

# Personal Computer - Panel Mount

## PC-320P-\*



- Large application flexibility due to identical basic components that can be configured as required
- Industrial Panel PC: IP66 rating in front panel and IP20 rating in back
- Easy installation with available Mounting Kit
- Global certifications

## Personal Computer - Panel Mount

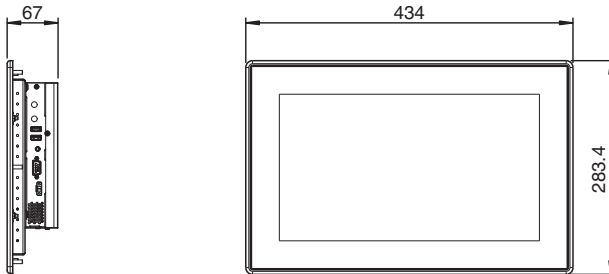


## Function

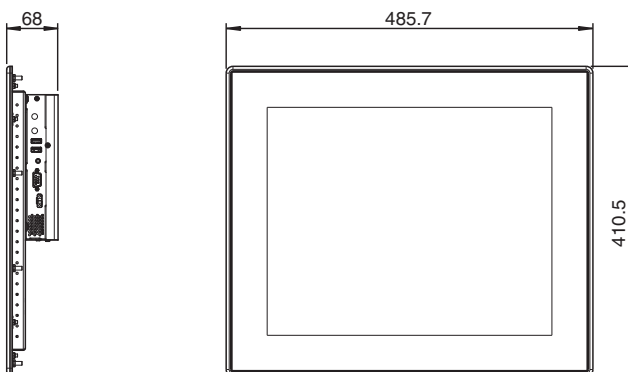
VisuNet FLX Panels consist of a display unit with touch screen in combination with a computing unit. Various display sizes (21.5", 19" and 15.6") and configurable computer units lead to highest application flexibility. The VisuNet FLX panels are designed for Zone 2/22 (Div. 2) and non-Ex applications. The gap free surface which is available with a typical surface roughness of 0.8 µm and rounded edges of the bezel prevent accumulation of liquids or bacteria. Display and seals are chemically resistant to typical cleaning agents.

## Dimensions

15.6" Display



19" Display



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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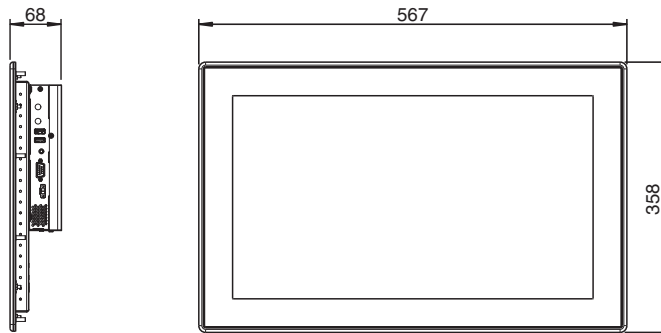
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 PEPPERL+FUCHS

**Dimensions**

21.5" Display



**Technical Data**

<b>General specifications</b>	
Type	Personal Computer
<b>Hardware</b>	
Processor	Intel® Core™ i5-7300U Intel® Celeron™ 3965U
RAM	2x SO-DIMM slots, supports up to 32 GB DDR4-2133 (one SO-DIMM slot)  <b>Configurable RAM options:</b> Industrial temperature grade (temperature option A): B: 1x 8GB DDR4-2133 C: 1x 16GB DDR4-2133  Wide temperature grade (temperature option B): L: 1x 8GB DDR4-2133 M: 1x 16GB DDR4-2133
Mass storage	<b>Storage interface:</b> 1x M.2 2242/2280 M Key, PCIe + SATA 3 1x M.2 2242/2280 M Key, 2242/2280, SATA 3, supports Raid 0/1 [i5]  <b>Configurable storage options:</b> Industrial temperature grade (temperature option A): D: 256 GB M.2 NVMe 1.3 (PCIe 4x) E: 512 GB M.2 NVMe 1.3 (PCIe 4x)  Wide temperature grade (temperature option B): P: 256 GB M.2 NVMe 1.3 (PCIe 4x) Q: 512 GB M.2 NVMe 1.3 (PCIe 4x)
<b>Supply</b>	
Input current	max. 3 A, max. 60 W
Power consumption	
DC	20 ... 28 V d.c. / 4.0 A (SELV/PELV or class 2) For connections designation refer to the VisuNet FLX Panel Mount manual.
<b>Indicators/operating means</b>	
<b>Display</b>	
Type	Liquid Crystal Display (LCD) with LED backlight
Screen diagonal	Configurable display options: 22GT: 54.61 cm (21.5") [temperature class A] 22FC: 54.61 cm (21.5") (Display might react sluggishly below 0 °C) 19SC: 48.26 cm (19") 15FC: 39.62 cm (15.6")
Resolution	22GT, 22FC, 15FC: 1920 x 1080 pixels (Full HD) Aspect Ratio (16:9) 19SC: 1280 x 1024 pixels (SXGA) Aspect Ratio (5:4)
Color depth	24 bit (16.7 M) color
Contrast	Typically 22GT: 1000:1 22FC: 5000:1 19SC: 1000:1 15FC: 800:1

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Brightness	Configurable display options: 22GT: 250 cd/m2 22FC: 300 cd/m2 19SC: 450 cd/m2 15FC: 450 cd/m2
Reading angle	22GT: 178 ° in all directions 22FC, 19SC: horizontal: 170 °, vertical: 160 ° 15FC: 170 ° in all directions
Life span	22GT: back lamp life: 30.000 hrs typical half life, at 25 °C (77 °F) 22FC, 19SC, 15FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices	
Touchscreen	Configurable Display Options: 10-finger multi-touch, glove-friendly 22GT: Capacitive touch, no optical bonding 22FC, 19SC, 15FC: Capacitive touch, optical bonding
Keyboard	Optional: Foil keyboard with different pointing device options available (see EXTA4 datasheet)
<b>Interface</b>	
Interface type	1 x DisplayPort 1.2 (DP++) 1 x mini DisplayPort 1.2 (DP++ w/ mono locking screw) 1 x Audio Line-out 2 x USB Ex i ports prepared for Pepperl+Fuchs intrinsically safe keyboard 2 x USB 3.1 Gen1 (5 Gbps) ports 1 x USB 2.0 port 2 x LAN ports (RJ45, 10/100/1000 Mbps) 2 x RS232/422/485 (BIOS configurable) with 5V/12V to power peripherals (1 x DB9 male + 1 x RJ45)
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (ind. Locations) EN 61000-6-4:2007+A1:2011 EN 55035:2017/A11:2020 EN 55011:2016+A1:2017
Explosion protection	
Directive 2014/34/EU	EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-11:2012 EN 60079-31:2014
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018
<b>Software</b>	
Operating system	Microsoft® Windows® 10 IoT Enterprise 2019 LTSC (x64)
<b>Ambient conditions</b>	
Operating temperature	Temperature classes: A: 0 ... 45 °C (32 ... 113 °F) B: -20 ... 55 °C (-4 ... 131 °F) [with wide temperature grade RAM/storage and optically bonded display unit]
Storage temperature	-20 ... 65 °C (-4 ... 149 °F)
Relative humidity	max. relative humidity 93% at 40°C (non-condensing) according to EN60068-2-78
Climatic conditions	Passive cooling, no rotating parts.
Altitude	Operating altitude max. 2000 m
Shock resistance	18 shocks 15 g, 11 ms all axis, IEC 60068-2-27
Vibration resistance	10 ... 150 Hz, +/- 0.075 mm, 1g, 10 cycles per axis according to EN60068-2-6
<b>Mechanical specifications</b>	
Degree of protection	Front side: IP66/Type 4X Back side: IP20
Material	Front bezel: Stainless steel AISI304 (glass, silicone gasket) Backside: Painted aluminum sheet metal
Installation	Panel mount (additional mounting kits available)
Mass	22GT, 22FC and 19SC: approx. 8 kg 15FC: 5.4 kg
Dimensions	22 inch: 567 mm x 358 mm x 68 mm 19 inch: 485.7 mm x 410.5 mm x 68 mm 15 inch: 434 mm x 283.4 mm x 67 mm For cut out dimensions refer to the VisuNet FLX Panel mount manual.
<b>International approvals</b>	

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**Technical Data**

<b>UL approval</b>		
Approved for		<p><b>UL OrdLoc</b>                  UL approval E223772                  UL61010-1 Ed.3                  UL 61010-2-201 Ed2                  CAN/CSA C22.2 No 61010-1-12                  CAN/CSA C22.2 No 61010-2-201</p> <p><b>UL HazLoc</b>                  UL approval E492874</p> <p>IS circuits for                  CL I, DIV 2, GP A-D                  CL II, DIV 2, GP E, F, G                  CL III                  IS circuits for                  CL I, ZN 2, IIC                  CL II, ZN 22, IIIB                  CL III, ZN 22, IIIA                  Install per drawing 116-0478</p> <p>Mounting in                  CL I, DIV 2, GP A-D, T4                  CL II, DIV 2, GP E, F, G                  CL III                  Mounting in                  CL I, ZN 2, IIC, T4                  CL II, ZN 22, IIIB                  CL III, ZN 22, IIIA</p>
<b>ATEX approval</b>		
ATEX certificate		UL 22 ATEX 2479X
ATEX marking		II 3 G Ex ec [ic Gc] IIC T4 Gc
ATEX certificate		UL 22 ATEX 2480U
ATEX marking		II 3D Ex tc [ic Dc] IIIC Dc
<b>IECEX approval</b>		
IECEX certificate		IECEX ULD 22.0017X
IECEX marking		Ex ec [ic Gc] IIC T4 Gc
IECEX certificate		IECEX ULD 22.0018U
IECEX marking		Ex tc [ic Dc] IIIC Dc
IECEX standard		IEC 60079-0:2017 Ed 7.0 IEC 60079-7:2017 Ed 5.1 IEC 60079-11:2011 Ed 6.0 IEC 60079-31:2013 Ed. 2

**Accessories**

	<b>DPU3200-19SC-304A-V1-N0</b>	Display Unit
	<b>DPU3200-15FC-304A-V1-N0</b>	Display Unit
	<b>BPC3200-N*</b>	Industrial Box PC
	<b>DPU3200-22GT-304A-V1-N0</b>	Display Unit
	<b>DPU3200-22FC-304A-V1-N0</b>	Display Unit
	<b>Mounting Options</b>	Mounting options for the VisuNet FLX Panel Mount

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**Type Code**

**PC-320P-\***

Model	Explosion protection	Temperature	Display unit	Power supply unit	Computing platform	RAM	Storage	OS & software	Housing	Options
<b>Model</b>										
<b>PC-320P-</b>	Personal computer - "Panel PC"									
<b>Explosion protection</b>										
	<b>N</b>	Industrial, general purpose (UL Ord Loc Listed for US & Canada)								
	<b>L</b>	ATEX & IECEx Zone 2/22 and Class I, II, III Div 2								
<b>Temperature</b>										
	<b>A-</b>	0 ... 45 °C								
	<b>B-</b>	-20 ... 55 °C								
<b>Display unit</b>										
	<b>22GT-</b>	21.5" (16:9), Full HD (1920 x 1080 pixels), capacitive touch, no optical bonding								
	<b>22FC-</b>	21.5" (16:9), Full HD (1920 x 1080 pixels), capacitive touch, optical bonding								
	<b>19SC-</b>	19.0" (5:4) SXGA (1280 x 1024 pixel), capacitive touch, optical bonding								
	<b>15FC-</b>	15.6" (16:9), Full HD (1920 x 1080 pixel), capacitive touch, optical bonding								
<b>Power supply unit</b>										
	<b>D-</b>	24 V DC								
<b>Computing platform</b>										
	<b>1N</b>	Intel Celeron								
	<b>2N</b>	Intel i5								
<b>RAM</b>										
	<b>B</b>	1 x 8 GB, industrial temperature grade								
	<b>C</b>	1 x 16 GB, industrial temperature grade								
	<b>L</b>	1 x 8 GB, wide temperature grade								
	<b>M</b>	1 x 16 GB, wide temperature grade								
<b>Storage</b>										
	<b>D</b>	256 GB, industrial temperature grade, M.2 NVMe								
	<b>E</b>	512 GB, industrial temperature grade, M.2 NVMe								
	<b>P</b>	256 GB, wide temperature grade, M.2 NVMe								
	<b>Q</b>	512 GB, wide temperature grade, M.2 NVMe								
<b>OS &amp; Software</b>										
	<b>1</b>	Windows® 10 IoT Enterprise 2019 x64 LTSC								
<b>Housing</b>										
	<b>S1-</b>	Stainless steel bezel SS304, prepared for panel mounting								
<b>Options</b>										
	<b>NN0</b>	Standard								

Example: PC-320P-NA-22GT-D-1NAA1S1-NN0

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