

**PERSPECTO® CP TV**

**Integrated HMI and PLC**



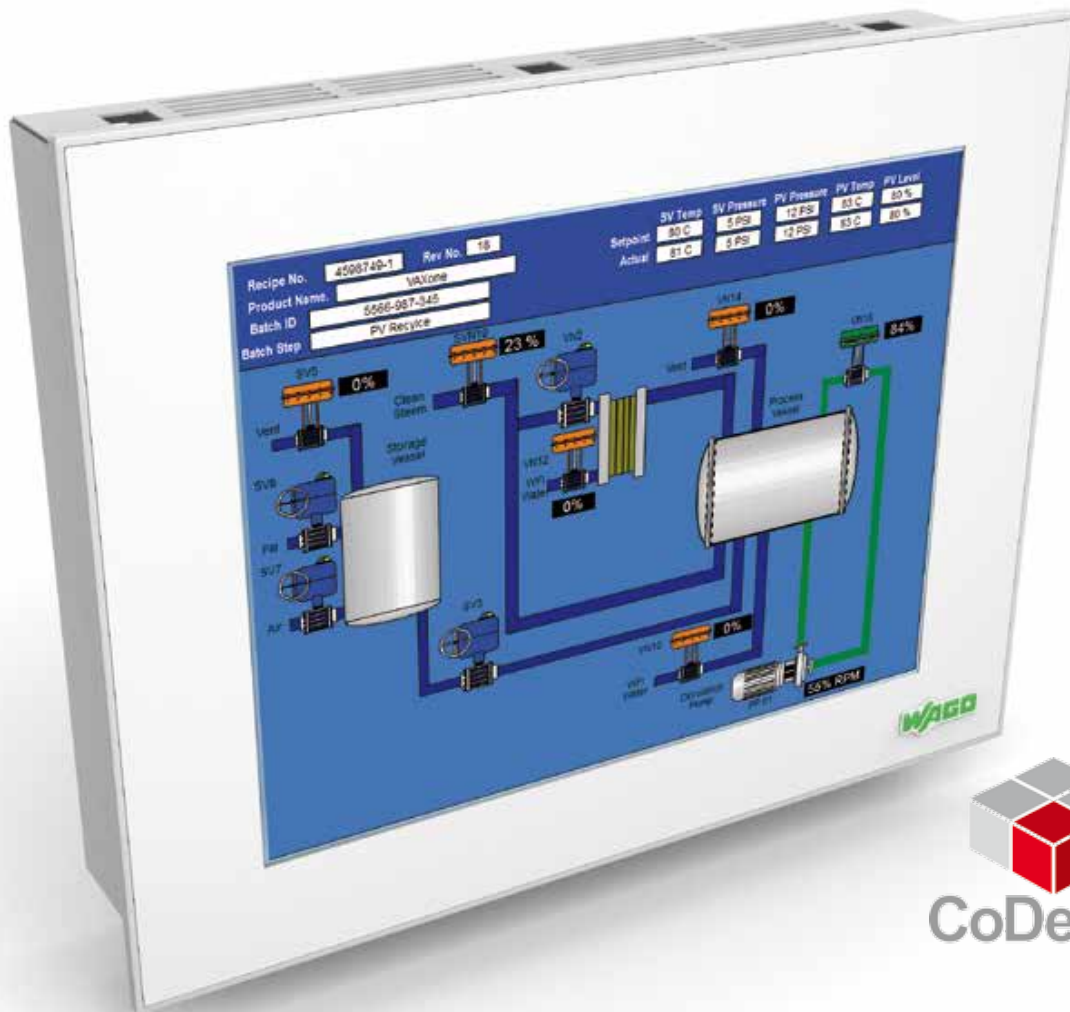
**WAGO®**  
INNOVATIVE CONNECTIONS

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# PERSPECTO® Control Panel with Target Visualization

## Integrated HMI & PLC

# ALL IN ONE



762 Series PERSPECTO® Control Panel with Target Visualization (CP TV) eliminates the need for separate PLC and HMI hardware/software by combining the HMI and PLC into one package. Programmed with a single programming tool, WAGO-I/O-PRO, this all-in-one system features extensive communication interface ports, tight integration with the WAGO-I/O-SYSTEM and more.

### Clear Advantages:

- Reduced engineering time with an integrated logic and graphics development environment
- Reduced costs by streamlining hardware and software requirements
- Reduced support costs and improved operation by centralizing remote access and administration

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3.5"



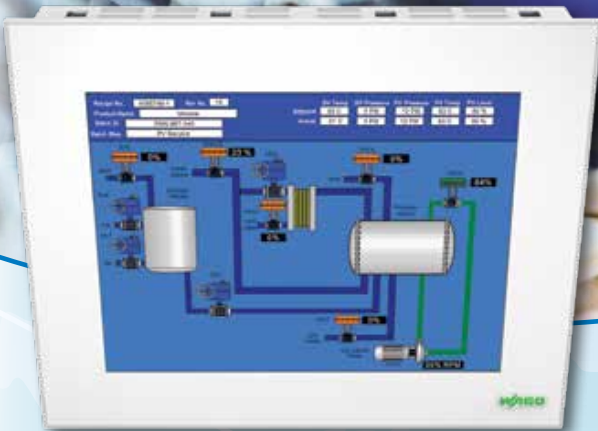
5.7"



10.4"



ECTO® CP TV  
available in  
the following  
screen sizes:



12.1"

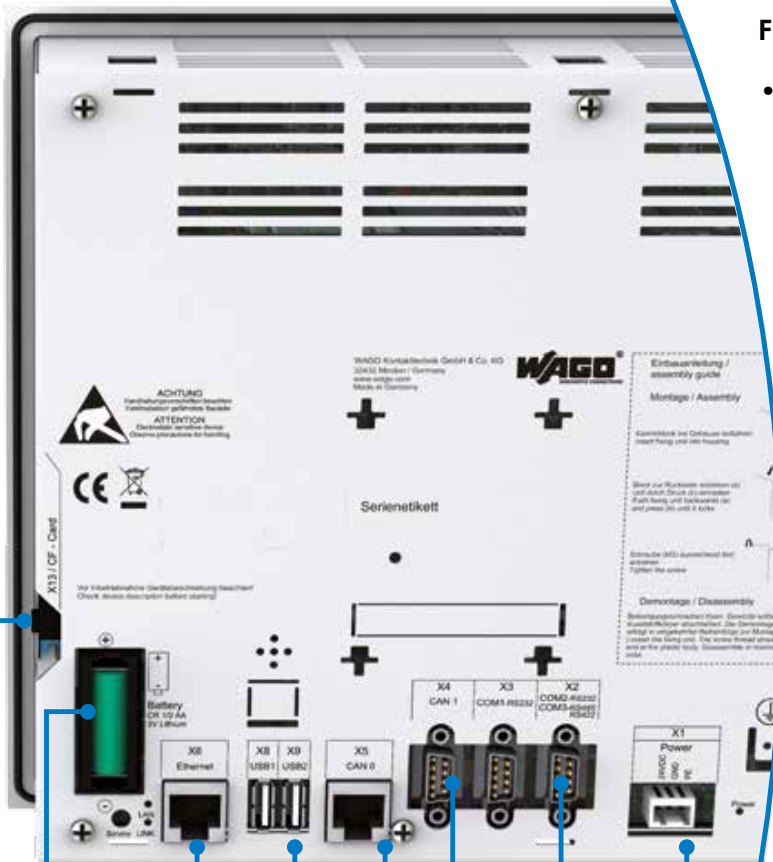


15"

# CONNECTIONS

PERSPECTO® CP TV provides an unmatched number of interface and communication ports. Standard on all units are a minimum of one each Ethernet, CANopen, USB, memory card and serial interface ports.

10.4" version



- CF Memory Card Slot
- Battery for data buffering in the event of a power outage
- ETHERNET 10/100 Mbit RJ-45
- USB host interfaces
- CAN bus with CANopen protocol
- RS-232 or RS-485
- 24 V DC power supply

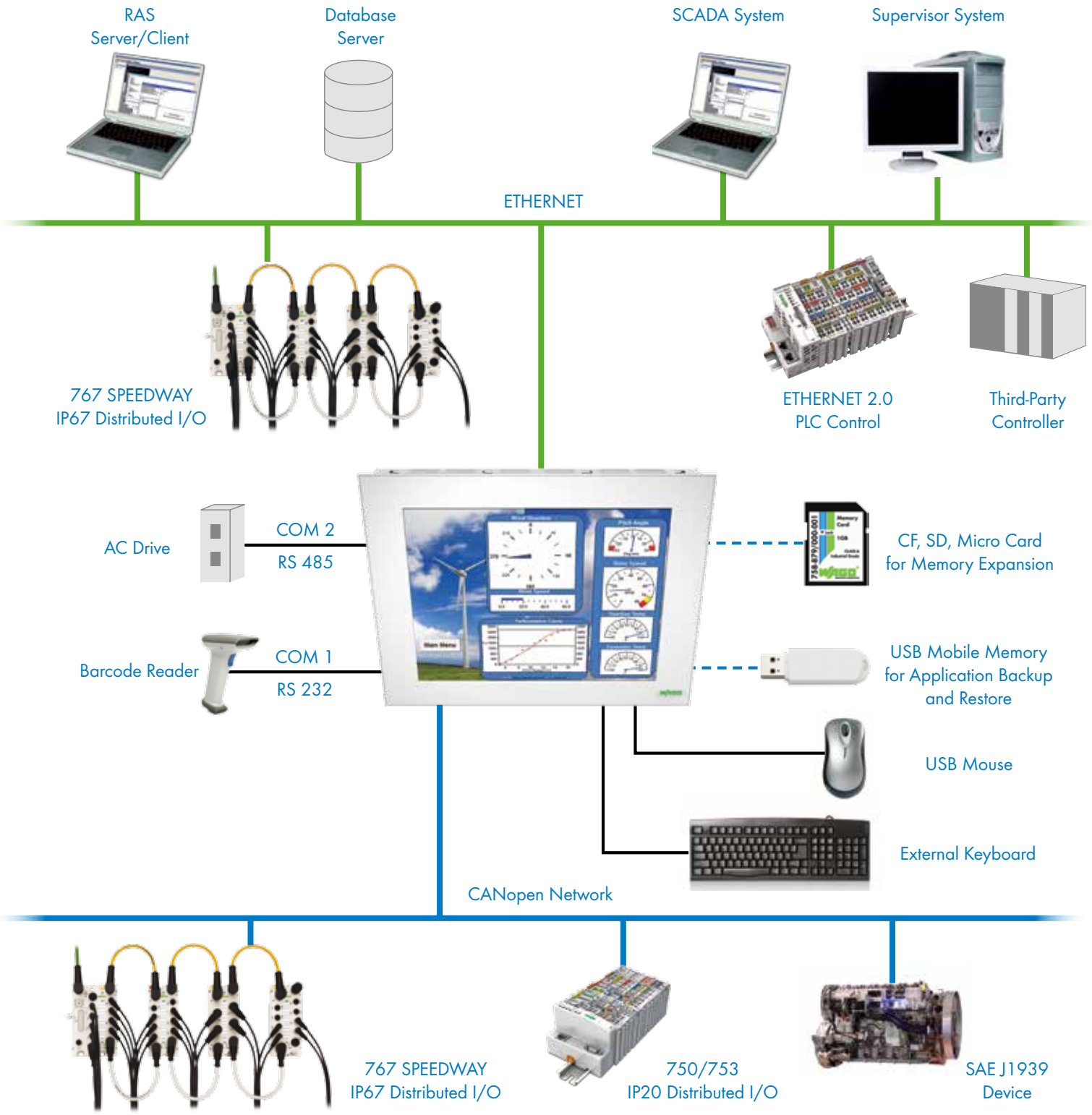
### Fieldbus Networks

- Ethernet protocols supported: MODBUS/TCP (UDP), HTTP, DHCP, SNMP, FTP and SNMP
- CAN bus port(s) support both standard CANopen and SAE J1939 protocols
- MODBUS RTU supported via serial port and function block

### Additional Interfaces for Maximum Flexibility

- Serial port(s) for connection to RS-232 and RS-485 protocols
- USB port(s) for connection to devices such as keyboard, mouse, flash drives, etc.
- Memory card slot for memory expansion up to 2GB

## Connect to All I/O Devices and Control From a Single Point

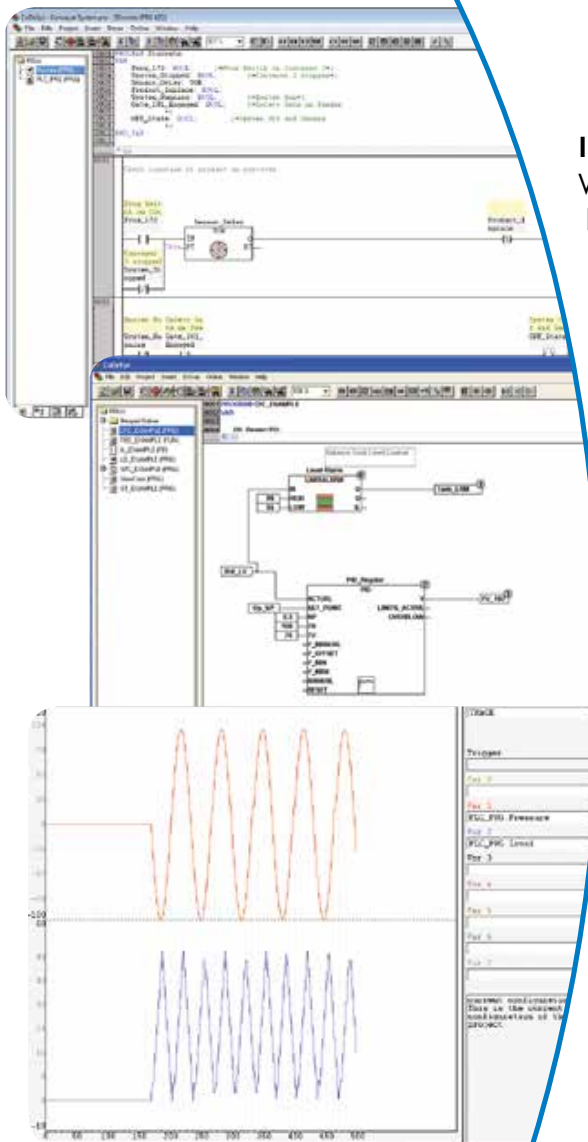
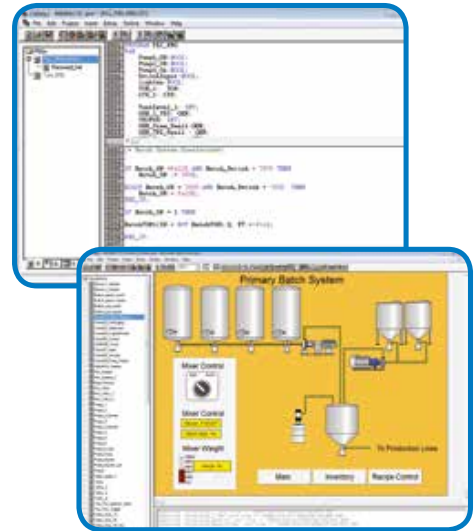


# PERSPECTO® Control Panel with Target Visualization

## Integrated Logic & Graphics Software

# LOGIC

Complementing the PERSPECTO® CP TV is the all-in-one logic and graphics development tool - WAGO-I/O-PRO CAA. Offered as a site license, this integrated software tool accelerates development time with capabilities such as "point-and-click" PLC variable assignment to graphic elements, pre-engineered libraries and graphic elements, and more.



### IEC 61131-3

WAGO-I/O-PRO supports all six IEC programming languages: ladder diagram, structured text, function block diagram, sequential function chart, continuous function chart and instruction list. As a result, developers have the freedom to implement a single editor/language or multiple editors within the same project.

### Advanced Programming Tools

Logic programming is made easy with built-in editor tools such as: the auto declare wizard, syntax coloring for easy code identification, pre-engineered libraries, context sensitive help and the time-saving input assistant.

### Custom Function Blocks

Generate your own libraries to protect your intellectual property. Using WAGO-I/O-PRO, you can develop code and then encapsulate it in a function block with password protection. These function blocks can then be reused without unauthorized code changes.

### Trouble Shooting Tools

Powerful online and offline tools for testing and debugging your project: offline simulation, monitoring/writing/forcing variables, breakpoints/single step/single cycle execution, online changes, sample trace and more.

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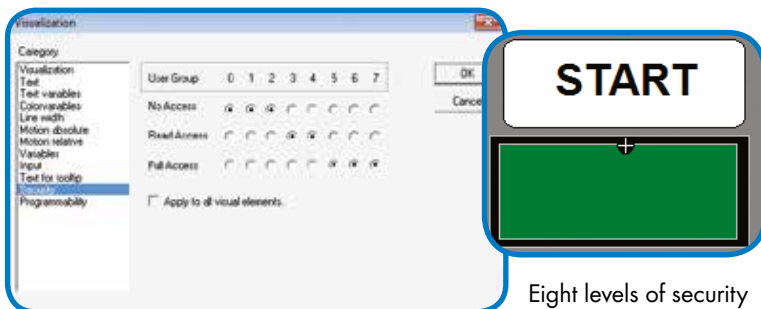
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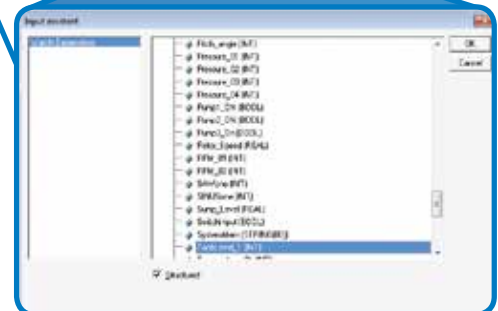
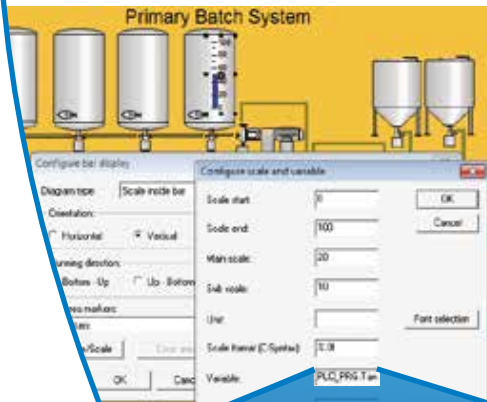
# GRAPHICS

WAGO-I/O-PRO simplifies HMI screen development with a professional look and feel. Accelerate development time with direct access to all variables used in the PLC program, as well as with built-in drawing tools such as:

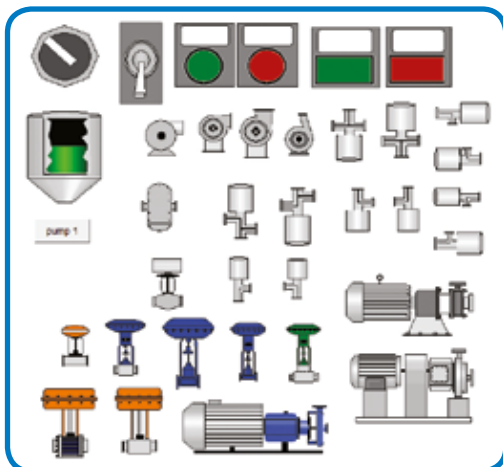
- Trends and tables with logging capability
- Animation tools including element motion and rotation
- Configurable meters, bar charts, histograms, etc.
- System alarm handling
- And much more...



Eight levels of security



Easy access to PLC variables with the input assistance tool



## Industrial Graphics with Place Holders

Create your own or use pre-drawn industrial graphics from WAGO. Using the placeholder feature facilitates easy reuse of dynamic objects. Allowing specific variables from the PLC program to be added to activate object color changes, invisibility, animation, etc.

## Eight Levels of Security

PERSPECTO® CP TV offers up to eight levels of security to protect your system from unauthorized or unintended access. Security levels can be programmed per graphic element or for an entire screen.

## WAGO-I/O-PRO Software

Description	Item No.
WAGO-I/O-PRO V2.3, RS-232 kit	759-333
WAGO-I/O-PRO, USB kit	759-333/000-923
WAGO-I/O-PRO, CD-ROM	759-911

# PERSPECTO® Control Panel with Target Visualization

## Integrated PLC & HMI

# DATA EXCHANGE

Share data across your network with the people and devices that need it. PERSPECTO® CP TV offers multiple methods for exchanging information to maximize machine or process operation:

### Web Server

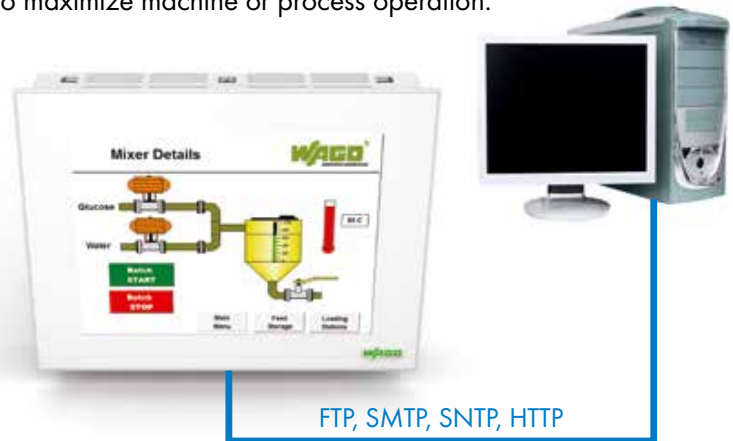
The built-in Web Server enables remote access to the PERSPECTO® CP TV. View and control HMI screens across your network using a simple web browser.

### Simple Network Time Protocol

With SNTP built-in, synchronizing PERSPECTO® CP TV onboard clock system with a central time server is possible. Easily reconcile logged data.

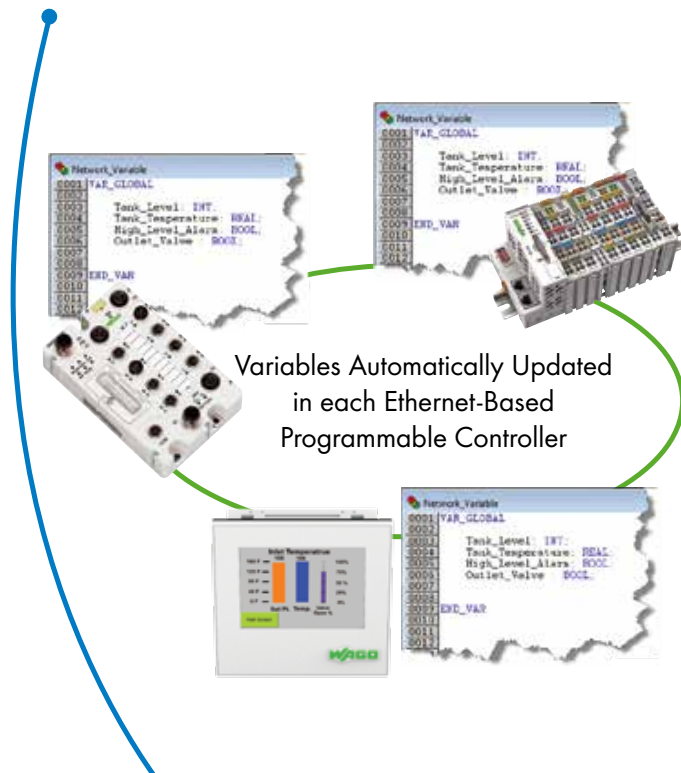
### FTP Server

Onboard FTP server allows easy exchange of files to and from PERSPECTO® CP TV.



### E-mail with SMTP

PERSPECTO® CP TV can send event-based email alarms or be scheduled to provide operational data at preset intervals.



### Network Variables

On Ethernet networks, WAGO offers a unique feature (Network Variables) that allows multiple WAGO controllers to share and automatically update variables without having to engineer complex message blocks. Available in the following Ethernet-based controllers: 762 Series (PERSPECTO® CP TV), 750 Series (WAGO-I/O-SYSTEM), 767 Series (SPEEDWAY) and 758 Series (WAGO-I/O-IPC).

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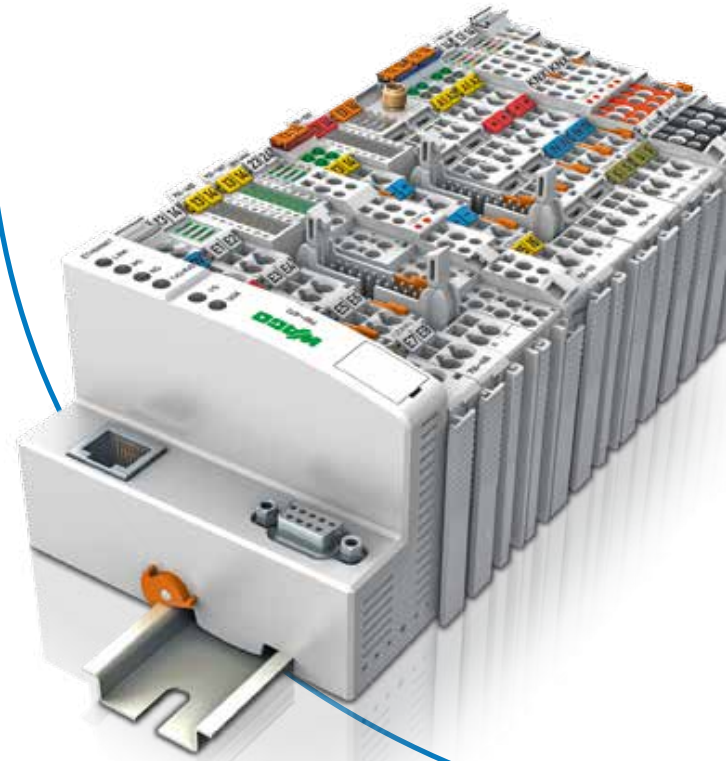


# DISTRIBUTED I/O

## 750/753 Series – In-Cabinet (IP20) I/O

The 750/753 Series WAGO-I/O-SYSTEM offers tight integration with *PERSPECTO*® CP TV making it a great combination for a broad range of applications. Choose from a variety of ECO or standard bus-couplers and programmable controllers, as well as more than 400 digital, analog and special function (stepper control, intrinsically safe, power measurement, vibration monitoring, etc.) I/O modules.

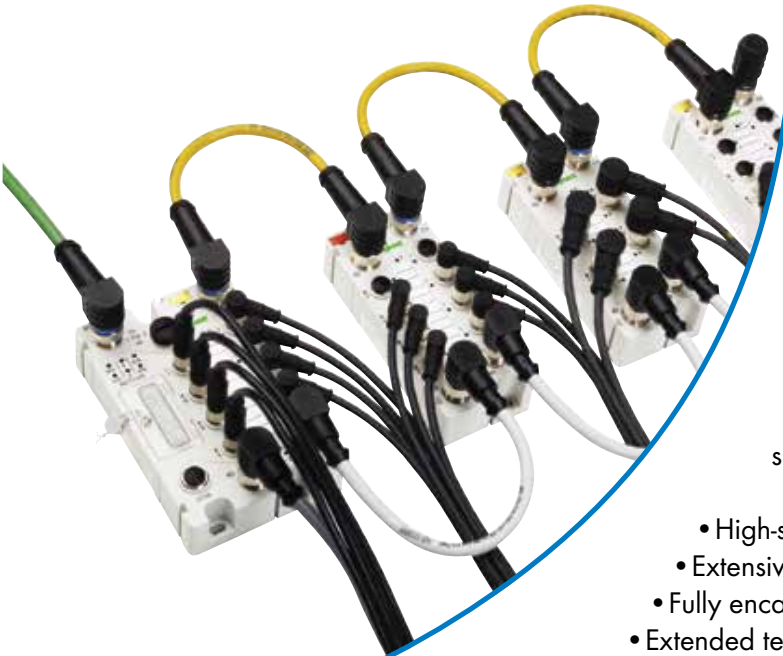
- 1-, 2-, 4-, 8- or 16-channel I/O modules – buy only the I/O you need
- Space-saving design – up to 16 channels in just 12mm wide
- Combine a variety of voltage and signal types in a single node
- Reduce wiring time with 753 Series pluggable connector option.



## 767 Series – On-Machine (IP67) I/O

*SPEEDWAY* 767 Series allows I/O to be added to your *PERSPECTO*® CP TV system without the need for additional enclosures. This extremely flexible system supports highly distributed architectures with distances up to 165 ft. between modules or 1,650 ft. total node extension. Available modules include bus-couplers and programmable controllers, as well as digital, analog and special function I/O.

- High-speed – node scan times as fast as 400µs
- Extensive module configuration with FDT/DTM software tool
- Fully encapsulated housing with integrated metal shielding
- Extended temperature range of -25°C to +60°C



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# PERSPECTO® Control Panel with Target Visualization

## Specifications

### 3.5" (8.9 cm)

- Front panel: Plastic, polyester film
- Housing material: Plastic



### 5.7" (14.5 cm)

- Front panel: Plastic, polyester film
- Housing material: Plastic



### 10.4" (26.4 cm)

- Front panel: Anodized aluminum, natural, polyester film
- Housing material: Sheet steel, painted



Part number	762-3035/000-001	762-3057/000-001
Screen diagonal (in inches)	3.5"	5.7"
Screen diagonal (in centimeters)	8.9	14.5
Viewing angle (horizontal/verticle)	-45° - +45°/-15° - +35°	-70° - +70°/-60° - +70°
Display	TFT	TFT
Display colors	262000 colors	262000 colors
Screen resolution (in pixels)	320 x 240	320 x 240
Contrast ratio	250 : 1	500 : 1
Brightness (in cd/m <sup>2</sup> )	560	400
MTBF display lighting (in hrs)	50,000	50,000
Processor	32-bit ARM9 200 MHz	32-bit ARM9 240 MHz
RAM (in MB)	64	64
Flash (in MB)	64	64
SRAM (in MB)	1	1
Memory expansion (max. 2 GB)	Micro SD card	SD card
Panel	Touchscreen (analog, resistive)	Touchscreen (analog, resistive)
Light transmission	typ. 80%	typ. 75%
Durability (activations with finger or touch pen)	100,000	100,000
USB 2.0 Host (Type A)	1 x	2 x
Ethernet 10/100 Mbps, RJ-45	1 x 10/100 Mbit, RJ-45	1 x 10/100 Mbit, RJ-45
CANopen RJ-45 interface	1 x	1 x
CAN 1 D-Sub 9 interface	-	-
Interface (serial, RS-485)	1 x	-
Interface (serial, RS-232 D-Sub 9)	-	1 x
Interface (serial, RS-232 + RS-485 D-Sub)	-	1 x
Interface (serial, RS-232 + RS-485/422 D-Sub)	-	-
Power supply	24 VDC (18 - 30 V)	24 VDC (18 - 30 V)
Max. input current (24 V)	500 mA	500 mA
Operating power	8 - 12 W	8 - 12 W
Operating temperature	0 °C ... +55 °C	0 °C ... +55 °C
Storage temperature	-10 °C ... +60 °C	-10 °C ... +60 °C
Relative humidity (without condensation)	10 % ... 85 %	10 % ... 85 %
Dimensions (W x H x D in mm)	96x96x29	208x150x42
Panel cutout (W x H in mm)	91x91	198x140
NEMA degree of protection	Front NEMA 4x, IP 65	Front NEMA 4x, IP 65
Approvals	CE UL508 ®	CE UL508 ®

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## 12.1" (30.7 cm)



- Front panel: Anodized aluminum, natural, polyester film
- Housing material: Sheet steel, painted

## 15" (38.1 cm)



- Front panel: Anodized aluminum, natural, polyester film
- Housing material: Sheet steel, painted

762-3104/000-001	762-3121/000-001	762-3150/000-001	762-3150/000-003
10.4"	12.1"	15"	15"
26.4	30.7	38.1	38.1
-65° - +65°/-45° - +65°	-65° - +65°/-75° - +45°	-65° - +65°/-75° - +45°	-65° - +65°/-75° - +45°
TFT	TFT	TFT	TFT
65536colors	65536 colors	16 million colors	16 million colors
640 x 480	800 x 600	1024 x 768	1024 x 768
500 : 1	500 : 1	500 : 1	500 : 1
430	400	250	250
50,000	50,000	50,000	50,000
32-bit XScale 520 MHz	32-bit XScale 520 MHz	Intel Atom® N270; 1.6 GHz	Intel Atom® N270; 1.6 GHz
64	64	256	256
32	32	128	128
1	1	-	-
CF card	CF card	CF card	CF card
Touchscreen (analog, resistive)	Touchscreen (analog, resistive)	Touchscreen (analog, resistive)	Touchscreen (analog, resistive)
typ. 80%	typ. 80%	typ. 80%	typ. 80%
10 million	10 million	35 million	35 million
2 x	2 x	4 x	4 x
1 x 10/100 Mbit, RJ-45	1 x 10/100 Mbit, RJ-45	1 x 10/100 Mbit, RJ-45	1 x 10/100 Mbit, RJ-45
1 x	1 x	-	-
1 x	1 x	-	1 x
-	-	-	-
1 x	1 x	1 x	1 x
1 x	1 x	1 x	1 x
1 x	1 x	1 x	1 x
24 VDC (18 - 30 V)	24 VDC (18 - 30 V)	24 VDC (18 - 30 V)	24 VDC (18 - 30 V)
500 mA	500 mA	1300 mA	1300 mA
10 - 18 W	10 - 18 W	28 - 35 W	28 - 35 W
0 °C ... +50 °C	0 °C ... +50 °C	0 °C ... +45 °C	0 °C ... +45 °C
-10 °C ... +60 °C	-10 °C ... +60 °C	-10 °C ... +60 °C	-10 °C ... +60 °C
10 % ... 85 %	10 % ... 85 %	10 % ... 85 %	10 % ... 85 %
284x222x46	330x268x47	398x306x77	398x306x77
268x206	312x250	383x291	383x291
Front IP65, back IP20	Front IP65, back IP20	Front IP65, back IP20	Front IP65, back IP20
CE	CE	CE	CE

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