## **Data sheet**

SIMATIC IPC377E (Basicpanel PC) 15" touch (1366 x 768); Celeron N3160 (4C/4T); 4 GB RAM; 256 GB SSD; 1x display port graphic; 1x VGA port graphic; 2x 10/100/1000 Mbit/s Ethernet RJ45; 2x USB3.0, 2x USB2.0; 4x serial ports (COM); 1x mPCle / 1x mSATA; Windows 10 Enterprise 2016 LTSB, 64 bit, MUI (en,de,fr,it,es); 24 V DC power supply; installation, VESA mounting



Figure similar

General information	
Product type designation	IPC377
Installation type/mounting	
Installation type/mounting	
Mounting	Panel mount and VESA, horizontal and vertical
Design	Panel PC, built-in unit
Supply voltage	
Type of supply voltage	24 V DC
Mains buffering	
Mains/voltage failure stored energy time	10 ms
Processor	
Processor type	Intel Celeron N3160
Drives	
SSD	Yes; 256 GB SSD
M.	
Memory	
Type of memory	DDR3L

Capacity of main memory, max.  8 Gbyte  Hardware configuration  Slots  • free slots  1x mPCle (half-size), 1x mSATA (full-size)  Interfaces  Number of industrial Ethernet interfaces  2; 2x RJ45 (independent)  USB port  2x USB 2.0, 2x USB 3.0 (high current)  Video interfaces  • Graphics interface  1x DisplayPort, 1x VGA  Industrial Ethernet  • Industrial Ethernet interface  2x Ethernet (RJ45)  - 100 Mbps  Yes  - 1000 Mbps  Yes  Protocols  Protocols (Ethernet)  • TCP/IP  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  • Watchdog  • Status LEDs  • Fan  No	Main memory	4 GB (pre-installed)
Siots  • free slots  1x mPCle (half-size), 1x mSATA (full-size)  Interfaces  Number of industrial Ethernet interfaces 2 x USB 2.0, 2x USB 3.0 (high current)  Video interfaces  • Graphics interface 1x DisplayPort, 1x VGA  Industrial Ethernet  • Industrial Ethernet • Industrial Ethernet • Industrial Ethernet  • Interface  • Interface Industrial Ethernet  • Interface Industrial Ethe	•	· · · · · · · · · · · · · · · · · · ·
Fore slots	очраску от тант тетогу, тах.	o obyto
Interfaces  Number of Industrial Ethernet interfaces	Hardware configuration	
Number of industrial Ethernet interfaces   2; 2x RJ45 (independent)	Slots	
Number of industrial Ethernet interfaces   2; 2x RJ45 (independent)	• free slots	1x mPCle (half-size), 1x mSATA (full-size)
Video interfaces   1x DisplayPort, 1x VGA	Interfaces	
• Graphics interface 1x DisplayPort, 1x VGA  Industrial Ethernet  • Industrial Ethernet interface 2x Ethernet (RJ45) — 100 Mbps Yes — 1000 Mbps Yes  Protocols  Protocols (Ethernet) • TCP/IP Yes  Integrated Functions  Monitoring functions  • Temperature monitoring Yes • Status LEDs • Fran No  EMC  Interference immunity against discharge of static electricity • Interference immunity against high-frequency electromsyradiation • Interference immunity against high-frequency electromsyradiation  • Interference immunity against high-frequency electromsyradiation  • Interference immunity against high-frequency electromsyradiation  • Interference immunity against high-frequency electromsyradiation  • Interference immunity against high-frequency electromsyradiation  • Interference immunity on supply cables  • Interference immunity on supply cables  • Interference immunity on signal cables > 30m • Interference immunity against voltage surge  • asymmetric interference • symmetric interference • \$2 k V acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge  • asymmetric interference • \$1 k V acc. to IEC 61000-4-5, surge paysmmetric • \$1 k V acc. to IEC 61000-4-5, surge paysmmetric	Number of industrial Ethernet interfaces	2; 2x RJ45 (independent)
Industrial Ethernet  Industrial Ethernet interface Inter	USB port	2x USB 2.0, 2x USB 3.0 (high current)
Industrial Ethernet  Industrial Ethernet interface  Industrial Ethernet interface  Industrial Ethernet interface  Interfa	Video interfaces	
Interference immunity against high-frequency radiation  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on signal cables > 30m  Interference immunity on signal cables > 30m  Interference immunity on signal cables > 30m  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  Interference immunity against voltage surge  Interference immunity on supply cables  Interference immunity on sugnal cables < 30m  ## X x Ethernet (R,J45)  Yes  Yes  Yes  Yes  Yes  Yes  POWER, HDD  No  ## X Voltact: ±8 kV air (to IEC 1000-4-2; ESD)  ## X Voltact: ±8	Graphics interface	1x DisplayPort, 1x VGA
100 Mbps Yes 1000 Mbps Yes  Protocols  Protocols (Ethernet)  • TCP/IP Yes  Integrated Functions  Monitoring functions  • Temperature monitoring Yes • Watchdog Yes • Status LEDs POWER, HDD • Fan No  EMC  Interference immunity against discharge of static electricity • Interference immunity against discharge of static electricity  • Interference immunity against high-frequency electromagnetic fields  • Interference immunity against high frequency radiation  • Interference immunity to cable-borne interference  • Interference immunity to aspinate aspinat	Industrial Ethernet	
Protocols  Protocols (Ethernet)  • TCP/IP  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring • Yes • Watchdog • Status LEDs • Fan  No  POWER, HDD • Interference immunity against discharge of static electricity  • Interference immunity against high-frequency electromagnetic fields  • Interference immunity to cable-borne interference  • Interference immunity to cable-borne interference  • Interference immunity to supply cables  ### Ext V (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  ### Ext V (according to IEC 61000-4-4, burst); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  ### Ext V (according to IEC 61000-4-4, burst); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  ### Ext V (according to IEC 61000-4-4, burst); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  ### Ext V (according to IEC 61000-4-4, Burst)  ### Interference immunity on signal cables < 30m  ### Ext V (according to IEC 61000-4-4, Burst)  ### Interference immunity against voltage surge  ### Ext V (according to IEC 61000-4-5, surge asymmetric  ### Ext V (according to IEC 61000-4-5, surge asymmetric  ### Ext V (according to IEC 61000-4-5, surge asymmetric	Industrial Ethernet interface	2x Ethernet (RJ45)
Protocols (Ethernet)  • TCP/IP  Yes  Integrated Functions  Monitoring functions  • Temperature monitoring  • Watchdog  • Status LEDs  • Fan  No  EMC  Interference immunity against discharge of static electricity  • Interference immunity against discharge of static electricity  • Interference immunity against high-frequency electromagnetic fields  • Interference immunity against high-frequency electromagnetic fields  • Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  • Interference immunity on supply cables  • Interference immunity on signal cables >30m  • Interference immunity on signal cables < 30m  • Interference immunity against voltage surge  • asymmetric interference  • asymmetric interference  • symmetric interference  • the Vest Status Sta	— 100 Mbps	Yes
Protocols (Ethernet)  TCP/IP  Yes  Integrated Functions  Monitoring functions  Temperature monitoring Yes  Watchdog Status LEDs POWER, HDD Fan No  EMC  Interference immunity against discharge of static electricity Interference immunity against discharge of static electrocity  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency against high frequency electromagnetic fields  Interference immunity against high frequency against high frequency electromagnetic fields  Interference immunity osable-borne interference  Interference immunity to cable-borne interference  Interference immunity on supply cables  ### 2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  Interference immunity on signal cables < 30m  #### 2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  #### asymmetric interference  #### 42 kV acc. to IEC 61000-4-5, surge asymmetric  #### 42 kV acc. to IEC 61000-4-5, surge symmetric  #### 42 kV acc. to IEC 61000-4-5, surge symmetric	— 1000 Mbps	Yes
Protocols (Ethernet)  TCP/IP  Yes  Integrated Functions  Monitoring functions  Temperature monitoring Yes  Watchdog Status LEDs POWER, HDD Fan No  EMC  Interference immunity against discharge of static electricity Interference immunity against discharge of static electrocity  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency against high frequency electromagnetic fields  Interference immunity against high frequency against high frequency electromagnetic fields  Interference immunity osable-borne interference  Interference immunity to cable-borne interference  Interference immunity on supply cables  ### 2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  Interference immunity on signal cables < 30m  #### 2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  #### asymmetric interference  #### 42 kV acc. to IEC 61000-4-5, surge asymmetric  #### 42 kV acc. to IEC 61000-4-5, surge symmetric  #### 42 kV acc. to IEC 61000-4-5, surge symmetric	Protocols	
Integrated Functions  Monitoring functions  • Temperature monitoring • Watchdog • Status LEDs • Fan  POWER, HDD No  Interference immunity against discharge of static electricity  • Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields  • Interference immunity on signal cables of the follow-4-3; 3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3; 3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3.  Interference immunity on supply cables  • Interference immunity on signal cables > 30m  • Interference immunity on signal cables > 30m  • Interference immunity on signal cables < 30m  • Interference immunity on signal cables < 30m  • Interference immunity against voltage surge  • asymmetric interference  • symmetric interference  • 1 kV acc. to IEC 61000-4-5, surge symmetric		
Monitoring functions  Temperature monitoring Watchdog Status LEDs POWER, HDD Fan No  EMC  Interference immunity against discharge of static electricity Interference immunity against discharge of static electricity Interference immunity against high-frequency electromagnetic fields Interference immunity against high frequency radiation Interference immunity to cable-borne interference Interference immunity on supply cables Interference immunity on supply cables Interference immunity on signal cables >30m Interference immunity on signal cables < 30m Interference immunity on sig		Yes
Temperature monitoring		
Temperature monitoring  Watchdog Status LEDs Fan  POWER, HDD  Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on supply cables  Interference immunity on supply cables  Interference immunity on signal cables > 30m  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  asymmetric interference  # Ves  POWER, HDD  No  # AN AM according to IEC 1000-4-2; ESD)  # AN AM according to IEC 61000-4-3, Surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  # A kV acc. to IEC 61000-4-4, Burst  Interference immunity on signal cables < 30m  # A kV acc. to IEC 61000-4-4, Burst  # A kV acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge  # A symmetric interference  # 2 kV acc. to IEC 61000-4-5, surge asymmetric  # 3 kV acc. to IEC 61000-4-5, surge symmetric	Integrated Functions	
Watchdog     Status LEDs     POWER, HDD     No  EMC  Interference immunity against discharge of static electricity     Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on supply cables  ### 2 kV (according to IEC 61000-4-3, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to ground)  ### No  Interference immunity on signal cables > 30m  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  ### Against Valce of 1000-4-5, surge asymmetric  ### 2 kV acc. to IEC 61000-4-5, surge asymmetric  ### 1 kV acc. to IEC 61000-4-5, surge symmetric	Monitoring functions	
Status LEDs Fan  POWER, HDD No  Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity to cable-borne interference  Interference immunity on supply cables  ### 2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to ground)  ### 2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  ### 3 ktV acc. to IEC 61000-4-5, surge asymmetric  ### 4 ktV acc. to IEC 61000-4-5, surge symmetric  ### 4 ktV acc. to IEC 61000-4-5, surge symmetric  ### 4 ktV acc. to IEC 61000-4-5, surge symmetric  ### 4 ktV acc. to IEC 61000-4-5, surge symmetric	<ul> <li>Temperature monitoring</li> </ul>	Yes
► Fan     No  Interference immunity against discharge of static electricity      • Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields      • Interference immunity against high frequency against high frequency electromagnetic fields      • Interference immunity against high frequency against high frequency electromagnetic fields      • Interference immunity against high frequency against high frequency endiation  Interference immunity to cable-borne interference      • Interference immunity on supply cables      †2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)      †2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge      • Interference immunity on signal cables < 30m      †1 kV acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge      • asymmetric interference      ±2 kV acc. to IEC 61000-4-5, surge asymmetric      ±1 kV acc. to IEC 61000-4-5, surge symmetric	<ul><li>Watchdog</li></ul>	Yes
Interference immunity against discharge of static electricity  • Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields  • Interference immunity against high frequency radiation  • Interference immunity to cable-borne interference  • Interference immunity on supply cables  • Interference immunity on supply cables  • Interference immunity on signal cables > 30m  • Interference immunity on signal cables < 30m  • Interference immunity on signal cables < 30m  • Interference immunity on signal cables < 30m  • Interference immunity against voltage surge  • asymmetric interference  • symmetric interference  ± 1 kV acc. to IEC 61000-4-5, surge asymmetric  ± 1 kV acc. to IEC 61000-4-5, surge symmetric	Status LEDs	POWER, HDD
Interference immunity against discharge of static electricity  Interference immunity against discharge of static electricity  Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on supply cables  Interference immunity on supply cables  Interference immunity on signal cables >30m  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  asymmetric interference  ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  ±1 kV acc. to IEC 61000-4-4, Burst  ±2 kV acc. to IEC 61000-4-5, surge asymmetric  ±1 kV acc. to IEC 61000-4-5, surge symmetric	● Fan	No
Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on supply cables  Interference immunity on signal cables > 30m  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  asymmetric interference   asymmetric interference     Interference immunity against discharge of \$\delta kV\$ contact; \$\delta kV\$ air (to IEC 1000-4-2; ESD)   Interference immunity against high-frequency electromagnetic fields  10 V/m for 80 1 000 MHz, 80 % AM according to IEC 61000-4-3  3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3  Interference immunity on supply cables  12 kV (according to IEC 61000-4-4, burst); \$\delta kV\$ (according to IEC 61000-4-5, surge pulse/line to ground)  12 kV acc. to IEC 61000-4-4, burst; \$\delta kV\$ acc. to IEC 61000-4-5, surge  11 kV acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge  12 kV acc. to IEC 61000-4-5, surge asymmetric  13 kV acc. to IEC 61000-4-5, surge symmetric  14 kV acc. to IEC 61000-4-5, surge symmetric	EMC	
Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on supply cables  Interference immunity on supply cables  Interference immunity on signal cables > 30m  Interference immunity on signal cables < 3	Interference immunity against discharge of static electr	icity
Interference immunity against high-frequency electromagnetic fields  Interference immunity against high frequency radiation  Interference immunity to cable-borne interference  Interference immunity on supply cables  Interference immunity on signal cables > 30m  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  Interference immunity	Interference immunity against discharge of	±6 kV contact; ±8 kV air (to IEC 1000-4-2; ESD)
<ul> <li>Interference immunity against high frequency radiation</li> <li>3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3</li> <li>Interference immunity to cable-borne interference</li> <li>Interference immunity on supply cables</li> <li>±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)</li> <li>Interference immunity on signal cables &gt; 30m</li> <li>±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge</li> <li>Interference immunity against voltage surge</li> <li>asymmetric interference</li> <li>±2 kV acc. to IEC 61000-4-5, surge asymmetric</li> <li>±1 kV acc. to IEC 61000-4-5, surge symmetric</li> </ul>	static electricity	
radiation  3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3  Interference immunity to cable-borne interference  • Interference immunity on supply cables  ±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  • Interference immunity on signal cables >30m  ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  • Interference immunity on signal cables < 30m  ±1 kV acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge  • asymmetric interference  ±2 kV acc. to IEC 61000-4-5, surge asymmetric  ±1 kV acc. to IEC 61000-4-5, surge symmetric	Interference immunity against high-frequency electromagnetic e	agnetic fields
Interference immunity to cable-borne interference  Interference immunity on supply cables  #2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  Interference immunity on signal cables > 30m  Interference immunity on signal cables < 30m  Interference immunity against voltage surge  asymmetric interference  #2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge  #2 kV acc. to IEC 61000-4-4, Burst  #4 kV acc. to IEC 61000-4-5, surge asymmetric  #4 kV acc. to IEC 61000-4-5, surge symmetric  #4 kV acc. to IEC 61000-4-5, surge symmetric	Interference immunity against high frequency	
Interference immunity on supply cables      ±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)      • Interference immunity on signal cables > 30m      ±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge      • Interference immunity on signal cables < 30m      ±1 kV acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge      • asymmetric interference      ±2 kV acc. to IEC 61000-4-5, surge asymmetric      ±1 kV acc. to IEC 61000-4-5, surge symmetric	radiation	3; 3 V/m for 1.4 6 GHz, 80 % AM according to IEC 61000-4-3
IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)  • Interference immunity on signal cables >30m  • Interference immunity on signal cables < 30m  Interference immunity against voltage surge  • asymmetric interference  • symmetric interference  ±2 kV acc. to IEC 61000-4-5, surge asymmetric  ±1 kV acc. to IEC 61000-4-5, surge symmetric	Interference immunity to cable-borne interference	
<ul> <li>Interference immunity on signal cables &gt;30m</li> <li>±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge</li> <li>Interference immunity on signal cables &lt; 30m</li> <li>±1 kV acc. to IEC 61000-4-4, Burst</li> <li>Interference immunity against voltage surge</li> <li>±2 kV acc. to IEC 61000-4-5, surge asymmetric</li> <li>±2 kV acc. to IEC 61000-4-5, surge symmetric</li> <li>±1 kV acc. to IEC 61000-4-5, surge symmetric</li> </ul>	<ul> <li>Interference immunity on supply cables</li> </ul>	IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC
surge  Interference immunity on signal cables < 30m  ±1 kV acc. to IEC 61000-4-4, Burst  Interference immunity against voltage surge  • asymmetric interference  ±2 kV acc. to IEC 61000-4-5, surge asymmetric  ±1 kV acc. to IEC 61000-4-5, surge symmetric		
Interference immunity against voltage surge  • asymmetric interference		surge
<ul> <li>◆ asymmetric interference</li> <li>★2 kV acc. to IEC 61000-4-5, surge asymmetric</li> <li>★1 kV acc. to IEC 61000-4-5, surge symmetric</li> </ul>		±1 kV acc. to IEC 61000-4-4, Burst
• symmetric interference ±1 kV acc. to IEC 61000-4-5, surge symmetric	Interference immunity against voltage surge	
	asymmetric interference	
Interference immunity to magnetic fields	• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
	Interference immunity to magnetic fields	

• Interference immunity to magnetic fields at 50 Hz

100 A/m; to IEC 61000-4-8

Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP40

Standards, approvals, certificates		
CE mark	Yes	
UL approval	Yes	
cULus	Yes	
RCM (formerly C-TICK)	Yes	
EAC (formerly Gost-R)	Yes	
FCC	Yes	
Dust protection	Protection against foreign bodies > 1 mm	

Ambient conditions	
Ambient temperature during operation	
Ambient temperature during operation	0 to +45°C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5 % to 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no condensation)

Operating systems	
pre-installed operating system	Windows 10 Enterprise 2016 LTSB, 64 bit, MUI
pre-installed operating system	
<ul> <li>Windows 10 Enterprise</li> </ul>	Yes; Windows 10 IoT Enterprise 2016 LTSB, 64bit, MUI

Dimensions	
Width	406 mm
Height	258.1 mm
Depth	103 mm

last modified: 05/28/2020