

# **ABB Procontic b**

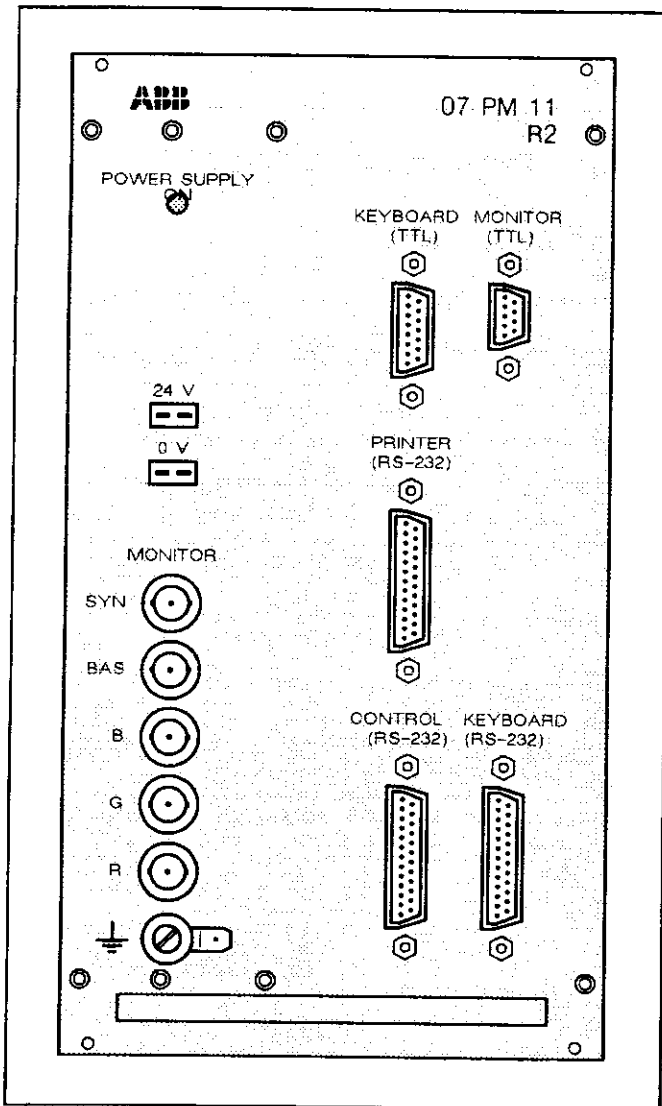
## **Programmable Control System**

## **Process Display and Control**

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## Process graphic module 07 PM 11 R2



The system description of the hardware for the process graphic module 07 PM 11 is to be ordered under the order number GATS 1340 02 R2001.

The process graphic module 07 PM 11 enables the realisation of an operating station, with which processes can be visualised and operated. The process graphic module operates together with a black- and-white or a colour screen. It is an integral component of the man-machine-communication (MMC) between

the operator and a programmable control (PLC) for the ABB Procontic system.

The process graphic module 07 PM 11 frees the ABB Procontic system from display-specific tasks: images, values and colours can be changed without information concerning the form and colour of the image elements being known to the PLC.

Other features:

- Communication-specific data and image variables are stored on the graphic module 07 PM 11 in EPROMs. The memory of the PLC is not occupied in this way. The process graphic module 07 PM 11 can save data for approx. 20 ... 71 images.
- 100 image variables per image
- Various image types to represent
  - values (numbers, bars) and/or
  - status (colours, flashing, fields)
- Simple up-dating of the image variables independently of the image structure.
  - Passive mode: with logical commands
  - Active mode: by automatic reading of the values from the ABB Procontic system.
- Monitor interface (R, G, B; TTL)
- 3 serial interfaces to connect
  - ABB Procontic system
  - Keyboard (TTL and RS-232-C)
  - Printer

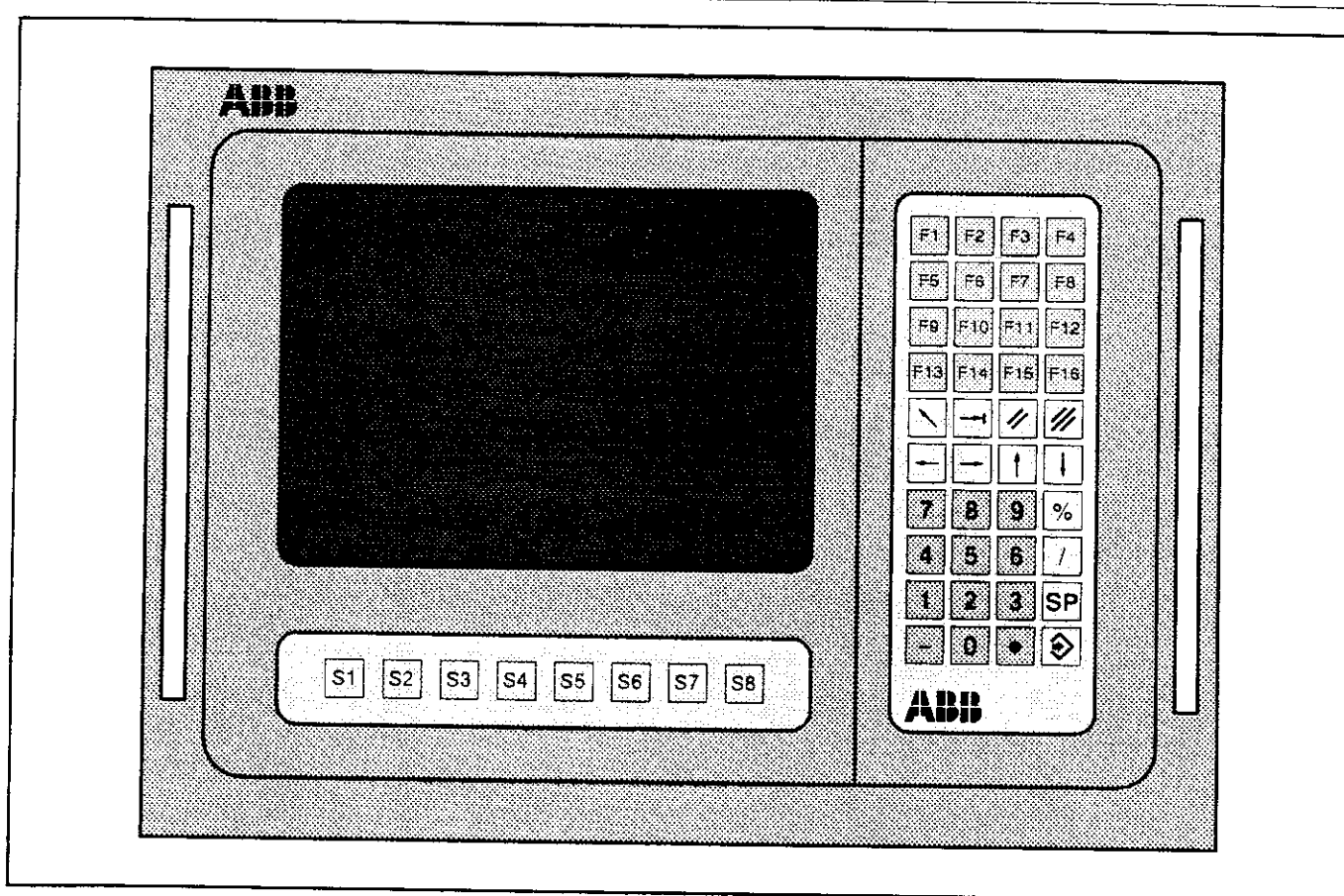
The **process operating station 35 BS 94** is provided for the connection of the graphic module 07 PM L. This is a colour monitor suitable for industry with an operating keyboard for the basic operation.

For small requirements, it is possible to create a process operating station with the graphic module 07 PM 11, an acquired PC monitor and a keyboard. Design requirements of a **customer-specific process operating station** can also be fulfilled in this way.

The configuration of the process graphic module 07 PM 11 is carried out with the image configurator 935 BK



## Operating station 35 BS 93 R3



The system description of the hardware for the operating station 35 BS 93 is to be ordered under the order no. GATS 1340 03 R2001.

Processes can be envisaged and operated by means of the operating station 35 BS 93. It is an integral component of the man - machine communication (MMC) between the operator and a programmable control (PLC) for the ABB procontic system.

The operating station 35 BS 93 is suitable to be installed into 19" frames as well as in switchboards. The front is designed according to the type of protection IP 65.

The operating station 35 BS 93 includes a 12" colour screen, a machine keyboard with 40 keys and a soft key keyboard with 8 keys. The keyboards are designed as membrane keyboards and have keys with a pressure point.

The operating station 35 BS 93 frees the ABB procontic system from display-specific tasks: images, values and colours can be altered without information concerning the form and colour of the image elements being known to the PLC.

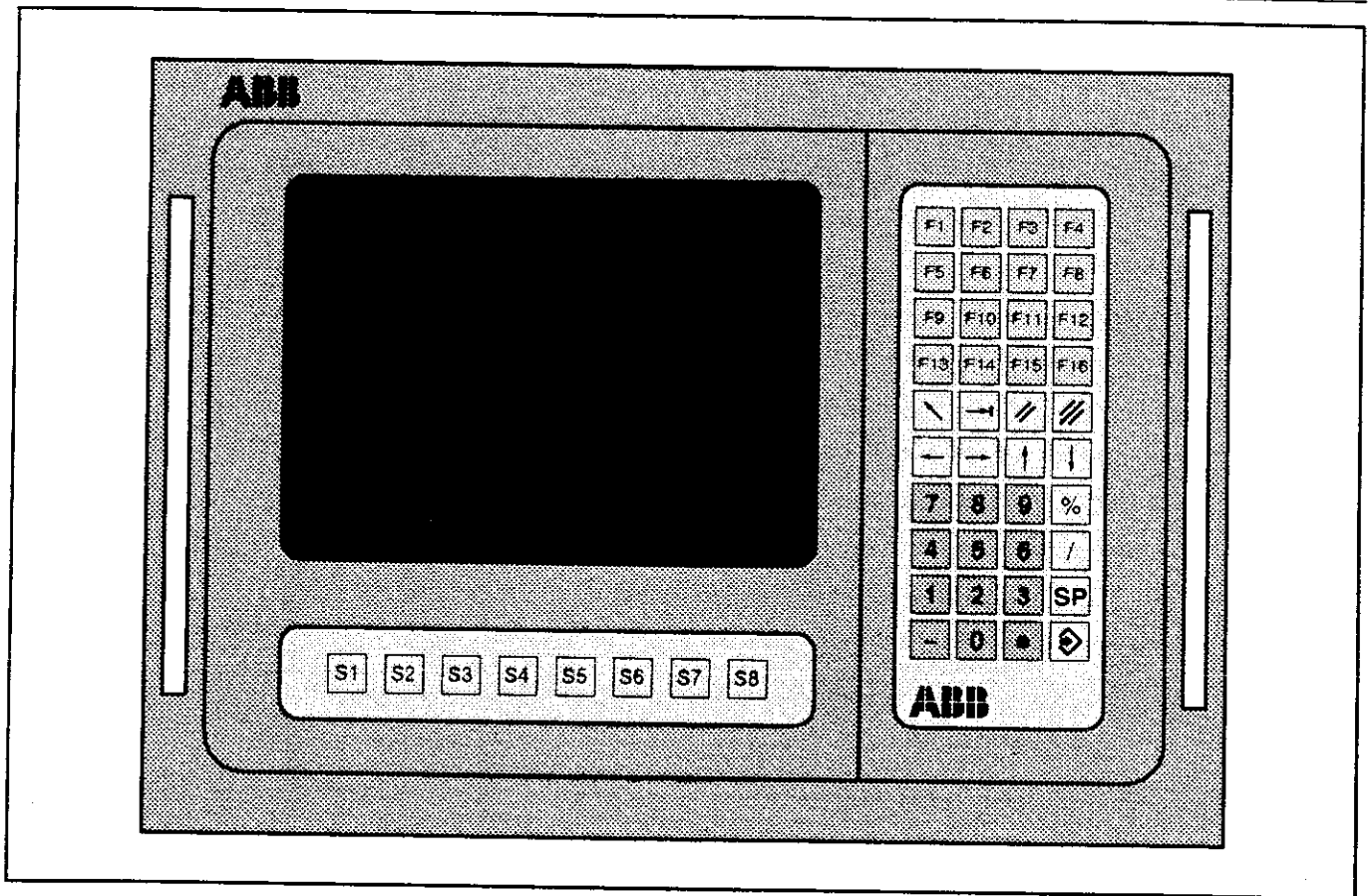
### Other features:

- Communication-specific data and image variables are stored on the operating station 35 BS 93 in EPROMs. The memory of the PLC is therefore not occupied. The operating station 35 BS 93 can save data for approx. 20 ... 71 images.
- 100 image variables per image
- Various image variable types to represent
  - Values (numbers, bars) and/or
  - Status (colours, flashing, fields)
- Simple up-dating of the image variables independently of the image structure.
  - Passive mode: with logical commands
  - Active mode: through automatic reading of the values from the ABB procontic system.
- Serial interface to connect ABB procontic.

The configuration of the operating station 35 BS 93 is carried out with the image configurator 935 BK 70.



# Operating station 35 BS 94 R1



The system description of the hardware for the operating station 35 BS 94 is to be ordered under the order no. GATS 1340 04 R2001.

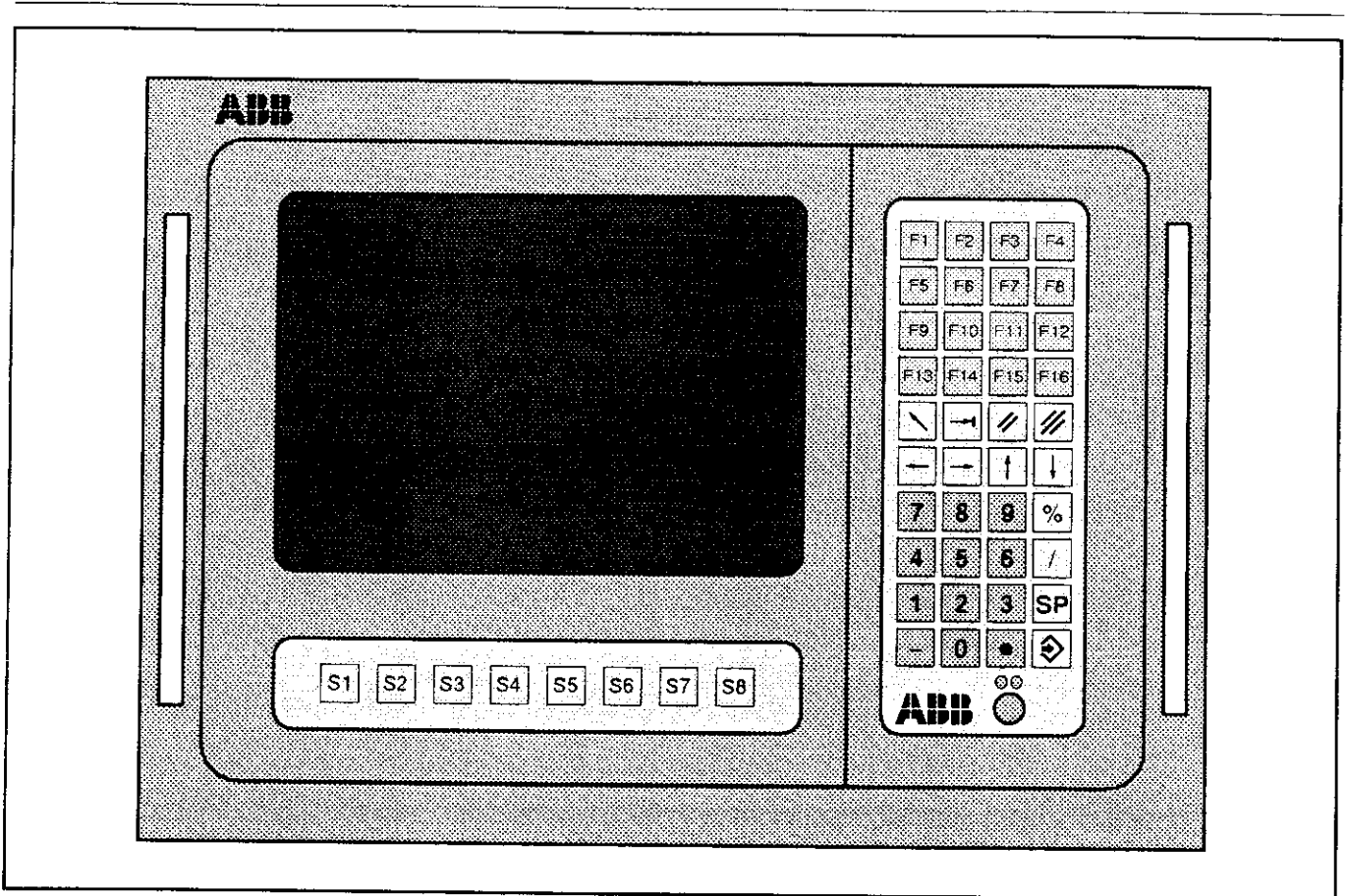
The operating station 35 BS 94 is a colour monitor suitable for industry with an operating keyboard for the basic operation.

Together with the process graphic module 07 PM 11, it forms a process display and operating station. It includes a 12" colour screen and a machine keyboard with 40 keys and 8 soft keys. The machine keyboard is designed as a membrane keyboard with pressure points. The station is suitable to be installed in 19" frames as well as in switch panels. The front is designed according to IP 65.





## Operating station 35 BS 95 R2



The system description of the hardware for the operating station 35 BS 95 is to be ordered under the order number GATS 1340 05 R2001.

The operating station 35 BS 95 consists of a 12" multi-sync colour monitor (800 x 600 image points) with an integrated IBM AT compatible computer.

### Technical data:

- 80286 CPU
- 1 Mbyte RAM
- 20 Mbyte hard disk
- 1.44 Mbytes 3 1/2" disk drive
- Coprocessor 80287
- EGA card with a 256 kbyte RAM
- 640 x 350 image points
- 16 colours
- 2 serial interfaces
- 1 parallel printer interface
- 1 interface for an external disk drive
- 1 interface for the IBM AT keyboard
- Maschine keyboard with 40 keys
- 8 soft keys
- Installation in a standard 19" cabinet, 8 U high, 405 mm deep
- Supply voltage: 220 V AC
- Type of protection: front panel and membrane IP 65

The software 935 PM 71 and the software 935 PM 73 can run on the operating station 35 BS 95 but if using the software 935 PM 73, an auxiliary communication processor, the ACOM communication card, must be used.



## Display configurator 935 BK 70 R402

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The 935 BK 70 image configurator is supplied together with a manual in german language, order number GJP5123200R0402.

The 935 BK 70 image configurator is a complete package with all the configuration aids from the screen editor through to the automatic programming of the image EPROMs. The 935 BK 70 can be run on an IBM compatible personal computer.

Other features:

- Editor for the allocation table: notes are made here, where data can be found (in which PLC, in which flags) and how they are to be interpreted for the separate image variables.
- Editor for the text output: the user can recall from an editor of his choice from the 935 BK 70 image configurator.
- Test functions: the configurations set up can be tested without a PLC connection in this way.



## Software 935 PM 71 R102

The 935 PM 71 software is supplied together with a manual, order number GJP5220100R102.

The software for the 935 PM 71 process display and operation enables the realisation of an operating station on an IBM compatible PC, with which processes can be visualised and operated. It is an integral element of the man - machine communication (MMC) between the operator and the programmable controls (PLC) for the ABB Procontic system.

The ABB Procontic controls are connected via the ABB area bus ZB 10. They are connected with the operating station via the 07 ZV 86 bus manager. The ABB Procontic controls are freed from display-specific tasks: images, values and colours can be altered without information concerning the form and colour of the image elements being known to the PLC.

The 935 PM 71 is a menu-guided system. The desired functions are selected by function keys or the cursor; the user does not have to learn any commands by heart! Every function is explained with an auxiliary help text.

The 935 PM 71 can be run on commercial personal computers, type IBM PC/XT/AT. The following equipment is required:

- 640 kbytes RAM
- A hard disk with min. 20 Mbytes
- MS DOS from version 3.3
- Math. Co Processor
- EGA graphics with a 256 kbyte RAM
- Hardware clock
- RS 232C (COM1) serial interface to the 07 ZV 86
- Parallel interface for the printer
- 5.25"/360 kbytes or 3.5"/720 kbytes disk drive to load the 935 PM 71

ABB offers the IBM/AT compatible industrial computer **35 BS 95** as the operating station.

The 935 PM 71 includes an integrated graphic editor for the image configuration. The process variable definition is guided by menus. The actions for "programming" the event control are simply selected by function keys.



## Software 907 PB 32

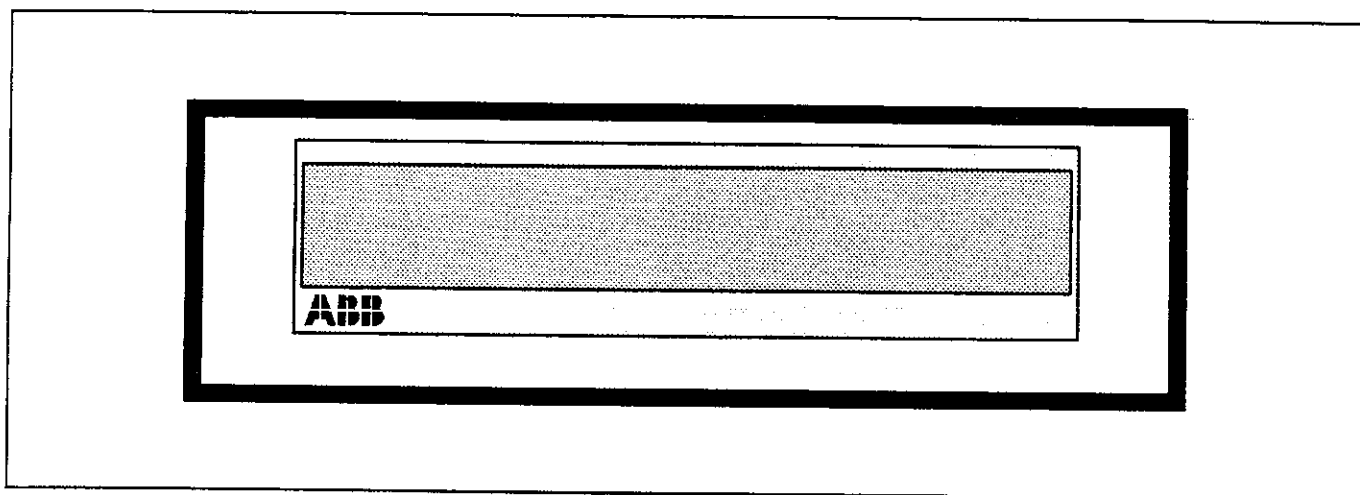
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The software 907 PB 32 is a PLC software library with an application description for the process display and control components 35 BS 93 and 07 PM 11/35 BS 94 together with the programmable control ABBProconticb. The software with a manual (only in german) can be ordered under the order number GJP5200600R102.





## Text display 35 TA 10 R1



The system description of the hardware is supplied together with the text display 35 TA 10 ( GJV3075301R1) .

The text display 35 TA 10 displays information concerning machine status, machine operation, maintenance, etc., in explanatory text. The operator is clearly informed and instructed. This saves time and costs.

The texts are displayed via a fluorescent display. They are therefore legible even with unfavourable light. The text display 35 TA 10 can be stored permanently in EPROMs.

The text display 35 TA 10 can be operated in several operating modes:

- Direct registration: The message is displayed,

while the message number is located at the inputs.

- Initial message: The first message is displayed. A maximum of 19 other messages are saved in the order in which they occurred.
- Cyclical message: A maximum of 19 saved messages are displayed consecutively.
- External variable: Text can be combined with variable values from the ABB Procontic. The number and positions of the variables in the text is not limited.

The control is carried out via process outputs by the ABB Procontic.



## Editor for the text display 935 TA 10 R102

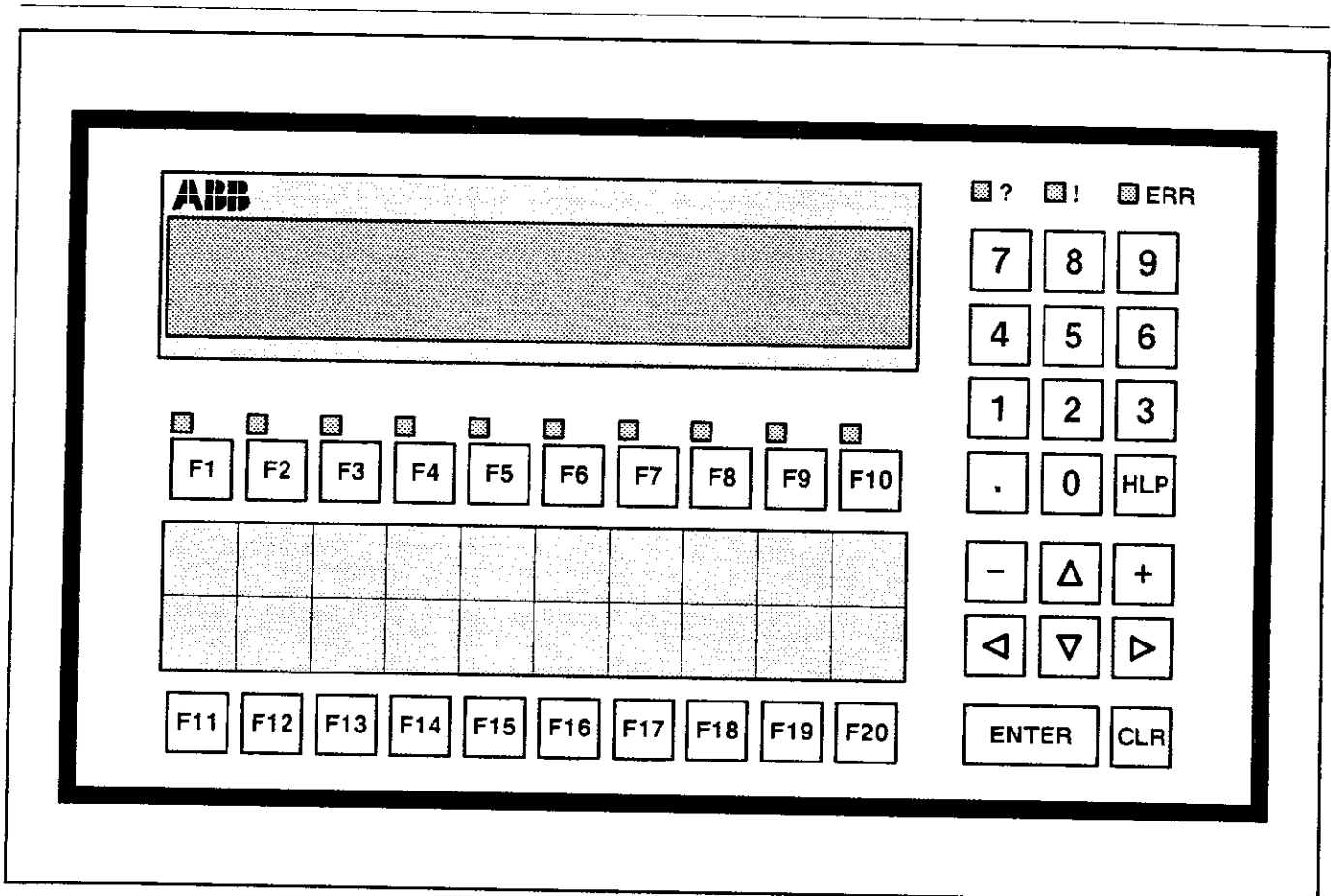
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The editor 935 TA 10 (order no. GJV3901101R102) is supplied together with a set of operating instructions.

The text display 35 TA 10 is programmed on an IBM compatible personal computer with the editor 935 TA 10. The EPROMs are compiled with the PROM programmer 07 PP 31/32. Other PROM programmers with a serial interface RS 232 and an Intel-Hex protocol can also be used.



# Operating station 35 BS 40 R1



The system description of the hardware is supplied together with the operating station 35 BS 40 (order number GJV3075304R1).

The operating station 35 BS 40 displays information concerning machine status, instructions for the machine operation, maintenance, etc., in explanatory text. The operator is clearly informed and instructed. This saves time and costs.

The texts are displayed via a fluorescent display. They are therefore clearly legible even with unfavourable light conditions. The operator can also affect the machine sequence via the operating station 35 BS 40. It is

possible to control parts of the machine and to alter operating modes and nominal values, for example, by using the keys.

The operating station 35 BS 40 has large keys and the type protection IP 65 for the front.

The communication between the operating station 35 BS 40 and the ABB Procontic control is carried out via a serial interface. Die Kommunikation zwischen der Bedienstation 35 BS 40 und der ABB Procontic Steuerung erfolgt über eine serielle Schnittstelle RS-232.



## Editor for the operating station 935 BS 40 R102

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The editor is supplied together with a set of operating instructions.

The operating station 35 BS 40 is programmed on a IBM compatible personal computer with the editor 935 BS 40. The texts for the displays, including the variable values, and the entries via the function keys are programmed with the editor 935 BS 40. The data are transferred directly to the RAM of the operating station 35 BS 40 via the serial interface. The data can also be saved in the program memory 35 PR 41 (EPROM) or 35 PR 42 (EPROM) as an option. The program memories 35 PR 41 and 35 PR 42 are programmed via the operating station 35 BS 40.

