

MFD-Titan: HMI-CONTROL for New Operating and Control Concept



The continuous pressure to develop innovative products and reduce prices, together with increased demands with regard to machine operation and control, characterise the market of future machine generations. This trend is being developed with a new generation of control relays and multi-function displays which are increasingly competing with micro and compact PLCs.



Featuring short program cycles, a wide range of function and arithmetic blocks, as well as optional fieldbus networking capabilities, these kinds of devices are removing the traditional image of a control relay. They are advancing to become compact visualization devices with integrated operation and full-featured control functions.

Moeller developed the new MFD-Titan multi-function display as a device of the new automation generation, combining control and visualization functions in one device. With this the Bonn-based automation specialist is offering a genuine alternative to existing PLC solutions for small to medium-sized machine building applications.

The robust display of the MFD-Titan offers a quality design and outstanding flexibility in operation and parameter setting. The fully-fledged graphical display with 132 x 64 pixels offers a switchable backlight and meets the high industrial protection requirements of IP 65. Two freely configurable status LEDs indicate additional operating states and signal alarms. The permissible operating temperature range is from -25 to +55°C and therefore allows the control electronics to be used in machines or systems.

Control engineering for a crane system



MFD-Titan takes over the function of the operator interface at the control station: in

addition to the central visualization of fault messages from individual network stations, the display also shows the operating states. Menus are provided to graphically display speeds, limit switch positions, operating hours, maintenance intervals. MFD-Titan – networked with the easy control relay – handles the following tasks and functions with a high degree of reliability:

double and single hoist mode, synchrocontrol with high control quality, hoist interruption, selective load measurement, linear field weakening, dynamically adapted control response, soft starting/delay, load-dependent motion response, programmable setpoint channels.



Recipes for the pasta machine

MFD-Titan ensures the "right mixture". La Parmigiana produces different types of pasta machines in different sizes for the production of a wide range of pasta products: this ranges from the simple spaghetti to filled ravioli. The user-friendly systems allow the new machines to work with a high degree of precision and meter the required raw materials automatically. The MFD-Titan control system ensures the trouble-free and automatic control of the basic parameters such as pressure, temperature, speed, absorption and delivery volume.



Modular control concept for profiling systems

Wema Probst, a machine building company, uses the power of MFD-Titan and easy800 for the control of its new profiling system. The new multi-function display provides networking already on board, from which not only the machine builders, but also their end customers can benefit. Wema Probst machines and systems have been particularly successful in the field of small timber processing.

The Wema Probst concept: first of all, every system section should be equipped with its own autonomous control system. When supplying a complete system, the individual control systems are networked to control the entire system. The system is then to be operated and monitored from a central control desk.



Temperature control of profile wrapping machines

For over fifty years, Friz has been active in the construction of membrane presses. A major specialisation has been profile wrapping machines, i.e. machines for surface coating linear profiles on wood materials, plastics or metals with decorative papers, veneers, laminated materials or thermoplastic foils.

Friz integrated the complete temperature control in the MFD and easy800. The external temperature controller that was previously used has been completely removed. This saves costs and creates more space in the control cabinet. The metering control was also integrated in the MFD and now controls the metering volume of the glue via the analog output – according to roll width, discharge speed and selected application quantity.

Features of the MFD-Titan

- Networkable via Easy-Net with up to 8 stations, 320 I/Os and 1000 m,
- Optional fieldbus coupling (Profibus, Device-Net, CANopen, AS-Interface),
- Three products in one:
 - operator unit with display and keypad,
 - control unit with high-speed CPU (Easy inside), comes with 10 menu languages as standard,
 - analog and digital I/Os with cage clamp terminals,
- Attractive industrial design,
- Customised laser inscription of front plate,
- Parameter assignment instead of programming, one software for control, visualization and networking functions.

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