

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

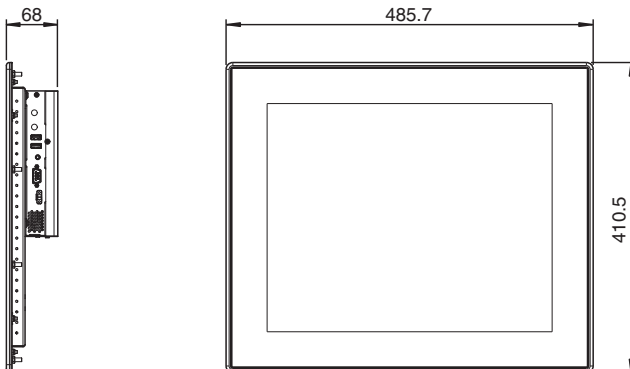
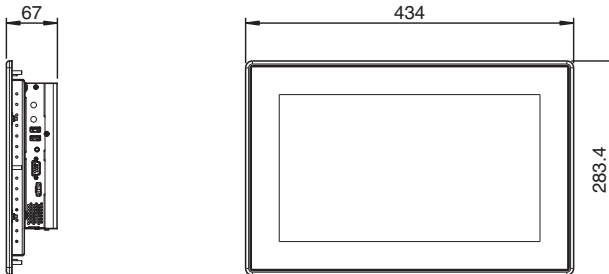
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Function

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



Release date: 2022-07-28 Date of issue: 2022-07-28 Filename: t193553_eng.pdf

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

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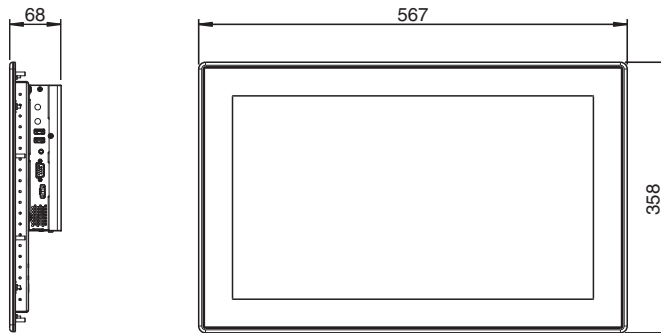
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Dimensions



Technical Data

General specifications	
Type	Personal Computer
Hardware	
Processor	Intel® Core™ i5-7300U Intel® Celeron™ 3965U
RAM	2x SO-DIMM slots, supports up to 32 GB DDR4-2133 (one SO-DIMM slot) Configurable RAM options: 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	Storage interface: 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] Configurable storage options: 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)
Supply	
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.
Indicators/operating means	
Display	
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

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Contrast	Typically 22GT: 1000:1 22FC: 5000:1 19SC: 1000:1 15FC: 800:1
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)
Interface	
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)
Directive conformity	
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
Software	
Operating system	Microsoft® Windows® 10 IoT Enterprise 2019 LTSC (x64)
Ambient conditions	
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
Mechanical specifications	
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






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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.
International approvals		
UL approval		
Approved for		<p>UL OrdLoc 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>UL HazLoc 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>
ATEX approval		
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
IECEX approval		
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

	DPU3200-19SC-304A-V1-N0	Display Unit
	DPU3200-15FC-304A-V1-N0	Display Unit
	BPC3200-N*	Industrial Box PC
	DPU3200-22GT-304A-V1-N0	Display Unit
	DPU3200-22FC-304A-V1-N0	Display Unit

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Accessories



Mounting Options

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

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

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