

# Remote Monitor - Panel Mount

## VisuNet FLX

### RM-320P-\*



- Large application flexibility due to identical basic components that can be configured as required
- Thin Client solution (with VisuNet RM Shell firmware)
- Industrial Panel PC: IP66 rating in front panel and IP20 rating in back
- Easy installation with available Mounting Kit
- Global certifications

## Remote Monitor - Panel Mount

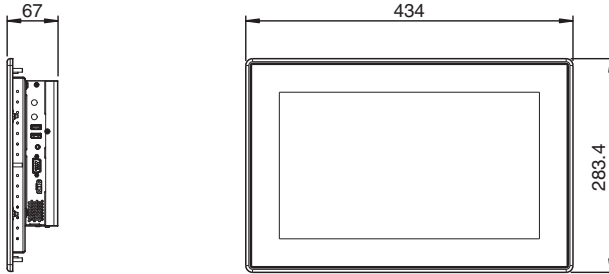


## Function

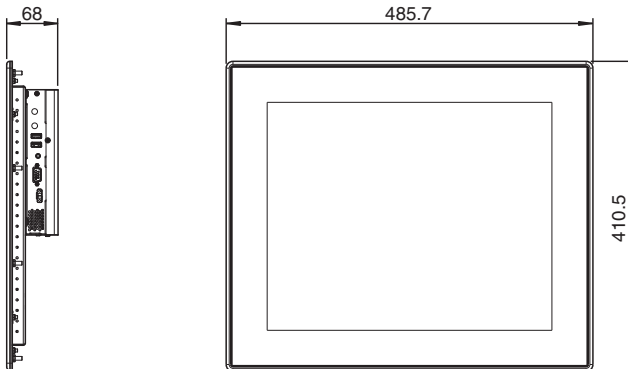
VisuNet FLX Panels consist of a display unit with touch screen in combination with a computing unit. Various display sizes (21.5", 19" and 15.6") and configurable computer units lead to highest application flexibility. The VisuNet FLX panels are designed for Zone 2/22 (Div. 2) and non-Ex applications. 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



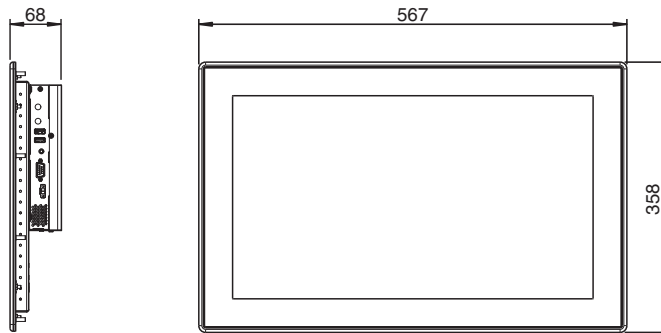
### 19" Display



Release date: 2025-06-20 Date of issue: 2025-06-20 Filename: t193551\_eng.pdf

## Dimensions

21.5" Display



## Technical Data

### General specifications

Type	Remote Monitor
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### Hardware

Processor	Intel® Celeron™ 3965U
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RAM	<b>Configurable RAM options:</b> Industrial temperature grade (temperature option A): A: 1x 4 GB DDR4-2133 B: 1x 8 GB DDR4-2133  Wide temperature grade (temperature option B): K: 1x 4 GB DDR4-2133 L: 1x 8 GB DDR4-2133
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Mass storage	<b>Storage interface:</b> 1x M.2 2242/2280 M Key, PCIe + SATA 3  Configurable storage options: B: 64 GB M.2 SATA III, F134D 3D TLC, industrial temperature grade [temperature class A] L: 64 GB M.2 SATA III, F134D 3D TLC, wide temperature grade
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### Supply

Input current	max. 3 A, max. 60 W
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Power consumption	
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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.
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### Indicators/operating means

Display	
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Type	Liquid Crystal Display (LCD) with LED backlight
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Screen size	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")
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Resolution	22GT, 22FC, 15FC: 1920 x 1080 pixels (Full HD) Aspect Ratio (16:9) 19SC: 1280 x 1024 pixels (SXGA) Aspect Ratio (5:4)
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Color depth	24 bit (16.7 M) color
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Contrast ratio	Typically 22GT: 1000:1 22FC: 5000:1 19SC: 1000:1 15FC: 800:1
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Brightness	Configurable display options: 22GT: 250 cd/m <sup>2</sup> 22FC: 300 cd/m <sup>2</sup> 19SC: 450 cd/m <sup>2</sup> 15FC: 450 cd/m <sup>2</sup>
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Viewing angle	22GT: 178 ° in all directions 22FC, 19SC: horizontal: 170 °, vertical: 160 ° 15FC: 170 ° in all directions
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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)
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## Technical Data

<b>Input devices</b>		
Touch screen		Configurable Display Options: 10-finger multi-touch, glove-friendly 22GT: Capacitive touch, no optical bonding 22FC, 19SC, 15FC: Capacitive touch, optical bonding
<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>		
<b>Electromagnetic compatibility</b>		
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
<b>Explosion protection</b>		
Directive 2014/34/EU		EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-11:2012 EN IEC 60079-31:2014
<b>RoHS</b>		
Directive 2011/65/EU (RoHS)		EN IEC 63000:2018
<b>Software</b>		
Operating system		VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64)  <b>Optional:</b> I: IGEL OS 11 (based on Linux, without licence) J: IGEL OS 12 (based on Linux, without licence) T: ThinManager Ready
<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>		
UL approval		

**Technical Data**

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>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
CCC approval	
CCC certificate	2023322309005728
CCC marking	Ex ec [ic Gc] IIC T4 Gc Ex tc [ic Dc] IIIC T85°C Dc
CCC standard	GB 3836.1-2021 GB/T 3836.3-2021 GB/T 3836.4-2021 GB/T 3836.31-2021

**Type Code**

**RM-320P-\***

<b>RM-320P-</b>	<b>(1)</b>	<b>(2)-</b>	<b>K(3)-</b>	<b>(4)-</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>	<b>(9)-</b>	<b>(10)</b>
<b>Model</b>										
RM-320P-	Remote monitor (RM) - "Panel PC"									
<b>(1) Explosion protection</b>										
N	Industrial, general purpose (UL Ord Loc Listed for US & Canada)									
L	ATEX & IECEX Zone 2/22 and Class I, II, III Div. 2									
<b>(2)- Temperature</b>										
A-	0 °C ... 45 °C									
B-	-20 °C ... 55 °C									
<b>(3)- Display unit</b>										
22GT-	21.5 " (16:9), Full HD (1920 x 1080), capacitive touch, no optical bonding									
22FC-	21.5 " (16:9), Full HD (1920 x 1080), capacitive touch, optical bonding									
19SC-	19.0" SXGA (1280 x 1024), capacitive touch, optical bonding									
15FC-	15.6" (16:9), Full HD (1920 x 1080), capacitive touch, optical bonding									

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## Type Code

(4)- Power supply unit	
D-	24 V DC
(5) Computing platform	
1N	Intel® Celeron
(6) RAM	
A	1x 4 GB, industrial temperature grade [only Temperature "A"]
B	1x 8 GB, industrial temperature grade [only Temperature "A"]
K	1x 4 GB, wide temperature grade
L	1x 8 GB, wide temperature grade
(7) Storage	
B	64 GB M.2 SATA, industrial temperature grade [only Temperature "A"]
L	64 GB M.2 SATA, wide temperature grade
N	None [only ThinManager Ready]
(8) Operating System	
4	VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64)
I	IGEL OS 11 (based on Linux, without licence) [8 GB RAM, 64 GB SSD only]
J	IGEL OS 12 (based on Linux, without licence) [8 GB RAM, 64 GB SSD only]
T	ThinManager Ready
(9)- Housing	
S1-	Stainless steel bezel SS304, prepared for panel mounting
(10) Options	
NN0	Standard

### Example:

RM-320P-	N	A-	22GT-	D-	1N	A	B	4	S1-	NN0
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