PERSPECTO®

PERSPECTO® Web Panels

- Web-based visualization
- 8.9 cm ... 30.7 cm (3.5" ... 12")

PERSPECTO® Control Panels

- Merging of control and visualization
- 8.9 cm ... 38.1 cm (3.5" ... 15")

Section 3.1 ▶

PFC200

- Maximum performance in a minimum space
- High processing speed
- Additional operating controls (e.g., start/stop switch)
- Based on Linux® also in high-level language

Section 3.2 ▶ ▶

Programmable Fieldbus Controllers

- Decentralized intelligence based on fieldbus couplers
- Programmable to IEC 61131-3
- WAGO-I/O-SYSTEM 750, modular

Section 3.3 ▶ ▶ ▶

Programmable Fieldbus Controller XTR

For demanding applications where the following are critical:
- Extreme temperature stability
- Immunity to interference and impulse-voltage withstand
- Vibration and shock resistance

PERSPECTO® is WAGO's comprehensive panel system for operating and monitoring process data for machines, systems and control technology.

Speed through Optimization
Enhanced runtime systems and programs provide consistently high performance.

Programmability Optional
The control panels are programmable in the five programming languages of the IEC 61131 international standard. In addition to pure programming, the WAGO-I/O-PRO programming system built on the CODESYS international standard allows offline simulation, fieldbus configuration, recipe management and much more.

Web Visualization
Displaying a visualization in a Web browser makes flexible options available. In addition to the *PERSPECTO*® Web panel version, visualizations can be displayed on nearly any device with a browser including smartphones and tablets using the WebVisu app.

Flexibility through Design Options
Available in a variety of sizes as a Web, visualization or automation panel model, *PERSPECTO*® provides solutions to suit any customer need.

Adaptable Design
Customer-driven designs and reconfigurable displays enable *PERSPECTO*® monitors and panels to seamlessly integrate into virtually any application.

Fully Integrated Visualization
Complete integration of the visualization system in a control system allows direct integration of variables.
In addition, created masks can easily be reused in various controller configurations.

- Short boot time
- High computing power
- Outstanding energy efficiency
- Monitor sizes from 3.5″ to 15″
- Flat design
- Multiple interfaces
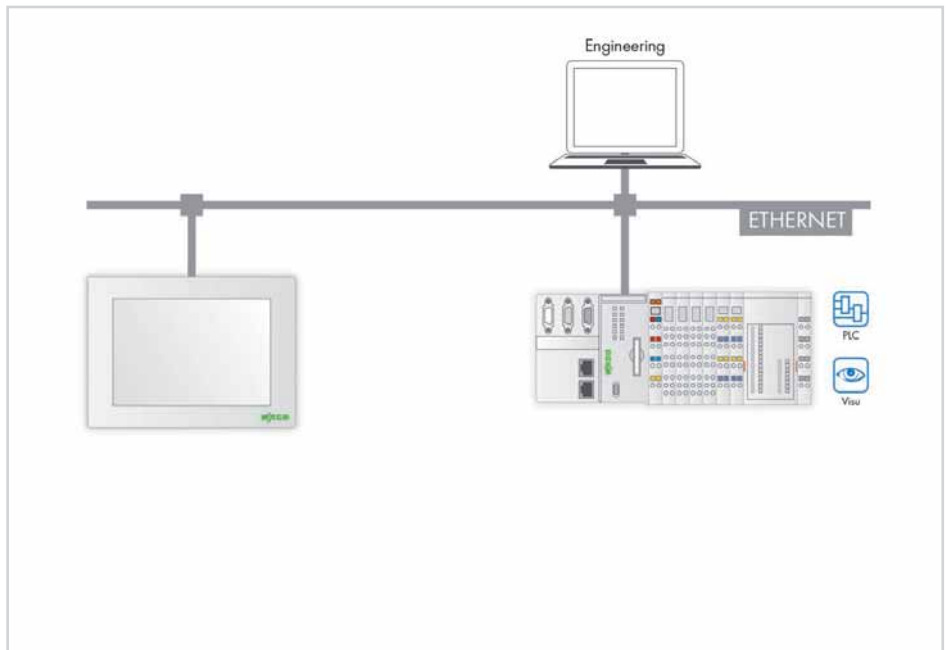- Optional IEC-61131-compatible control functionality

PERSPECTO®
Versions
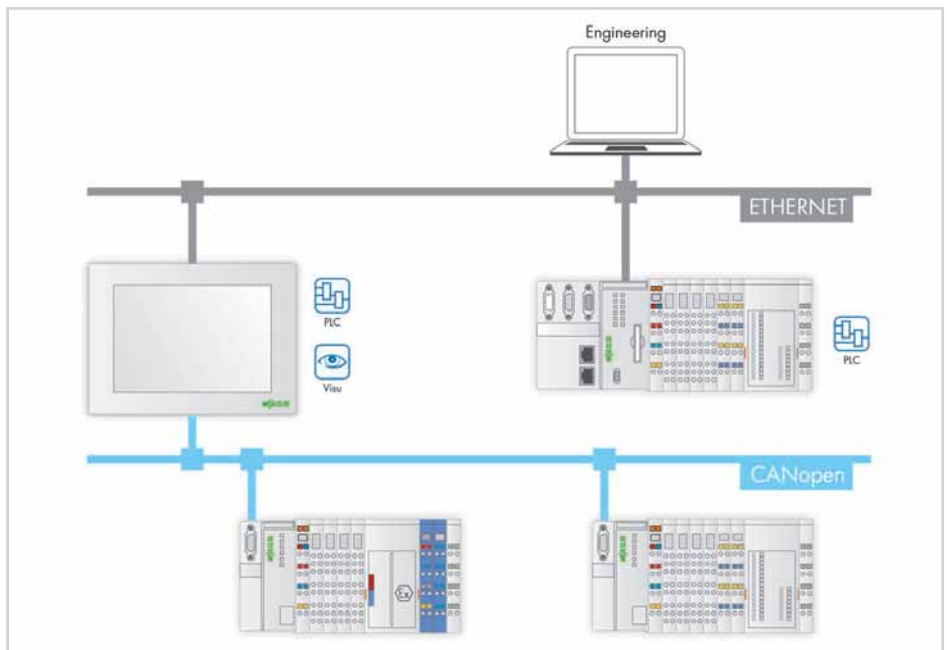
PERSPECTO® WP,
Web Panel

Featuring specialized software, the Web Panel functions as a Web browser, connecting a controller with its own Web server. The CODESYS 2.3 Web visualization has been specifically optimized for the Web Panel.
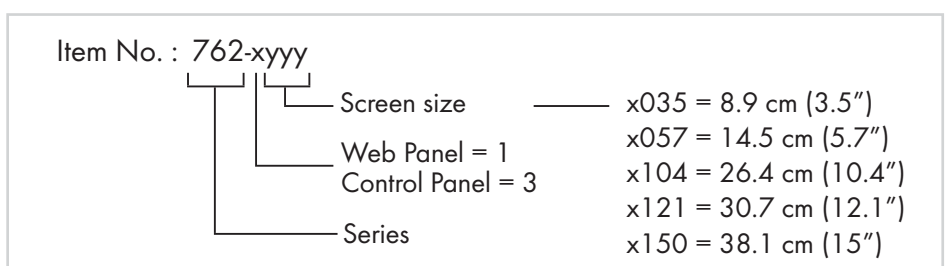
PERSPECTO® CP,
Control Panel with Target Visualization

The Control Panel (CP) with Target Visu (TV) features full CODESYS runtime. The CODESYS development environment allows full application programming in CODESYS. Existing projects may be almost entirely converted and upgraded.

Item Number Keys

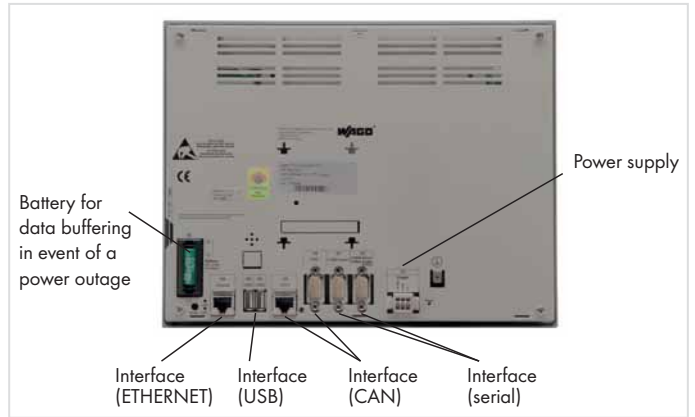Explanation of the components for the item number key

Item No. : 762-xyyy

Screen size ——— x035 = 8.9 cm (3.5")
x057 = 14.5 cm (5.7")
Web Panel = 1
Control Panel = 3
x104 = 26.4 cm (10.4")
x121 = 30.7 cm (12.1")
Series
x150 = 38.1 cm (15")
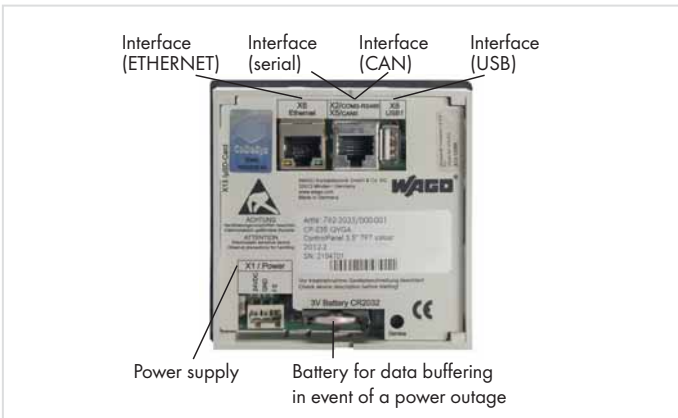
WAGO®

Out of Sight, but Always in Reach

PERSPECTO® offers multiple interfaces, connection ports and other important elements on the back side for maximized connectivity with minimized clutter.
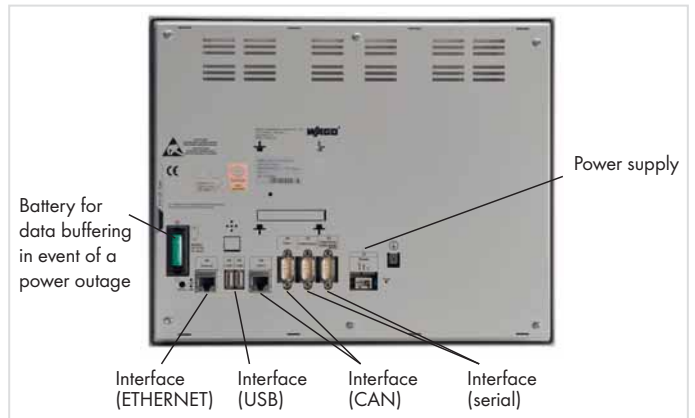
10.4″ version

Interface (USB): 2 x USB 2.0 Host (Type A)
Interface (ETHERNET): 1 x 10/100 Mbit RJ-45
Interface (CAN): 1 x CAN0 RJ-45, 1 x CAN1 D-Sub 9
Interface (serial): 1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub 9

3.5″ version

Interface (USB): 1 x USB 2.0 Host (Type A)
Interface (ETHERNET): 1 x 10/100 Mbit RJ-45
Interface (CAN): 1 x CANopen RJ-45
Interface (serial): RS-485 integrated in CAN

12.1″ version

Interface (USB): 2 x USB 2.0 Host (Type A)
Interface (ETHERNET): 1 x 10/100 Mbit RJ-45
Interface (CAN): 1 x CAN0 RJ-45, 1 x CAN1 D-Sub 9
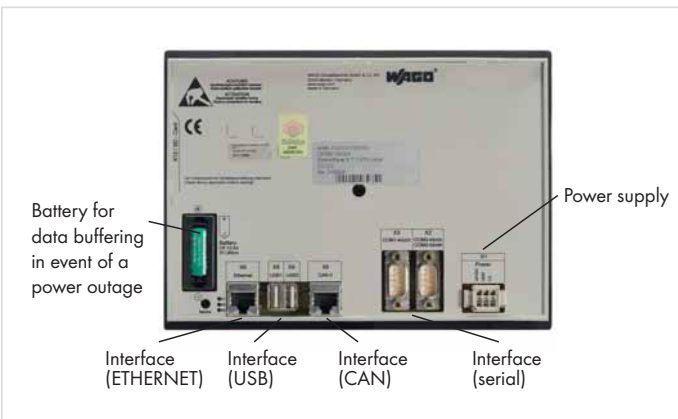Interface (serial): 1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub 9

5.7″ version

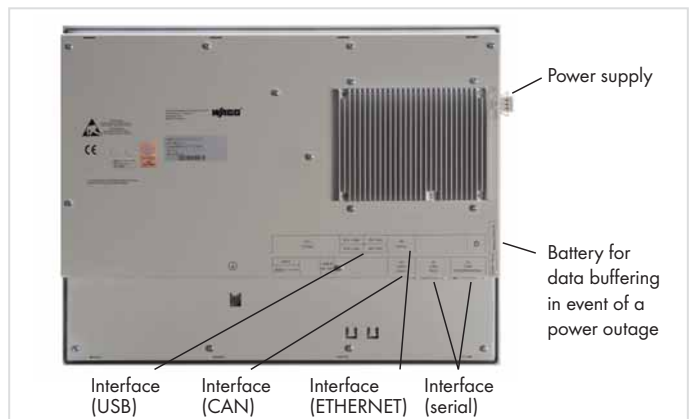Interface (USB): 2 x USB 2.0 Host (Type A)
Interface (ETHERNET): 1 x 10/100 Mbit RJ-45
Interface (CAN): 1 x CANopen RJ-45
Interface (serial): 1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485 D-Sub 9

15″ version

Interface (USB): 4 x USB 2.0 Host (Type A)
Interface (ETHERNET): 1 x 10/100 Mbit RJ-45
Interface (CAN): Option (RJ-45)
Interface (serial): 1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub 9

PERSPECTO®
Application and Installation Instructions

Protection type: Front IP65, back IP20

Standards and Rated Conditions

General Specifications

HBT (Half Brightness Time)	50000 hrs.
Operating system	Windows CE
Control elements	Touch, analog, resistive
Power supply	24 VDC (18 V ... 30 V)
Operating temperature	0 °C ... +50 °C
Storage temperature	-10 °C ... +60 °C
Relative humidity (without condensation)	10 % ... 85 %
Protection type	Front IP65, back IP20

PERSPECTO WP - Web Panel

Specifically configured as a Web browser, the Web Panel connects to controllers with their own Web servers. The CoDeSys 2.3 Web visualization has been specially optimized for the Web Panel.

Software configuration:
• **Internet browser**
• **Java virtual machine**
• **Panel configuration software**

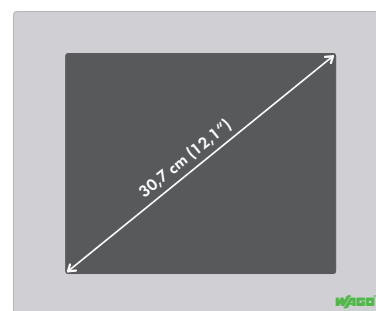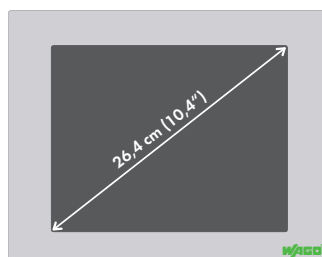| Description	Description	Item No.	Pack. Unit	Description	Item No.	Pack. Unit
PERSPECTO WP, Web Panel	WP 35 QVGA	**762-1035**	1	WP 57 QVGA	**762-1057**	1

Technical Data		
Display	TFT	CSTN
Screen size (diagonal)	8.9 cm (3.5")	14.5 cm (5.7")
Display colors	32.768 colors	4.096 colors
Graphics resolution	320 x 240 pixels	320 x 240 pixels
Contrast ratio	250:1	35:1
Viewing angle, horizontal/vertical	-45° ... 45° / -15° ... 35°	-10° ... 30° / -30° ... 30°
Brightness	560 cd/m^2	350 cd/m^2
HBT *	50000 hrs.	50000 hrs.
Operating system	Windows CE 6.0	Windows CE 6.0
Processor	32-bit ARM9 200 MHz	32-bit ARM9 200 MHz
RAM / Flash / SRAM	64 Mbytes / 64 Mbytes / 1 MB	64 Mbytes / 64 Mbytes / 1 MB
Memory expansion	MicroSD card (max. 2 GB)	SD card (max. 2 GB)
Panel	Touch screen (analog, resistive)	Touch screen (analog, resistive)
Light transmission	Typ. 80 %	Typ. 75 %
Durability	100.000 stylus touches	100.000 stylus touches
Interfaces (USB)	1 x USB 2.0 Host (Type A)	2 x USB 2.0 Host (Type A)
Interface (ETHERNET)	1 x 10/100 Mbits RJ45	1 x 10/100 Mbits RJ45
Interface (CAN)	1 x CANopen RJ-45	1 x CANopen RJ-45
Interface (serial)	RS-485 integrated in CAN	1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485 D-Sub 9
Front panel	Plastic, polyester film	Plastic, polyester film
Housing material	plastic	plastic
Dimensions (W x H x L)	96 x 96 x 29	208 x 150 x 42
Panel cutout (W x H)	91 x 91	198 x 140
Fixing	4 x clamping elements	4 x clamping elements
Power supply	24 V DC (18 V ... 30 V)	24 V DC (18 V ... 30 V)
Max. input current (24 V)	250 mA	250 mA
Operating power	8 - 12 W	8 - 12 W
Operating temperature	0 °C ... +50 °C	0 °C ... +50 °C
Storage temperature	-10 °C ... +60 °C	-10 °C ... +60 °C
Relative air humidity (no condensation)	10 - 85 %	10 - 85 %
Weight	165 g	570 g
Degree of protection	Front IP65, back IP20	Front IP65, back IP20
Approvals	CE, UL 508, GL, KC	CE, UL 508, GL, KC
Accessories	see page 42	see page 42

CAN and serial interfaces are not supported by software

* The HBT (Half Brightness Time) is defined as the LED chip brightness decreases to 50% than original brightness, based an Ta = 25 ± 2 °C; RH = 60 ± 10 % condition.
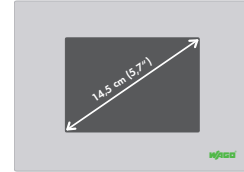
Description	Description	Item No.	Pack. Unit	Description	Item No.	Pack. Unit
PERSPECTO WP, Web Panel	WP 104 VGA	**762-1104**	1	WP 121 SVGA	**762-1121**	1

Technical Data

Display	TFT	TFT
Screen size (diagonal)	26.4 cm (10.4")	30.7 cm (12.1")
Display colors	65.536 colors	65.536 colors
Graphics resolution	640 x 480 pixels	800 x 600 pixels
Contrast ratio	500:1	500:1
Viewing angle, horizontal/vertical	-65° ... 65° / -45° ... 65°	-65° ... 65° / -75° ... 45°
Brightness	430 cd/m²	400 cd/m²
HBT *	50000 hrs.	50000 hrs.
Operating system	Windows CE 5.0	Windows CE 5.0
Processor	32-bit XScale 520 MHz	32-bit XScale 520 MHz
RAM / Flash / SRAM	64 Mbytes / 32 Mbytes / 1 MB	64 Mbytes / 32 Mbytes / 1 MB
Memory expansion	CF card (max. 2 GB)	CF card (max. 2 GB)
Panel	Touch screen (analog, resistive)	Touch screen (analog, resistive)
Light transmission	Typ. 80 %	Typ. 80 %
Durability	10 million finger touches	10 million finger touches
Interfaces (USB)	2 x USB 2.0 Host (Type A)	2 x USB 2.0 Host (Type A)
Interface (ETHERNET)	1 x 10/100 Mbits RJ45	1 x 10/100 Mbits RJ45
Interface (CAN)	1 x CAN0 RJ-45, 1 x CAN1 D-Sub 9	1 x CAN0 RJ-45, 1 x CAN1 D-Sub 9
Interface (serial)	1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub	1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub
Front panel	Anodized aluminum, natural, polyester film	Anodized aluminum, natural, polyester film
Housing material	Sheet steel, painted	Sheet steel, painted
Dimensions (W x H x L)	284 x 222 x 46	330 x 268 x 47
Panel cutout (W x H)	268 x 206	312 x 250
Fixing	6 x clamping elements	6 x clamping elements
Power supply	24 VDC (18 V ... 30 V)	24 VDC (18 V ... 30 V)
Max. input current (24 V)	500 mA	500 mA
Operating power	10 - 18 W	10 - 18 W
Operating temperature	0 °C ... +50 °C	0 °C ... +50 °C
Storage temperature	-10 °C ... +60 °C	-10 °C ... +60 °C
Relative air humidity (no condensation)	10 - 85 %	10 - 85 %
Weight	2100 g	2600 g
Degree of protection	Front IP65, back IP20	Front IP65, back IP20
Approvals	CE, ⓊL 508, GL, KC	CE, ⓊL 508, GL, KC
Accessories	see page 42	see page 42

CAN and serial interfaces are not supported by software

* The HBT (Half Brightness Time) is defined as the LED chip brightness decreases to 50% than original brightness, based an Ta = 25 ± 2 °C; RH = 60 ± 10 % condition.

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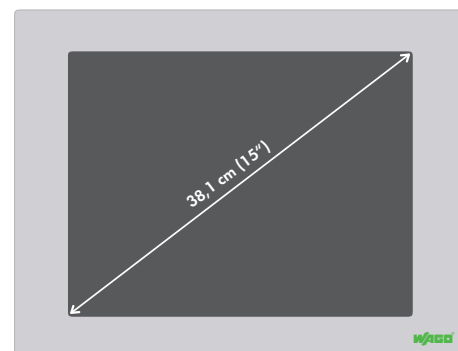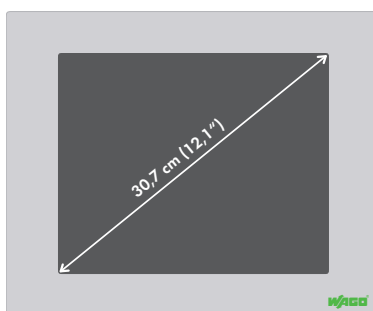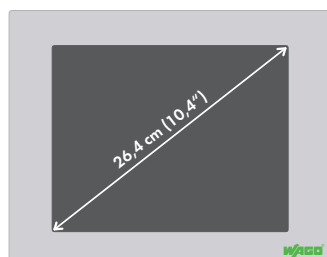# PERSPECTO CP, Control-Panel mit Target Visualisierung

In addition to HMI runtime, the control panel also features PLC runtime, making it a full-fledged automation device. It provides configurable functions for operation and monitoring, and can independently process control tasks.

Software configuration:
- **WAGO runtime (PLC, HMI)**
- **Panel configuration software**
- **CoDeSys PLC with CoDeSys Target Visualization**

Description	Description	Item No.	Pack. Unit	Description	Item No.	Pack. Unit
PERSPECTO CP, **Control Panel with Target** **Visualisation**	CP 35 QVGA TV	**762-3035/000-001**	1	CP 57 QVGA TV	**762-3057/000-001**	1

Technical Data

Display	TFT	TFT
Screen size (diagonal)	8.9 cm (3.5")	14.5 cm (5.7")
Display colors	32768 colors	4096 colors
Graphics resolution	320 x 240 pixels	320 x 240 pixels
Contrast ratio	250:1	35:1
Viewing angle, horizontal/vertical	-45° ... 45° / -15° ... 35°	-10° ... 30° / -30° ... 30°
Brightness	560 cd/m²	350 cd/m²
HBT *	50000 hrs.	50000 hrs.
Operating system	Windows CE 6.0	Windows CE 6.0
Processor	32-bit ARM9 200MHz	32-bit ARM9 200MHz
RAM / Flash / SRAM	64 MB / 64 Mbytes / 1 MB	64 MB / 64 Mbytes / 1 MB
Program memory	1024 Kbytes	1024 Kbytes
Data memory	1024 Kbytes	1024 Kbytes
Non-volatile memory (retain)	128 KB	128 KB
Memory expansion	MicroSD (max. 2 GB)	SD card (max. 2 GB)
Panel	Touch screen (analog, resistive)	Touch screen (analog, resistive)
Light transmission	Typ. 80 %	Typ. 75 %
Durability	100,000 activations with touch pen	100,000 activations with touch pen
Interfaces (USB)	1 x USB 2.0 Host (type A)	2 x USB 2.0 Host (type A)
Interface (ETHERNET)	1 x 10/100 Mbits RJ45	1 x 10/100 Mbits RJ45
Interface (CAN)	1 x CAN RJ-45	1 x CAN RJ-45
Interface (serial)	RS-485 integrated into CAN	1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485 D-Sub 9
Front panel	Plastic, polyester film	Plastic, polyester film
Housing material	plastic	plastic
Dimensions (W x H x L)	96 x 96 x 29	208 x 150 x 42
Panel cutout (W x H)	91 x 91	198 x 140
Fixing	4 x clamping elements	4 x clamping elements
Power supply	24 VDC (18 - 30 V)	24 VDC (18 - 30 V)
Max. input current (24 V)	250 mA	250 mA
Operating power	8 - 12 W	8 - 12 W
Operating temperature	0 °C ... +50 °C	0 °C ... +50 °C
Storage temperature	-10 °C ... +60 °C	-10 °C ... +60 °C
Relative air humidity (no condensation)	10 - 85 %	10 - 85 %
Weight	165 g	570 g
Degree of protection	Front IP65, back IP20	Front IP65, back IP20
Approvals	C€, ᵁᴸ UL 508, GL, KC	C€, ᵁᴸ UL 508, GL, KC
Accessories	see page 42	see page 42

* The HBT (Half Brightness Time) is defined as the LED chip brightness decreases to 50% than original brightness, based an Ta = 25 ± 2 °C; RH = 60 ± 10 % condition.

26,4 cm (10,4")

30,7 cm (12,1")

38,1 cm (15")

Description	Item No.	Pack. Unit	Description	Item No.	Pack. Unit	Description	Item No.	Pack. Unit
CP 104 VGA TV	**762-3104/000-001**	1	CP 121 SVGA TV	**762-3121/000-001**	1	CP 150 XGA TV	**762-3150/000-001**	1
						CP 150 XGA CAN TV	**762-3150/000-003**	1

TFT	TFT	TFT
26.4 cm (10.4")	30.7 cm (12.1")	38.1 cm (15")
65536 colors	65536 colors	16 million colors
640 x 480 pixels	800 x 600 pixels	1024 x 768 pixels
500:1	500:1	500:1
-65° ... 65° / -45° ... 65°	-65° ... 65° / -75° ... 45°	-75° ... 75° / -60° ... 60°
430 cd/m^2	400 cd/m^2	250 cd/m^2
50000 hrs.	50000 hrs.	50000 hrs.
Windows CE 5.0	Windows CE 5.0	Windows CE 6.0
32-bit XScale 520 MHz	32-bit XScale 520 MHz	Intel Atom® N270; 1.6 GHz
64 MB / 32 Mbytes / 1 MB	64 MB / 32 Mbytes / 1 MB	256 MB / 128 Mbytes / -
1024 Kbytes	1024 Kbytes	1024 Kbytes
1024 Kbytes	1024 Kbytes	1024 Kbytes
128 KB	128 KB	128 KB
CF card (max. 2 GB)	CF card (max. 2 GB)	CF card (max. 2 GB)
Touch screen (analog, resistive)	Touch screen (analog, resistive)	Touch screen (analog, resistive)
Typ. 80 %	Typ. 80 %	Typ. 80 %
10 million activations with finger	10 million activations with finger	35 million activations with finger
2 x USB 2.0 Host (type A)	2 x USB 2.0 Host (type A)	4 x USB 2.0 Host (type A)
1 x 10/100 Mbits RJ45	1 x 10/100 Mbits RJ45	1 x 10/100/1000 Mbits RJ45
1 x CAN0 RJ-45, 1 x CAN1 D-Sub 9	1 x CAN0 RJ-45, 1 x CAN1 D-Sub 9	Option (RJ-45)
1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub	1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub	1 x RS-232 D-Sub 9, 1 x RS-232 + RS-485/-422 D-Sub
Anodized aluminum, natural, polyester film	Anodized aluminum, natural, polyester film	Anodized aluminum, natural, polyester film
Sheet steel, painted	Sheet steel, painted	Sheet steel, painted
284 x 222 x 46	330 x 268 x 47	398 x 306 x 77
268 x 206	312 x 250	383 x 291
6 x clamping elements	6 x clamping elements	6 x clamping elements
24 VDC (18 - 30 V)	24 VDC (18 - 30 V)	24 VDC (18 - 30 V)
500 mA	500 mA	1300 mA
10 - 18 W	10 - 18 W	28 - 35 W
0 °C ... +50 °C	0 °C ... +50 °C	0 °C ... +45 °C
-10 °C ... +60 °C	-10 °C ... +60 °C	-10 °C ... +60 °C
10 - 85 %	10 - 85 %	10 - 85 %
2100 g	2600 g	4500 g
Front IP65, back IP20	Front IP65, back IP20	Front IP65, back IP20
CE, UL 508, GL, KC	CE, UL 508, GL, KC	CE, UL 508, GL, KC
see page 42	see page 42	see page 42

WAGO

Accessories

Memory cards, connection cables and mounting sets

Memory Cards	Item No.	Pack. Unit	Technical Data
CF memory card, 1 GB	758-879/000-000	1	Flash memory: 1 GByte
			Write/Read cycles max.:
			Single: 20 Mbytes/s (max.) / 10 Mbytes/s (max.);
			Dual: 40 Mbytes/s (max.) / 20 Mbytes/s (max.)
			MTBF: 300,000 hrs.
			Service life: 2,000,000 program/operating cycles
			Operating temperature: -40 °C ... +85°C
			Storage temperature: -55 °C ... +95 °C
			Relative humidity (without condensation): 95 %
			Dimensions (mm) W x H x L: 42.8 x 36.4 x 3.3
			Vibration resistance: acc. to IEC 60068-2-6
SD memory card, 2 GB	758-879/000-001	1	Memory: 2 GByte
			Write/Read cycles max.: 16 Mbytes/s / 22 Mbytes/s
			MTBF: 4,000,000 hrs.
			Service life: 2,000,000 program/operating cycles
			Operating temperature: -45 °C ... +90°C
			Storage temperature: -45 °C ... +90 °C
			Relative humidity (without condensation): 95 %
			Dimensions (mm) W x H x L: 24 x 32 x 2.1
			Vibration resistance: 15 G
			Shock resistance: 50 G (operating), 1000 G (not operating)
			Data transmission rate: Up to 22 Mbytes/s
MicroSD memory card, 1 GB	758-879/000-002	1	Memory: 1 GByte
			Write/Read cycles max.: 18 Mbytes/s / 16 Mbytes/s
			MTBF: 5,000,000 hrs.
			Service life: 2,000,000 program/operating cycles
			Operating temperature: -40 °C ... +85°C
			Storage temperature: -40 °C ... +85 °C
			Relative humidity (without condensation): 95 %
			Dimensions (mm) W x H x L: 15 x 11 x 1
			Vibration resistance: 15 G
			Shock resistance: 1000 G Data transmission rate: Up to 18 Mbytes/s

Connection Cables	Item No.	Pack. Unit
DVI-D cable, 3 m	758-879/000-100	1
USB A-B cable, 3 m	758-879/000-101	1

Befestigungsset (als Ersatzteil für das dem Produkt beiliegende Set)	Item No.	Pack. Unit
Mounting set for WP, CP 35	758-879/000-300	1
Mounting set for WP, CP 57	758-879/000-301	1
Mounting set for WP, CP 104	758-879/000-302	1
Mounting set for WP, CP 121	758-879/000-303	1
Mounting set for CP 150	758-879/000-304	1