

Programming devices

for digital proportional valves



They allow to simply set the functional parameters of Atos digital open and closed loop proportional valves with serial RS232 communication and with CANopen or PROFIBUS DP communication. They include a PC programming software, manuals to program the machine control unit and interfaces.

Serial programming software E-SW-PS

This software is supported on CD-ROM and can be easily installed on a personal computer. The graphic interface is user friendly and is organized in pages related to the settable parameters of valves with digital electronics with serial communication -PS, CAN-bus -BC or PROFIBUS -BP, using the relevant interfaces.

Linking interfaces

They ensure the physical communication layer from PC to digital proportional valve to execute the functional parameters settings.

Features:

- automatic valve recognition
- preset data storing
- internal DataBase management
- real time parameters modification
- some settable parameters: scale, bias, ramp, compensation of non-linearities
- diagnostic and monitor signals (fault, actual values)

Manuals MAN-S-BP / MAN-S-BC

These manuals provide the standard protocols descriptions implemented by Atos on its digital valves with fieldbus interfaces to program the machine control units.

1 MODEL CODE

KIT E-SW-**

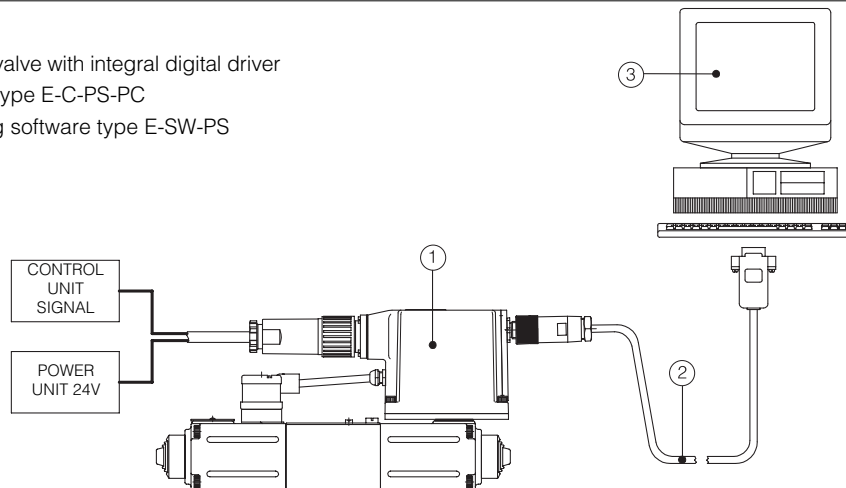
- KIT-E-SW-PS** = Programming software with serial communication interface
KIT-E-SW-PS-TERS = Simplified version of KIT-E-SW-PS (only for -TERS-PS), see note)
KIT-E-SW-BC = Programming devices for CAN-bus protocol
KIT-E-SW-BP = Programming devices for PROFIBUS DP protocol

Design number

Note: Programming software with serial communication interface available only for -TERS-PS electronics. This software is a simplified version of KIT-E-SW-PS with only bias and scale settings.

2 BLOCK DIAGRAM

- ① Proportional valve with integral digital driver
- ② Serial cable type E-C-PS-PC
- ③ Programming software type E-SW-PS



3 KIT CONTENTS

KIT-E-SW-PS

- licence of use and recording form (S018-0)
- E-C-PS-PC (pc-valve connecting cable, lenght 4 m)
- CD-E-SW-PS (cd-rom including: serial interface programming software E-SW-PS, user manuals, Atos website)

KIT-E-SW-PS-TERS

- E-C-PS (pc-valve connecting cable, lenght 4 m)
- CD-E-SW-PS-TERS (cd-rom including: serial interface programming software E-SW-PS-TERS, user manual)

KIT-E-SW-BC

- licence of use and recording form (S018-0)
- E-C-BC-PC (USB interface-valve connecting cable, lenght 2 m)
- CD-E-SW-BC (cd-rom including: E-SW-BC, user and bus programming manuals, Atos website)
- CAN USB interface

KIT-E-SW-BP

- licence of use and recording form (S018-0)
- E-C-BP-PC (USB interface-valve connecting cable, lenght 2 m)
- CD-E-SW-BP (cd-rom including: E-SW-BP, user and bus programming manuals, Atos website)
- Profibus USB interface

4 MINIMUM SYSTEM REQUIREMENTS FOR E-SW-PS PROGRAMMING SOFTWARE

| | |
|------------------------|--|
| Personal computer | Pentium III |
| Operating system | Windows XP or Windows 2000 |
| Graphic card / Monitor | SVGA / 800x600 (1024x768 recommended) |
| Memory | min. 16 MB RAM |
| CD-ROM speed | 8x |
| Interface | Serial programming port (-PS version), USB port (-BC, -BP version) |

5 CABLES FOR VALVE-PC CONNECTION

VALVE with connection -PS

E-C-PS-PC **PC RS-232 INTERFACE**

4000

| | |
|--------|---|
| RTS | 1 |
| CTS | 2 |
| RS_GND | 3 |
| RS_RX | 4 |
| RS_TX | 5 |

| | |
|---|--------|
| 1 | NC |
| 2 | RS_RX |
| 3 | RS_TX |
| 4 | NC |
| 5 | RS_GND |
| 6 | NC |
| 7 | RTS |
| 8 | CTS |
| 9 | NC |

SP-ZH-5P FEMALE 5 PIN D TYPE 9 PIN FEMALE

VALVE with connection -BP

E-C-BP-PC **PC INTERFACE**

2000

| | |
|--------|---|
| NC | 1 |
| A_LINE | 2 |
| NC | 3 |
| B_LINE | 4 |
| SHIELD | 5 |

| | |
|---|--------|
| 1 | SHIELD |
| 2 | NC |
| 3 | B_LINE |
| 4 | NC |
| 5 | NC |
| 6 | NC |
| 7 | NC |
| 8 | A_LINE |
| 9 | NC |

CABLE SHIELD SP-ZH-5P/BP MALE 5 PIN REVERSE KEY D TYPE 9 PIN MALE

VALVE with connection -BC

E-C-BC-PC **PC INTERFACE**

2000

| | |
|----------|---|
| CAN_SHLD | 1 |
| CAN_V+ | 2 |
| CAN_GND | 3 |
| CAN_H | 4 |
| CAN_L | 5 |

| | |
|---|----------|
| 1 | NC |
| 2 | CAN_L |
| 3 | CAN_GND |
| 4 | NC |
| 5 | CAN_SHLD |
| 6 | NC |
| 7 | CAN_H |
| 8 | NC |
| 9 | CAN_V+ |

CABLE SHIELD SP-ZH-5P FEMALE 5 PIN D TYPE 9 PIN FEMALE

6 MALE CONNECTOR (M12 - 5 PIN)

| Communication option | -PS (RS232) male connector | -BC (CAN Bus) male connector | -BP (PROFIBUS-DP) female connector (reverse key) | | |
|----------------------------------|----------------------------|--|--|--|--|
| Pin number Signal description | 1 | NC Not connected | CAN_SHLD Shield | +5V Termination voltage | |
| | 2 | NC Not connected | NC Not connected | A_LINE Bus-line (high signal) | |
| | 3 | RS_GND Signal zero data line | CAN_GND Signal zero data line | DGND Signal zero data line Termination voltage | |
| | 4 | RS_RX Valves receiving data line | CAN_H Bus-line (high signal) | B_LINE Bus-line (low signal) | |
| | 5 | RS_TX Valves transmitting data line | CAN_L Bus-line (low signal) | SHIELD Shield | |