50mV	4443	0 - 5V	4445	0 - 10V		4446
4 - 20mA	3414	10 - 50mV	4499	1 - 5V	4434	2 - 10V		4450

Hardware Definition Code

With the Indicator in Configuration Mode, press the Scroll and Lower keys simultaneously to display this code:

Input Type

1 = RTD/Linear DC (mV)
2 = Thermocouple
3 = Linear DC (mA)
4 = Linear DC (V)

Output 3 Type

0 = Not fitted
1 = Relay
8 = Transmitter Power Supply

Output 2 Type

0 = Not fitted
1 = Relay
3 = DC (0 - 10V)
4 = DC (0 - 20mA)
5 = DC (0 - 5V)
7 = DC (4 - 20mA)

Output 1 is always a relay output

This may be adjusted in the usual manner. Use the Scroll and Lower keys to return to Configuration Mode.

Hardware Option

Whilst the Hardware Definition Code is displayed, press the Scroll key to show the Hardware Option currently configured, one of the following:

No option fitted

RS485 Comms option fitted

Remote Latch Reset option fitted

This may be adjusted in the usual manner. Use the Scroll key to return to the Hardware Definition Code display.

SPECIFICATION

UNIVERSAL INPUT	
Type:	Thermocouple, RTD or DC Linear
Input Impedance:	Greater than 100MΩ resistive, except for DC mA (4.7kΩ) and V (47kΩ) inputs.
Isolation:	Isolated from all outputs at 240V AC.
Sensor Break:	Detected within two seconds..
Accuracy:	±0.25% of span ±1 LSD. CJC better than ±0.7°C.
REMOTE RESET INPUT (OPTION)	
Type:	Voltage-free or TTL-compatible.
May be connected to:	External switch/relay contacts (voltage-free) or TTL signal.
Reset Caused By:	"open-closed" transition (voltage-free) or "Logic 1 - Logic 0" transition (TTL).
Voltage Free Operation:	
Max. Contact Resistance (Closure):	50Ω
Min. Contact Resistance (Open):	5000Ω
TTL Operation:	
Max. Voltage for "0":	0.8V
Min. Voltage for "0":	-0.6V
Min. Voltage for "1":	2.0V
Max. Voltage for "1":	24.0V
OUTPUTS	
Relay	
Contact Type/Rating:	Single pole double throw (SPDT); 2A resistive at 120/240V AC.
Lifetime:	>500,000 operations at rated voltage/current.
Isolation:	Isolated from all other inputs and outputs.
DC	
Resolution:	8 bits in 250mS (10 bits in 1s typical, >10 bits in >1s typical).
Isolation:	Isolated from all other inputs and outputs.
Transmitter Power Supply Option	
Output:	20 - 28V DC (24V DC nominal).
Minimum Load Impedance:	910Ω (22mA @ 20V DC).
OPERATING CONDITIONS FOR INDOOR USE	
Ambient Temperature (Operating):	0°C to 55°C
Ambient Temperature (Storage):	-20°C to 80°C
Relative Humidity:	20% - 95% non-condensing
Supply Voltage:	100 - 240V AC 50/60Hz (standard) 7.5VA 20 - 50V AC 50/60Hz (option) 7.5VA or 22 - 65V DC (option) 5W.
ENVIRONMENTAL.	
Approvals:	CE, UL, ULC
EMC:	Certified to EN61326.
Safety Considerations:	Complies with EN61010-1.
Front Panel Sealing:	To IP66.
PHYSICAL	
Dimensions:	Depth - 100mm (behind panel) Front Panel: Width - 96mm Height - 48mm
Weight:	0.21kg maximum