

CKD

DIRECT DRIVE ACTUATORS

ABSODEX AX SERIES

GS AND S TYPE

INSTRUCTION MANUAL

CONTENTS

ABSODEX

AX SERIES [GS/S TYPE]

INSTRUCTION MANUAL No. SMB-31E

INTRODUCTION, COMPATIBILITY	1
1. UNPACKING	
1) Product Model	1- 1
2) Product Configuration	1- 1
3) Consistency of Serial Number	1- 2
2. INSTALLATION	
1) Actuator Installation Method	2- 1
2) Installation Site of Actuator	2- 6
3) Operating Conditions	2- 7
4) Driver Installation	2- 8
5) About Cable	2- 9
6) About Brake	2-10
3. SYSTEM CONFIGURATION AND WIRING	
1) System Configuration	3- 1
2) Wiring	3- 5
4. TEST OPERATION	
Step 1. Installation and connection check	4- 2
Step 2. Gain adjustment (auto tuning)	4- 3
Step 3. Home position determination (Unnecessary for test operation)	4-13
Step 4. Creation of test operation program and test operation	4-15
5. HOW TO USE I/O	
1) Pin Arrangement and Signal Name	5- 1
2) How to Use General I/O Signals	5- 5
3) Using Pulse String Input Signals	5-19
4) Application Example of I/O Signal	5-24

6. PROGRAM

1) General Description	6- 1
2) Operation Mode	6- 3
3) NC Program Format	6- 4
4) Code List	6- 6
5) ABSODEX Status at Power-on Start	6-14
6) NC Program Example	6-16

7. PARAMETER SETTING

1) Parameters and Contents	7- 1
2) Parameter References and Setting	7- 9
3) Types and Characteristics of Cam Curve	7-11
4) Amount of Home Position Offset and Home Positioning Motion	7-13
5) Precautions for Software Limit	7-14
6) Judgment of In-position	7-17
7) Judgment of Positioning Completion	7-18
8) Correct In-position Range (parameter 16)	7-19
9) Designation of Equal Segment (G101) and Parameters	7-21
10) Using Filters	7-24
11) Integral Limiter	7-27

8. APPLICATION EXAMPLES

1) Product Type Change	8- 2
2) Shortest Route Indexing	8- 4
3) Caulking	8- 7
4) Pick and Place (oscillation)	8-10
5) Indexing table	8-13
6) Continuous Rotation	8-16

9. GAIN ADJUSTMENTS

1) What is Gain Adjustment?	9- 1
2) Gain Adjustment Method	9- 3

10. ALARMS

1) Alarm Display and Description	10- 1
2) Servo Status for Alarms	10- 4

11. MAINTENANCE AND TROUBLESHOOTING

- 1) Maintenance Inspection 11- 1
- 2) Troubleshooting 11- 3
- 3) System Initializing 11- 7

12. COMMUNICATION FUNCTIONS

- 1) Communication Codes 12- 1
- 2) Communication Code List 12- 3
- 3) Baud Rate 12- 8
- 4) Communication Methods 12- 8

13. SUPPORT FOR EUROPEAN STANDARD

- 1) Models Certified to European Standards 13- 1
- 2) Applicable Standards 13- 2
- 3) Precautions on Operation in Europe (EU member country) 13- 3
- 4) Installation Method 13- 6

14. ACTUATOR SPECIFICATIONS

- 1) AX1000 Series 14- 1
- 2) AX2000 Series 14- 2
- 3) AX3000 Series 14- 3
- 4) AX4000 Series 14- 4
- 5) AX5000 Series 14- 6
- 6) AX8000 Series 14- 8
- 7) AX2000G Series 14-11
- 8) AX4000G Series 14-12

15. DRIVER SPECIFICATIONS

- 1) General Specifications 15- 1
- 2) Performance Specifications 15- 2
- 3) I/O Signal Specifications 15- 5
- 4) RS -232C Signal Specifications 15- 5

APPENDIX 1 PROGRAM CHART I

APPENDIX 2 PARAMETER RECORD TABLE II to IV