

TABLE OF CONTENTS

PRECAUTIONS	xviii
1 Intended Audience	xix
2 General Precautions	xix
3 Safety Precautions	xix
4 Operating Environment Precautions	xxi
5 Application Precautions	xxi
6 EC Directives	xxiv
7 Other Applicable Directives	xxiv
SECTION 1 SPECIFICATIONS	1
1-1 Outline	2
1-2 Configuration of Instrumentation System	26
1-3 Specifications	37
1-4 How to Use Function Blocks for Specific Operations	48
1-5 Basic Procedure for Using the Loop Control Unit	52
SECTION 2 COMPONENTS, INSTALLATION AND WIRING.....	59
2-1 Names and Functions of Parts	60
2-2 Installation	64
2-3 Connecting to CX-Process Tool and CX-Process Monitor	66
SECTION 3 MECHANISM OF THE LOOP CONTROL UNIT	69
3-1 Configuration of Function Blocks	70
3-2 Description of Operation	84
3-3 Exchanging Data with the CPU Unit	114
3-4 Exchanging Data with CX-Process Monitor/SCADA Software and with Other Nodes	122
3-5 Fail-safe Countermeasure Guidelines	135
SECTION 4 SIMPLE EXAMPLE OF USE	139
4-1 Simple Example of Use	140

TABLE OF CONTENTS

SECTION 5	
EXAMPLES OF FUNCTION BLOCK COMBINATIONS.....	151
5-1 Basic Examples of PID Control.....	152
5-2 Examples of Applied Control Types	161
SECTION 6	
HOW TO USE FINS COMMANDS	173
6-1 How to Use FINS Commands	174
6-2 FINS Command List.....	177
6-3 Description of FINS Commands	178
SECTION 7	
SERRORS AND ALARM TROUBLESHOOTING.....	191
7-1 Errors and Alarm Troubleshooting.....	192
7-2 Maintenance	199
APPENDICES	
1 How to Use the Step Ladder Program Block.....	205
2 How to Use the Node Terminal Blocks	217
3 List of Operation Execution Times.....	231
INDEX	239
REVISION HISTORY.....	241