

IP Series: Full IP65 Multi Touch Panel PC

*360° protection against
intrusion of dust, water,
oil, or corrosive materials*



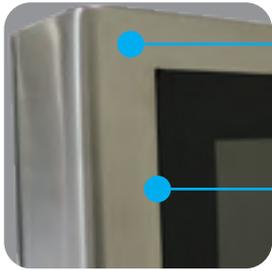
Features

- IP65 compliant 6-sided stainless steel chassis
- IP65 waterproof stainless steel connectors
- IP65 rated external power adapter (alternative)

Specially suitable for dusty / humid / oily / corrosive industrial environments



IP Series Full IP65 Multi Touch Panel PC



- IP65 compliant 6-sided sealed stainless steel chassis
to prevent liquid / dust from getting into the housing and to resist acid- / alkali-based cleaning agents from corroding the device
- Seamless flat-bezel design between chassis and panel
to decrease water / dust accumulation and to facilitate cleaning / maintenance



- IP65 waterproof stainless steel connectors
to prevent liquid from getting into the housing via the cable entry points

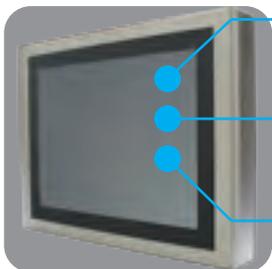
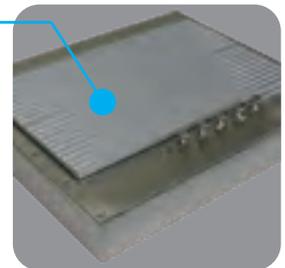


- IP65 rated external power adapter (alternative)
to prevent liquid from getting into the interior of the adapter from the junction of the shell



External heat sink (on the rear for IP-AN Series with Core i5 Turbo up to 2.7GHz CPU & IP-GN Series only)
to faster dissipate the heat to keep excellent CPU performance

- No external heat sink (for IP-AN Series with Core i5 1.8GHz / Celeron CPU & IP-2L / -7L / -8L / -9L / -BL / -EN / -FN Series)



- 7H hardness anti-scratch panel surface
to avoid touch function failure due to scratch
- Oil- & water-stain-proof panel surface
to ensure touch sensitivity
- Enhanced PCT touch panel
to enable input with glove which is necessary in some applications



- RFID sensor (optional)
to enable RFID technology application, such as logistics, warehousing, distribution or industrial automation (identification of workpiece carriers on assembly lines, material flow control, identification of containers and other receptacles)

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Challenges

For a PC-based automation system installed in some industrial environments such as food processing factories, car washing stations, petroleum plants or pharmaceutical facilities, moisture, grease and dust resistance is an important criterion to ensure high reliability against harsh conditions. IP65 rating is the most commonly used index when an industrialist purchases waterproof industrial PCs.



Waterproof



Dustproof



Anti-oil



Corrosion-proof

Solutions

Kingdy's IP Series is the very full IP65 multi touch panel PC featuring the following protection designs and designed for sophisticated human-machine interaction in the most intuitive way.

- **Dustproof / Waterproof full IP65 chassis, connector and power adaptor** not only to prevent dust and water from invading the inner sensitive components but also to allow the device to be washed down
- **Corrosion-proof and anti-oil stainless steel chassis** not only to prevent corrosion generated by acid and alkali but also to facilitate cleaning and maintenance

Applications



Foodstuff, Pharmaceuticals



Military



Industrial automation



Petroleum, Chemistry, Petrochemistry

IP-EN Series (Intel J1900)



	CPU Performance	
	Energy Efficiency	
	Touch Function	
	Dissipation Design	Fanless, No external heat sink
	Waterproof Design	IP65 chassis, IP65 connectors, IP65 power adaptor (alternative)
	Housing Design	Stainless steel

CPU	Intel® Bay Trail D-J1900 2.0GHz Quad Core Processor (CPU OnBoard)
Memory	2 x 204-pin SODIMM Dual-channel DDR3L 1333 / 1066MHz up to 8 GB
Power Supply	Standard / full IP65 DC in 12V external power adaptor
I/O Ports (Default)	2 x RS232, 2 x GLAN, 2 x USB, 1 x SATA socket
I/O Ports (Optional)	Any combination of up to 3 x RS232, 3 x GLAN, 6 x USB but totally no more than 6
Expansion	1 x Mini PCIe slot (with mSATA function)
Operation Temperature	0°C ~ 45°C
Storage Temperature	-10°C ~ 70°C
Relative Humidity	10% ~ 90% non-condensing
OS	Win 7 Pro, Embedded 7, Win 8 Pro, Embedded 8
Installation	VESA mount 100 x 100 mm
Optional Items	RFID sensor, Memory, Storage devices, WiFi, OS

Model Name		IP-ENR12QF ^(4pt PCT) IP-ENR12RF ^(resistive)	IP-ENR12QF ^(4pt PCT) WI-ENS12RF ^(resistive)	IP-ENR15QF ^(4pt PCT) IP-ENL15RF ^(resistive)
Display	Size / Aspect Ratio	12.1" TFT (4:3)	12.1" TFT (4:3)	15" TFT (4:3)
	Backlight	CCFL	LED	LED
	Resolution	800 x 600	1024 x 768	1024 x 768
	Colors	16.2 M	16.2 M	16.2 M
	Luminance (cd/m ²)	400	500	400
	Contrast Ratio	600:1	700:1	700:1
	Viewing Angle (H/V°)	160/120	160/160	160/160
	MTBF (hrs)	50,000	50,000	50,000
Touch Screen	5-wire resistive	5-wire resistive	5-wire resistive	
Dim. (W x H x D+heatsink, mm)		TBD	TBD	380 x 290 x 67+10
Weight (main unit + heatsink, kg)		8.5+1	8.5+1	10.5+1
I/O Port's Location		Bottom	Bottom	Bottom

Model Name		IP-ENL17QF ^(4pt PCT) IP-ENL17RF ^(resistive)	IP-ENR17QF ^(4pt PCT) IP-ENR17RF ^(resistive)	IP-ENL19QF ^(4pt PCT) IP-ENL19RF ^(resistive)	IP-END21QF ^(4pt PCT) IP-END21ZF ^(10pt PCT)
Display	Size / Aspect Ratio	17" TFT (4:3)	17" TFT (4:3)	19" TFT (4:3)	21.5" TFT (16:9)
	Backlight	LED	CCFL	LED	LED
	Resolution	1280 x 1024	1280 x 1024	1280 x 1024	1920 x 1080
	Colors	16.7 M	16.7 M	16.7 M	16.7 M
	Luminance (cd/m ²)	350	300	250	300
	Contrast Ratio	1000:1	800:1	1000:1	5000:1
	Viewing Angle (H/V°)	140/170	140/125	170/160	178/178
	MTBF (hrs)	50,000	50,000	50,000	50,000
Touch Screen	4pt PCT / 5-w resist.	4pt PCT / 5-w resist.	4pt PCT	4/10pt PCT	
Dimension (W x H x D, mm)		470 x 390 x 67.1	470 x 390 x 67.1	521.4 x 434.4 x 67.1	607 x 401 x 67.1
Weight (kg)		15.5	15.5	16.5	18.5
I/O Port's Location		Rear	Rear	Rear	Rear