

## SM1000 Videographic Recorder Custom Configuration

### 1 Introduction

ABB can supply custom configurations for the SM1000 Videographic Recorder on request.

Enter the required setting or place a check mark (✓) against the relevant parameters in the following tables and return this document to the Global Sales office at Stonehouse.

### 2 Hardware Configuration

**Number of Channels** (✓ the number required)

0	
6	
12	

**Archive Media Type** (✓ the type required)

None	
SmartMedia	
Compact Flash	

**Software Options** (✓ the option required)

None	
Totalizers	
Math & Logic	

**Module Options** (✓ the type of module required in each position)

Type	Position			
	A	B	C	D
None	N/A			
Analog Input	✓			
3 Relays	Reserved for analog inputs	Reserved for analog inputs if 12 channels required		
6 Relays				
Hybrid				
Transmitter Power Supply				
Ethernet				
RS485 Communications				

## 3 Common Configuration

### 3.1 Setup Tab

Referring to Section 4.4.1 of the User Guide (IM/SM1000), enter the settings required for each of the parameters.

**Number of Groups** (✓ the number required)

1	
2	

**Language** (✓ the language required)

English	
French	
German	
Italian	
Spanish	

**Global Alarm Acknowledge Source**

(enter a source to acknowledge all alarms)

**Instrument Tag**

(enter a tag used to identify the instrument)

## 4 Group Configuration

Referring to Section 4.5.1 of the User Guide (IM/SM1000), enter the settings required for each of the parameters.

### 4.1 Process Group 1

#### 4.1.1 Recording Tab

**Tag** (enter a tag used to identify the process group)

**Recording Enable Source**

(enter a source to enable/disable recording)

**Primary Sample Rate**

(enter the primary sampling rate required)

**Secondary Sample Rate**

(enter the secondary sampling rate required)

**Sample Rate Select Source**

(enter a source to enable switching between sample rates)

#### 4.1.2 Archive Tab

**Archive File Format** (✓ the file format required)

Text Format	
Binary Format	

**Archive File Enables** (✓ the data types to be archived)

Channel Data Files (*.b or *.d)	
Alarm Event Log Files (*.e)	
Totalizer Log Files (*.t)	
Audit Log Files (*.a)	

**Filename Tag**

([text format files only] enter the filename required)

**New File Interval**

([text format files only] ✓ the frequency required)

Hourly	
Daily	
Monthly	
None	

**Wrap** (✓ the setting required)

Off	
On	

### 4.2 Process Group 2

#### 4.2.1 Recording Tab

**Tag** (enter a tag used to identify the process group)

**Recording Enable Source**

(enter a source to enable/disable recording)

**Primary Sample Rate**

(enter the primary sampling rate required)

**Secondary Sample Rate**

(enter the secondary sampling rate required)

**Sample Rate Select Source**

(enter a source to enable switching between sample rates)

#### 4.2.2 Archive Tab

**Archive File Format** (✓ the file format required)

Text Format	
Binary Format	

**Archive File Enables** (✓ the data types to be archived)

Channel Data Files (*.b or *.d)	
Alarm Event Log Files (*.e)	
Totalizer Log Files (*.t)	
Audit Log Files (*.a)	

**Filename Tag**

([text format files only] enter the filename required)

**New File Interval**

([text format files only] ✓ the frequency required)

Hourly	
Daily	
Monthly	
None	

**Wrap** (✓ the setting required)

Off	
On	

## 5 Channel Configuration

Referring to Section 4.6 of the User Guide (IM/SM1000), enter the settings required for each of the parameters.

### 5.1 Process Group 1

#### 5.1.1 Channel 1.1

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	
Resistance			

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only) (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only) (enter the delay value required)

**Alarm A Deviation** (deviation alarms only) (enter the deviation value required)

**Alarm A Period** (deviation alarms only) (enter the time period required)

**Alarm A Enable Source**

(enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**

(✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

**Totalizer Units** (enter the units required)

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

**Totalizer Log Update Time** (enter the time required)

**Totalizer Log Update Source** (enter the source required)

**Totalizer Count Rate** (enter the count rate value required)

**Totalizer Cut Off** (enter the cut off value required)

5.1.2 Channel 1.2

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.1.3 Channel 1.3

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only) (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only) (enter the delay value required)

**Alarm A Deviation** (deviation alarms only) (enter the deviation value required)

**Alarm A Period** (deviation alarms only) (enter the time period required)

**Alarm A Enable Source** (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group** (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.1.4 Channel 1.4

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.1.5 Channel 1.5

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.1.6 Channel 1.6

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

## 5.2 Process Group 2

### 5.2.1 Channel 2.1

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**

(enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**

(✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.2.2 Channel 2.2

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
(enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
(enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
(enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
(enter the time period required)

**Alarm A Enable Source**  
(enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
(✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.2.3 Channel 2.3

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.2.4 Channel 2.4

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On
Off

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off
Count Up
Count Down

**Totalizer Wrap** (✓ the setting required)

On
Off

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last
Stop
Go

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.2.5 Channel 2.5

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only)  
 (enter the delay value required)

**Alarm A Deviation** (deviation alarms only)  
 (enter the deviation value required)

**Alarm A Period** (deviation alarms only)  
 (enter the time period required)

**Alarm A Enable Source**  
 (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

5.2.6 Channel 2.6

**Source ID** (enter the input source required)

**Input Type** (✓ the input type required)

Off		Resistance	
Millivolts		Resistance Thermometer	
Milliamps		Thermocouple	
Volts		Volt-free Digital Input	

**Engineering Range and Units** (enter the values required)

High	
Low	
Units	

**Short Tag** (enter the tag required – 8 characters max.)

**Long Tag** (enter the tag required – 20 characters max.)

**Filter Time Constant** (enter the value required)

**Fault Detect Level** (enter the tolerance level required [between 0 and 100% of the engineering range])

**Broken Sensor Direction** (✓ the drive direction required)

None	
Upscale	
Downscale	

**Alarm A Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm A Tag** (enter the tag required – 20 characters max.)

**Alarm A Trip** (enter the trip point value required)

**Alarm A Hysteresis** (enter the hysteresis value required)

**Alarm A Time Hysteresis** (process and latch alarms only) (enter the time hysteresis value required)

**Alarm A Delay Time** (delayed alarms only) (enter the delay value required)

**Alarm A Deviation** (deviation alarms only) (enter the deviation value required)

**Alarm A Period** (deviation alarms only) (enter the time period required)

**Alarm A Enable Source** (enter a source to enable/disable the alarm)

**Alarm A Log Enable** (✓ the setting required)

On	
Off	

**Alarm A Alarm Group** (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Alarm B Type** (✓ the alarm type required)

Off		High Annunciate	
High Process		Low Annunciate	
Low Process		Fast Rate	
High Latch		Slow Rate	
Low Latch		Delayed High Process	
		Delayed Low Process	

**Alarm B Tag** (enter the tag required – 20 characters max.)

**Alarm B Trip** (enter the trip point value required)

**Alarm B Hysteresis** (enter the hysteresis value required)

**Alarm B Time Hysteresis** (process and latch alarms only)  
 (enter the time hysteresis value required)

--

**Alarm B Delay Time** (delayed alarms only)  
 (enter the delay value required)

--

**Alarm B Deviation** (deviation alarms only)  
 (enter the deviation value required)

--

**Alarm B Period** (deviation alarms only)  
 (enter the time period required)

--

**Alarm B Enable Source**  
 (enter a source to enable/disable the alarm)

--

**Alarm B Log Enable** (✓ the setting required)

On	
Off	

**Alarm B Alarm Group**  
 (✓ the group or groups to which to assign the alarm)

Group 1		Group 7	
Group 2		Group 8	
Group 3		Group 9	
Group 4		Group 10	
Group 5		Group 11	
Group 6		Group 12	

**Totalizer Enable** (only if totalizer option enabled)  
 (✓ the setting required)

Off	
Count Up	
Count Down	

**Totalizer Wrap** (✓ the setting required)

On	
Off	

**Totalizer Tag** (enter the tag required – 20 characters max.)

--

**Totalizer Units** (enter the units required)

--

**Totalizer Stop/Go Recovery** (✓ the action required)

Last	
Stop	
Go	

**Totalizer Stop/Go Source** (enter the source required)

--

**Totalizer Count Range** (enter the values required)

Preset Count	
Predetermined Count	
Intermediate Count	

**Totalizer Reset Source** (enter the source required)

--

**Totalizer Log Update Time** (enter the time required)

--

**Totalizer Log Update Source** (enter the source required)

--

**Totalizer Count Rate** (enter the count rate value required)

--

**Totalizer Cut Off** (enter the cut off value required)

--

## 6 Relay Module Configuration

Referring to Section 4.8.2 of the User Guide (IM/SM1000), enter the settings required for each of the outputs.

**Relay 1 Source** (enter the source required)

--

**Relay 1 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Relay 2 Source** (enter the source required)

--

**Relay 2 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Relay 3 Source** (enter the source required)

--

**Relay 3 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Relay 4 Source** (enter the source required)

--

**Relay 4 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Relay 5 Source** (enter the source required)

--

**Relay 5 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Relay 6 Source** (enter the source required)

--

**Relay 6 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

## 7 Ethernet Module Configuration

Referring to Section 3.1 of the User Guide Supplement – Ethernet Communications Option (IM/SMENET), enter the settings required for each of the parameters.

**IP Address** (enter the address required)

--

**Subnet Mask** (enter the subnet mask required)

--

**Default Gateway** (enter the default gateway required)

--

**FTP User 1** (enter the settings required)

Name	
------	--

Password	
----------	--

**Access Level** (✓ the setting required)

Full		Read Only	
------	--	-----------	--

**Remote Operation** (✓ the setting required)

None		Operator		Configuration	
------	--	----------	--	---------------	--

**FTP User 2** (enter the settings required)

Name	
------	--

Password	
----------	--

**Access Level** (✓ the setting required)

Full		Read Only	
------	--	-----------	--

**Remote Operation** (✓ the setting required)

None		Operator		Configuration	
------	--	----------	--	---------------	--

**FTP User 3** (enter the settings required)

Name	
------	--

Password	
----------	--

**Access Level** (✓ the setting required)

Full		Read Only	
------	--	-----------	--

**Remote Operation** (✓ the setting required)

None		Operator		Configuration	
------	--	----------	--	---------------	--

**FTP User 4** (enter the settings required)

Name	
------	--

Password	
----------	--

**Access Level** (✓ the setting required)

Full		Read Only	
------	--	-----------	--

**Remote Operation** (✓ the setting required)

None		Operator		Configuration	
------	--	----------	--	---------------	--

## 7.1 e-mail Configuration

Referring to Section 3.5 of the User Guide Supplement – Ethernet Communications Option (IM/SMENET), enter the settings required for each of the parameters.

### 7.1.1 e-mail 1

**SMTP Server IP Address** (enter the address required)

--

**Recipients** (enter the addresses of the email recipients)

Recipient 1	
Recipient 2	
Recipient 3	

**Options Enabled** (✓ the option(s) required)

Channels Report	
Totalizers Report	
External Media Report	
Report in ALL emails	
Trigger 6 Inverted	
Trigger 7 Inverted	
Trigger 8 Inverted	
Trigger 9 Inverted	
Trigger 10 Inverted	

#### Event Triggers

(enter up to 10 event source types to generate an email)

Trigger 1	
Trigger 2	
Trigger 3	
Trigger 4	
Trigger 5	
Trigger 6	
Trigger 7	
Trigger 8	
Trigger 9	
Trigger 10	

### 7.1.2 e-mail 2

**SMTP Server IP Address** (enter the address required)

--

**Recipients** (enter the addresses of the email recipients)

Recipient 1	
Recipient 2	
Recipient 3	

**Options Enabled** (✓ the option(s) required)

Channels Report	
Totalizers Report	
External Media Report	
Report in ALL emails	
Trigger 6 Inverted	
Trigger 7 Inverted	
Trigger 8 Inverted	
Trigger 9 Inverted	
Trigger 10 Inverted	

#### Event Triggers

(enter up to 10 event source types to generate an email)

Trigger 1	
Trigger 2	
Trigger 3	
Trigger 4	
Trigger 5	
Trigger 6	
Trigger 7	
Trigger 8	
Trigger 9	
Trigger 10	

## 8 RS485 (Modbus™) Tab

Referring to Section 4.8.4 of the User Guide (IM/SM1000), enter the settings required for each of the parameters.

**Protocol** (✓ the protocol required)

Modbus	
Modbus Master	

**Type** (✓ the type required)

Four Wire	
Two Wire	

**Baud Rate** (✓ the baud rate required)

1200		19200	
2400		38400	
4800		115200	
9600			

**Parity** (✓ the parity required)

None	
Odd	
Even	

**Address** – *Modbus protocol only*

(enter the address required between 1 and 247)

**Poll Rate (ms)** – *Modbus Master protocol only*

(enter the poll rate required between 0 and 3600000)

**Poll Fail Limit** – *Modbus Master protocol only*

(enter the poll fail limit required between 1 and 4)

**Response Timeout (ms)** – *Modbus Master protocol only*

(enter the timeout required between 0 and 60000)

### 8.1 Comms. Analog Input Tab

**Note.** These parameters are configured only if the RS485 Protocol parameter is to be set to *Modbus Master*.

Referring to Section 4.8.5 of the User Guide (IM/SM1000), enter the settings required for each of the parameters.

**Comms.. Analog I/P** (✓ the input required)

Comms.. AIN 1		Comms.. AIN 13	
Comms.. AIN 2		Comms.. AIN 14	
Comms. AIN 3		Comms. AIN 15	
Comms. AIN 4		Comms. AIN 16	
Comms. AIN 5		Comms. AIN 17	
Comms. AIN 6		Comms. AIN 18	
Comms. AIN 7		Comms. AIN 19	
Comms. AIN 8		Comms. AIN 20	
Comms. AIN 9		Comms. AIN 21	
Comms. AIN 10		Comms. AIN 22	
Comms. AIN 11		Comms. AIN 23	
Comms. AIN 12		Comms. AIN 24	

**RTU-Address**

(enter the RTU address required between 1 and 247)

**Register Number**

(enter the register number required between 0 and 65535)

**Type** (✓ the type required)

Input Register		Holding Register	
----------------	--	------------------	--

**Format** (✓ the format required)

Sint16		Reverse IEEE	
Sint32		Sint16 X 10	
Reverse Sint32		Sint16 X 100	
IEEE		Sint16 X 1000	

### 8.2 Comms. Digital Input Tab

**Note.** These parameters are configured only if the RS485 Protocol parameter is to be set to *Modbus Master*.

Referring to Section 4.8.6 of the User Guide (IM/SM1000), enter the settings required for each of the parameters.

**Comms. Digital I/P** (✓ the input required)

Comms. Dig I/P 1		Comms. Dig I/P 14	
Comms. Dig I/P 2		Comms. Dig I/P 15	
Comms. Dig I/P 3		Comms. Dig I/P 16	
Comms. Dig I/P 4		Comms. Dig I/P 17	
Comms. Dig I/P 5		Comms. Dig I/P 18	
Comms. Dig I/P 6		Comms. Dig I/P 14	
Comms. Dig I/P 7		Comms. Dig I/P 19	
Comms. Dig I/P 8		Comms. Dig I/P 20	
Comms. Dig I/P 9		Comms. Dig I/P 21	
Comms. Dig I/P 10		Comms. Dig I/P 22	
Comms. Dig I/P 11		Comms. Dig I/P 23	
Comms. Dig I/P 12		Comms. Dig I/P 24	

**RTU-Address**

(enter the RTU address required between 1 and 247)

**Register Number**

(enter the register number required between 0 and 65535)

**Type** (✓ the type required)

Input Status		Coil Status	
--------------	--	-------------	--

## 9 Hybrid Module Configuration

Referring to Section 4.8.7 of the User Guide (IM/SM1000), enter the settings required for each of the outputs.

**Digital Output 1 Source** (enter the source required)

--

**Digital Output 1 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Digital Output 2 Source** (enter the source required)

--

**Digital Output 2 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Digital Output 3 Source** (enter the source required)

--

**Digital Output 3 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Digital Output 4 Source** (enter the source required)

--

**Digital Output 4 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Digital Output 5 Source** (enter the source required)

--

**Digital Output 5 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Digital Output 6 Source** (enter the source required)

--

**Digital Output 6 Polarity** (✓ the polarity required)

Positive		Negative	
----------	--	----------	--

**Analog Output 1 Source** (enter the source required)

--

**Analog Output 1 Range** (enter the values required)

Engineering Low		Electrical Low	
Engineering High		Electrical High	

**Analog Output 2 Source** (enter the source required)

--

**Analog Output 2 Range** (enter the values required)

Engineering Low		Electrical Low	
Engineering High		Electrical High	

# Notes

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