

SR100A 100mm Advanced Process Recorder Custom Configuration

1 Introduction

ABB can supply custom configurations for the SR100A 100mm Advanced Process 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 (Standard Inputs)
(enter the number required between 1 and 6)

Number of Channels (High Specification Inputs)
(✓ the number required)

2		4		6	
---	--	---	--	---	--

Memory Card Option (✓ the option required)

Yes	
No	

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

Type	Position					
	B	C	D	E	F	G
None						
3 Additional Analog Inputs		N/A	N/A	N/A	N/A	N/A
6 Additional Analog Inputs		N/A	N/A	N/A	N/A	N/A
3 Analog Outputs						
3 Digital Inputs + 3 Digital Outputs						
1 Analog Output + 2 Relay Outputs						
3 Relay Outputs						

3 Basic Configuration

3.1 Analog Input Configuration

Referring to Section 5.1.1 of the User Guide (IM/SR100A), enter the settings required for each of the analog inputs:

3.1.1 Analog Input 1

Input Type (✓ the input type required)

Resistance Thermometer (RTD)	
Thermocouple (TC)	
Resistance (R)	
Voltage (V)	
Low Current (mA)	
Low Voltage (mV)	

Linearizer Type (✓ the linearizer type required)

Power 5/2	
Power 3/2	
Square Root	
Custom	
RTD	
Type N	
Type B	
Type E	
Type L	
Type J	
Type T	
Type S	
Type R	
Type K	
None	

Linearizer Units (✓ the units required)

Deg F	
Deg C	

Input Electrical Range

(enter the electrical range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Input Engineering Range

(enter the engineering range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Broken Sensor Drive (✓ the direction for the input in the event of a broken sensor)

Up	
Down	
None	

Fault Detect Level

(enter the value of the level of fault detection required)

Filter Time (enter the time period in seconds between 0 and 60 over which the input values are to be averaged)

Engineering Units (enter the engineering units required)

Analog Input Tag (enter the tag required)

3.1.2 Analog Input 2

Input Type (✓ the input type required)

Resistance Thermometer (RTD)	
Thermocouple (TC)	
Resistance (R)	
Voltage (V)	
Low Current (mA)	
Low Voltage (mV)	
Off	

Linearizer Type (✓ the linearizer type required)

Power 5/2	
Power 3/2	
Square Root	
Custom	
RTD	
Type N	
Type B	
Type E	
Type L	
Type J	
Type T	
Type S	
Type R	
Type K	
None	

Linearizer Units (✓ the units required)

Deg F	
Deg C	

Input Electrical Range

(enter the electrical range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Input Engineering Range

(enter the engineering range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Broken Sensor Drive (✓ the direction for the input in the event of a broken sensor)

Up	
Down	
None	

Fault Detect Level

(enter the value of the level of fault detection required)

Filter Time (enter the time period in seconds between 0 and 60 over which the input values are to be averaged)

Engineering Units (enter the engineering units required)

Analog Input Tag (enter the tag required)

3.1.3 Analog Input 3

Input Type (✓ the input type required)

Resistance Thermometer (RTD)	
Thermocouple (TC)	
Resistance (R)	
Voltage (V)	
Low Current (mA)	
Low Voltage (mV)	
Off	

Linearizer Type (✓ the linearizer type required)

Power 5/2	
Power 3/2	
Square Root	
Custom	
RTD	
Type N	
Type B	
Type E	
Type L	
Type J	
Type T	
Type S	
Type R	
Type K	
None	

Linearizer Units (✓ the units required)

Deg F	
Deg C	

Input Electrical Range

(enter the electrical range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Input Engineering Range

(enter the engineering range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Broken Sensor Drive (✓ the direction for the input in the event of a broken sensor)

Up	
Down	
None	

Fault Detect Level

(enter the value of the level of fault detection required)

Filter Time (enter the time period in seconds between 0 and 60 over which the input values are to be averaged)

Engineering Units (enter the engineering units required)

Analog Input Tag (enter the tag required)

3.1.4 Analog Input 4

Input Type (✓ the input type required)

Resistance Thermometer (RTD)	
Thermocouple (TC)	
Resistance (R)	
Voltage (V)	
Low Current (mA)	
Low Voltage (mV)	
Off	

Linearizer Type (✓ the linearizer type required)

Power 5/2	
Power 3/2	
Square Root	
Custom	
RTD	
Type N	
Type B	
Type E	
Type L	
Type J	
Type T	
Type S	
Type R	
Type K	
None	

Linearizer Units (✓ the units required)

Deg F	
Deg C	

Input Electrical Range

(enter the electrical range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Input Engineering Range

(enter the engineering range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Broken Sensor Drive (✓ the direction for the input in the event of a broken sensor)

Up	
Down	
None	

Fault Detect Level

(enter the value of the level of fault detection required)

--

Filter Time (enter the time period in seconds between 0 and 60 over which the input values are to be averaged)

--

Engineering Units (enter the engineering units required)

--

Analog Input Tag (enter the tag required)

--

3.1.5 Analog Input 5

Input Type (✓ the input type required)

Resistance Thermometer (RTD)	
Thermocouple (TC)	
Resistance (R)	
Voltage (V)	
Low Current (mA)	
Low Voltage (mV)	
Off	

Linearizer Type (✓ the linearizer type required)

Power 5/2	
Power 3/2	
Square Root	
Custom	
RTD	
Type N	
Type B	
Type E	
Type L	
Type J	
Type T	
Type S	
Type R	
Type K	
None	

Linearizer Units (✓ the units required)

Deg F	
Deg C	

Input Electrical Range

(enter the electrical range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Input Engineering Range

(enter the engineering range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Broken Sensor Drive (✓ the direction for the input in the event of a broken sensor)

Up	
Down	
None	

Fault Detect Level

(enter the value of the level of fault detection required)

Filter Time (enter the time period in seconds between 0 and 60 over which the input values are to be averaged)

Engineering Units (enter the engineering units required)

Analog Input Tag (enter the tag required)

3.1.6 Analog Input 6

Input Type (✓ the input type required)

Resistance Thermometer (RTD)	
Thermocouple (TC)	
Resistance (R)	
Voltage (V)	
Low Current (mA)	
Low Voltage (mV)	
Off	

Linearizer Type (✓ the linearizer type required)

Power 5/2	
Power 3/2	
Square Root	
Custom	
RTD	
Type N	
Type B	
Type E	
Type L	
Type J	
Type T	
Type S	
Type R	
Type K	
None	

Linearizer Units (✓ the units required)

Deg F	
Deg C	

Input Electrical Range

(enter the electrical range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Input Engineering Range

(enter the engineering range values required)

Range Full Scale	
Range Decimal Point	
Range Zero	

Broken Sensor Drive (✓ the direction for the input in the event of a broken sensor)

Up	
Down	
None	

Fault Detect Level

(enter the value of the level of fault detection required)

Filter Time (enter the time period in seconds between 0 and 60 over which the input values are to be averaged)

Engineering Units (enter the engineering units required)

Analog Input Tag (enter the tag required)

3.2 Process Alarm Configuration

Referring to Section 5.2.1 of the User Guide (IM/SR100A), enter the settings required for each of the alarms:

3.2.1 Alarm A

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.2 Alarm B

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.3 Alarm C

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.4 Alarm D

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.5 Alarm E

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.6 Alarm F

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.7 Alarm G

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.8 Alarm H

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.9 Alarm J

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.10 Alarm K

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.11 Alarm L

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.2.12 Alarm M

Alarm Type (✓ the alarm type required)

Off	
Low Process	
High Process	

Alarm Source (enter a source for the alarm)

Alarm Trip (enter the alarm trip point value)

Alarm Hysteresis (enter the alarm hysteresis value)

3.3 Chart Control Configuration

Referring to Section 5.3.1 of the User Guide (IM/SR100A) enter the chart control configuration settings required.

Chart Speed 1

(enter a chart speed between 0 and 1500 mm/hr)

Chart Speed 1 Source

(enter the source to initiate a change to chart speed 1)

Chart Speed 2

(enter a chart speed between 0 and 1500 mm/hr)

Chart Speed 2 Source

(enter the source to initiate a change to chart speed 2)

Chart Speed 3

(enter a chart speed between 0 and 1500 mm/hr)

Chart Speed 3 Source

(enter the source to initiate a change to chart speed 3)

Text Print Enable (✓ the text printing required)

No Auto Print	
On	
Off	

Alarm Print Enable (✓ the alarm print setting required)

On	
Off	

Message Print Speed (✓ the print speed required)

Fast	
Slow	

Chart Cassette Type (✓ the type required)

Roll Chart	
Fanfold	

3.4 Chart Scaling Configuration

Referring to Section 5.3.2 of the User Guide (IM/SR100A), enter the settings required for each of the parameters.

Chart Scale 1

Scale Pen (enter the pen color required)

Scale Full Scale

(enter the full scale value required between -999 and 9999)

Scale Decimal Point (✓ the setting required)

0		1		2	
---	--	---	--	---	--

Scale Divisions (✓ the number of divisions required)

30		40		50	
60		70		75	

Scale Source (enter the source to print the scale)

Chart Scale 2

Scale Pen (enter the pen color required)

Scale Full Scale

(enter the full scale value required between -999 and 9999)

Scale Decimal Point (✓ the setting required)

0		1		2	
---	--	---	--	---	--

Scale Divisions (✓ the number of divisions required)

30		40		50	
60		70		75	

Scale Source (enter the source to print the scale)

Chart Scale 3

Scale Pen (enter the pen color required)

Scale Full Scale

(enter the full scale value required between -999 and 9999)

Scale Decimal Point (✓ the setting required)

0		1		2	
---	--	---	--	---	--

Scale Divisions (✓ the number of divisions required)

30		40		50	
60		70		75	

Scale Source (enter the source to print the scale)

Chart Scale 4

Scale Pen (enter the pen color required)

Scale Full Scale

(enter the full scale value required between -999 and 9999)

Scale Decimal Point (✓ the setting required)

0		1		2	
---	--	---	--	---	--

Scale Divisions (✓ the number of divisions required)

30		40		50	
60		70		75	

Scale Source (enter the source to print the scale)

Chart Scale 5

Scale Pen (enter the pen color required)

Scale Full Scale

(enter the full scale value required between -999 and 9999)

Scale Decimal Point (✓ the setting required)

0		1		2	
---	--	---	--	---	--

Scale Divisions (✓ the number of divisions required)

30		40		50	
60		70		75	

Scale Source (enter the source to print the scale)

Chart Scale 6

Scale Pen (enter the pen color required)

Scale Full Scale

(enter the full scale value required between -999 and 9999)

Scale Decimal Point (✓ the setting required)

0		1		2	
---	--	---	--	---	--

Scale Divisions (✓ the number of divisions required)

30		40		50	
60		70		75	

Scale Source (enter the source to print the scale)

3.5 Output Module Configuration

3.5.1 Hybrid Module Configuration

Referring to Section 5.4.1 of the User Guide (IM/SR100A), enter the settings required for each of the outputs.

Relay 1 Output Source (enter the source required)

Relay 1 Output Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

Relay 2 Output Source (enter the source required)

Relay 2 Output Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

Analog Output Source (enter the source required)

Full Scale Current (enter the current required)

Zero Current (enter the current required)

3.5.2 Digital I/O Module Configuration

Referring to Section 5.4.2 of the User Guide (IM/SR100A), enter the settings required for each of the digital outputs.

Digital Output 1 Source (enter the source required)

Digital Output 1 Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

Digital Output 2 Source (enter the source required)

Digital Output 2 Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

Digital Output 3 Source (enter the source required)

Digital Output 3 Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

3.5.3 Relay Module Configuration

Referring to Section 5.4.3 of the User Guide (IM/SR100A), enter the settings required for each of the relays.

Relay Output 1 Source (enter the source required)

Relay Output 1 Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

Relay Output 2 Source (enter the source required)

Relay Output 2 Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

Relay Output 3 Source (enter the source required)

Digital Output 3 Polarity (✓ the polarity required)

Positive	<input type="checkbox"/>	Negative	<input type="checkbox"/>
----------	--------------------------	----------	--------------------------

3.5.4 Analog Output Module Configuration

Referring to Section 5.4.4 of the User Guide (IM/SR100A), enter the settings required for each of the analog outputs.

Analog Output 1 Source (enter the source required)

Full Scale Current (enter the current required)

Zero Current (enter the current required)

Analog Output 2 Source (enter the source required)

Full Scale Current (enter the current required)

Zero Current (enter the current required)

Analog Output 3 Source (enter the source required)

Full Scale Current (enter the current required)

Zero Current (enter the current required)

4 Advanced Configuration

4.1 Pen Function Configuration

Referring to Section 6.1.1 of the User Guide (IM/SR100A), enter the settings required for each of the parameters.

Pen 1 Function (✓ the function required)

Event	
Event Source (enter the source required)	
Trend	
Trend Source (enter the source required)	

Pen 4 Function (✓ the function required)

Event	
Event Source (enter the source required)	
Trend	
Trend Source (enter the source required)	

Pen 2 Function (✓ the function required)

Event	
Event Source (enter the source required)	
Trend	
Trend Source (enter the source required)	

Pen 5 Function (✓ the function required)

Event	
Event Source (enter the source required)	
Trend	
Trend Source (enter the source required)	

Pen 3 Function (✓ the function required)

Event	
Event Source (enter the source required)	
Trend	
Trend Source (enter the source required)	

Pen 6 Function (✓ the function required)

Event	
Event Source (enter the source required)	
Trend	
Trend Source (enter the source required)	

4.2 Print Channel and Data Values Setup

Referring to Section 6.1.4 of the User Guide (IM/SR100A), enter the settings required for each of the parameters.

Value Print Source

(enter the input source required for each pen)

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

Automatic Print Time

(✓ the time interval required between sets of printed values)

Off	
5 Minutes	
10 Minutes	
15 Minutes	
20 Minutes	
30 Minutes	
1 Hour	
2 Hours	
3 Hours	
4 Hours	
6 Hours	
8 Hours	
12 Hours	
24 Hours	

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Printed in UK (03.09)

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