

# Modular Control Unit SCHMIDT<sup>®</sup> PressControl 5000

**New!**



Compact, integrable System Control  
for intelligent Process Control

# SCHMIDT® PressControl 5000

## Compact System Control for intelligent Process Control

**SCHMIDT® PressControl 5000** for **SCHMIDT® ServoPress** is a compact, integrable system control with modular design for the operation of standardized individual workplaces up to complex, highly flexible automation lines with integrated joining modules. The realization and extension of assembly lines is considerably simplified by using **SCHMIDT® PressControl 5000** in conjunction with **SCHMIDT® ServoPress** modules.

With this control it is also possible to integrate **SCHMIDT® PneumaticPress** as well as **SCHMIDT® HydroPneumaticPress** with **SCHMIDT® SafetyModule** into the system concept via CANopen. Furthermore additional automation applications can be realized with **SCHMIDT® PressControl 5000** independent of the presses.

### Control Unit SCHMIDT® PressControl 5000 RT

All system elements and data involved in the process are centrally controlled and administrated by the control unit **SCHMIDT® PressControl 5000 RT**. The integrated Profibus DP interface permits integration of the press system as an intelligent Profibus slave into existing Profibus networks.

Parametrization, operation and programming will be effected by using software components which are installed on the operating panel **SCHMIDT® PressControl 5000 HMI** or on a user PC. The standard system configuration already includes a basic programming for different operating profiles; special applications can be additionally programmed.

#### Features:

- Modular and can be networked
- Space-saving integrable in the switch cabinet
- Processing of all process data in real time
- Reliable production without further peripheral equipment
- Open communication with the peripherals:
  - CANopen
  - Profibus DP
  - DeviceNet (optionally via external gateway)
  - Ethernet, optionally WLAN
- Communication with other systems:
  - Master SPS
  - ERP
  - CAQ / statistic system
- Control up to 6 **SCHMIDT® ServoPress** modules or NC axis and capability of connecting **SCHMIDT® PneumaticPress** as well as **SCHMIDT® HydroPneumaticPress** with **SCHMIDT® SafetyModule** via CANopen
- Multi-functional process control PLC for an individual design of process. The cycle time is 1 ms independent of the length of the program code. The PLC is in permanent dialog with the process data acquisition and the CNC in real time.
- Integration of more than 2000 I/O's
- Integrated process data acquisition and process monitoring
- Connection to database server via Ethernet
- Permanent use of the operating panel **SCHMIDT® PressControl 5000 HMI** or temporary use of standard PC's (e.g. laptop) for parametrization, service, diagnosis during start-up and troubleshooting, as well as for process analyses and -optimizations (snap-shots or statistical parameters of the ongoing production).



#### Technical Data

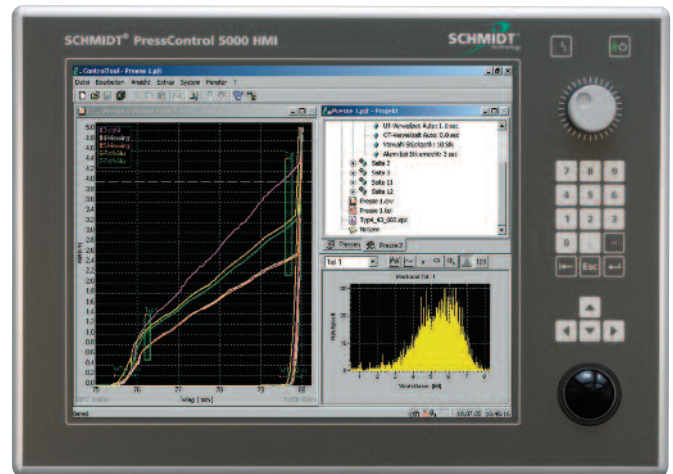
Industry PC with	<ul style="list-style-type: none"><li>- integrated PLC</li><li>- integrated CNC with all-digital drive control (integrated force-, position- and speed control loop) for up to 6 axes</li><li>- intelligent process control</li><li>- diagnosis and service functions</li><li>- Linux operating system</li><li>- assembly on DIN rail (TS 35) according to EN 500 22 (35 mm x 7.5 mm)</li></ul>
Drive	integrated hard disk 30 GB
Field bus	CANopen with possibility to connect: <ul style="list-style-type: none"><li>- up to 6 <b>SCHMIDT® ServoPress</b> modules or NC axis and <b>SCHMIDT® PneumaticPress</b> as well as <b>SCHMIDT® HydroPneumaticPress</b> with <b>SCHMIDT® SafetyModule</b></li><li>- more than 2000 I/O's</li></ul> Profibus DP: <ul style="list-style-type: none"><li>- Profibus DP Slave interface</li><li>- 16 Byte input data</li><li>- 16 Byte output data</li></ul> DeviceNet (optionally via external CANopen/DeviceNet-Gateway) Ethernet, optionally WLAN
Interfaces	<ul style="list-style-type: none"><li>- Ethernet (10/100 MBit)</li><li>- 2 x USB</li><li>- 2 x RS 232 (COM1/COM2) for diagnosis purposes</li><li>- PS/2 keyboard, PS/2 mouse, VGA for diagnosis purposes</li><li>- 4 digital inputs (24 V) galvanically isolated</li><li>- 4 digital outputs (24 V) galvanically isolated</li></ul>
EMC	acc. to requirements of EMC law (EN 50081, EN 50082)
Power supply	24 V DC with integrated UPS
Ambient temperature	0 – 40 °C

## Operator Panel SCHMIDT® PressControl 5000 HMI

SCHMIDT® PressControl 5000 RT can be parametrized and operated via operator panel SCHMIDT® PressControl 5000 HMI with its complete operating interface. Furthermore visualization, administration and documentation of process data (dataset management) can be effected as well by this instrument.

### Features:

- Industrial PC with Microsoft Windows XP™
- High-resolution process visualization by 19" TFT display for depiction of several processes
- Individual design of user interface, e.g. in conjunction with other system components
- Direct access to the process image
- User-friendly, intuitive menu navigation by touchscreen
- Operating modes:
  - Set-up mode via integrated, high-resolution hand-wheel function (mechanical)
  - Cycle mode by function key
- Integrated handwheel (for set-up mode):  
Switchable to any CNC axis with selectable resolution in order to simplify set-up of an operation. Press ram can be brought exactly to the required position or force by this handwheel.
- Keypad with integrated membrane for the input of numerical values and choice of functions
- Softkeys have different functions on different levels and simplify the handling
- Track ball takes over "mouse"-function and is also usable in rough working environment
- Industrial strength, even in harsh surroundings
- Protection class IP 54



### Technical Data

Operating panel with	- intuitive user interface - diagnosis and service functions
Screen	- Microsoft Windows XP™ operating system integrated 19" TFT display (SXGA resolution) with touchscreen
Drive	integrated hard disk 80 GB
Interfaces	1x PS/2 keyboard 1x VGA 3x USB 1x RS232
EMC	2x Ethernet (10/100 MBit) acc. to requirements of EMC law (EN 50081, EN 50082)
Power supply	24 V DC
Current consumption	2 A
Ambient temperature	0 – 40 °C
Protection class	IP 54
Weight	approx. 15 kg

## Software Components for SCHMIDT® PressControl 5000

Parametrization, operation and programming of the SCHMIDT® PressControl 5000 RT will be effected by using software components.

Moreover these software components are supporting project set-up, project visualization and data archiving. They are also intended for analysis and diagnosis under Microsoft Windows 2000 / XP / Vista™.

The software components can be installed on the operating panel SCHMIDT® PressControl 5000 HMI or on a conventional Windows PC. The communication with the control unit is realized by Ethernet TCP/IP.

### SCHMIDT® PRC Studio

- PLC-Editor
- CNC-Editor
- Debugger
- Project set-up

### SCHMIDT® PRC HMI

- Process visualization
- Dataset management
- User guidance
- Quality evaluation on the basis of force/stroke windows and stroke tolerances, and thus a reliable detection of NIO parts.
- Function keys

### SCHMIDT® OPC

OPC server

### SCHMIDT® SPC

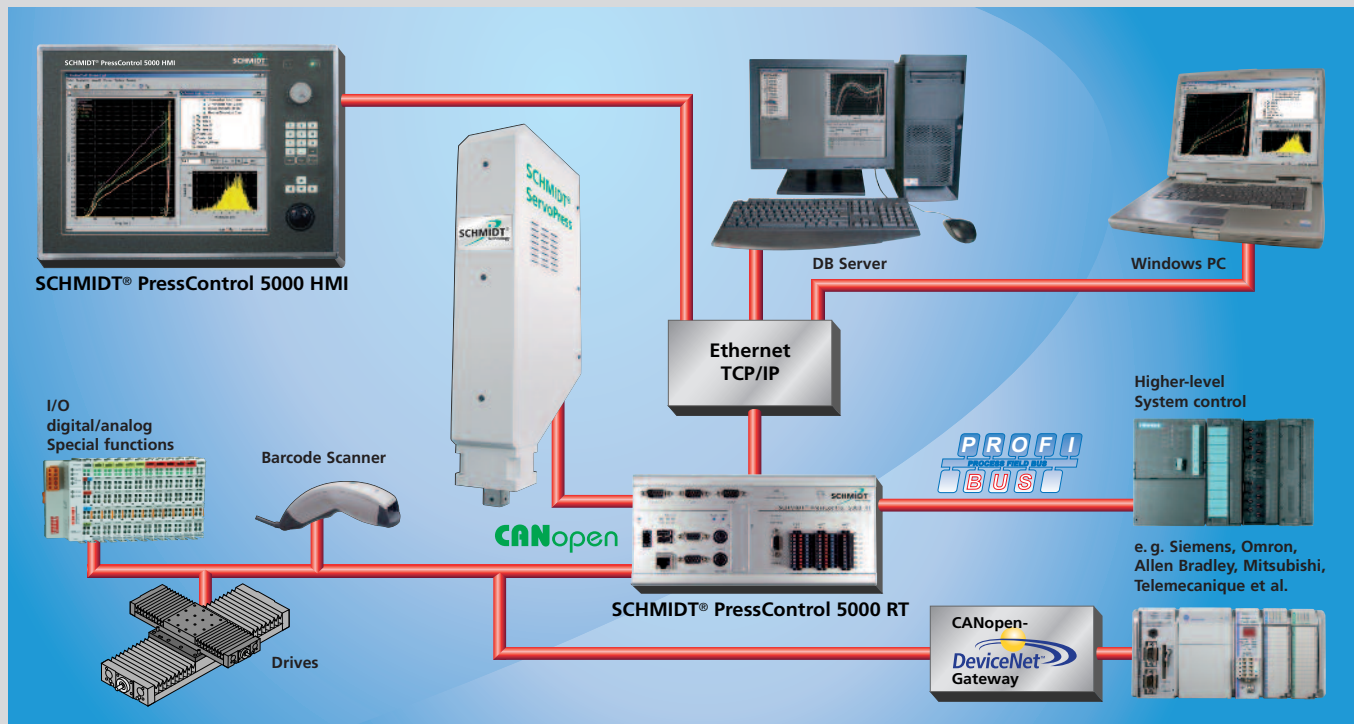
for Statistical Process Control

### SCHMIDT® DB-Client

for database access

# SCHMIDT® PressControl 5000

## System Architecture



**SCHMIDT® PressControl 5000** does work as a system control and takes over the process monitoring. The hard- and software components forming a system concept with real time characteristics. This is guaranteed by a system architecture with CANopen field bus. The ServoPress modules or other NC axes are controlled and recorded by this field bus and process data as well as I/O data will be exchanged.

The communication with other systems can be realized via:

- CANopen (**SCHMIDT® PressControl 5000 RT** is master)
- Profibus (**SCHMIDT® PressControl 5000 RT** is DP slave)
- DeviceNet (optional via external CANopen/DeviceNet-Gateway)
- Ethernet (OPC server)

**SCHMIDT Technology GmbH**  
Feldbergstraße 1  
D-78112 St. Georgen/Germany  
Tel. +49 (7724) 899 0  
Fax. +49 (7724) 899 101  
info@schmidttechnology.de  
www.schmidttechnology.de

**SCHMIDT Technology Corp.**  
Cranberry Corporate Center  
280 Executive Drive  
Cranberry Twp., PA 16066  
USA  
Tel. +1(724) 772-46 00  
Fax. +1(724) 772-46 88  
info@schmidtpresses.com  
www.schmidtpresses.com

**SCHMIDT Technology Ltd.**  
Unit 14/18, The Markham Centre  
Theale, Reading  
Berks RG7 4PE  
UK  
Tel. +44 (118) 9305-464  
Fax. +44 (118) 9305-440  
sales@schmidttechnology.co.uk  
www.schmidttechnology.co.uk

**SCHMIDT Technology GmbH**  
Niederlassung Schweiz  
Gerbeackerstraße 8  
CH-3210 Kerzers  
Tel. +41 (0)31 755 40 71  
Fax. +41 (0)31 755 40 73  
infoCH@schmidttechnology.ch  
www.schmidttechnology.ch

**SCHMIDT Technology SAS**  
4 Rue de l'Artisanat  
F-67116 Reichstett (Strasbourg)  
Tel. +33 (0) 3 88 62 68 53  
Fax +33 (0) 3 88 83 76 12  
info@schmidttechnology.fr  
www.schmidttechnology.fr