

“All-inclusive”

In one automation unit:
Measurement, sequencing, controlling, operation & visualization
 – plus modern communication.

varioPLC – the heart of the varioECmodular system

The varioPLC module from PMA Prozeß- und Maschinen-Automation GmbH, Kassel, fulfills all relevant tasks of a central automation system. Together with a reasonably priced



touch display, the user receives all the hardware components required e.g. for extruder automation. Called varioECmodular, the system provides complete functionality, including all software modules.

More than a compact PLC with multi-controller

Naturally, the PMA varioPLC is programmed in accordance with IEC 61131. What's more, PMA's comprehensive function library is available for implementing individual control concepts. Due to the multitasking capability, multi-temperature control loops and complex, fast process con-

trollers can be operated in realtime simultaneously with the sequencing program.

“Everything in – everything out”

The varioPLC is a DIN rail module in the PMA vario system design. Plug-in terminal blocks permit fast and efficient field wiring for the wide range of on-board I/O. Expansions are done simply via the internal bus. Customized, fast, efficient, and cost-optimized are the realizable features from the technical and the commercial aspect.

“Everything on board” – communication is standard

An Ethernet port permits the varioPLC to be integrated easily in existing networks. FTP and Web services provide convenient access to data and programs:

“Remote maintenance is a simple matter”.

Intelligent sensors, special process modules or standard equipment (e.g. data entry units such as scanners, cameras, evaluation modules, etc.) are connected directly via the optional field bus – CANopen, PROFIBUS or RS 485.

Moreover, fast on-site program updates are possible by means of the USB port and a memory stick.



“Everything in sight” – integrated visualization and operation

Thanks to the directly addressable varioDISP display units with screen sizes from 5,7” up to 12”, the varioPLC is turned into an all-inclusive automation system. The integrated resistive touch panel permits direct operation via the display screen. Connection to the varioPLC is done with a cost-effective standard cable. Due to the integration of sequencing and operating software in a joint programming environment, significant savings in time and costs are achievable. If required, the varioPLC can also communicate with an external visualization unit.

“Everything possible” – try it out yourself!

To find out what is possible for you and your application, simply ask for additional information material, and don't miss a hands-on demonstration during one of the upcoming exhibitions.

Flyer varioECmodular	Item 01
Data sheet varioPLC	Item 02
Data sheet varioDISP	Item 03



Invitation to the K2007 fair and the PLC/IPC/DRIVES 2007

Experience the latest PMA equipment live!

K-Messe 2007, Düsseldorf 24.-31.10.07
 Halle 10 Stand 10J25

SPS/IPC/DRIVES 2007, Nürnberg 27.-29.11.07
 Halle 7A, Stand 436

Wir kriegen's geregelt
 Close the loop with PMA



Novelties

Higher pressure



Our G100 Series pressure transmitters will be replaced directly by the new G310 Series. Upgraded electronics now permit smaller measuring spans and expanded electric connections (e.g. Type A). Moreover, the G320 Series always comes with 4-fold overload safety, and it is possible to select a mechanical damper ex-factory, which greatly improves operational safety against pressure peaks. This is of particular interest for hydraulic applications. Also here, the electric connection options have been extended, which means that the connector Type A to DIN is now available. This connector has been converted from DIN to EN, and is now listed under the standard EN 175301-803, but it is still Type A.

All available versions of this low-cost pressure transmitter are described in the new flyer.

Flyer G3x0

Item 04

Separation made easy

- Does the PLC in your plant read signals that are not the result of changes in physical values?
- Do you have problems with indefinite interference that affects your measurement results?
- Must you transfer signals from explosion-hazarded areas into safe areas?

Our isolating amplifiers and isolating power supplies ensure safe signal transfer between explosion-hazarded and safe areas. Simultaneously, they provide galvanic isolation that eliminates e.g. the effect of cable-borne interference and/or potential equaliz-

New generation grows considerably

The compact automation solution KS 108 PLC is now also available with larger touchpanels instead of the 5,7-inch unit:

- KS 118 PLC is the universal controller and comes with a 10,4-inch colour TFT display.
- KS 128 PLC even boasts a 12,1-inch TFT display with a 800x600 pixel resolution.

Of course, these devices can also be upgraded to powerful, freely programmable (IEC 61131) multi-function controllers by means of PMA's function library.

Data sheet KS 118 PLC

Item 05

The detailed data sheets provide all the necessary information such as technical data and installation dimensions.



Data sheet KS 128 PLC

Item 06

Perfect atmosphere



Lambda sensors are used to measure oxygen in the waste gas of thermal treatment plants. These special sensors can be connected directly to PMA equipment. Together with a PMA controller, this enables you to develop concepts for the optimal

reduction of the environmentally harmful CO₂ content. For example, the successful controller KS 98-1 *carbon* permits complex interlinked control loops to be implemented, whereas the process controller KS 92-1 *carbon* or the DIN rail controller KS 45 *rail line* enable particularly compact single-loop solutions to be engineered.

With the brand-new *rail line* transmitter RL TCO₂, the universal automation stations KS 1x8 now also have direct access to the high-impedance, directly heated or temperature monitored Lambda sensors. This permits the atmosphere of annealing furnaces (C content) to be controlled in a particularly convenient manner. By means of the established rail line field bus module (Ethernet Modbus TCP, PROFIBUS DP, CANopen), the RL TCO₂ can be integrated in every automation concept.

Data sheet RL TCO₂

Item 07

ing currents. Just 22,5 mm wide, with universal energization (either 10...30 V AC/DC or 85...253 VAC), they can be retrofitted in a control cabinet without problems.

Adaptation to existing process signals as well as conversion to other standard signal levels is extremely simple and convenient, thanks to slide switches. Possible load effects can be compensated by changing the settings for span start and span.

Parallel current and voltage signal outputs permit the same universal use as found with the well-known rail line UNIFLEX CI 45 transmitters. Group II ATEX certification covers the Categories 1, G and D, classified as protection type EEx ia II C.



Data sheet TVST

Data sheet TVST EX

Item 08

Item 09

State of the art

Ready-to-connect automation system for the modernization of extruders: varioEC

To survive in the face of global competition, the aims of an extrusion plant must be:

- reproducible quality,
- higher productivity,
- utmost availability,
- minimum downtime
- cost savings,
- application of new material and tooling concepts
- whilst meeting even tighter delivery schedules.

This also means even faster and more effective response, i.e. using innovations to bundle and exploit all competitive advantages.

Hereby, the following questions arise repeatedly:

What distinguishes today's technology for extruder automation?

What are the effects on manufacturing quality, reliability, and setup times?

When does it pay to upgrade existing extruders with the new automation technology?

Which additional advantages emerge during practical use?

What are the future trends?

Based on examples of proven strategies and solutions, these questions can be answered. Moreover, it is also possible to give an initial assessment of the individual situation in an extrusion plant, and which benefits can be expected from applying the latest automation technologies in an equipment upgrade – for the machine operator as well as the company manager.

A detailed feature article "Upgrading extrusion plants" will appear in English and German in the autumn issue of the trade journal:

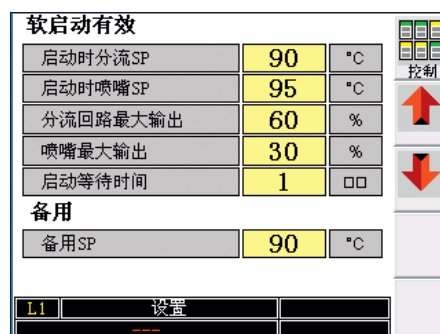


EXTRUSION, VM-Verlag Item 10



That looks like Chinese to me

Correct. The screenshot comes from the compact hot-runner control system HRCmini with an operating page in Chinese. PMA is happy to provide you and your customers with solutions using special fonts – whereby the switchover from Western fonts to other characters is a special feature.



Foreign-language version required:

Item 11

HRC: Optimized maintenance

For the HRC 800, a practice-oriented option has been introduced, with which the performance of the heating elements is monitored and compared automatically with the new condition. This permits element replacement to be planned more precisely, before an element failure can occur.



Data sheet HRC 800

Item 12

Topical information

Impressions from PMA's summer festival 2007

This year's traditional PMA summer festival took place on the banks of the Fulda river. Relaxation, fun, and enjoyment – wonderful barbecue

weather, with homemade salads and cake:
Cheerful spirits up into the early morning hours of the summer weekend.



You can also experience the special "PMA feeling" during the coming autumn exhibitions, to which we invite you cordially.

New CD "PMA BlueDesign®"



With the KS 108 easy, PMA has introduced a new automation unit. New equipment generations require new tools,

which means getting acquainted with them first.

Have we raised your interest for more information?

Booklet BlueDesign® Item 13
CD BlueDesign® Item 14

New price list on 1.10.2007

Also this year – after exploiting every possibility for individual cost reductions – we have been able to keep the price increases to a very moderate level. For some products we were even able to maintain the old price. We look forward to continuing good cooperation.



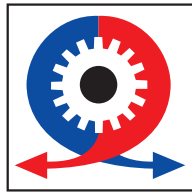
New price list Item 15

Exhibitions – People – New Products...



Overview about all fair participations: <http://www.pma-online.de/en/fairs/index.html>

MSV Brunn 2007,
Brno, Czech Republic,
1.-5. Okt. 2007,
Profess



MSV 2007

Österreich, Linz
3.-5. Okt. 2007



Automation 2007 FarExpo,
Saint Petersburg, Russia,
20.-23. Nov. 2007, BG electronic e.k.



Düsseldorf
24.-31. Okt.
2007
Stand 10/J25



SPS/IPC/DRIVES/
**Elektrische
Automatisierung**
Systeme und Komponenten
Fachmesse & Kongress
Nürnberg **27.-29. Nov. 2007**



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