

easy – The Versatile Controller Series for Industry and Trade



xSystem

Automation products, system solutions and services. The recognised brand name all around the PLC, enhancing the performance of machines and systems.

PC based HMI-PLC and PLC

Embedded HMI-PLC

Modular PLC

Compact PLC

HMI

Remote I/O

Operator and control relays

Product Information
easy Relay 500, 700, 800
easy MFD-Titan
Multi-Function Display
easy Control EC4P

MOELLER



We keep power under control.

easy – The Versatile Controller Series for Industry and Trade



easy: easy automation system

The easy series offers a cohesive system of control relays, operating and display devices and compact controller. easy Relay, easy MFD and easy Control are based on the same concept, and the different device versions provide solutions for a wide range of applications from elementary to powerful controller tasks. Basic units with easy-NET, CANopen and Ethernet are available for communication. A host of standard additional modules are available for the entire easy series. This includes the input/output expansion devices, standard fieldbus modules, Ethernet gateway and operating and display devices.



easy Relay – simple operation and handling

Anyone who can read circuit diagrams immediately feels at home with the **easy Relay**.

The programming is the same as creating a circuit diagram.

The easy500/700 and easy800 control relays provide a wide range of options for solving control tasks in trade and industrial applications.

easy Relay is

- The most comprehensive control relay range on the market
- Can be matched to the task at hand thanks to different performance levels
- Cost optimised for your application
- Easy programming and parameterisation on the device

easy MFD – simple visualization and control

In addition to the functions of the easy Relay the **easy MFD** offers some powerful visualization options. The screen editor is used for setting parameters for the display.

easy MFD is

- Visualization and control in one device
- Powerful and inexpensive
- Expandable and networkable
- Is suitable for harsh environments thanks to IP65 protection

easy Control – powerful compact controller

NEW

easy Control is the logical continuation of the easy series. The IEC61131-3-based easy Soft CoDeSys software perfectly equips the easy Control for applications that were previously impossible for the easy world.

easy Control is

- Perfectly designed for both machine and system building
- A compact controller with integrated or detachable display
- Expandable as required
- Networkable

Refreshingly Easy – The Clever easy Relays

xSystem

EASY-SOFT-BASIC / EASY-SOFT-PRO

easy Soft CoDeSys

easy Relay



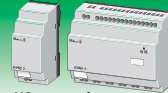
easy MFD



easy Control



I/O expansions



Communication expansions



The easy500/700 and easy800 control relays come with a full range of technical resources to implement applications for industrial and building automation, machine building or plant construction. A host of different device versions with various functions, voltage types, expansion and networking options are available for implementing the right solution. As well as offering the main functions of the easy500/700 such as multi-functional relays, impulse relays, counters, analog value comparators, time switches, automatic DST function and retentive actual values, the easy800 offers a host of function blocks such as PID controllers, maths function blocks, value scaling, and many more. Its ability to network up to 8 devices makes the easy800 the most powerful control relay on the market.



Lighting control systems in buildings:

- The lighting can be switched On and Off centrally or remotely using an impulse relay function.
- The timer-controlled Off pulse enables the lighting to be switched off centrally for energy saving.
- A base unit controls up to 12 independent lighting groups. Purpose-dedicated lighting control, such as central lighting for cleaning, automatic half-strength staircase lighting, or an early warning pulse for the lights-out phase can be configured.
- Installation in low-voltage distribution boards facilitated by the standard 45mm front dimension, as well as component sizing at 4 times, 6 times, 8 times and 12 times the width of an MCB.

Machine control:

- A plug-in memory module enables the easy circuit diagram to be duplicated without the PC. Later modifications to the circuit can be carried out externally, and the memory module can then be shipped in order to transfer the modification to the easy.
- The ability to preset the startup behaviour to RUN or STOP modes facilitates commissioning.
- Short-circuit recognition and selective disconnection of the transistor outputs in the event of short-circuit and overload.



easy500 control relay

For controlling small applications with up to 12 I/O signals



- Up to 12 I/O



- 128 rungs of 3 contacts and 1 coil each



- 16 operating and message texts



- 2 analog inputs (10-bit) optional (not 230 V AC)



- 2 high-speed inputs 1 kHz (only DC devices)



- 1 Ethernet gateway



easy700 control relay

For controlling medium-sized applications with up to 40 I/O signals



- Up to 40 I/O



- 128 rungs of 3 contacts and 1 coil each



- 16 operating and message texts



- 4 analog inputs (10-bit) optional (not 230 V AC)



- 2 high-speed counter inputs 1 kHz (only DC devices)



- 1 Ethernet gateway



- 1 easy expansion device or 1 fieldbus module



easy800 control relay

For controlling large applications with over 300 I/O signals



- Over 300 I/O



- 256 rungs of 4 contacts and 1 coil each



- 32 operating and message texts



- 4 analog inputs (10-bit) optional (not 230 V AC)



- 4 high-speed counter inputs 5 kHz (only DC devices)



- 1 Ethernet gateway



- 1 digital expansion or network gateway
- Networkable via easy-NET with up to 8 stations



- 1 analog output (10-bit)

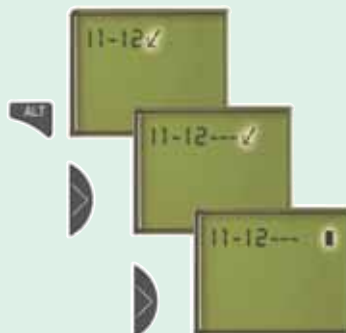
easy500/easy700 and easy800 Control Relays

easy to operate

Anyone who can read circuit diagrams immediately feels at home with the easy. Every circuit diagram can be entered on a 1:1 basis on the display. The smart device operates as expected with make/break contacts and coils. All basic and special functions can be wired together – simply at the touch of a button.



Power flow display
== Power flow



EASY512...



EASY512...



EASY719...



EASY719...

Basic units	500 series basic units							700 series basic units				
Application	Stand-alone operation							Expandable (EASY2... , EASY6...)				
Part no.	EASY512-AB-RC ¹⁾	EASY512-AC-R	EASY512-AC-RC ¹⁾	EASY512-DA-RC ¹⁾	EASY512-DC-R	EASY512-DC-RC ¹⁾	EASY512-DC-TC ¹⁾	EASY719-AB-RC ¹⁾	EASY719-AC-RC ¹⁾	EASY719-DA-RC ¹⁾	EASY719-DC-RC ¹⁾	EASY721-DC-TC ¹⁾
Supply voltage	24 V AC	100 - 240 V AC		12 V DC	24 V DC			24 V AC	100 - 240 V AC	12 V DC	24 V DC	
Heat dissipation	5 VA	5 VA		2 W	2 W			7 VA	10 VA	3.5 W	3.5 W	
Inputs, digital	8	8	8	8	8	8	8	12	12	12	12	12
of which the following can be used as: Inputs, analog 0 - 10 V	2	-	-	2	2	2	2	4	-	4	4	4
of which the following can be used as: Counter inputs	-	-	-	4	4	4	4	-	-	4	4	4
Outputs (R=Relay, T=Trans.)	4R	4R	4R	4R	4R	4R	4T	6R	6R	6R	6R	8T
Expandable/networkable	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / Yes	- / Yes	- / Yes	- / Yes	- / Yes
7-day/year time switch	Yes / Yes	- / -	Yes / Yes	Yes / Yes	- / -	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
Continuous current outputs [1]	8 A	8 A	8 A	8 A	8 A	8 A	0.5 A	8 A	8 A	8 A	8 A	0.5 A
Connection cables	0.2 - 4.0 mm ² (AWG 22-12), rigid 0.2 - 2.5 mm ² (AWG 22-12), flexible							0.2 - 4.0 mm ² (AWG 22-12), rigid 0.2 - 2.5 mm ² (AWG 22-12), flexible				
RFI suppression	EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4							EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4				
Ambient operating temperature	- 25 °C ... + 55 °C							- 25 °C ... + 55 °C				
Certification, standards	EN 50178, IEC/EN 60947, UL, CSA							EN 50178, IEC/EN 60947, UL, CSA				
Dimensions (W x H x D) mm	71.5 x 90 x 58 mm							107.5 x 90 x 58 mm				

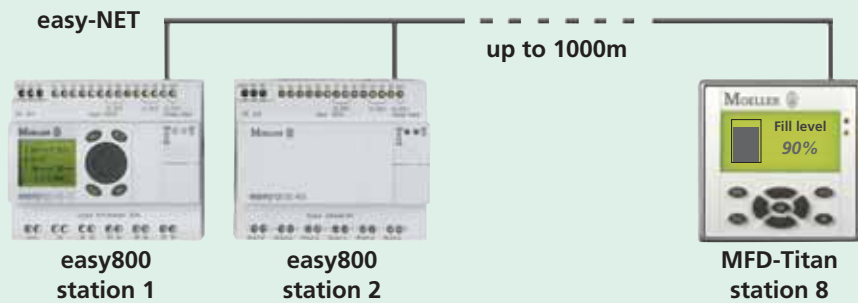
[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel

[2] With backlight in continuous operation - 10 °C ... 0 °C

*) Add X for types without integrated display or keypad

Over 300 I/O points with easy800 and MFD-Titan

Easy800 and MFD-Titan combine virtually all the features of a PLC with the convenient handling of the well-known easy product line. Thanks to their integrated networking capability for up to eight devices, applications with over 300 I/O points can be implemented. The control system can be designed either using a single local program or using several programs distributed on the different devices.



EASY819-AC-RC



EASY822-DC-TC



EASY820-DC-RCX

Basic units	800 series basic units				
Application	Expandable (EASY2... , EASY6...), networkable (easy-NET)				
Part no.	EASY819-AC-RC ¹⁾	EASY819-DC-RC ¹⁾	EASY820-DC-RC ¹⁾	EASY821-DC-TC ¹⁾	EASY822-DC-TC ¹⁾
Supply voltage	100 - 240 V AC	24 V DC			
Heat dissipation	10 VA	3.4 W			
Inputs, digital	12	12	12	12	12
of which the following can be used as: Inputs, analog 0 - 10 V	-	4	4	4	4
of which the following can be used as: Counter inputs	-	4	4	4	4
Outputs (R=Relay,T=Trans.), also (A=analog)	6R	6R	6R 1A	8T	8T 1A
Expandable/networkable	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
7-day/year time switch	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
Continuous current outputs [1]	8 A	8 A	8 A	0.5 A	0.5 A
Connection cables	0.2 - 4.0 mm ² (AWG 22-12), rigid 0.2 - 2.5 mm ² (AWG 22-12), flexible				
RFI suppression	EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4				
Ambient operating temperature	- 25 °C ... + 55 °C				
Certification, standards	EN 50178, IEC/EN 60947, UL, CSA				
Dimensions (W x H x D) mm	107.5 x 90 x 72 mm				

"easy gives us the flexibility we need. The expansion devices can be adapted optimally to the tasks required. In this way, you only pay for what you need".



[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel

[2] With backlight in continuous operation - 10 °C ... 0 °C

*) Add X for types without integrated display or keypad

Visualization, Control, Regulation and Communication – made easy with the MFD-Titan®



With the MFD-Titan multi-function display you can create solutions with control and visualization functions for large-scale and complex automation tasks. During operation, the function buttons of the MFD-Titan can also be used for displaying and changing setpoints.

If you wish to display texts, message texts or fault messages, graphics, pictures, operating instructions, the current date and time; or even acknowledge fault messages, input values or start operations, the MFD-Titan is ideal for implementing all these tasks. EASY-SOFT-PRO is the software tool you use both for programming all the required functions and editing all the visualization screens. Protection to IP65 means that the display can also be used in aggressive environments. Like easy800, MFD-Titan can be expanded and networked to standard bus systems and can also be networked via "easy-Net". The MFD-80... display can also be provided with customised inscriptions such as your company name. Further information on this is provided in the section on the Labeleditor.



New operator and control concept for textile machines

The newly enhanced machine series from Meyer presents the market with innovative fixing and setting machines. It was MFD-Titan that made all these improvements possible. The new safety concept not only increases reliability but also simplifies the operator's job. All the functions can be set up as it were intuitively, and can be readjusted if necessary on an ergonomically designed and generously sized operator interface. MFD-Titan is a product that belongs to the next generation in automation, combining as it does control and visualization functions in one unit. It requires just one software package for the control function, the visualization and networking. This fact significantly reduced the time that had to be spent on engineering and programming by the machine builders at Meyer.



Control engineering for a crane installation

The MFD-Titan in the control cabin functions as operator interface: In addition to allowing centralised visualization of fault messages from individual network stations, the display also indicates their operational status. A menu also enables the operator to call up graphics showing speeds, limit switch positions, operational hours run and schedules for maintenance. The MFD-Titan networked with the easy control relay can together deal with the following tasks and functions: Single and double lifting gear mode, highly precise synchronisation control, lifting operation interruption, selective load measuring, linear field-weakening, dynamically adapted control procedures, soft start and soft stop, load independent travel, configurable setpoint channels.



MFD-Titan multi-function display

For controlling large-scale applications with powerful visualization features

	• Over 300 I/O		• 4 high-speed counter inputs 5 kHz (only DC devices)		• LCD display, 132 x 64 pixels, 4x16 or 2x9 lines x characters
	• 256 rungs of 4 contacts and 1 coil each		• 1 digital expansion or network gateway		• Bitmaps
	• 32 operating and message texts		• Networkable via easy-NET with up to 8 stations		• Value display/entry
	• 4 analog inputs (10-bit) optional (not 230 V AC)		• 1 analog output (10-bit)		• Bargraph
			• 1 Ethernet gateway		• Clock

MFD-Titan

Multi-Function Display



MFD-Titan, the HMI control

When fitted with a power supply/CPU module and optional input/output modules, the display can also be expanded into a compact HMI control device.

This then combines the complete functionality of an easy 800 with powerful visualization functions. The two modules are simply plugged together. Plug & Work.



MFD-80-B

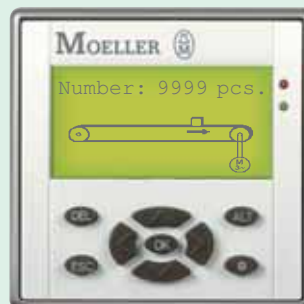


MFD-CP8-NT

Basic units	MFD-Titan					
Application	Display		Power supply/CPU			
Part no.	MFD-80	MFD-80-B	MFD-CP8-ME	MFD-CP8-NT	MFD-AC-CP8-ME	MFD-AC-CP8-NT
Supply voltage	Supply via MFD-CP4...		24 V DC		100 - 240 V AC	
Heat dissipation	3 W		3 W		8 W	
Inputs, digital	-	-	-	-	-	-
of which the following can be used as: Inputs, analog 0 - 10 V	-	-	-	-	-	-
of which the following can be used as: Counter inputs	-	-	-	-	-	-
Inputs, temperature (12-bit, PT=PT100, NI=NI1000)	-	-	-	-	-	-
Outputs (R=Relay, T=Trans.)	-	-	-	-	-	-
also (A=analog)	-	-	-	-	-	-
LCD display / keypad	Yes / -	Yes / Yes	- / -	- / -	- / -	- / -
7-day/year time switch	- / -	- / -	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
Continuous current outputs [1]	-	-	-	-	-	-
Connection cables	-	-	0.2 - 4.0 mm² (AWG 24-12), rigid 0.2 - 2.5 mm² (AWG 24-12), flexible			
RFI suppression	EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4					
Ambient operating temperature	Safely legible at - 5 °C ...+ 50 °C [2]		- 25 °C ... + 55 °C			
Certification, standards	EN 50178, IEC/EN 60947, UL, CSA					
Dimensions (W x H x D) mm	86.5 x 86.5 x 20 mm		107.5 x 90 x 29.5 mm			

[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel

[2] With backlight in continuous operation - 10 °C ... 0 °C



Screen editor

The screen editor provides a host of different screen elements for creating visualizations with the MFD-Titan multi-function display.



MFD-R16



MFD-TA17



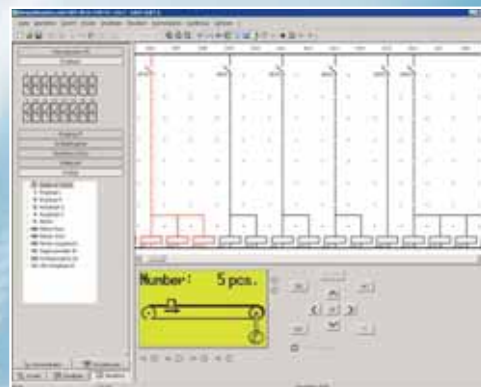
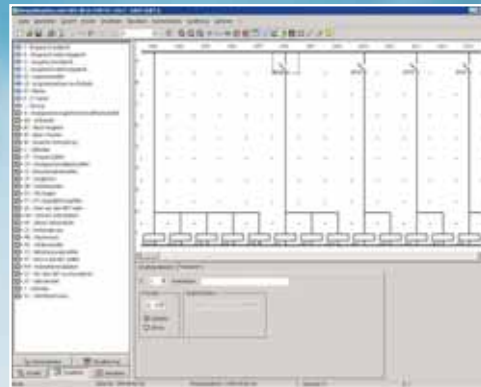
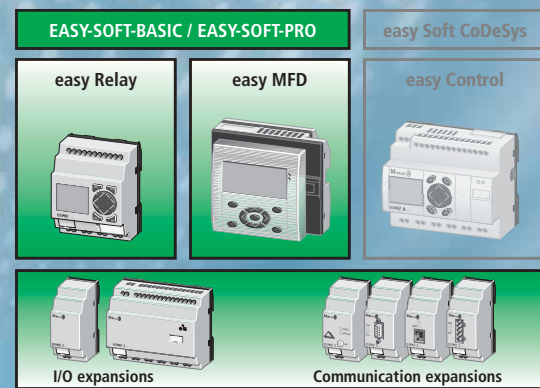
MFD-TP12-PT-B

Inputs / outputs										
MFD-AC-R16	MFD-R16	MFD-RA17	MFD-T16	MFD-TA17	MFD-TP12-NI-A	MFD-TP12-PT-A	MFD-TP12-PT-B	MFD-TAP13-NI-A	MFD-TAP13-PT-A	MFD-TAP13-PT-B
Supply via MFD-CP8-...										
0.5 W					1 W					
12	12	12	12	12	12	12	12	12	12	12
-	4	4	4	4	2	2	2	2	2	2
-	4	4	4	4	4	4	4	4	4	4
-	-	-	-	-	2NI	2PT	2PT	2NI	2PT	2PT
4R	4R	4R	4T	4T	4T	4T	4T	4T	4T	4T
-	-	1A	-	1A	-	-	-	1A (12-bit)	1A (12-bit)	1A (12-bit)
-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-
8 A	8 A	8 A	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A	0,5 A
0.2 - 4.0 mm ² (AWG 24-12), rigid 0.2 - 2.5 mm ² (AWG 24-12), flexible										
EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4										
- 25 °C ... + 55 °C										
EN 50178, IEC/EN 60947, UL, CSA										
88.1 x 90 x 25 mm										

In stand-alone operation the MFD-...CP8-... CPU slices can also be mounted on a 35 mm top-hat rail to DIN 50022 or screw mounted with ZB4-101-GF1 fixing brackets

easy Soft

User-Friendly Circuit Diagram Entry Parameterization and Visualization



Easy Soft makes things particularly easy for users. The graphical editor shows the circuit diagram immediately in the display format required. Selection menus and drag & drop functions simplify circuit diagram creation. Simply select contacts and coils and connect with the mouse – that's it!

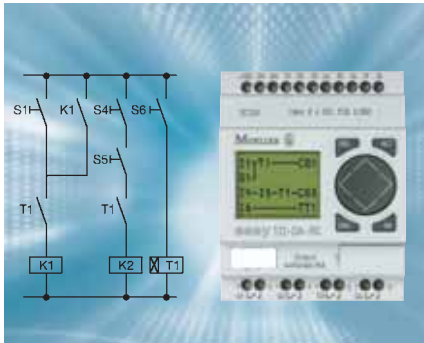
The screen editor provides a host of different screen elements for creating visualizations with the MFD-Titan multi-function display.

easy Soft:

- user-friendly circuit diagram input tool
- clear parameter definition of function blocks
- simple setpoint entry
- wide range of display features for messages and variables
- simple, fast and affordable visualization
- time-saving offline program simulation

In addition to the editing features directly provided on the easy control relay and MFD-Titan multi-function display themselves, the following scaled software packages are available for user-friendly circuit diagram entry:

- EASY-SOFT BASIC for programming the easy400/500, easy600/700
- EASY-SOFT PRO for programming easy400/500, easy600/700, easy800/MFD-Titan and for creating visualization applications with MFD-Titan



The menus and dialogs of easy-soft are available in 13 languages:

- German
- English
- French
- Italian
- Dutch
- Polish
- Portuguese
- Rumanian
- Russian
- Spanish
- Czech
- Turkish
- Hungarian

The following fonts can be displayed:

- Western European
- Central European
- Cyrillic

Easy Soft also provides the following display formats for viewing, editing and printing out your program:

- IEC display format with contact and coil symbols, international standard
- easy circuit diagram format, 1:1 representation as shown on the easy display
- ANSI format, in compliance with the American Standard

Easy Soft supports you when configuring, programming and defining parameters for easy400/500/600/700/800 control relays and the MFD-Titan multi-function display. The devices that can be selected in easy-soft have different functions.

The Screen Editor provides the following screen elements for creating visualization systems with the MFD-Titan multi-function display simply, quickly and inexpensively:

Graphic elements

- Bit display
- Bitmap
- Message bitmap
- Bar graph

Button elements

- Latching button
- Button field

Text elements

- Static text
- Message text
- Screen menu
- Running text
- Rolling text

Value display elements

- Date and time display
- Numerical value
- Timing relay value display

Value entry elements

- Value entry
- Timing relay value entry
- Date and time display
- 7-day time switch entry
- Year time switch entry



Easy Soft also enables you to manage easy800 control relays or MFD-Titan MFD...CP8... units connected via easy-NET. The program for the possible maximum of 8 stations on the easy-NET is created in easy Soft.

Easy Soft also enables simple and time-saving commissioning of the easy800 control relays or MFD-Titan MFD...CP8... units connected to easy-NET.

Easy Soft's integrated offline simulation tool enables users to check the correct functioning of the "circuit diagram" with the application software before commissioning. The simulation is run without easy or MFD-Titan devices having to be connected.

Comments and names for contacts, coils and function blocks allow you to create a clear and easy to understand program structure.

A cover sheet with a customised company logo and freely definable title fields, as well as the cross-reference list with comments provide a clear and complete documentation of your application from the program printout.

easy control relay and MFD-Titan multi-function display are maintenance-free

The created program is stored retentively in the devices. An additional auxiliary supply or battery is not required. The easy control relay and MFD-Titan multi-function display are thus completely maintenance-free. However, not only the program and parameters are protected in the event of a power failure. Actual switching states and values are also retained in easy and MFD...CP8. For example, the actual values of operating hours meters, counters and timing relays can be processed further once power is restored. Function block and data retention is possible for all easy types and for the multi-function display.

easy Control – Full Functionality in the Compact Class, Ethernet and High Performance



Easy Control is the logical continuation of the easy success story. The easy Control EC4P can provide user-friendly solutions for small to medium-sized automation tasks. It can be used both with the standard easy system as well as in combination with virtually all automation devices via the integrated CANopen interface. The Ethernet onboard interface enables the inclusion of additional features such as an OPC server and network programming. The IEC 61131-3 based easy Soft CoDeSys, a 256K program memory and a powerful CPU make the easy Control the perfect solution provider for tasks that were previously impossible for the easy world.



Versatile use:

The versatility of the new easy Control compact PLC enables it to be used in a wide range of areas. It has the ideal design for both machine and system building. More and more technologies today are combined in automation solutions.



Easy to network:

In addition to the basic control functions, this includes fieldbus gateways, HMI functions and also the connection to planning and quality management systems. The Ethernet connection plays an ever increasing importance here, and is not a problem for the powerful easy Control device.



easy Control

Controller for small and medium-sized automation tasks

	• 12 digital inputs
	• 6 digital relay outputs or alternatively
	• 8 transistor outputs
	• 4 analog inputs (10-bit) optional (not 230 V AC)
	• 4 high-speed inputs 50 kHz (only DC devices)

	• 1 digital expansion or network gateway
	• Networkable via easy-NET with up to 8 stations, CANopen
	• 1 analog output (10-bit)
	• 1 Ethernet gateway
256k	• 256K program memory
	• IL / FBD / LD / ST / CFC / SFC

easy Control Compact Controller



① Flexible interfaces

Whether CANopen or EasyNet: The combined CAN interface enables you to choose your own network structure.

② Updates simply easy

The slot for a memory module makes program or firmware updates child's play. The memory module is also fully suitable for archiving data.

③ Ethernet on board

The integrated Ethernet interface enables the easy Control to be programmed conveniently and also installed in existing infrastructures such as OPC.

④ User-friendly operation

As the only compact PLC with an integrated or detached display, the easy Control is also suitable for basic HMI functions like the standard easy models.



EC4P-221-MTXD1

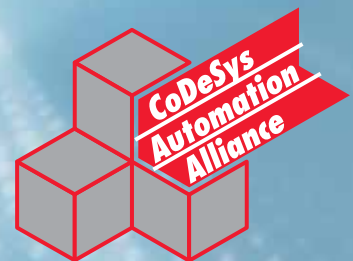
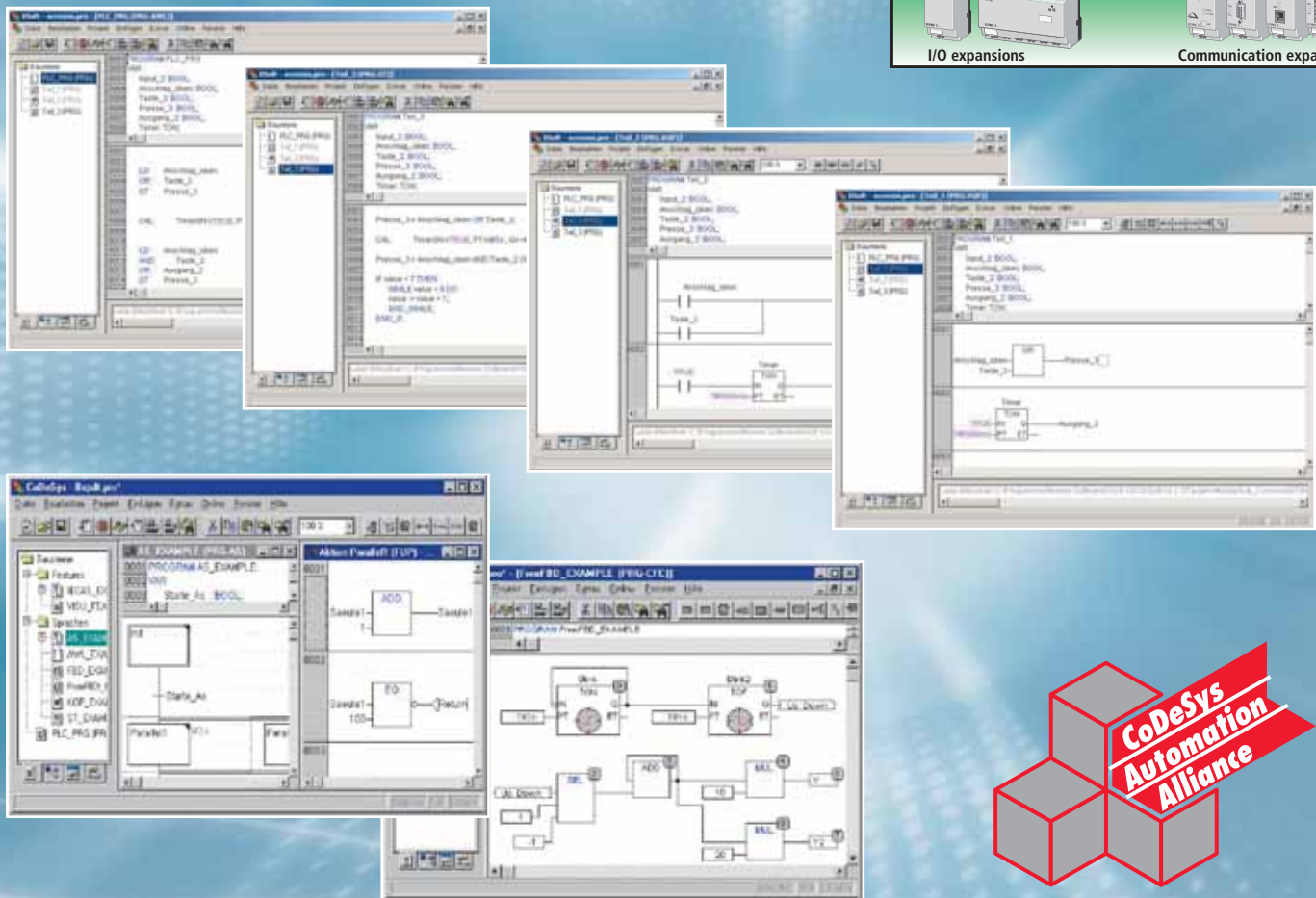


EC4P-222-MTX1

Basic units	easy Control							
Application	Compact PLC for different applications							
Part no.	EC4P-221-MTX ^{*)}	EC4P-221-MRX ^{*)}	EC4P-221-MTA ^{*)}	EC4P-221-MRA ^{*)}	EC4P-222-MTX ^{*)}	EC4P-222-MRX ^{*)}	EC4P-222-MTA ^{*)}	EC4P-222-MRA ^{*)}
Supply voltage	24 V DC							
Heat dissipation	7 W							
Inputs, digital	12	12	12	12	12	12	12	12
of which the following can be used as: Inputs, analog 0 - 10 V	4	4	4	4	4	4	4	4
Outputs (R=Relay, T=Trans.), also (A=analog)	8T	6R	8T 1 A	6R 1 A	8T	6R	8T 1 A	6R 1 A
Continuous current outputs [1]	0.5 A	8 A	0.5 A	8 A	0.5 A	8 A	0.5 A	8 A
Expandable/networkable	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
easyNet/CANopen	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
Ethernet	-	-	-	-	Yes	Yes	Yes	Yes

[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel
*) X without display, D with display

easy Soft CoDeSys – IEC 61131-3 Compliant Programming



Easy Soft CoDeSys is an IEC 61131-3 compliant programming system based on CoDeSys 3S for industrial PLCs. Matured technical features, simple handling and the widespread use of this software in the automation components of different manufacturers make it a guarantee for success. Regardless of whether you require a graphical programming language such as function block diagram, ladder diagram, sequential function chart; or textual programming such as instruction list or structured text – easy Soft Codesys is the right programming tool. You can also test your application program without having to connect a PLC. XSoft's integrated online simulation function makes this possible. Neither do you have to use a different operator interface, since handling is exactly the same as online operation with the PLC connected.

easy Expansions and Communication Modules



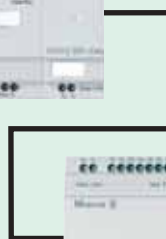
Communication via fieldbus systems is often an integral part of the automation concept.

The communication modules of the easy Relays, easy MFD and easy Control make it possible to exchange data with higher-level automation systems. Communication modules are available for the following bus systems:

- AS-Interface
- Profibus DP
- CANopen
- Profibus DP



up to 30m



up to 30m

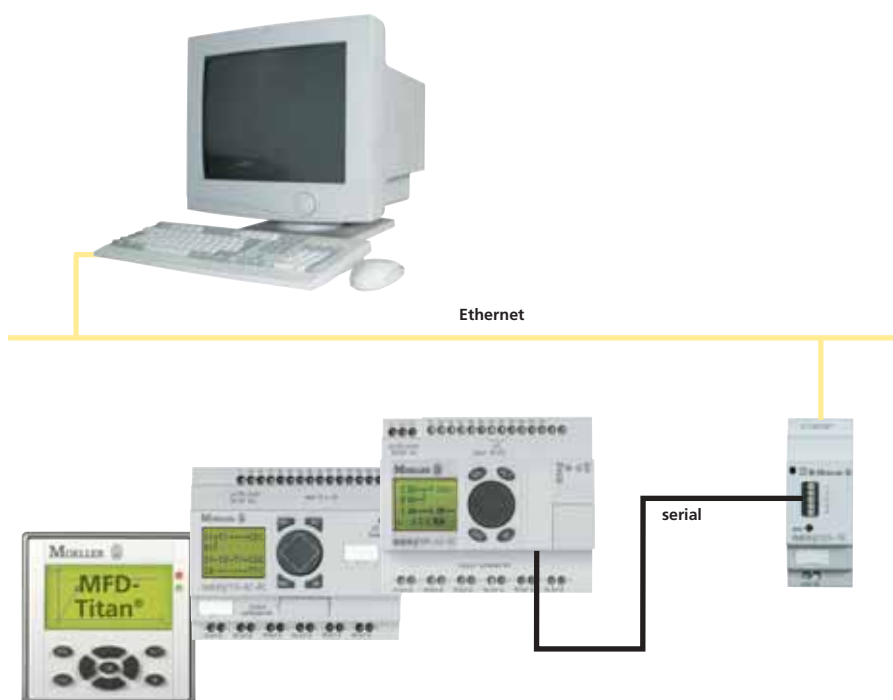


The expandable basic units of the easy Relay series, easy MFD and easy Control enable the implementation of both local and remote I/O expansions.

In conjunction with the EASY618-AC-RE, EASY618-DC-RE or EASY620-DC-TE expansion modules, a unit can be provided with up to 24 inputs and 16 outputs.

These three expansion modules are fitted directly on the basic unit and are connected via the easy-Link interface. Alternatively, a simple connection can be set up using the EASY200-EASY coupling module and up to 30 metres of two-wire cable, thus making it possible to create extensive or expanded configurations.

If that isn't enough, the EASY202-RE expansion module provides two additional relay outputs.



Ethernet gateway

The Easy-209-SE network module now provides a convenient Ethernet connection for the easy Relays and MFD-Titan, thus enabling corporate network connections, remote programming and the implementation of an OPC server. (programming via Ethernet from EASY-Soft V6.20)

The network module is an RS232 Ethernet gateway that can be connected to the programming interface of all devices of the easy system.



EASY618-DC-RE



EASY202-RE



EASY204-DP



EASY205-ASI



EASY221-CO



EASY222-DN



EASY209-SE

Accessories	Expansion modules				Expansion modules					
Application	Digital inputs / outputs				Communication					
Part no.	EASY202-RE	EASY618-AC-RE	EASY618-DC-RE	EASY620-DC-TE	EASY200-EASY	EASY204-DP	EASY205-ASI	EASY221-CO	EASY222-DN	EASY209-SE
Supply voltage	-	100 - 240 V AC	24 V DC		-	24 V DC	-	24 V DC	24 V DC	24 V DC
Heat dissipation	1 W	10 VA	4 W		1 W	2 W	1 W	1 W	1 W	1 W
Inputs, digital	-	12	12	12	-	-	-	-	-	-
Outputs (R=Relay, T=Trans.)	2R	6R	6R	8T	-	-	-	-	-	-
Continuous current outputs [1]	8 A	8 A	8 A	0.5 A	-	-	-	-	-	-
Connection cables	0.2 - 4.0 mm ² (AWG 22-12), rigid 0.2 - 2.5 mm ² (AWG 22-12), flexible				0.2 - 4.0 mm ² (AWG 22-12), rigid 0.2 - 2.5 mm ² (AWG 22-12), flexible					
Degree of protection	IP 20				IP 20					
RFI suppression	EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4				EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4					
Ambient operating temperature	- 25 °C ... + 55 °C				- 25 °C ... + 55 °C					
Certification, standards	EN 50178, IEC/EN 60947, UL, CSA				EN 50178, IEC/EN 60947, UL, CSA					
Dimensions (W x H x D) mm	35.5 x 90 x 58 mm	107.5 x 90 x 58 mm			35.5 x 90 x 58 mm					

[1] Relay = 8 A (10 A to UL) with resistive load, 3 A with inductive load/transistor outputs = 0.5 A / 24 V DC, max 4 outputs switchable in parallel

"Detached" Display: easy Text Display With Optimum Protection



MFD-80-B



MFD-CP4

Plug & Work

With Moeller's MFD-CP4-500 / MFD-CP4-800 supply and communication module, all easy Relay and easy Control applications can include a detached display that is protected to IP65.

The Plug & Work technology allows users to connect the MFD-Titan display (MFD-80 or MFD-80-B) to the easy control relay via the MFD-CP4 power supply and communication module. For this purpose the MFD-CP4 module is factory shipped with five metres of serial connection cable that can be cut to any required length.

The benefits are multiple. Users do not require any software or drivers for the connection, since MFD-CP4 offers genuine Plug & Play functionality. The I/O wiring can be kept in the control cabinet. The display can also be fastened simply with 2 x 22.5 mm fixing holes. The display is protected to IP65, comes with a backlight and offers optimum legibility.

Basic units	MFD-Titan					
Application	Display		Power supply unit/ communication module			
Part no.	MFD-80	MFD-80-B	MFD-CP4-500	MFD-CP4-800	MFD-AC-CP4-500	MFD-AC-CP4-800
Supply voltage	Supply viaCP...		24 V DC		100/240 V AC	
Heat dissipation	3 W		1.5 W		10 VA	
LCD display / keypad	Yes / -	Yes / Yes	- / -	- / -	- / -	- / -
Connection cables	-	-	0.2 - 4.0 mm ² (AWG 24-12), rigid 0.2 - 2.5 mm ² (AWG 24-12), flexible			
RFI suppression	EN 55011, EN 55022 Class B, IEC 61000-6-1, 2, 3, 4					
Ambient operating temperature	Safely legible at - 5 °C ...+ 50 °C [1]		- 25 °C ... + 55 °C			
Certification, standards	EN 50178, IEC/EN 60947, UL, CSA					
Dimensions (W x H x D) mm	86.5 x 86.5 x 20 mm		78 x 58 x 36.2 mm			

[1] With backlight in continuous operation - 10° C ... 0° C

Download Center Information and Documentation



Further information on the easy control relay and MFD-Titan multi-function display described is available from our home page at:

<http://mfd.moeller.net>

<http://easy.moeller.net>

<http://www.moeller.net/support>
(Search term: easy or MFD)

Online Training Center

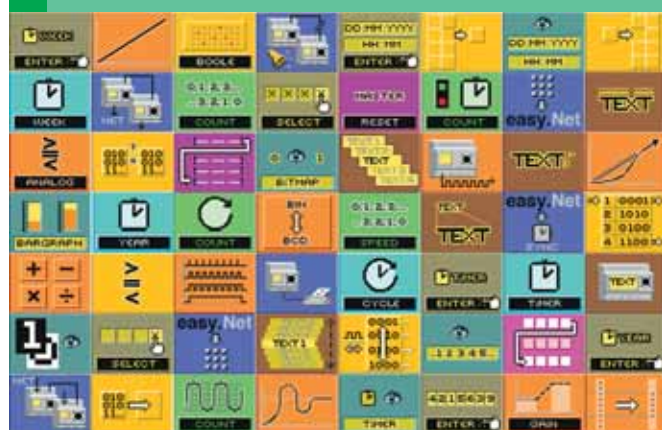
Moeller has also developed a brand new web-based information and training platform for the easy control relay and for the MFD-Titan multi-function display. The Online Training Center is divided into the four areas "Products", "Functions", "Applications" and "Software": The website primarily provides fully programmed and documented applications for different branches. It also

provides a wide range of information on all aspect of easy and MFD-Titan, with additional links to more detailed information. The FAQ area of the website presents useful tips and tricks for these devices. A full text search facility provides support for finding information on particular topics.



<http://www.trainingscenter.moeller.net>

▶ Functions



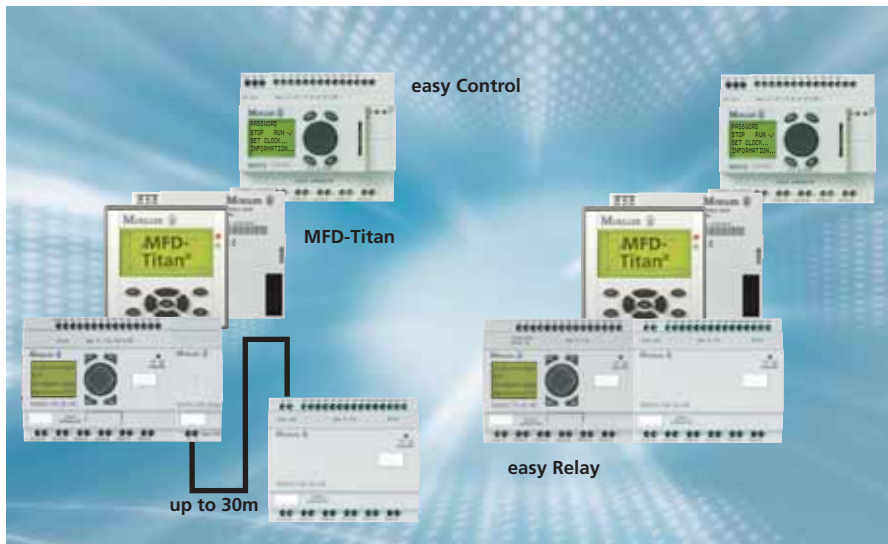
This provides an overview of the functionality of easy devices, as well as direct links to more detailed presentations of the selected functions.

▶ Applications

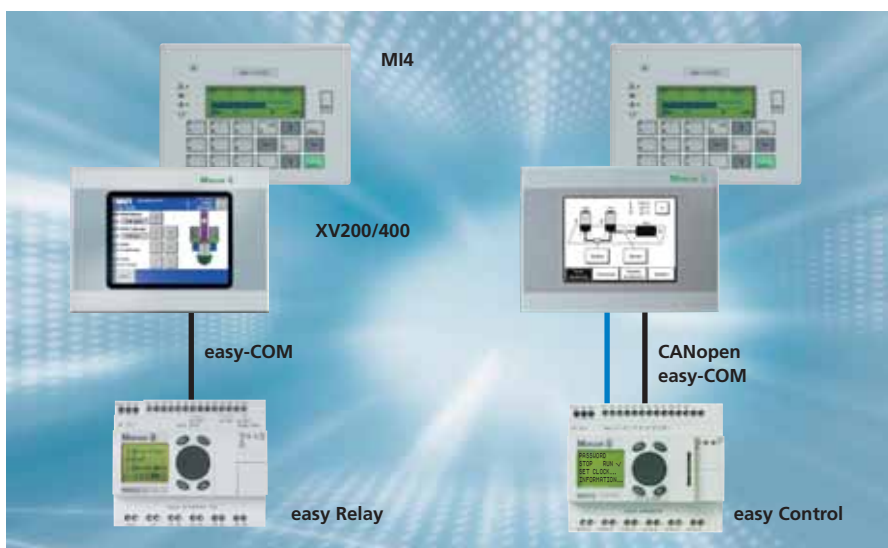


This presents applications for different branches. Load the ready-to-use program in your easy and put it immediately into practice.

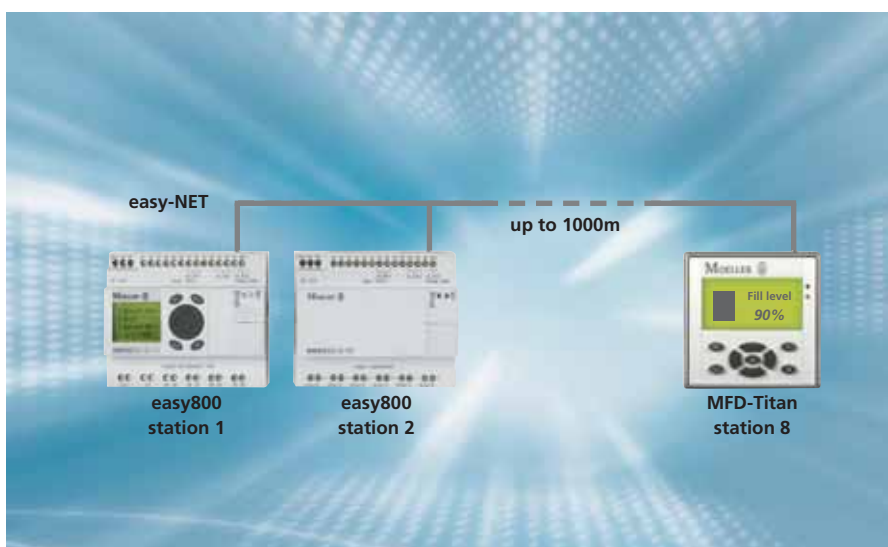
Applications



The expandable basic units of the easy700, easy800 series and MFD-Titan® and easy Control enable local or remote I/O expansions to be implemented.

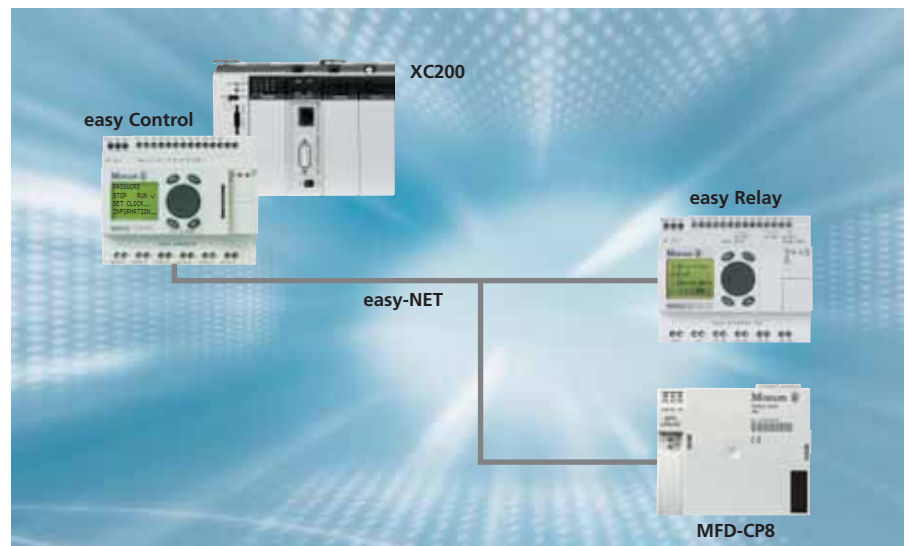


Text and touch displays for more powerful visualization tasks can communicate with the easy800/MFD-Titan and easy Control without any additional requirements.

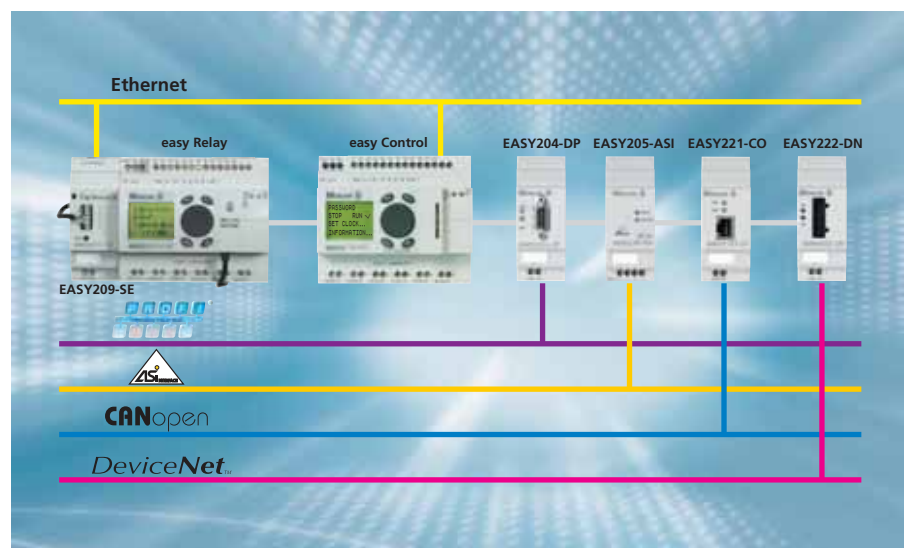


easy-NET enables up to 8 easy800, MFD-Titan and easy Control devices to be networked together. In this way, up to 300 I/O points can be scanned.

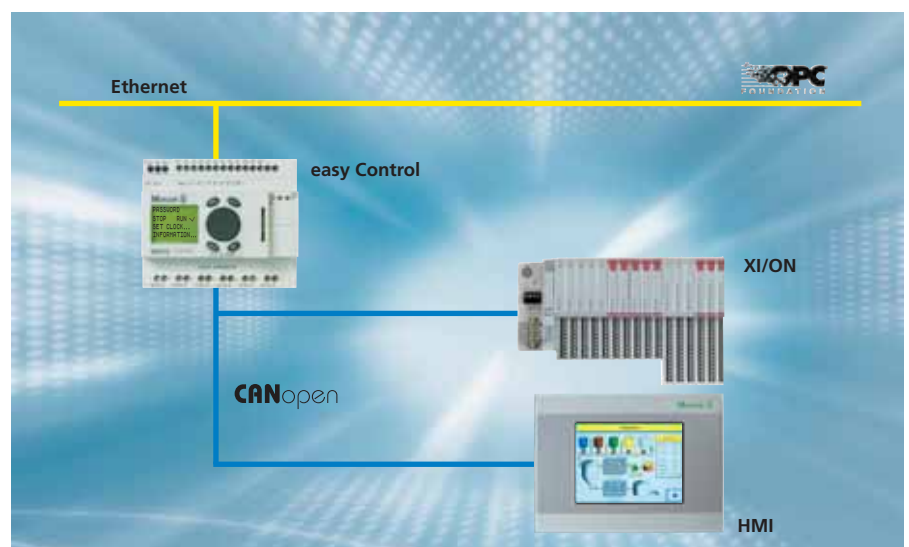
The easy-Net connects the standard easy world with the easy Control and XC200 PLCs. This ensures convenient data transmission to higher-level control systems.



The connection to other PLC systems is provided via the different communication modules. Modules are available for AS-I, Profibus-DP, CANopen and DeviceNet.



A wide range of different peripheral devices can also be connected to the CANopen interface of the easy Control. Remote I/O systems (such as XI/ON), HMIs and many more. Thanks to the integrated Ethernet interface, a connection to higher-level systems can be implemented easily.



Moeller addresses worldwide:
www.moeller.net/address

E-Mail: info@moeller.net
Internet: www.moeller.net

Issued by Moeller GmbH
Hein-Moeller-Str. 7-11
D-53115 Bonn

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Subject to alterations
W2528-7581GB MDS/?? 03/06
Printed in Germany (03/06)
Article No.: 106651



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Xtra Combinations from Moeller offers a range of products and services, enabling the best possible combination options for switching, protection and control in power distribution and automation.

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We keep power under control.