

NATUS

INDUSTRIAL SOLUTION SYSTEMS

AS AUTOMATION SPECIALIST

PCS7 NATUS APL V9

Module library for the process industry using PCS 7 APL



Compact, modular,
future-proof

For example, states (faults, simulation, protection, test setting, etc.) are indicated by means of colour-coded frames. The pictogram (e.g. a motor symbol) still shows the physical state. The operator thus has the advantage of being able to read all states directly on the process display without needing to open an operating window. Another added value of the NATUS APL is the integrated operator tracking. The user receives information in a coloured frame as to whether a fault can be acknowledged.

The operating windows are created compliant with the PCS 7 specifications for APL. The operating and display elements are the same as the Siemens APL. The key advantage here is that migrations can be carried out easily and effectively during a PCS 7 update/upgrade. It makes no difference for the user whether they are working via a Siemens APL or NATUS APL operating window.

NATUS APL also meets the demands of the power plant sector. The VGB describes these in Guideline R170 B0 to B6. This means that all typical features known from other control systems are available.

These include, for example, the protective functions that are available for each basic function, with and without messaging. The power plant design of the module icons is clearly visible on the user interface. Naturally, NATUS has considered and implemented operator logging, simulation and commissioning mode.

The NATUS APL was also developed because the implementation of process engineering systems often presents challenges that cannot be overcome adequately using the PCS 7 standard library or only with great effort. One key advantage is that we can expand the NATUS APL ourselves, depending on the customer's requirements. We develop such specific solutions in-house at our company headquarters in Trier.

The NATUS APL can be used in all process engineering systems. It has already been used successfully in various industries and is widely accepted by our customers.

THE MODULE SET FOR YOUR SUCCESS

- NATUS APL for PCS 7 V9
- Suitable for power plant use in accordance with VGB R170
- Use in power plants and all process engineering systems (e.g. petrochemicals, mining, etc.)
- Modular and scalable
- Extension of functionality using NCT (Natus Controlword Technology)
- Optimal utilisation of AS resources and OS process objects
- Efficient project engineering
- Openly available
- Customer training
- In-house NATUS APL development "Made in Trier by NATUS"

OS features

- Structure of the faceplates compliant with APL standard
- Module icons compliant with power plant standard
- Representation of protection, simulation, status, operating mode in the module icon
- Consistent operator guidance, thus reducing operating errors
- Detailed additional information in the faceplates for the operator
- PCS 7-compliant, which considerably simplifies migrations, making the NATUS APL a safe and future-proof investment

AS features

- Modular and compact for every application
- Function-oriented library, eliminating the need for further libraries for fieldbus devices such as frequency converters, Simocode, ...
- NATUS APL has been tested and documented
- Command priorities, control stations and monitoring compliant with power plant standards
- Simulation, commissioning mode and maintenance
- Message sequence display including time stamp from ET200SP HA
- Collection and display of relevant operating data
- Higher-level control block for continuous controllers (PIDConL*) and step controllers (PIDStepL*)

Units

- Direct starter (frequency converter)
- Reversing starter / 2 speeds
- Motor valve, control valve
- Valve, monostable/bistable
- Heating
- Control stations, release logic, protection logic

Analogue measuring points

- Limit monitoring
- Setpoint adjuster
- Analogue display for 1, 2, 4 or 8 signals
- 2 out of 3 logic
- Analogue value memory, FIFO register
- Ramp module, positioning, conversion modules

Binary measuring points

- Limit monitoring
- Binary indicator, setpoint adjuster
- Binary display for 1, 2, 4 or 8 signals
- 2 out of 3 logic
- Signal module
- Display module for units from external controllers

Fieldbus

- Simple and structured reading/writing of Profibus-DP/ProfiNet data and from data blocks



Thermodynamics

- Enthalpy calculator for specific enthalpy
- Correction calculator for water/steam

Control functions

- Sub-group control, group control
- Unit switch-over for 2 or 4 drives
- Unit pre-selection

Miscellaneous

- Read/write data from data blocks
- Multi-measuring instruments, etc. Gossen A2000 via Profibus-DP
- Horn control

Supplementary libraries

- Truck unloading terminal with registration via RFID card reader and management of unloading data in a database
- Customized solution for waste input in waste incineration
- Condition monitoring for the process industry



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AS MANUFACTURER

SO PRECISE!

NATUS plans and develops the right, high-quality solution for any requirement – flexibly, quickly and individually.

AS SERVICE PARTNER

SO RELIABLE!

We provide a comprehensive service package to ensure that your NATUS products always deliver the maximum in performance.

AS AUTOMATION SPECIALIST

SO SMART!

As experts in automation technology, we provide the full spectrum of smart solutions.

AS PROJECT PARTNER

SO COMPLEX!

Many of our customers have complex projects. This means that NATUS is not just a manufacturer, but also a project partner.