Промышленные мониторы VisuNet FLX

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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Астрахань (8512)99-46-04
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Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
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Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
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Новосибирск (383)227-86-73
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Орел (4862)44-53-42
Оренбург (3532)37-68-04
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Ставрополь (8652)20-65-13
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Тольятти (8482)63-91-07
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Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
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Personal Computer - System with Enclosure

VisuNet FLX

PC-320S-*A-*

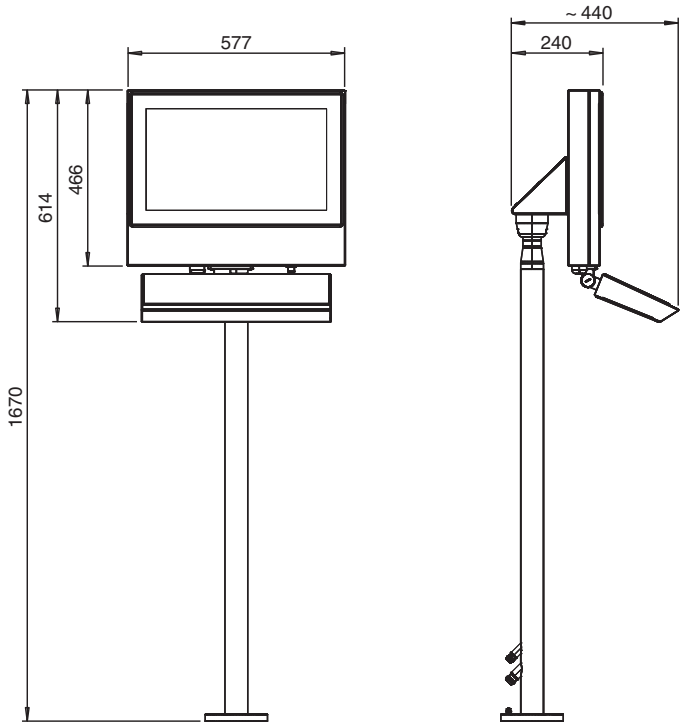
- Fully modular design which enables easy migration of individual components
- Large application flexibility due to identical basic components that can be configured as required
- 7th generation Intel Celeron
- Global certifications

Personal Computer - System with Enclosure

Function

The VisuNet FLX Systems are designed for Zone 2/22 (Div.2) and non-Ex applications. The different mounting and configuring options lead to the highest application flexibility. Due to a fully modular design, the new platform, which is geared to the needs of the (petro-) chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and enables simple and fast adjustments in the field. With the modern, compact design less installation space is required. The low weight allows a cost effective and easy installation.

Dimensions



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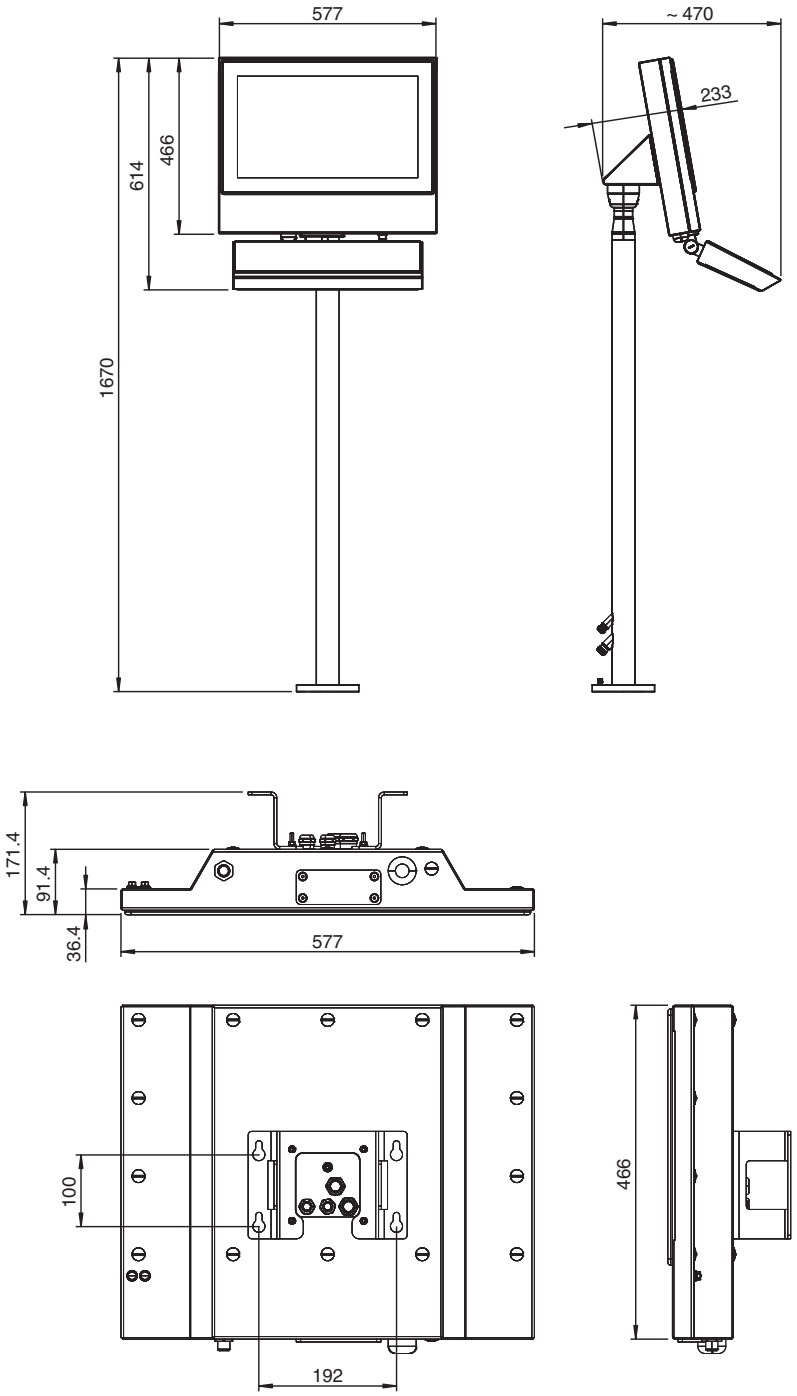
Dimensions



Technical Data

General specifications	
Type	Personal Computer
Hardware	
Processor	Intel® Celeron™ 3965U

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Technical Data

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): A: 1x 4GB DDR4-2133 [Celeron] B: 1x 8GB DDR4-2133 C: 1x 16GB DDR4-2133
Mass storage	**Storage interface:** 1x M.2 2242/2280 M Key, PCIe + SATA 3 **Configurable storage options:** Industrial temperature grade (temperature option A): A: 32 GB M.2 SATA 3 [Celeron] D: 256 GB M.2 NVMe 1.3 (PCIe 4x) E: 512 GB M.2 NVMe 1.3 (PCIe 4x)
Supply	
Power consumption	
AC	A: 115/230 V a.c. (100 ... 240 V a.c.), max. 0.7 A, max. 70 W For connections designation refer to the Power Supply PS1000-A6-24.5 manual.
DC	D: 20 ... 28 V d.c. / 2.8 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	54.61 cm (21,5 ")
Resolution	1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	Typically 22GT: 1000:1 22FC: 5000:1
Brightness	Configurable display options: 22GT: 250 cd/m2 22FC: 300 cd/m2
Reading angle	22GT: 178 ° in all directions 22FC: 170 ° horizontal, 160 ° vertical
Life span	22GT: back lamp life: 30.000 hrs typical half life, at 25 °C (77 °F) 22FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices	
Touch screen	10-finger multi-touch, glove-friendly Configurable display options: 22GT: Capacitive touch, no optical bonding 22FC: 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
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	

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Technical Data

Operating system	Windows® 10 IoT Enterprise LTSC 2021 x64
Ambient conditions	
Operating temperature	0 ... 40 °C (32 ... 104 °F)
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	IP66/Type 4X
Material	Housing: Stainless steel AISI304 (1.4301) Surface finish: Bead blasted, typical surface roughness 0.8 µm
Installation	System with enclosure
Mass	approx. 16 kg approx. 18 kg with AC Power Supply
Dimensions	577 mm x 466 mm x 233 mm
International approvals	
UL approval	
Approved for	**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 UL approval E492874 Non-Incendive circuits for CL I, DIV 2, GP A-D CL II, DIV 2, GP F, G CL III Non-Incendive circuits for CL I, ZN 2, IIC CL II, ZN 22, IIIB CL III, ZN 22, IIIA Install per drawing 116-0478 Mounting in CL I, DIV 2, GP A-D, T4 CL II, DIV 2, GP F, G, T4 CL III Mounting in CL I, ZN 2, IIC, T4 CL II, ZN 22, IIIB, T85°C CL III, ZN 22, IIIA, T85°C
ATEX approval	
ATEX certificate	UL 22 ATEX 2481X
ATEX marking	II 3 G Ex ec [ic Gc] IIC T4 Gc II 3 D Ex tc [ic Dc] IIIC T85°C Dc
IECEx approval	
IECEx certificate	IECEx ULD 22.0019X
IECEx marking	Ex ec [ic Gc] IIC T4 Gc Ex tc [ic Dc] IIIC T85°C 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	2024322309005748
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

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Type Code

PC-320S-*A*

PC-320S-	(1)	(2)-	K(3)-	(4)-	(5)	(6)	(7)	(8)	(9)-	(10)

Model	
PC-320S-	Personal computer - "System with Enclosure"

(1)	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

(2)-	Temperature
A-	0 °C ... 40 °C

(3)-	Display unit
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

(4)-	Power supply unit
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5)	Computing platform
1N	Intel® Celeron

(6)	RAM
B	1x 8 GB, industrial temperature grade
C	1x 16 GB, industrial temperature grade

(7)	Storage
D	256 GB M.2 NVMe, industrial temperature grade
E	512 GB M.2 NVMe, industrial temperature grade

(8)	Operating System
3	Windows® 10 IoT Enterprise LTSC 2021 x64

(9)-	Housing
P1-	preinstalled into AG-3200-* enclosure, surface finish 0.8-µm brushed

(10)	Options
NN0	Standard

Example:

PC320S-	N	A-	22GT-	D-	1N	B	D	3	P1-	NN0

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Remote Monitor - System with enclosure

VisuNet FLX

RM-320S-*A-*

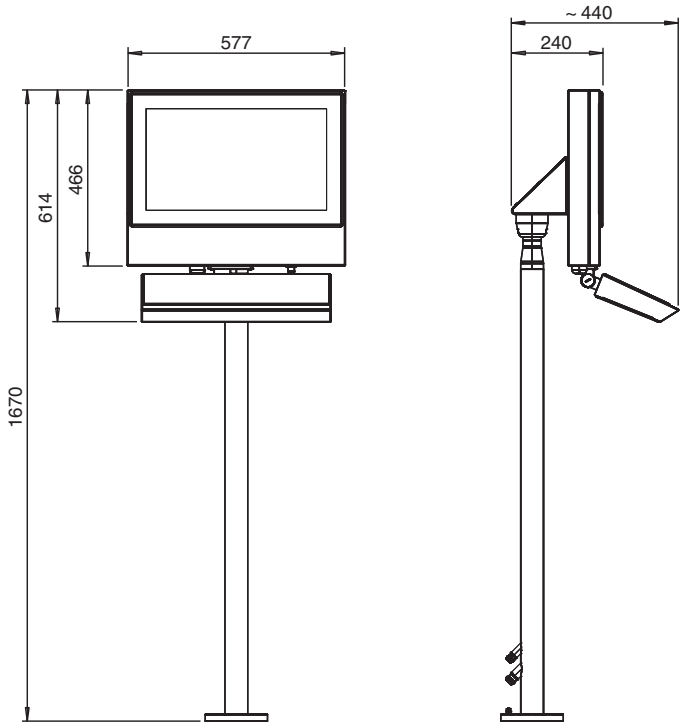
- Fully modular design which enables easy migration of individual components
- Large application flexibility due to identical basic components that can be configured as required
- Thin Client solution (with VisuNet RM Shell firmware)
- Global certifications

Remote Monitor - System with enclosure

Function

The VisuNet FLX Systems are designed for Zone 2/22 (Div.2) and non-Ex applications. The different mounting and configuring options lead to the highest application flexibility. Due to a fully modular design, the new platform, which is geared to the needs of the (petro-) chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and enables simple and fast adjustments in the field. With the modern, compact design less installation space is required. The low weight allows a cost effective and easy installation.

Dimensions



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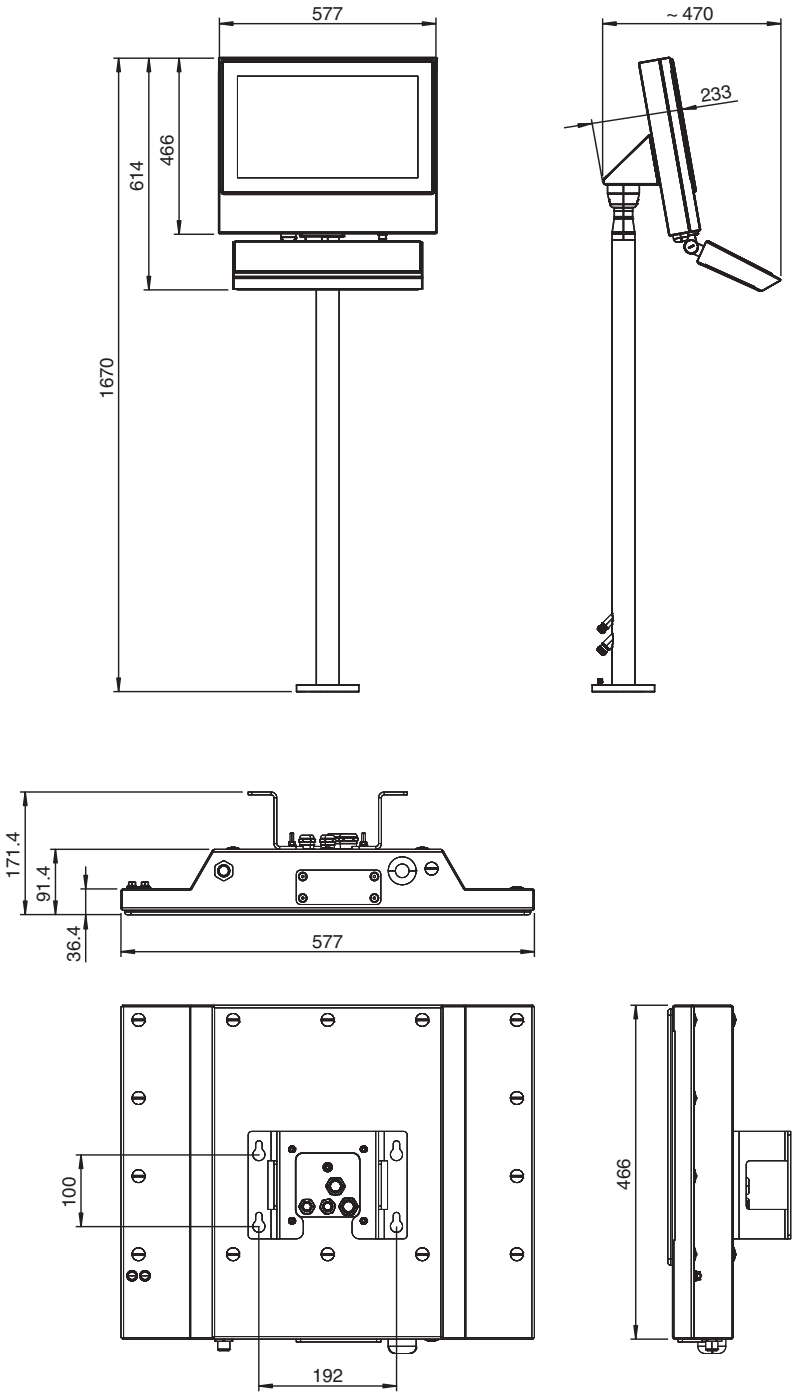
Dimensions



Technical Data

General specifications		
Type		Remote Monitor
Hardware		
Processor		Intel® Celeron™ 3965U
RAM		A: 1x 4 GB DDR4-2133, industrial temperature grade B: 1x 8 GB DDR4-2133, industrial temperature grade

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Technical Data

Mass storage	**Storage interface:** 1x M.2 2242/2280 M Key, PCIe + SATA 3 **Storage:** 64 GB M.2 SATA 3, industrial temperature grade
Supply	
Power consumption	
AC	A: 115/230 V a.c. (100 ... 240 V a.c.), max. 0.7 A, max. 70 W For connections designation refer to the Power Supply PS1000-A6-24.5 manual.
DC	D: 20 ... 28 V d.c. / 2.8 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	54.61 cm (21.5 inch)
Resolution	1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	Typically 22GT: 1000:1 22FC: 5000:1
Brightness	Configurable display options: 22GT: 250 cd/m2 22FC: 300 cd/m2
Reading angle	22GT: 178 ° in all directions 22FC: 170 ° horizontal, 160 ° vertical
Life span	22GT: back lamp life: 30.000 hrs typical half life, at 25 °C (77 °F) 22FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices	
Touch screen	10-finger multi-touch, glove-friendly Configurable display options: 22GT: Capacitive touch, no optical bonding 22FC: 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
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	VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64) **Optional:** I: IGEL OS 11 (based on Linux, without licence) J: IGEL OS 12 (based on Linux, without licence) T: ThinManager Ready
Ambient conditions	
Operating temperature	0 ... 40 °C (32 ... 104 °F)

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Technical Data

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		IP66/Type 4X
Material		Housing: Stainless steel AISI304 (1.4301) Surface finish: Bead blasted, typical surface roughness 0.8 µm
Installation		System with enclosure
Mass		approx. 16 kg approx. 18 kg with AC Power Supply
Dimensions		577 mm x 466 mm x 233 mm
International approvals		
UL approval		
Approved for		**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 UL approval E492874 Non-Incendive circuits for CL I, DIV 2, GP A-D CL II, DIV 2, GP F, G CL III Non-Incendive circuits for CL I, ZN 2, IIC CL II, ZN 22, IIIB CL III, ZN 22, IIIA Install per drawing 116-0478 Mounting in CL I, DIV 2, GP A-D, T4 CL II, DIV 2, GP F, G, T4 CL III Mounting in CL I, ZN 2, IIC, T4 CL II, ZN 22, IIIB, T85°C CL III, ZN 22, IIIA, T85°C
ATEX approval		
ATEX certificate		UL 22 ATEX 2481X
ATEX marking		II 3 G Ex ec [ic Gc] IIC T4 Gc II 3 D Ex tc [ic Dc] IIIC T85°C Dc
IECEx approval		
IECEx certificate		IECEx ULD 22.0019X
IECEx marking		Ex ec [ic Gc] IIC T4 Gc Ex tc [ic Dc] IIIC T85°C 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		2024322309005748
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

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Type Code

RM-320S-*A-*

RM-320S-	(1)	(2)-	K(3)-	(4)-	(5)	(6)	(7)	(8)	(9)-	(10)

Model	
RM-320S-	Remote monitor (RM) - "System with enclosure"

(1)	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

(2)-	Temperature
A-	0 °C ... 40 °C

(3)-	Display unit
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

(4)-	Power supply unit
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5)	Computing platform
1N	Intel® Celeron

(6)	RAM
A	1x 4 GB DDR4-2133, industrial temperature grade
B	1x 8 GB DDR4-2133, industrial temperature grade

(7)	Storage
N	None [only ThinManager Ready]
B	64 GB M.2 SATA, industrial temperature grade

(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
P1-	preinstalled into AG-3200-* enclosure, surface finish 0.8 µm brushed

(10)	Options
NN0	Standard

Example:

RM-320S-	L	A-	22GT-	A-	1N	A	B	4	P1-	NN0

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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

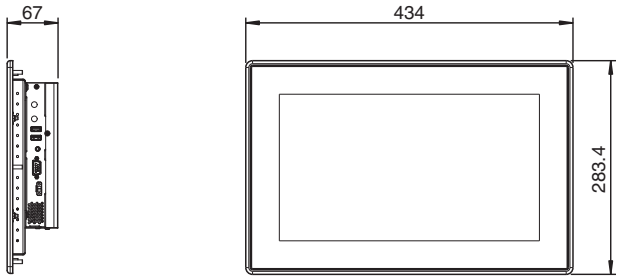
Remote Monitor - Panel Mount

Function

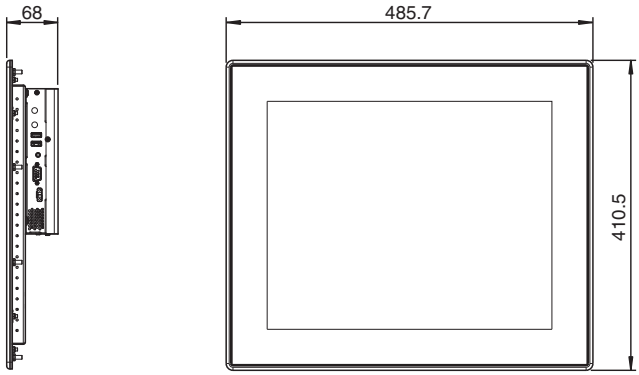
VisuNet FLX Panels consist of a display unit with touch screen in combination with a computing unit.
Various display sizes (21.5", 19" and 15.6") and configurable computer units lead to highest application flexibility. The VisuNet FLX panels are designed for Zone 2/22 (Div. 2) and non-Ex applications.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



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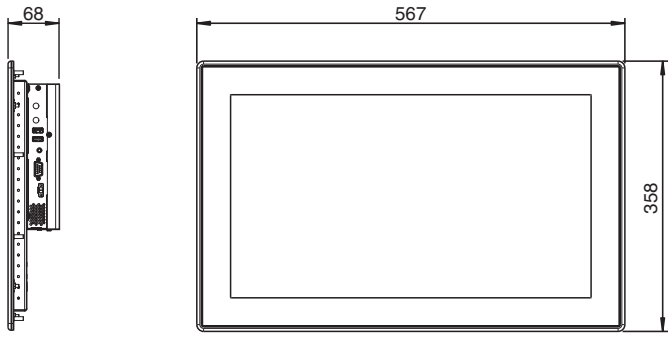
Dimensions

21.5“ Display



Technical Data

General specifications	
Type	Remote Monitor
Hardware	
Processor	Intel® Celeron™ 3965U
RAM	**Configurable RAM options:** 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
Mass storage	**Storage interface:** 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
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
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)

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Technical Data

Input devices		
Touch screen		Configurable Display Options: 10-finger multi-touch, glove-friendly 22GT: Capacitive touch, no optical bonding 22FC, 19SC, 15FC: Capacitive touch, optical bonding
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		VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64) **Optional:** I: IGEL OS 11 (based on Linux, without licence) J: IGEL OS 12 (based on Linux, without licence) T: ThinManager Ready
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
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		

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t193551_eng.pdf

Technical Data

Approved for	**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 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 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
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-*

RM-320P-	(1)	(2)-	K(3)-	(4)-	(5)	(6)	(7)	(8)	(9)-	(10)

Model	
RM-320P-	Remote monitor (RM) - "Panel PC"

(1)	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

(2)-	Temperature
A-	0 °C ... 45 °C
B-	-20 °C ... 55 °C

(3)-	Display unit
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), capactive touch, optical bonding
15FC-	15.6" (16:9), Full HD (1920 x 1080), capactive touch, optical bonding

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t193551_eng.pdf

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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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

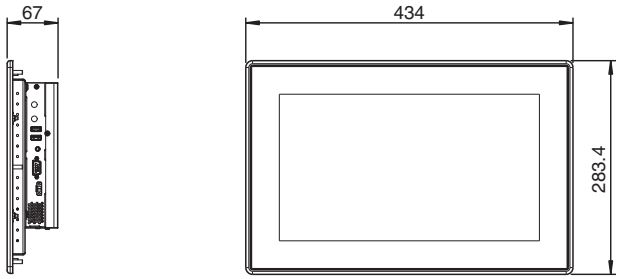
Personal Computer - Panel Mount

Function

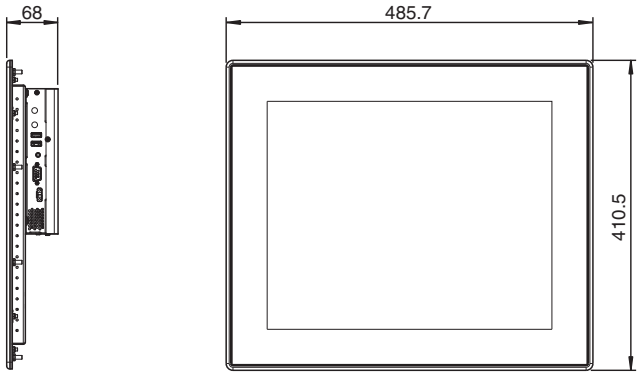
VisuNet FLX Panels consist of a display unit with touch screen in combination with a computing unit.
Various display sizes (21.5", 19" and 15.6") and configurable computer units lead to highest application flexibility. The VisuNet FLX panels are designed for Zone 2/22 (Div. 2) and non-Ex applications.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



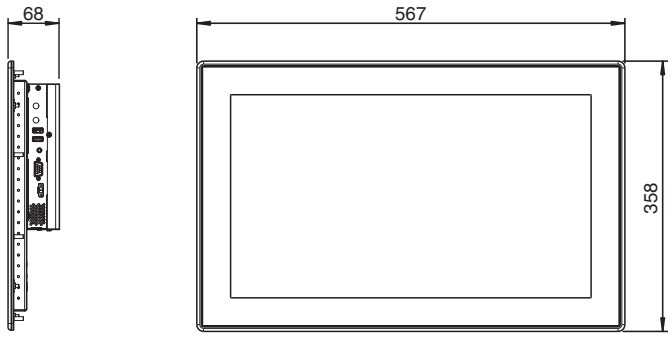
19“ Display



Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t193553_eng.pdf

Dimensions

21.5“ Display



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
Contrast		Typically 22GT: 1000:1 22FC: 5000:1 19SC: 1000:1 15FC: 800:1

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Technical Data

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	
Touch screen	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	Windows® 10 IoT Enterprise LTSC 2021 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
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	

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t193553_eng.pdf

Technical Data

UL approval		
Approved for		**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 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 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
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

PC-320P-*

PC-320P-	(1)	(2)-	K(3)-	(4)-	(5)	(6)	(7)	(8)	(9)-	(10)

Model	
PC-320P-	Personal Computer - Panel Mount

(1)	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

(2)-	Temperature
A-	0 ... 45 °C
B-	-20 °C ... 55 °C

(3)-	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

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t193553_eng.pdf

Type Code

(3)-	Display unit
15FC-	15.6" (16:9), Full HD (1920 x 1080 pixel), capacitive touch, optical bonding

(4)-	Power supply unit
D-	24 V DC

(5)	Computing platform
1N	Intel® Celeron 3965U
2N	Intel® Core™ i5-7300U

(6)	RAM
B	1 x 8 GB, industrial temperature grade
C	1 x 16 GB, industrial temperature grade
L	1x 8 GB, wide temperature grade
M	1x 16 GB, wide temperature grade

(7)	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 1.3 (PCIe 4x)
Q	512 GB, wide temperature grade, M.2 NVMe 1.3 (PCIe 4x)

(8)	Operating system & Software
3	Windows® 10 Enterprise LTSC 2021

(9)-	Housing
S1-	Stainless steel bezel SS304, prepared for panel mounting

(10)	Options
NN0	Standard

Example:

PC320P-	N	A-	22GT-	D-	1N	B	D	3	S1-	NN0

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t193553_eng.pdf

Direct Monitor - System with Enclosure

VisuNet FLX

DM-320S-*A-*

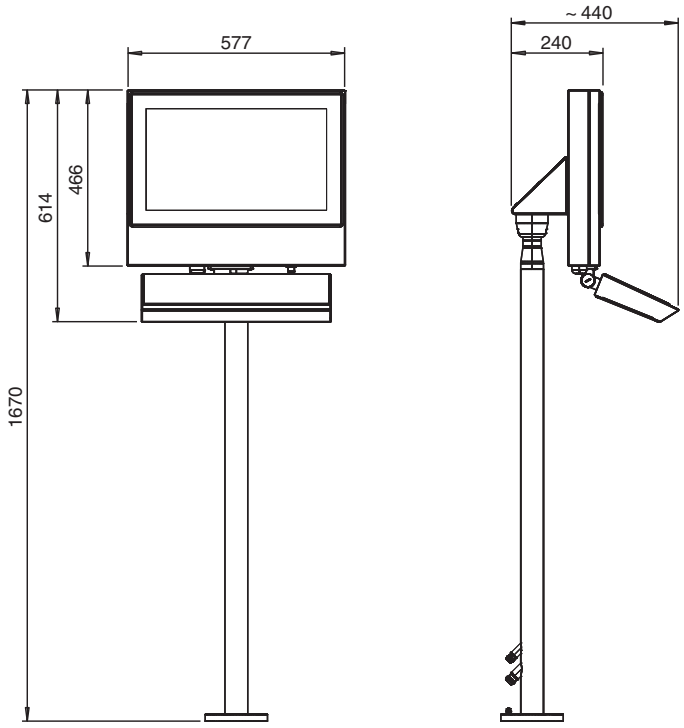
- Fully modular design which enables easy migration of individual components
- Large application flexibility due to identical basic components that can be configured as required
- Global certifications

Direct Monitor - System with Enclosure

Function

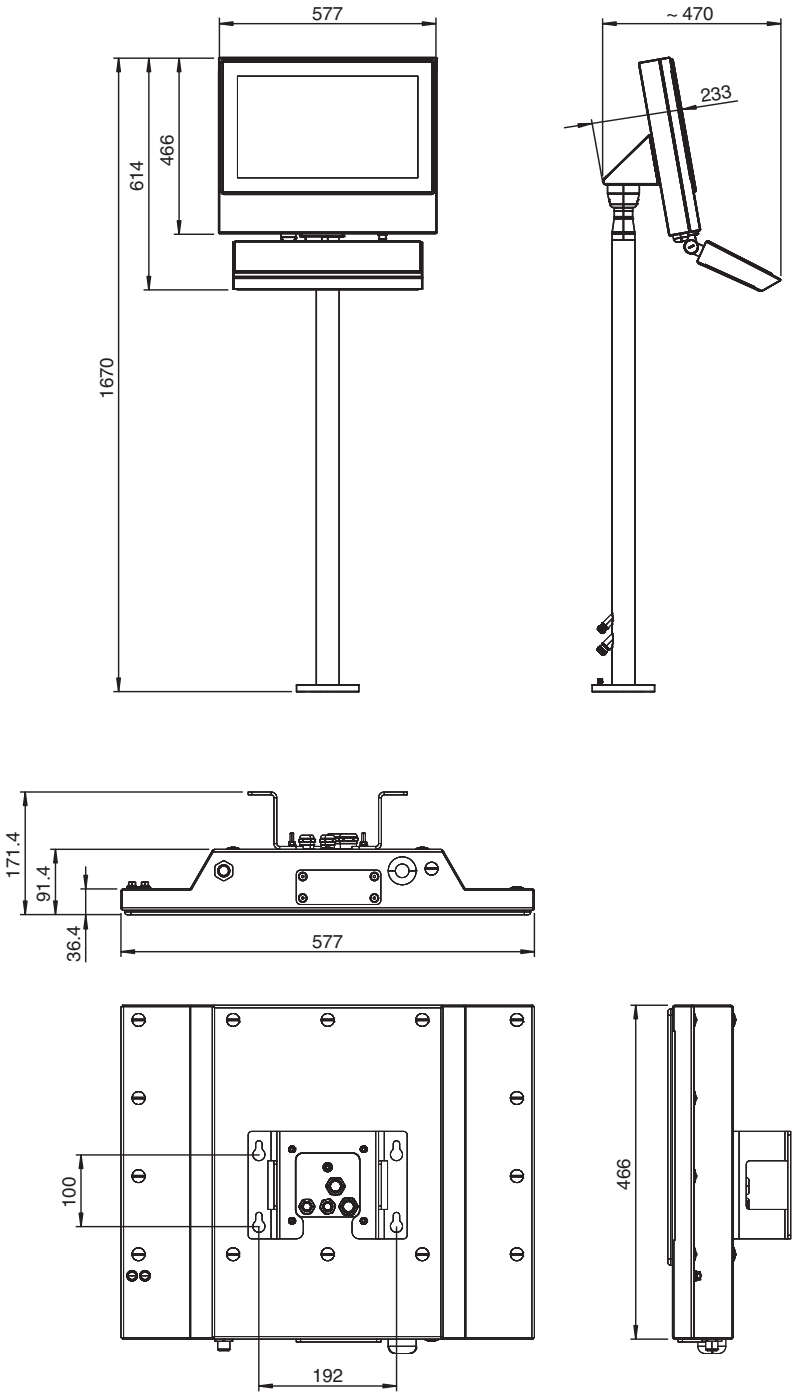
The VisuNet FLX Systems are designed for Zone 2/22 (Div.2) and non-Ex applications. The different mounting and configuring options lead to the highest application flexibility. Due to a fully modular design, the new platform, which is geared to the needs of the (petro-) chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and enables simple and fast adjustments in the field. With the modern, compact design less installation space is required. The low weight allows a cost effective and easy installation.

Dimensions



Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t193554_eng.pdf

Dimensions



Technical Data

General specifications		
Type		Direct Monitor
Supply		
Power consumption		
AC		A: 115/230 V a.c. (100 ... 240 V a.c.), max. 0.4 A For connections designation refer to the Power Supply PS1000-A6-24.5 manual.
DC		D: 20 ... 28 V d.c. / 1.5 A (SELV/PELV or class 2) For connections designation refer to the VisuNet FLX Panel Mount manual.

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t193554_eng.pdf

Technical Data

Indicators/operating means		
Display		
Type		Liquid Crystal Display (LCD) with LED backlight
Screen diagonal		54.61 cm (21,5 ")
Resolution		1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth		24 bit (16.7 M) color
Contrast		Typically 22GT: 1000:1 22FC: 5000:1
Brightness		Configurable display options: 22GT: 250 cd/m2 22FC: 300 cd/m2
Reading angle		22GT: 178 ° in all directions 22FC: 170 ° horizontal, 160 ° vertical
Life span		22GT: back lamp life: 30.000 hrs typical half life, at 25 °C (77 °F) 22FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices		
Touch screen		10-finger multi-touch, glove-friendly Configurable display options: 22GT: Capacitive touch, no optical bonding 22FC: Capacitive touch, optical bonding
Keyboard		Optional: Foil keyboard with different pointing device options available (see EXTA4 datasheet)
Interface		
Interface type		1x Power input w/ 3 pin terminal block 1x HDMI 1x DVI-I 1x VGA 1x USB 1x 3,5mm audio jack (Line-out) 1x OSD Menu w/ power button
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (ind. Locations) EN 61000-6-4:2007+A1:2011
Explosion protection		
Directive 2014/34/EU		EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014
RoHS		
Directive 2011/65/EU (RoHS)		EN IEC 63000:2018
Ambient conditions		
Operating temperature		0 ... 40 °C (32 ... 104 °F)
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		IP66/Type 4X
Material		Housing: Stainless steel AISI304 (1.4301) Surface finish: Bead blasted, typical surface roughness 0.8 µm
Installation		System with enclosure
Mass		approx. 16 kg approx. 18 kg with AC Power Supply
Dimensions		577 mm x 466 mm x 233 mm
International approvals		
UL approval		

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t193554_eng.pdf

Technical Data

Approved for	**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 UL approval E492874 Non-Incendive circuits for CL I, DIV 2, GP A-D CL II, DIV 2, GP F, G CL III Non-Incendive circuits for CL I, ZN 2, IIC CL II, ZN 22, IIIB CL III, ZN 22, IIIA Install per drawing 116-0478 Mounting in CL I, DIV 2, GP A-D, T4 CL II, DIV 2, GP F, G, T4 CL III Mounting in CL I, ZN 2, IIC, T4 CL II, ZN 22, IIIB, T85°C CL III, ZN 22, IIIA, T85°C
ATEX approval	
ATEX certificate	UL 22 ATEX 2481X
ATEX marking	II 3 G Ex ec [ic] IIC T4 Gc II 3 D Ex tc IIIC T85°C Dc
IECEx approval	
IECEx certificate	IECEx ULD 22.0019X
IECEx marking	Ex ec IIC T4 Gc Ex tc IIIC T85°C Dc
IECEx standard	IEC 60079-0:2017 Ed 7.0 IEC 60079-7:2017 Ed 5.1 IEC 60079-31:2013 Ed. 2
CCC approval	
CCC certificate	2023322309005595
CCC marking	Ex ec IIC T4 Gc Ex tc IIIC T85°C Dc
CCC standard	GB 3836.1-2021 GB/T 3836.3-2021 GB/T 3836.31-2021

Type Code

DM-320S-*A-*

DM-320S-	(1)	(2)-	(3)-	(4)-	(5)	(6)-	(7)

Model	
DM-320S-	Direct Monitor - "System with Enclosure"

(1)	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

(2)-	Temperature
A-	0 °C ... 40 °C

(3)-	Display unit
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

(4)-	Power supply unit
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5)	Computing platform
VNNNN	DMU - Video interfaces: DisplayPort, DVI, VGA - standard option

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t193554_eng.pdf

Type Code

(6)-	Housing
P1-	Preinstalled into SS304 enclosure, surface finish 0.8-µm brushed

(7)	Options
NN0	Standard

Example:

DM-320S-	R	A-	22FC-	A-	VNNNN	P1-	NN0

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t193554_eng.pdf

Direct Monitor - Panel Mount

DM-320P-*

- Optional display variant with optical bonding
- Full HD displays with modern, 10 finger capacitive touchscreen, supporting multi-touch and glove operation
- Global certifications

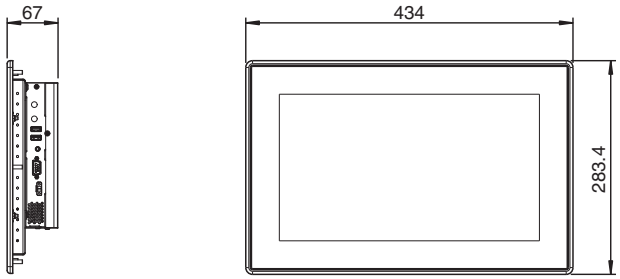
Direct Monitor - Panel Mount

Function

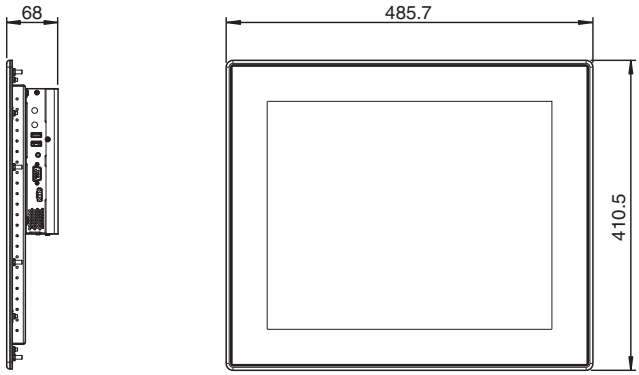
VisuNet FLX Panels consist of a display unit with touch screen in combination with a computing unit.
Various display sizes (21.5", 19" and 15.6") and configurable computer units lead to highest application flexibility. The VisuNet FLX panels are designed for Zone 2/22 (Div. 2) and non-Ex applications.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



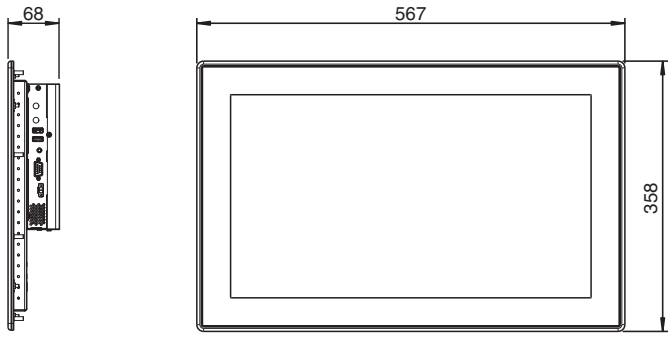
19“ Display



Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t193555_eng.pdf

Dimensions

21.5“ Display



Technical Data

General specifications		
Type		Direct Monitor
Supply		
Input current		1.5 A
Power consumption		
DC		20 ... 28 V d.c. / 1.5 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
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		22FC, 19SC, 15FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F) 22GT: back lamp life: 30.000 hrs typical half life, at 25 °C (77 °F)
Input devices		
Keyboard		Optional: Foil keyboard with different pointing device options available (see EXTA4 datasheet)
Interface		
Interface type		1x Power input w/ 3 pin terminal block 1x HDMI 1x DVI-I 1x VGA 1x USB 1x OSD Menu w/ power button
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

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Technical Data

Explosion protection		
Directive 2014/34/EU		EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014
RoHS		
Directive 2011/65/EU (RoHS)		EN IEC 63000:2018
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
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		**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 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 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
ATEX approval		
ATEX certificate		UL 22 ATEX 2479X
ATEX marking		II 3 G Ex ec IIC T4 Gc
ATEX certificate		UL 22 ATEX 2480U
ATEX marking		II 3D Ex tc IIIC Dc
IECEx approval		
IECEx certificate		IECEx ULD 22.0017X
IECEx marking		Ex ec [ic] IIC T4 Gc
IECEx certificate		IECEx ULD 22.0018U
IECEx marking		Ex tc [ic] IIIC Dc

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Technical Data

IECEx standard		IEC 60079-0:2017 Ed 7.0 IEC 60079-7:2017 Ed 5.1 IEC 60079-31:2013 Ed. 2
CCC approval		
CCC certificate		2023322309005727
CCC marking		Ex ec IIC T4 Gc Ex tc IIIC Dc
CCC standard		GB 3836.1-2021 GB/T 3836.3-2021 GB/T 3836.31-2021

Type Code

DM-320P-*

DM-320P-	(1)	(2)-	(3)-	(4)-	(5)	(6)-	(7)

Model	
DM-320P-	Direct Monitor - "Panel PC"

(1)	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

(2)-	Temperature
A-	0 ... 45 °C
B-	20 … 55 °C

(3)-	Display unit
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), capactive touch, optical bonding
15FC-	15.6 " (16:9), Full HD (1920 x 1080), capactive touch, optical bonding

(4)-	Power supply unit
D-	24 V DC

(5)	Computing platform
VNNNN	DMU - Video interfaces: DisplayPort, DVI, VGA - standard option

(6)-	Housing
S1-	Stainless steel bezel SS304, prepared for panel mounting

(7)	Options
NN0	Standard

Example:

DM-320P-	N	A-	22FC-	D-	VNNNN	S1-	NN0

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Personal Computer - System with Enclosure

VisuNet FLX

PC-320S-*B-*

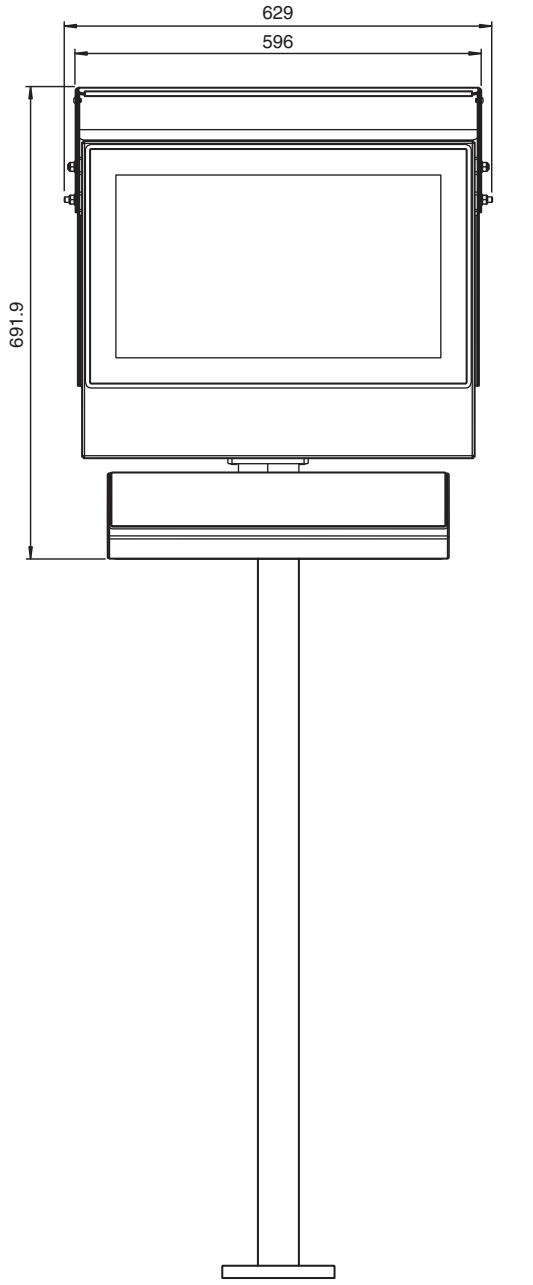
- Designed for use in the extended temperature range of -20 °C ... 50 °C with rugged aluminum housing
- Suitable for outdoor use with various sunshield options
- Fully modular design allowing easy migration of individual components
- High application flexibility due to identical basic components that can be can be configured as required
- 7th generation Intel Celeron and i5 embedded processor generation

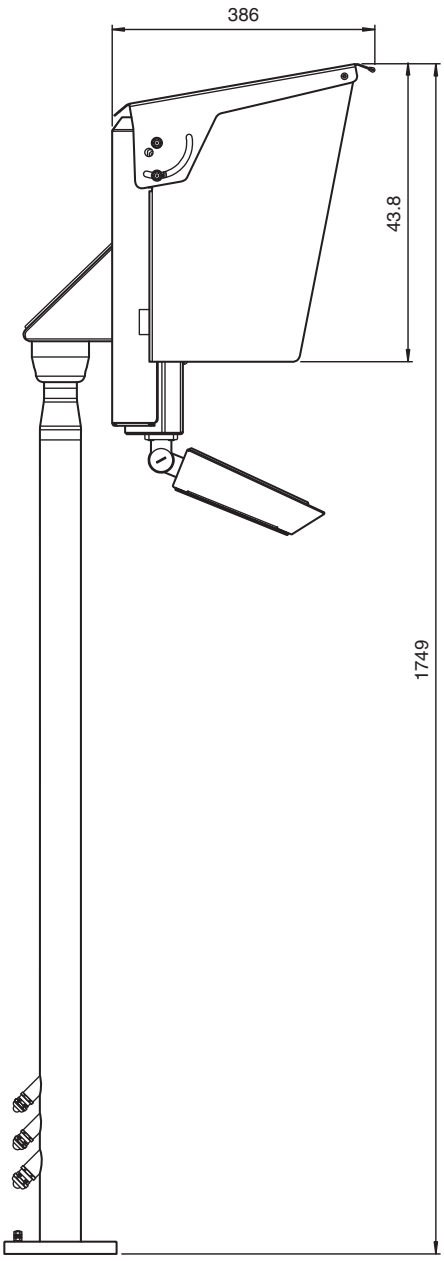
Personal Computer - System with Enclosure

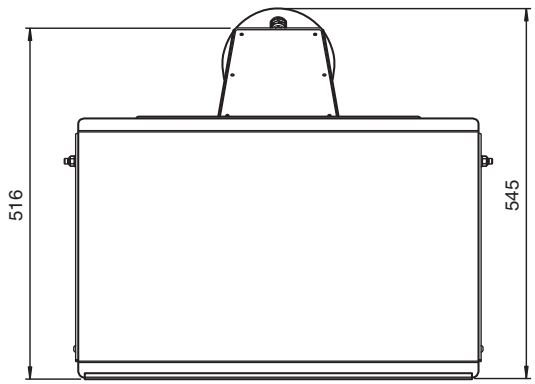
Function

The VisuNet FLX Systems are designed for Zone 2/22 (Div. 2) and non-Ex applications.
The VisuNet FLX's rugged aluminum enclosure provides optimized thermal conductivity for improved heat transfer and temperature management. The high corrosion resistance of the housing makes the VisuNet FLX platform attractive for industries with high ambient temperatures, such as manufacturing, oil & gas, water & wastewater, and loading & filling. Industries such as life science, (petro)chemical and pharmaceutical also benefit from the advantages of the aluminum variant of the VisuNet FLX.
The various mounting and configuration options provide maximum application flexibility. Thanks to its fully modular design, the new platform, which is tailored to the needs of the (petro)chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and allow for easy and quick adjustments in the field. The modern, compact design requires less installation space. The low weight allows for cost-effective and easy installation.

Dimensions







Dimensions with top, back and side sunshields

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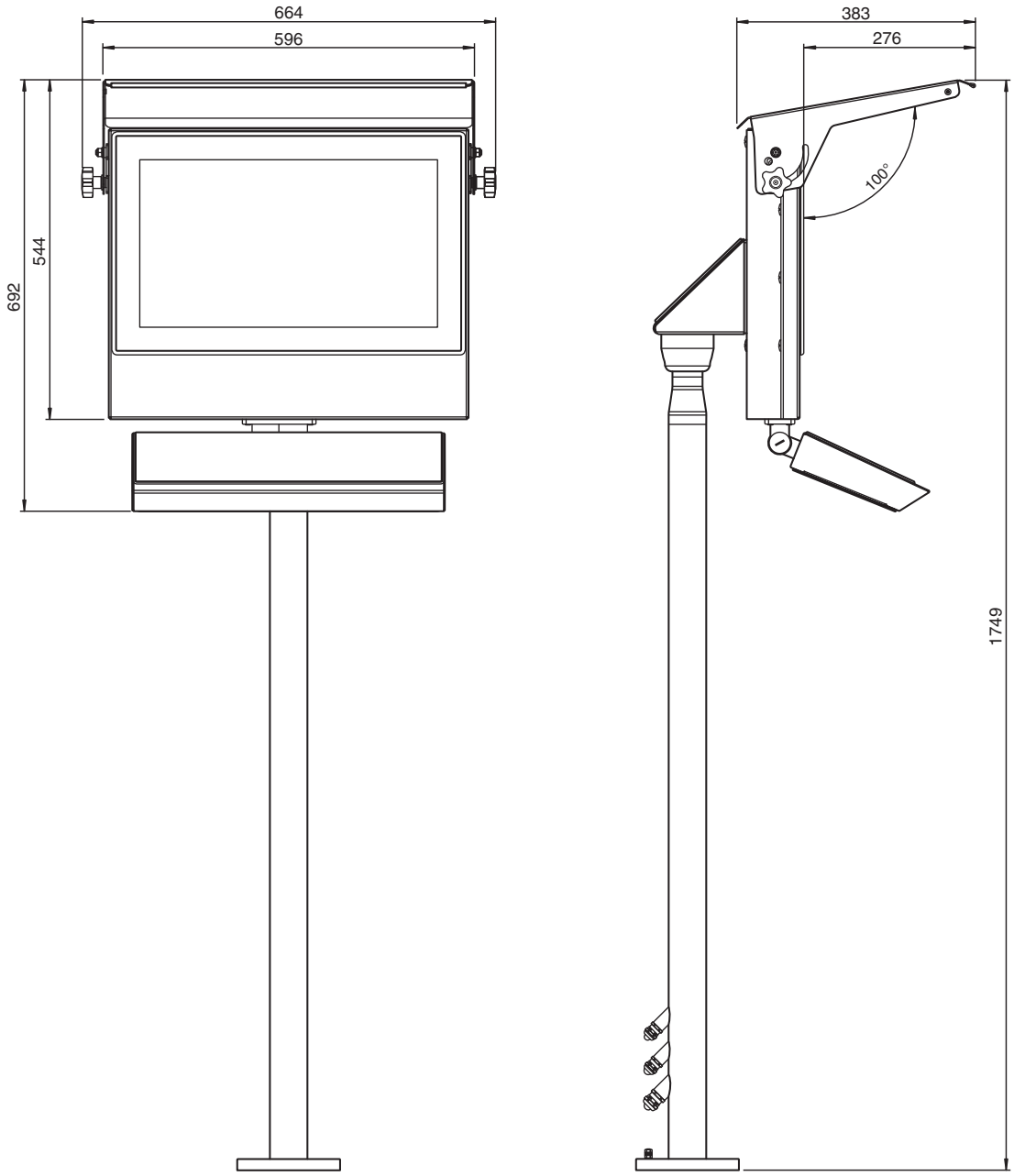
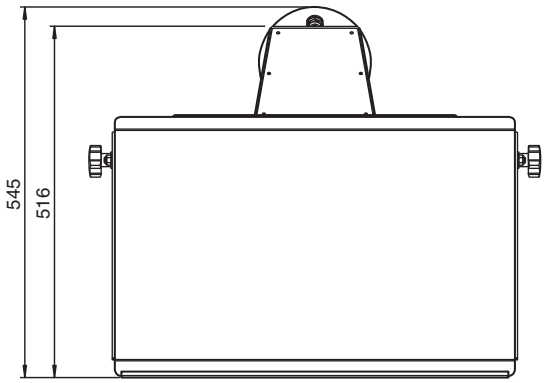
Dimensions



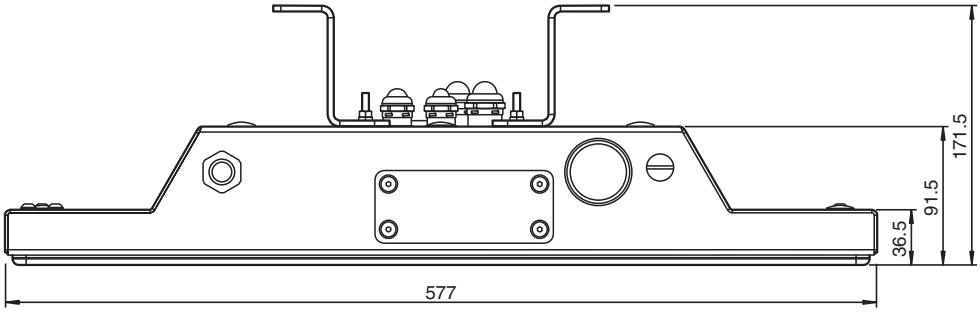


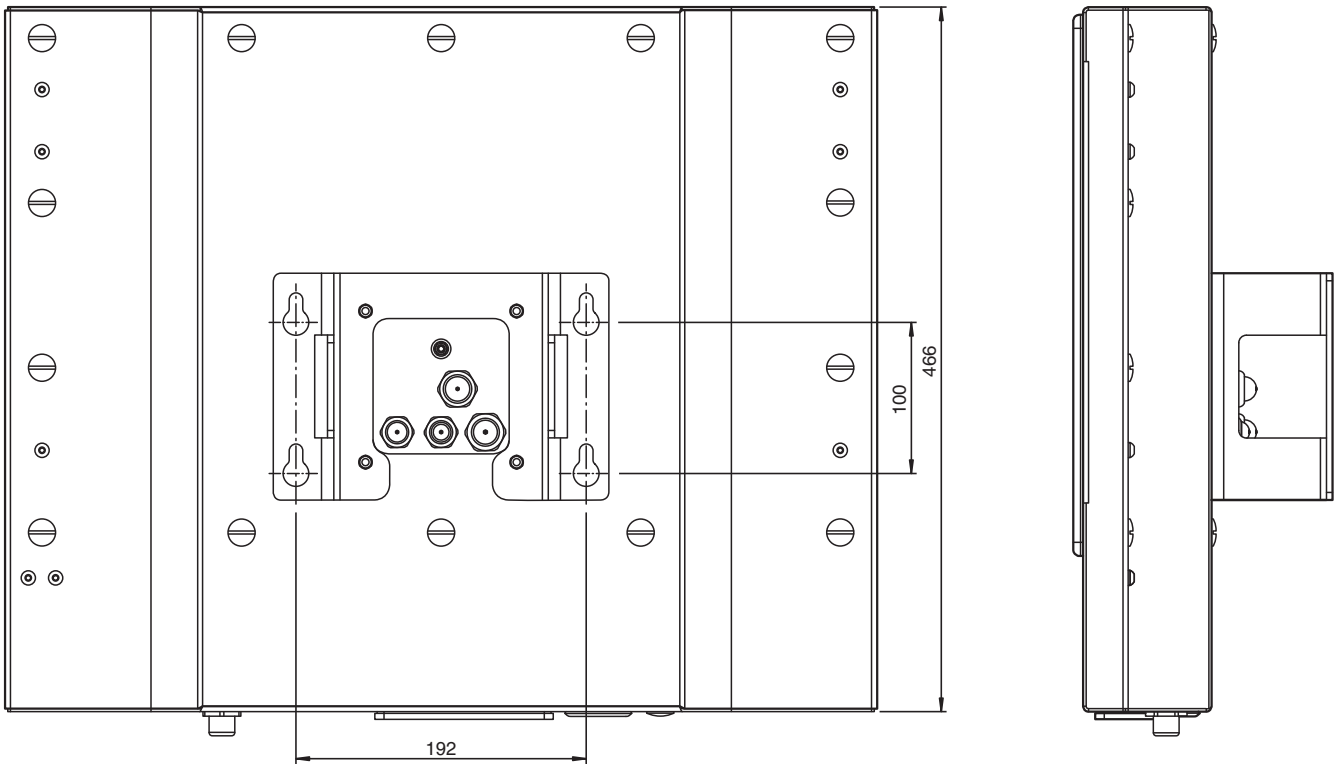
Dimensions with top sunshield

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215345_eng.pdf

Dimensions

Dimensions for Wall Mounting Bracket





Technical Data

General specifications	
Type	Personal Computer
Hardware	
Processor	1N: Intel® Celeron 2N: Intel® Core™ i5-7300U

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215345_eng.pdf

Technical Data

RAM		2x SO-DIMM slots, supports up to 32 GB DDR4-2133 (one SO-DIMM slot) **Configurable RAM options:** 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 **Configurable storage options:** 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		
Power consumption		
AC		max. load: 64 W Further information can be found in the VisuNet FLX manual for the extended temperature range.
DC		max. load: 55 W Further information can be found in the VisuNet FLX manual for the extended temperature range.
Indicators/operating means		
Display		
Type		Liquid Crystal Display (LCD) with LED backlight
Screen diagonal		54.61 cm (21,5 ")
Resolution		1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth		24 bit (16.7 M) color
Contrast		22FC: 5000:1
Brightness		22FC: 300 cd/m2
Reading angle		22FC: 170 ° horizontal, 160 ° vertical
Life span		22FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices		
Touch screen		10-finger multi-touch, glove-friendly Configurable display options: 22FC: 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
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		Windows® 10 IoT Enterprise LTSC 2021 x64
Ambient conditions		
Operating temperature		-20 ... 50 °C (-4 ... 122 °F)

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Technical Data

Storage temperature		-20 ... 65 °C (-4 ... 149 °F)
Relative humidity		max. relative humidity 93% at 50°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		IP66/Type 4X
Material		Housing: Powder-coated marine-grade aluminum alloy (EN AW-5754)
Installation		System with enclosure
Mass		Approx. 11.4 kg Approx. 13.4 kg with AC power supply with top sunshield: + Approx. 1.6 kg with top and side sunshield: + Approx. 3 kg
Dimensions		577 mm x 466 mm x 233 mm
International approvals		
UL approval		
Approved for		**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 **UL HazLoc** UL approval E492874 Non-Incendive circuits for CL I, DIV 2, GP A-D CL II, DIV 2, GP F, G CL III Non-Incendive circuits for CL I, ZN 2, IIC CL II, ZN 22, IIIB CL III, ZN 22, IIIA Install per drawing 116-0478 Mounting in CL I, DIV 2, GP A-D, T4 CL II, DIV 2, GP F, G, T4 CL III Mounting in CL I, ZN 2, IIC, T4 CL II, ZN 22, IIIB, T85°C CL III, ZN 22, IIIA, T85°C
ATEX approval		
ATEX certificate		UL 22 ATEX 2481X
ATEX marking		II 3 G Ex ec [ic Gc] IIC T4 Gc II 3 D Ex tc [ic Dc] IIIC T85°C Dc
IECEx approval		
IECEx certificate		IECEx ULD 22.0019X
IECEx marking		Ex ec [ic Gc] IIC T4 Gc Ex tc [ic Dc] IIIC T85°C 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		2024322309005748
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

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215345_eng.pdf

Type Code

PC-320S-*B*

PC-320S-	(1)	(2)-	K(3)-	(4)-	(5)	(6)	(7)	(8)	(9)-	(10)

Model	
PC-320S-	Personal Computer - "System with Enclosure"

(1)	Explosion protection
N	Industrial, general purpose (non-ex)
L	ATEX & IECEx Zone 2/22 and Class I, II, III Div 2

(2)-	Temperature
B-	-20 °C ... 50 °C

(3)-	Display unit
22FC-	21.5 " (16:9), Full HD (1920 x 1080), capacitive touch, optical bonding

(4)-	Power supply unit
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5)	Computing platform
1N	Intel Celeron
2N	Intel Core™ i5-7300U

(6)	RAM
L	1x 8 GB, wide temperature grade
M	1x 16 GB, wide temperature grade

(7)	Storage
P	256 GB M.2 NVMe, wide temperature grade
Q	512 GB M.2 NVMe, wide temperature grade

(8)	Operating system & software
3	Windows® 10 IoT Enterprise LTSC 2021 x64

(9)-	Housing
A1-	Powder-coated marine-grade aluminum alloy enclosure

(10)	Options
NN0	Standard

Example:

PC320S-	N	B-	22FC-	D-	1N	L	P	3	A1-	NN0

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: i215345_eng.pdf

Direct Monitor - System with Enclosure

VisuNet FLX

DM-320S-*B-*

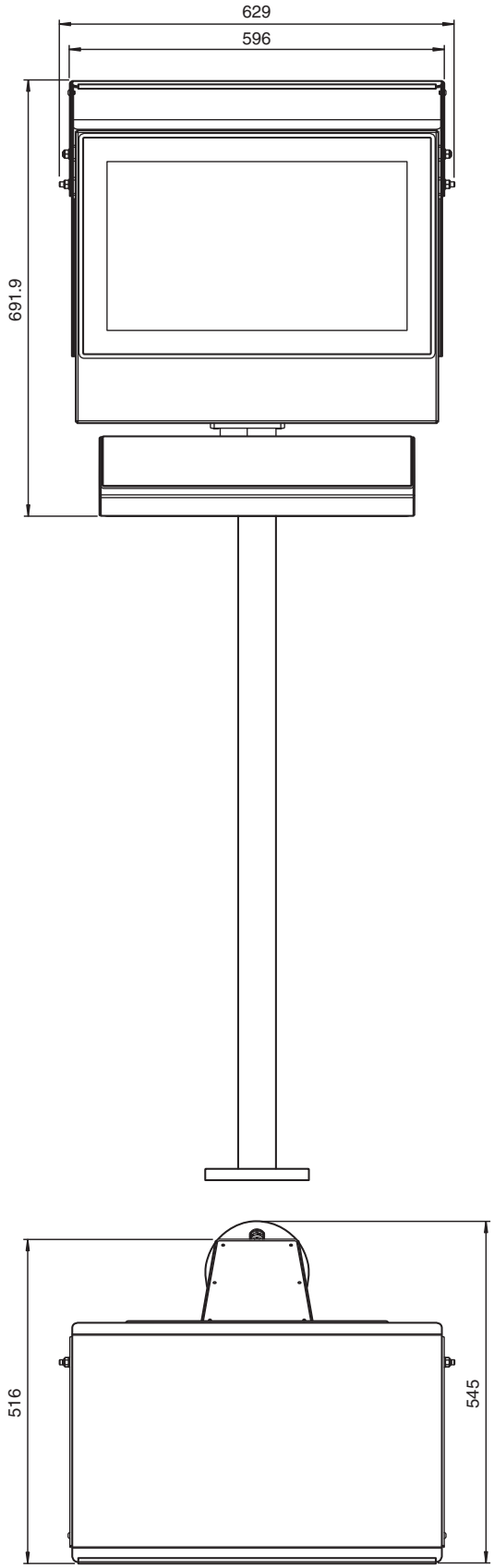
- Designed for use in the extended temperature range of -20 °C ... 50 °C with rugged aluminum housing
- Suitable for outdoor use with various sunshield options
- Fully modular design allowing easy migration of individual components
- High application flexibility due to identical basic components that can be can be configured as required

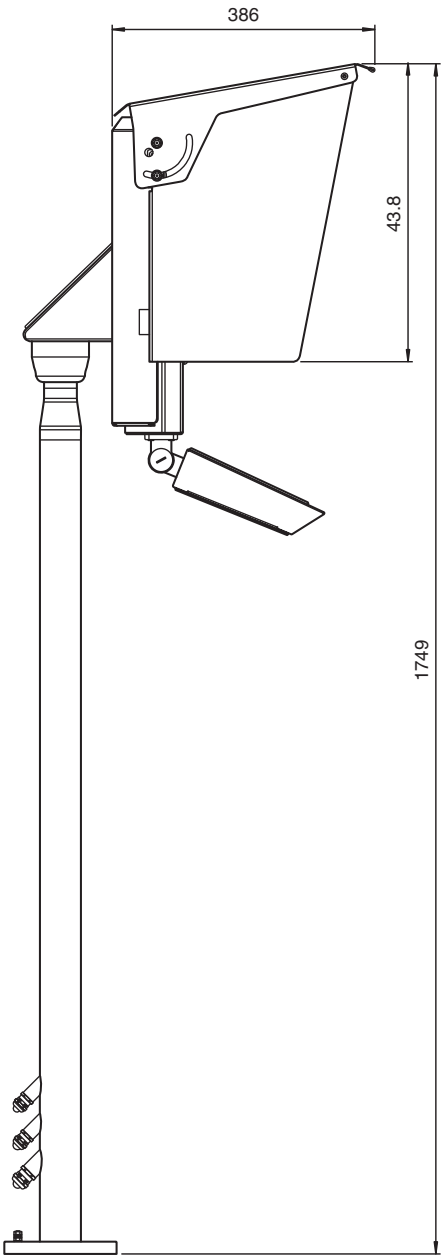
Direct Monitor - System with Enclosure

Function

The VisuNet FLX Systems are designed for Zone 2/22 (Div. 2) and non-Ex applications.
The VisuNet FLX's rugged aluminum enclosure provides optimized thermal conductivity for improved heat transfer and temperature management. The high corrosion resistance of the housing makes the VisuNet FLX platform attractive for industries with high ambient temperatures, such as manufacturing, oil & gas, water & wastewater, and loading & filling. Industries such as life science, (petro)chemical and pharmaceutical also benefit from the advantages of the aluminum variant of the VisuNet FLX.
The various mounting and configuration options provide maximum application flexibility. Thanks to its fully modular design, the new platform, which is tailored to the needs of the (petro)chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and allow for easy and quick adjustments in the field. The modern, compact design requires less installation space. The low weight allows for cost-effective and easy installation.

Dimensions

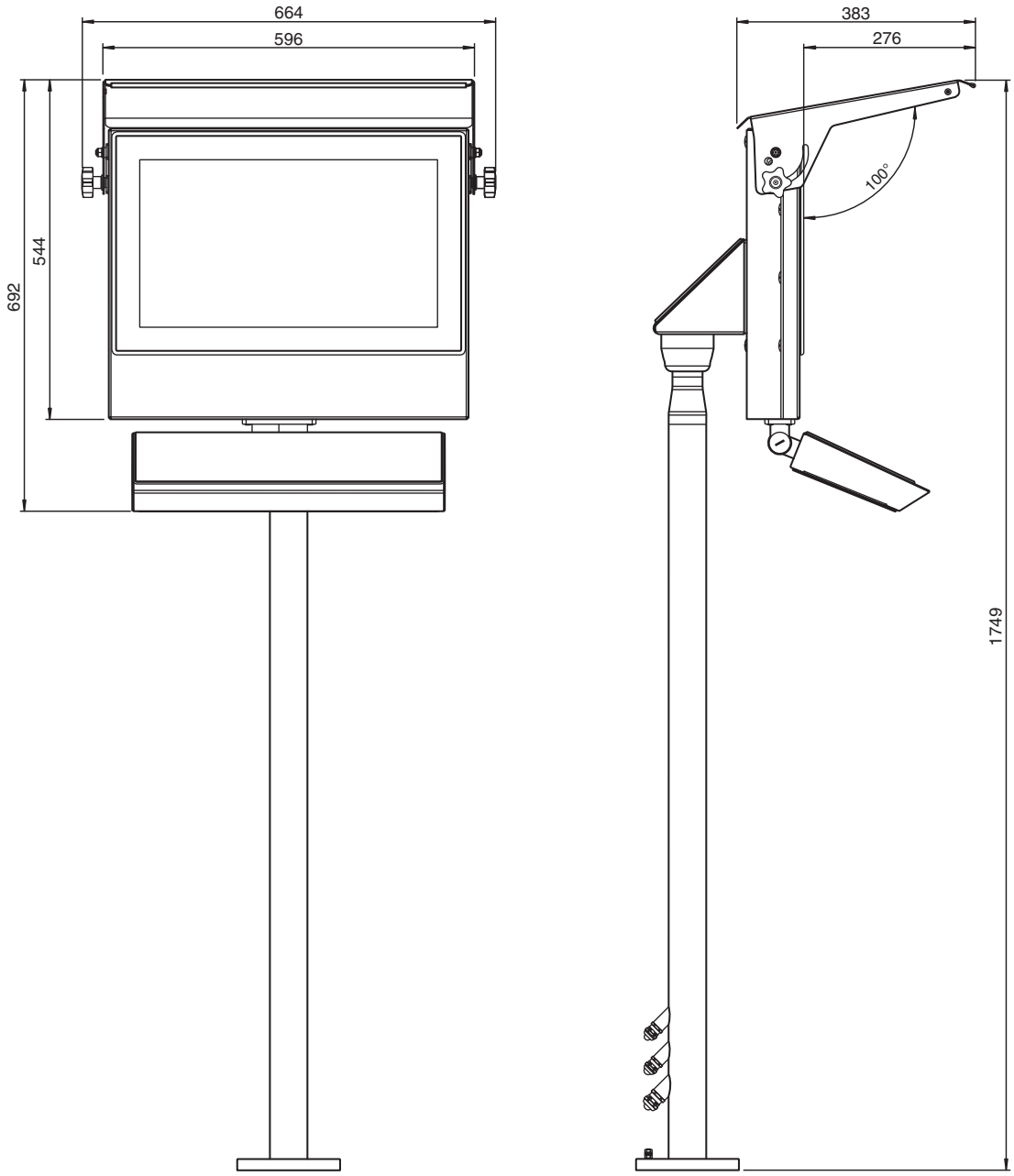


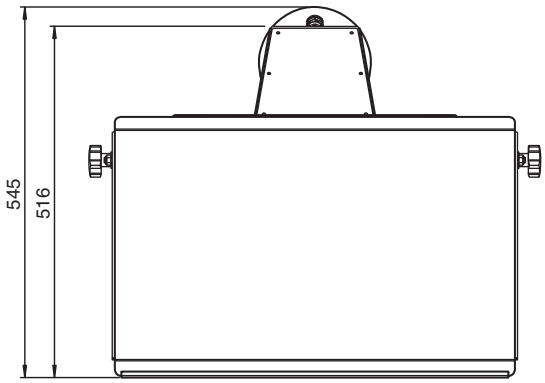


Dimensions with top, back and side sunshields

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: i215346_eng.pdf

Dimensions



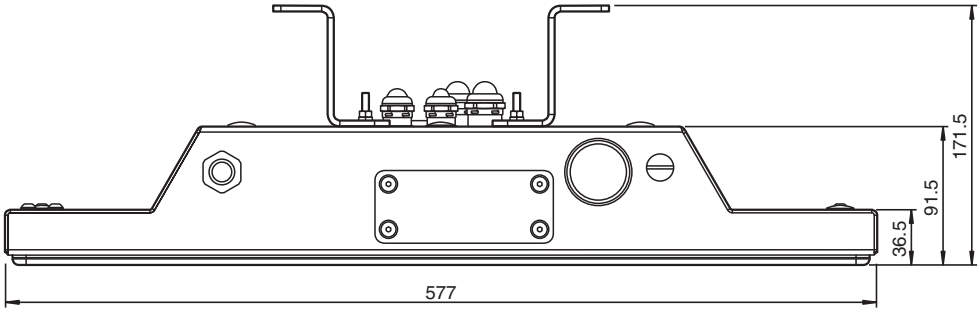


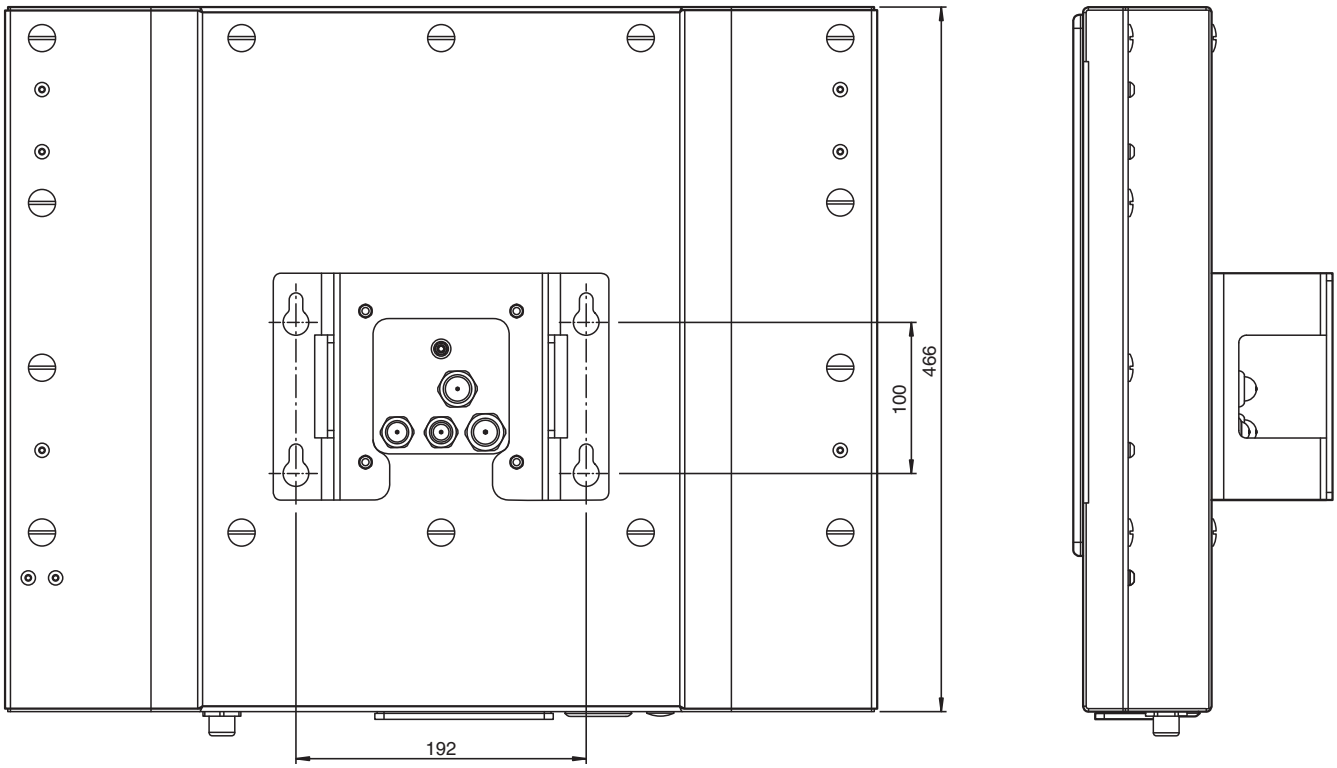
Dimensions with top sunshield

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t215346_eng.pdf

Dimensions

Dimensions for Wall Mounting Bracket





Technical Data

General specifications		
Type		Direct Monitor
Supply		
Power consumption		
AC		115/230 V a.c. (100 ... 240 V a.c.), max. 0.4 A , max. 40 W For connections designation refer to the Power Supply PS1000-A6-24.5 manual.
DC		20 ... 28 V d.c. / 1.5 A (SELV/PELV or class 2) For connections designation refer to the VisuNet FLX Panel Mount manual.
Indicators/operating means		

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t215346_eng.pdf

Technical Data

Display	
Type	Liquid Crystal Display (LCD) with LED backlight
Screen diagonal	54.61 cm (21,5 ")
Resolution	1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	22FC: 5000:1
Brightness	22FC: 300 cd/m2
Reading angle	22FC: 170 ° horizontal, 160 ° vertical
Life span	22FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices	
Touch screen	10-finger multi-touch, glove-friendly Configurable display options: 22FC: Capacitive touch, optical bonding
Keyboard	Optional: Foil keyboard with different pointing device options available (see EXTA4 datasheet)
Interface	
Interface type	1x Power input w/ 3 pin terminal block 1x HDMI 1x DVI-I 1x VGA 1x USB 1x 3,5mm audio jack (Line-out) 1x OSD Menu w/ power button
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (ind. Locations) EN 61000-6-4:2007+A1:2011
Explosion protection	
Directive 2014/34/EU	EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018
Ambient conditions	
Operating temperature	-20 ... 50 °C (-4 ... 122 °F)
Storage temperature	-20 ... 65 °C (-4 ... 149 °F)
Relative humidity	max. relative humidity 93% at 50°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	IP66/Type 4X
Material	Housing: Powder-coated marine-grade aluminum alloy (EN AW-5754)
Installation	System with enclosure
Mass	Approx. 11.4 kg Approx. 13.4 kg with AC power supply with top sunshield: + Approx. 1.6 kg with top and side sunshield: + Approx. 3 kg
Dimensions	577 mm x 466 mm x 233 mm
International approvals	
UL approval	

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t215346_eng.pdf

Technical Data

Approved for		**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 **UL HazLoc** Mounting in CL I, DIV 2, GP A-D, T4 CL II, DIV 2, GP F, G, T4 CL III Mounting in CL I, ZN 2, IIC, T4 CL II, ZN 22, IIIB, T85°C CL III, ZN 22, IIIA, T85°C
ATEX approval		
ATEX certificate		UL 22 ATEX 2481X
ATEX marking		II 3 G Ex ec [ic] IIC T4 Gc II 3 D Ex tc IIIC T85°C Dc
IECEx approval		
IECEx certificate		IECEx ULD 22.0019X
IECEx marking		Ex ec IIC T4 Gc Ex tc IIIC T85°C Dc
IECEx standard		IEC 60079-0:2017 Ed 7.0 IEC 60079-7:2017 Ed 5.1 IEC 60079-31:2013 Ed. 2

Type Code

DM-320S-*

DM-320S-	(1)	(2)-	K(3)-	(4)-	(5)	(6)-	(7)

Model	
DM-320S-	Direct Monitor - "System with Enclosure"

(1)	Ex Protection
N	Industrial, general purpose (non-ex)
L	ATEX & IECEx Zone 2/22 and Class I, II, III Div 2

(2)-	Temperature
B-	-20 °C ... 50 °C

(3)-	Display unit
22FC-	21.5 " (16:9), Full HD (1920 x 1080), capacitive touch, optical bonding

(4)-	Power supply unit
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5)	Computing platform
VNNNN	DMU - Video interfaces: DisplayPort, DVI, VGA - standard option

(6)-	Housing
A1-	Powder-coated aluminum alloy enclosure

(7)	Options
NN0	Standard

Example:

DM-320S-	R	B-	22FC-	A-	VNNNN	A1-	NN0

Release date: 2024-09-04 Date of issue: 2024-09-04 Filename: t215346_eng.pdf

Remote Monitor - System with enclosure

VisuNet FLX

RM-320S-*B-*

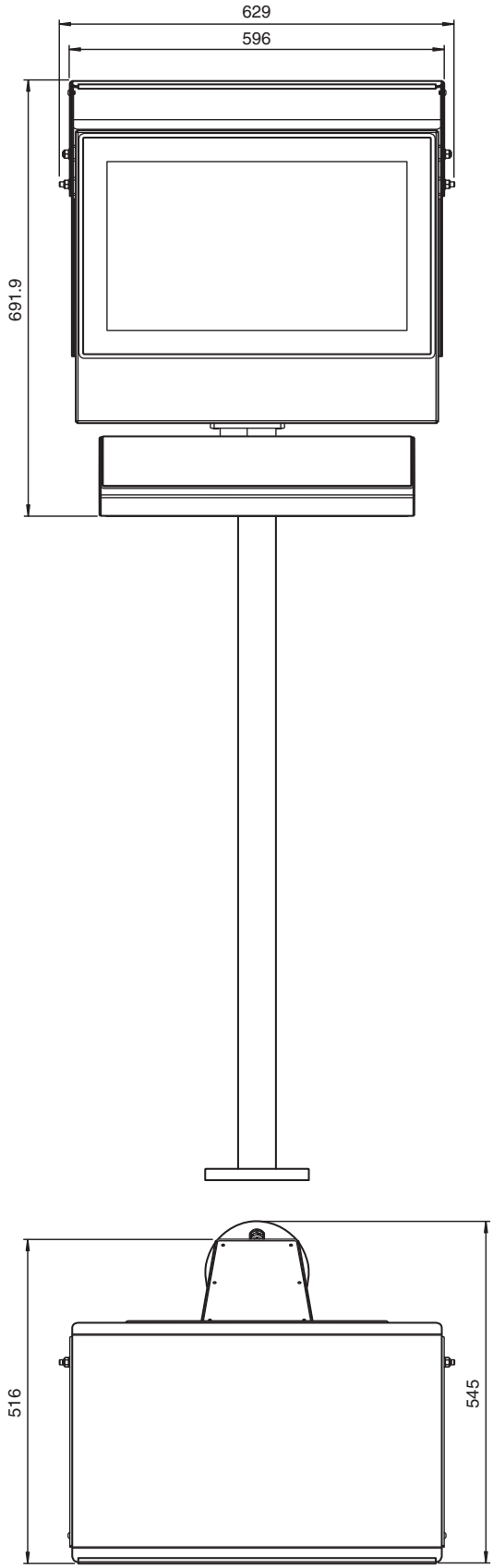
- Designed for use in the extended temperature range of -20 °C ... 50 °C with rugged aluminum housing
- Thin Client solution (with VisuNet RM Shell firmware)
- Suitable for outdoor use with various sunshield options
- Fully modular design allowing easy migration of individual components
- High application flexibility due to identical basic components that can be can be configured as required

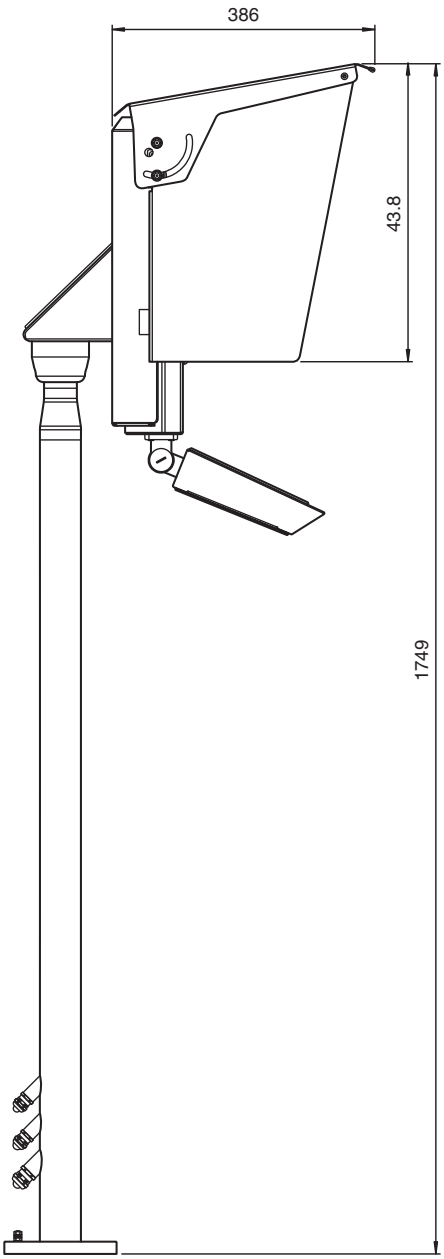
Remote Monitor - System with enclosure

Function

The VisuNet FLX Systems are designed for Zone 2/22 (Div. 2) and non-Ex applications.
The VisuNet FLX's rugged aluminum enclosure provides optimized thermal conductivity for improved heat transfer and temperature management. The high corrosion resistance of the housing makes the VisuNet FLX platform attractive for industries with high ambient temperatures, such as manufacturing, oil & gas, water & wastewater, and loading & filling. Industries such as life science, (petro)chemical and pharmaceutical also benefit from the advantages of the aluminum variant of the VisuNet FLX.
The various mounting and configuration options provide maximum application flexibility. Thanks to its fully modular design, the new platform, which is tailored to the needs of the (petro)chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and allow for easy and quick adjustments in the field. The modern, compact design requires less installation space. The low weight allows for cost-effective and easy installation.

Dimensions

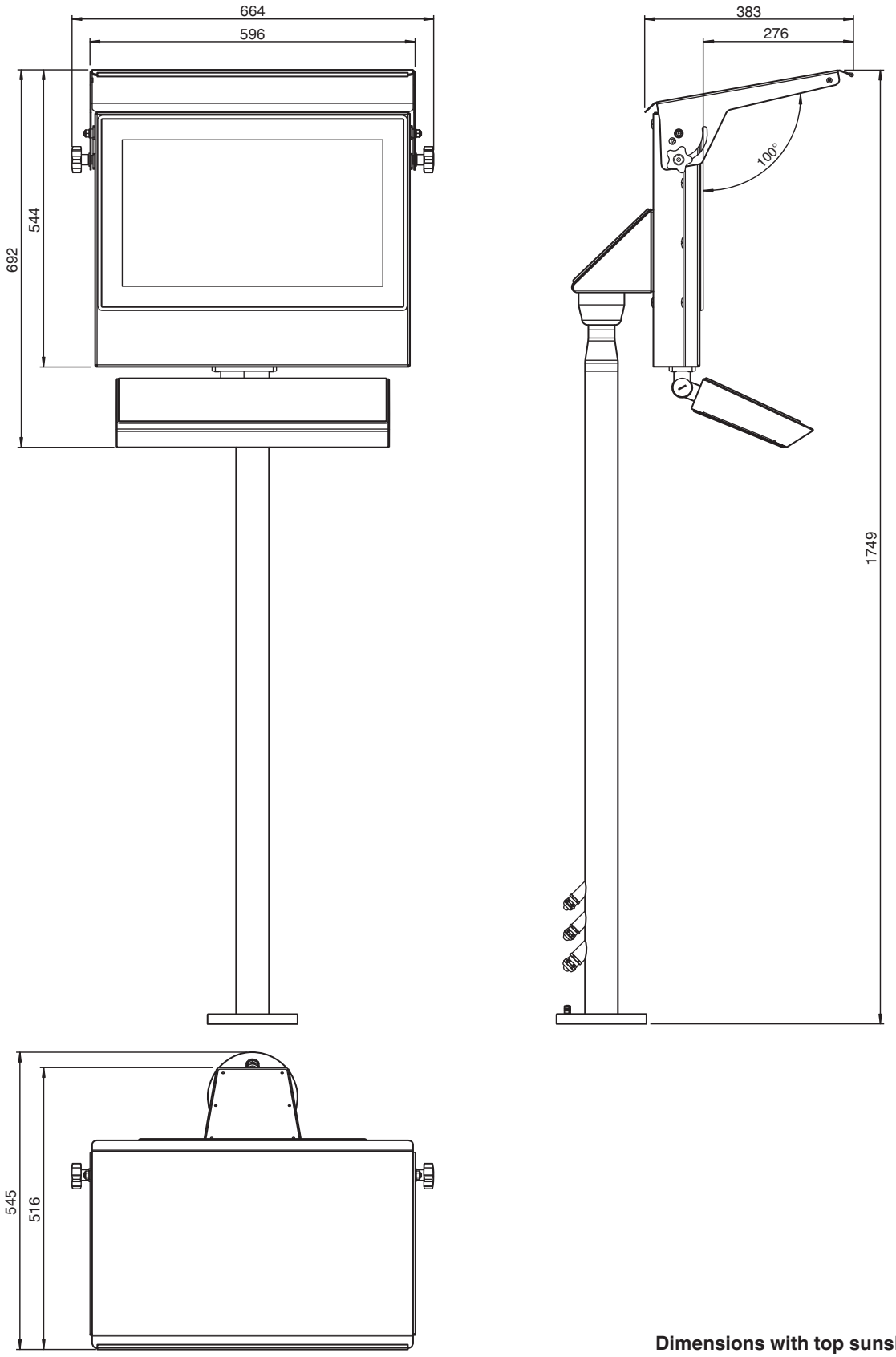




Dimensions with top, back and side sunshields

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215347_eng.pdf

Dimensions

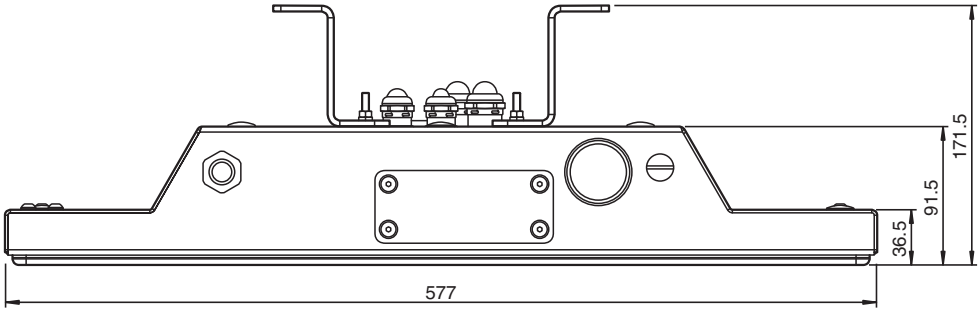


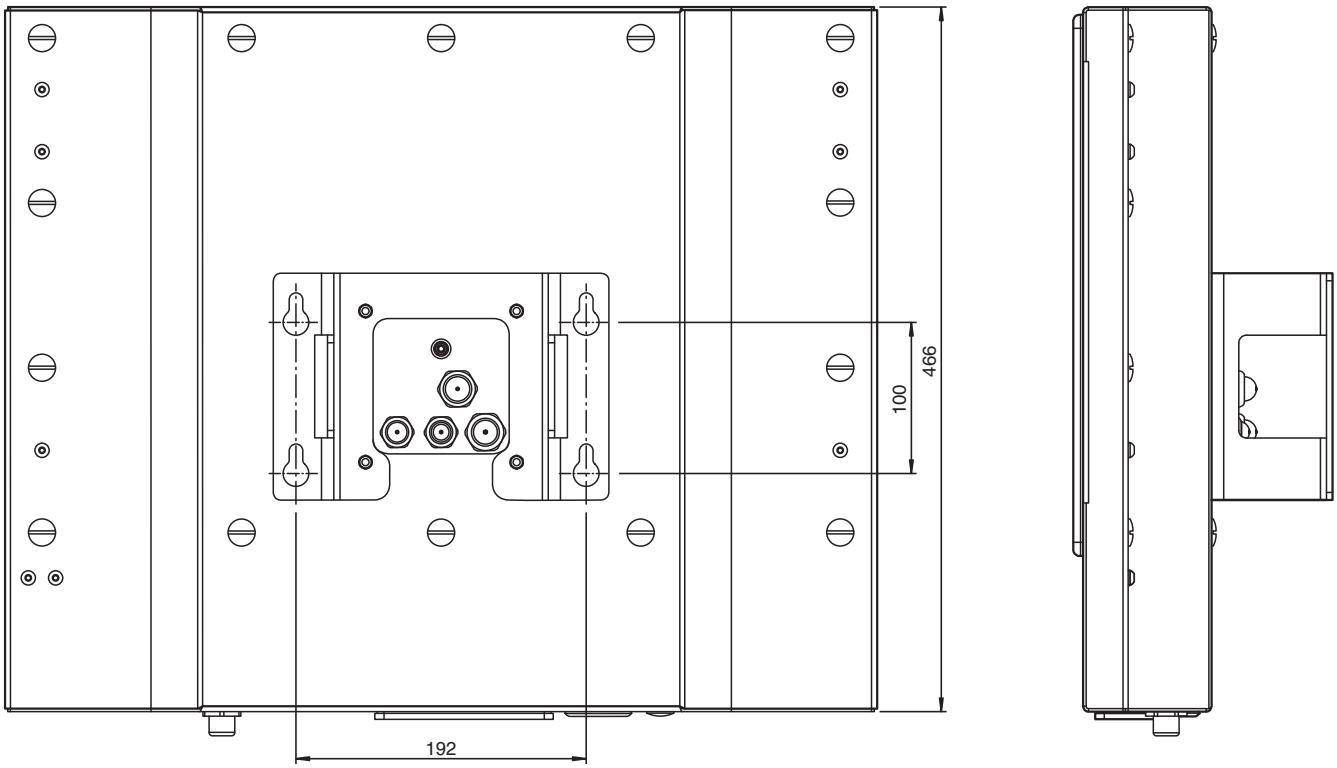
Dimensions with top sunshield

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215347_eng.pdf

Dimensions

Dimensions for Wall Mounting Bracket





Technical Data

General specifications		
Type		Remote Monitor
Hardware		
Processor		Intel® Celeron™ 3965U
RAM		**Configurable RAM options:** Wide temperature grade (temperature option B): L: 1x 4 GB DDR4-2133 M: 1x 8 GB DDR4-2133

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215347_eng.pdf

Technical Data

Mass storage	**Storage interface:** 1x M.2 2242/2280 M Key, PCIe + SATA 3 **Storage:** 64 GB M.2 SATA 3 III, wide temperature grade
Supply	
Power consumption	
AC	max. load: 60 W Further information can be found in the VisuNet FLX manual for the extended temperature range.
DC	max. load: 51 W Further information can be found in the VisuNet FLX manual for the extended temperature range.
Indicators/operating means	
Display	
Type	Liquid Crystal Display (LCD) with LED backlight
Screen diagonal	54.61 cm (21.5 inch)
Resolution	1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	22FC: 5000:1
Brightness	22FC: 300 cd/m2
Reading angle	22FC: 170 ° horizontal, 160 ° vertical
Life span	22FC: back lamp life: 50.000 hrs typical half life, at 25 °C (77 °F)
Input devices	
Touch screen	10-finger multi-touch, glove-friendly Configurable display options: 22FC: 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
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	VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64) **Optional:** I: IGEL OS 11 (based on Linux, without licence) J: IGEL OS 12 (based on Linux, without licence) T: ThinManager Ready
Ambient conditions	
Operating temperature	-20 ... 50 °C (-4 ... 122 °F)
Storage temperature	-20 ... 65 °C (-4 ... 149 °F)
Relative humidity	max. relative humidity 93% at 50°C (non-condensing) according to EN60068-2-78
Climatic conditions	Passive cooling, no rotating parts.

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Technical Data

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	IP66/Type 4X
Material	Housing: Powder-coated marine-grade aluminum alloy (EN AW-5754)
Installation	System with enclosure
Mass	Approx. 11.4 kg Approx. 13.4 kg with AC power supply with top sunshield: + Approx. 1.6 kg with top and side sunshield: + Approx. 3 kg
Dimensions	577 mm x 466 mm x 233 mm
International approvals	
UL approval	
Approved for	**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 **UL HazLoc** UL approval E492874 Non-Incendive circuits for CL I, DIV 2, GP A-D CL II, DIV 2, GP F, G CL III Non-Incendive circuits for CL I, ZN 2, IIC CL II, ZN 22, IIIB CL III, ZN 22, IIIA Install per drawing 116-0478 Mounting in CL I, DIV 2, GP A-D, T4 CL II, DIV 2, GP F, G, T4 CL III Mounting in CL I, ZN 2, IIC, T4 CL II, ZN 22, IIIB, T85°C CL III, ZN 22, IIIA, T85°C
ATEX approval	
ATEX certificate	UL 22 ATEX 2481X
ATEX marking	II 3 G Ex ec [ic Gc] IIC T4 Gc II 3 D Ex tc [ic Dc] IIIC T85°C Dc
IECEx approval	
IECEx certificate	IECEx ULD 22.0019X
IECEx marking	Ex ec [ic Gc] IIC T4 Gc Ex tc [ic Dc] IIIC T85°C 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	2024322309005748
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-320S-*B-*

RM-320S-	(1)	(2)-	K(3)-	(4)-	(5)	(6)	(7)	(8)	(9)-	(10)

Model	
RM-320S-	Remote monitor (RM) - "System with enclosure"

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215347_eng.pdf

Type Code

(1)	Explosion protection
N	Industrial, general purpose (non-ex)
L	ATEX & IECEx Zone 2/22 and Class I, II, III Div 2

(2)-	Temperature
B-	-20 °C ... 50 °C

(3)-	Display unit
22FC-	21.5 " (16:9), Full HD (1920 x 1080), capacitive touch, optical bonding

(4)-	Power supply unit
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5)	Computing platform
1N	Intel® Celeron

(6)	RAM
L	1x 8 GB, wide temperature grade
M	1x 16 GB, wide temperature grade

(7)	Storage
N	None [only ThinManager Ready]
L	64 GB M.2 SATA III, wide temperature grade
P	256 GB M.2 NVMe, wide temperature grade
Q	512 GB M.2 NVMe, wide temperature grade

(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)
J	IGEL OS 12 (based on Linux, without licence)
T	ThinManager Ready

(9)-	Housing
A1-	Powder-coated aluminum alloy enclosure

(10)	Options
NN0	Standard

Example:

RM-320S-	L	B-	22FC-	A-	1N	L	L	4	A1-	NN0

Release date: 2024-10-30 Date of issue: 2024-10-30 Filename: t215347_eng.pdf

VisuNet FLX

System-*A-* with Enclosure with RFID Reader RFID20-*

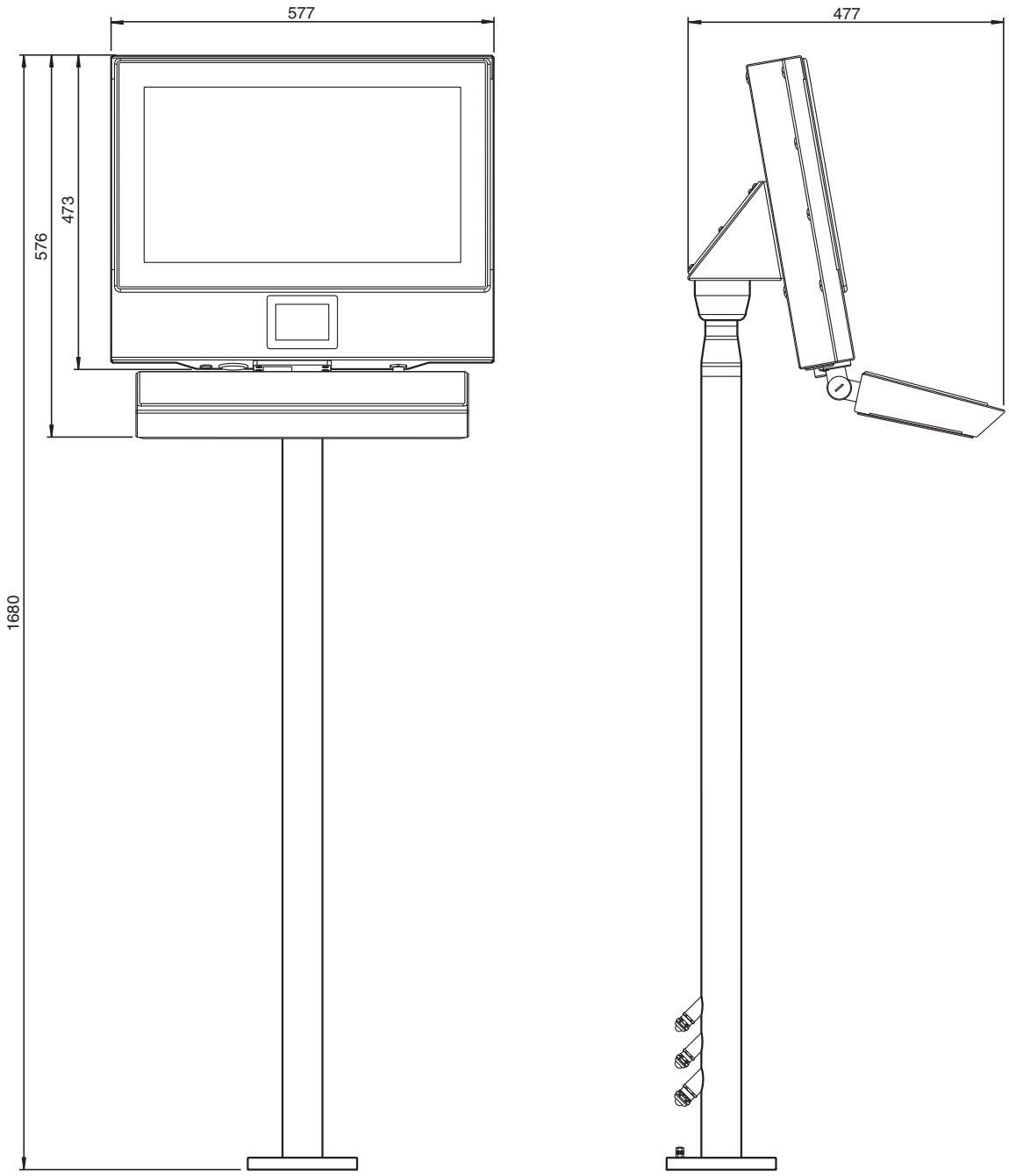
- Fully modular design which enables easy migration of individual components
- Large application flexibility due to identical basic components that can be configured as required
- Preinstalled RFID20-* Reader

System with Enclosure with RFID Reader

Function

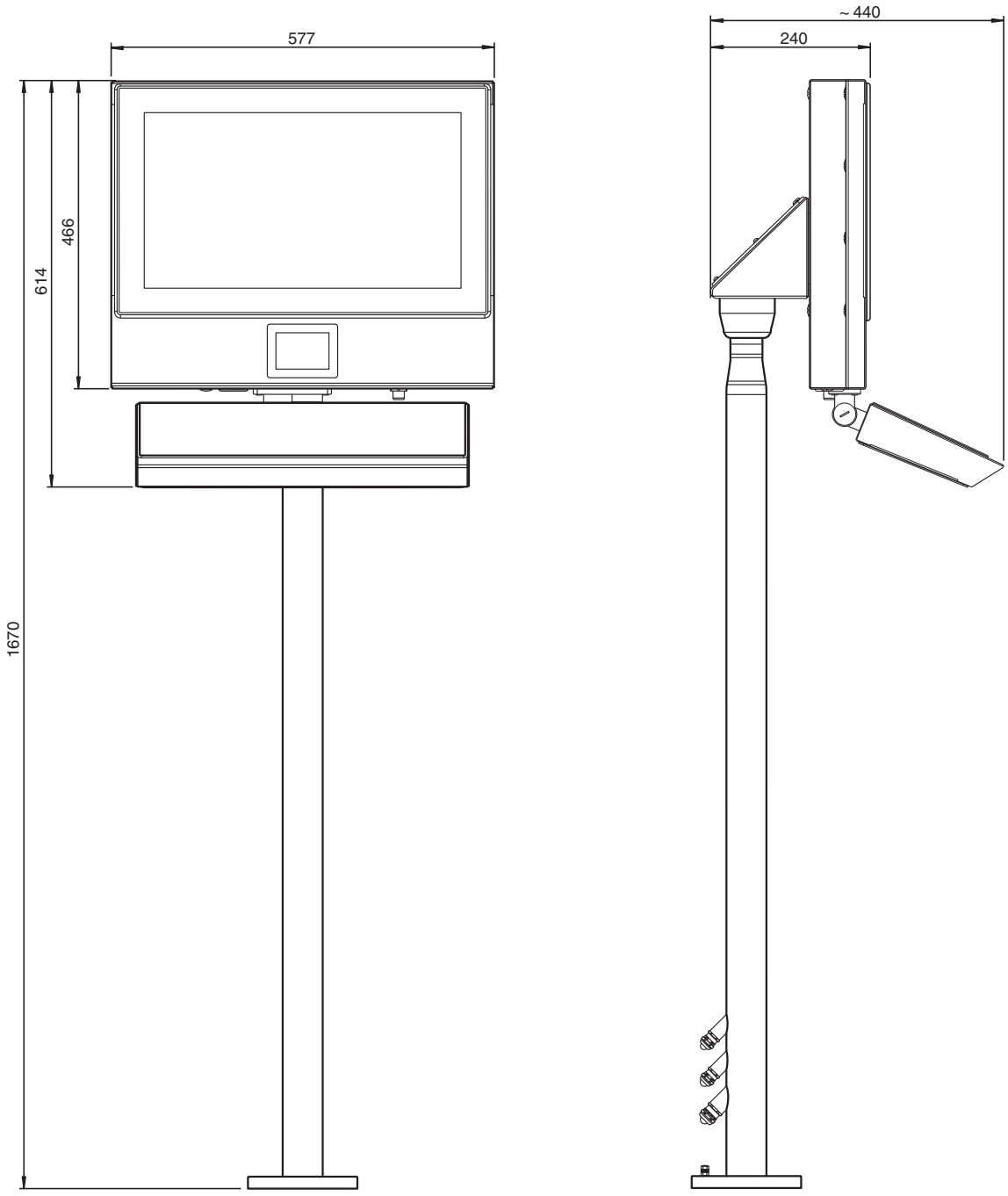
The VisuNet FLX Systems with RFID Reader are designed for Zone 2/22 (Self-Declaration) and non-Ex applications. The different mounting and configuring options lead to the highest application flexibility. Due to a fully modular design, the new platform, which is geared to the needs of the (petro-) chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and enables simple and fast adjustments in the field. With the modern, compact design less installation space is required. The low weight allows a cost effective and easy installation.

Dimensions



Release date: 2024-11-26 Date of issue: 2024-11-26 Filename: t221762_eng.pdf

Dimensions



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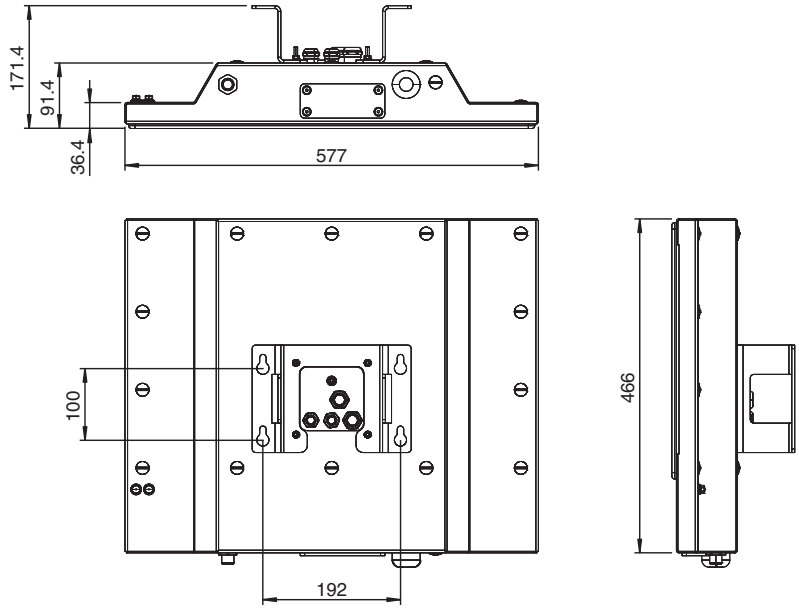

Technical Features

RM-320S-*

General specifications	
Type	Remote Monitor

Hardware	
Processor	Intel® Celeron™ 3965U
RAM	A: 1x 4 GB DDR4-2133, industrial temperature grade B: 1x 8 GB DDR4-2133, industrial temperature grade
Mass storage	Storage interface: 1x M.2 2242/2280 M Key, PCIe + SATA 3 Storage: 64-GB M.2 SATA 3, industrial temperature grade [temperature class A]

Software	
Operating system	VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64) **Optional:** I: IGEL OS 11 (based on Linux, without licence) J: IGEL OS 12 (based on Linux, without licence) T: ThinManager Ready [Celeron, 4-GB RAM, no storage]

PC-320S-*

General specifications	
Type	Personal Computer

Hardware	
Processor	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 8 GB DDR4-2133 C: 1x 16 GB DDR4-2133

Release date: 2024-11-26 Date of issue: 2024-11-26 Filename: t221762_eng.pdf

Technical Features

Hardware	
Mass storage	**Storage interface:** 1x M.2 2242/2280 M Key, PCIe + SATA 3 **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)

Software	
Operating system	Windows® 10 IoT Enterprise LTSC 2021 x64

RM-320S-* and PC-320S-*

Supply	
Power consumption	
AC	A: 115/230 V a.c. (100 ... 240 V a.c.), max. 0.7 A, max. 70 W For detailed information, refer to the PSU PS1000-A6-24.5 manual.
DC	20 ... 28 V d.c. / 2.8 A (SELV/PELV or NEC class 2)

Indicators/operating means	
Display	
Type	Liquid Crystal Display (LCD) with LED backlight
Screen diagonal	54.61 cm (21.5 inches)
Resolution	1920 x 1080 pixels (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	Typically 22GT: 1000:1 22FC: 5000:1
Brightness	Configurable display options: 22GT: 250 cd/m^2 22FC: 300 cd/m^2
Reading angle	22GT: 178° in all directions 22FC: horizontal: 170°, vertical: 160°
Life span	22GT: back lamp life: 30.000-hrs typical half life, at 25 °C (77 °F) 22FC: back lamp life: 50.000-hrs typical half life, at 25 °C (77 °F)

Input devices	
Touch screen	Configurable display options: 22GT: Capacitive touch, no optical bonding 22FC: Capacitive touch, optical bonding, 10-finger multi-touch, glove-friendly
Keyboard	Optional: Foil keyboard with different pointing device options available (see EXTA4 technical data)

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	
Radio and telecommunication terminal equipment	
Directive 2014/53/EU	EN 301 489-1 V2.2.3:2019 EN 301 489-3 V2.3.2:2023 EN 62311:2020 ETSI EN 300 330 V2.1.1:2017
Explosion protection	
Directive 2014/34/EU	EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN IEC 60079-11:2012 EN IEC 60079-31:2024
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018

Ambient conditions	
Operating temperature	0 ... 40 °C (32 ... 104 °F)
Storage temperature	-20 ... 65 °C (-4 ... 149 °F)

Release date: 2024-11-26 Date of issue: 2024-11-26 Filename: t221762_eng.pdf

Technical Features

Ambient conditions	
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, 1 g, 10 cycles per axis according to EN60068-2-6

Mechanical specifications	
Degree of protection	IP66
Material	Housing: Stainless steel AISI304 (1.4301) Surface finish: Bead blasted, typical surface roughness 0.8 µm
Installation	System with enclosure
Mass	approx. 16 kg approx. 18 kg with AC Power Supply
Dimensions	577 mm x 466 mm x 233 mm

International approval	
ATEX approval (Self declaration)	
ATEX certificate	PF21CERT6290X
ATEX marking	II 3G Ex ec IIC T4 Gc II 3D Ex tc IIIC 135 °C Dc

Type Code

System-*A-* with Enclosure with RFID Reader RFID20-*

(1)-	(2)	(3)-	(4)-	(5)-	(6)	(7)	(8)	(9)	(10)-	(11)	(12)

(1)-	
RM-320S-	Remote monitor - "System with enclosure"
PC-320S-	Personal computer - "System with Enclosure"

(2)	Explosion protection
N	Industrial, general purpose (UL Ord Loc Listed for US & Canada)
R	ATEX Zone 2/22 (Self declaration)

(3)-	Temperature
A-	0 °C ... 40 °C

(4)-	Display unit
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

(5)-	Power supply
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(6)	Computing unit
1N	Intel Celeron

(7)	RAM
A	1x 4 GB, industrial temperature grade
B	1x 8 GB, industrial temperature grade
C	1x 16 GB, industrial temperature grade

(8)	Storage
N	None [only ThinManager Ready]
B	64 GB M.2 SATA, industrial temperature grade
D	256 GB, M.2 NVMe industrial temperature grade
E	512 GB, M.2 NVMe industrial temperature grade

(9)	OS
3	Windows® 10 IoT Enterprise LTSC 2021 x64
4	VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64)
I	IGEL OS 11 (based on Linux, without licence)
J	IGEL OS 12 (based on Linux, without licence)

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Type Code

(9)	OS
T	ThinManager Ready

(10)-	Housing
P1-	preinstalled into AG-3200-* enclosure, surface finish 0.8-µm brushed

(11)	Reader
R	RFID Reader (TWN4 MulitTech 3 MLF HF)
F	RFID Reader with LEGIC (TWN4 Multi Tech 3 LEGIC M LF HF)

(12)	Options
N0	None

Release date: 2024-11-26 Date of issue: 2024-11-26 Filename: t221762_eng.pdf

VisuNet FLX

System-*B-* with Enclosure with RFID Reader RFID20-*

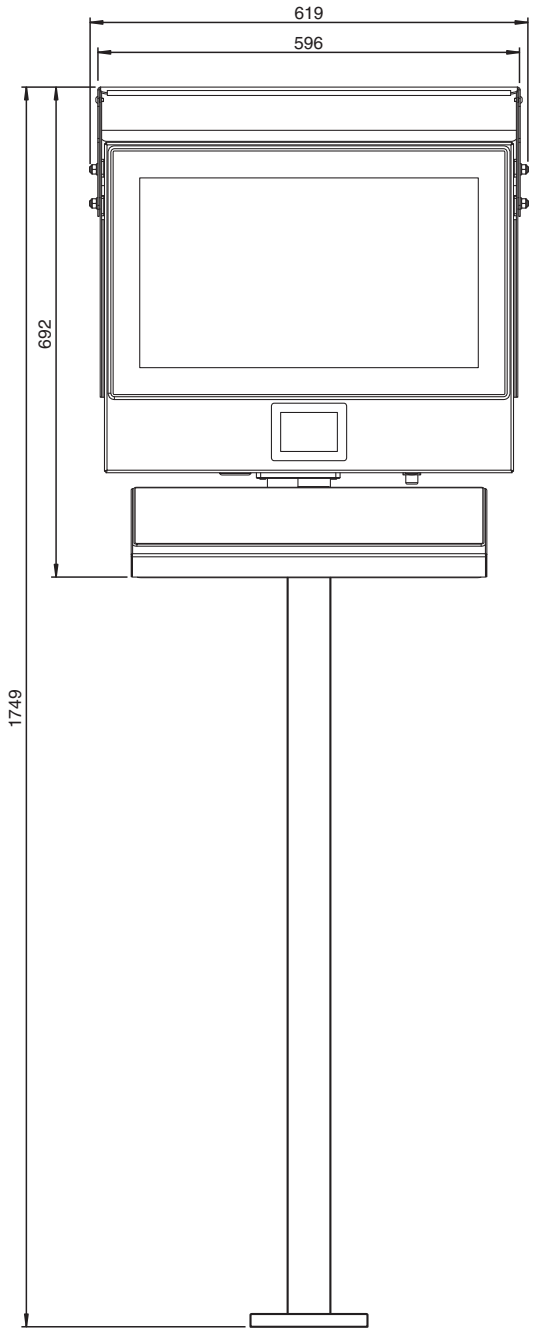
- Fully modular design which enables easy migration of individual components
- Large application flexibility due to identical basic components that can be configured as required
- Preinstalled RFID20-* Reader

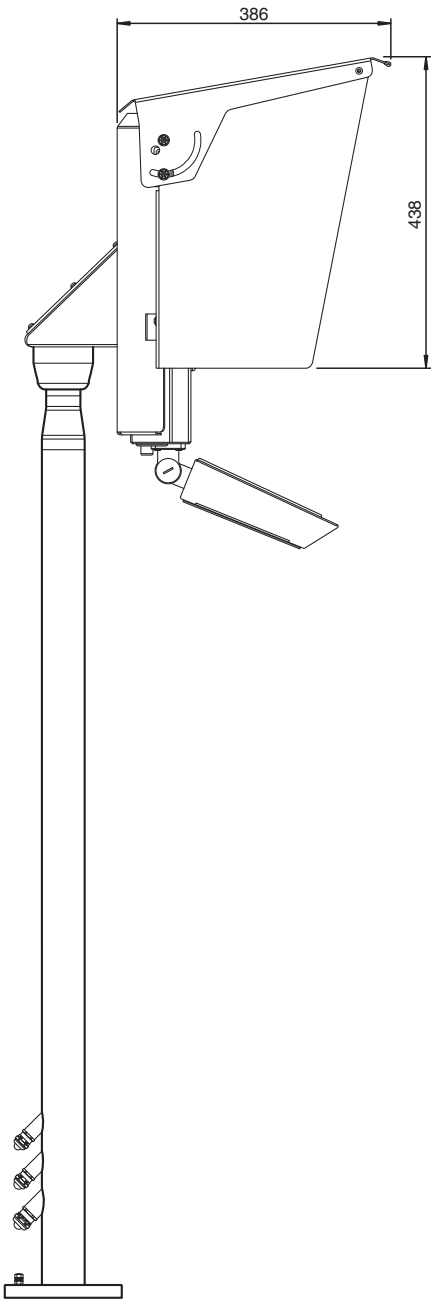
System with Enclosure with RFID Reader

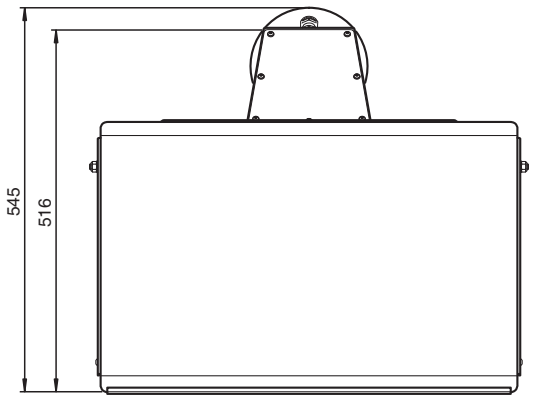
Function

The VisuNet FLX Systems with RFID Reader are designed for Zone 2/22 (Self-Declaration) and non-Ex applications. The VisuNet FLX's rugged aluminum enclosure provides optimized thermal conductivity for improved heat transfer and temperature management.
The high corrosion resistance of the housing makes the VisuNet FLX platform attractive for industries with high ambient temperatures, such as manufacturing, oil & gas, water & wastewater, and loading & filling. Industries such as life science, (petro)chemical and pharmaceutical also benefit from the advantages of the aluminum variant of the VisuNet FLX.
The various mounting and configuration options provide maximum application flexibility. Thanks to its fully modular design, the new platform, which is tailored to the needs of the (petro)chemical and pharmaceutical industries, the HMIs can be configured to fit exactly and allow for easy and quick adjustments in the field. The modern, compact design requires less installation space. The low weight allows for cost-effective and easy installation.

Dimensions







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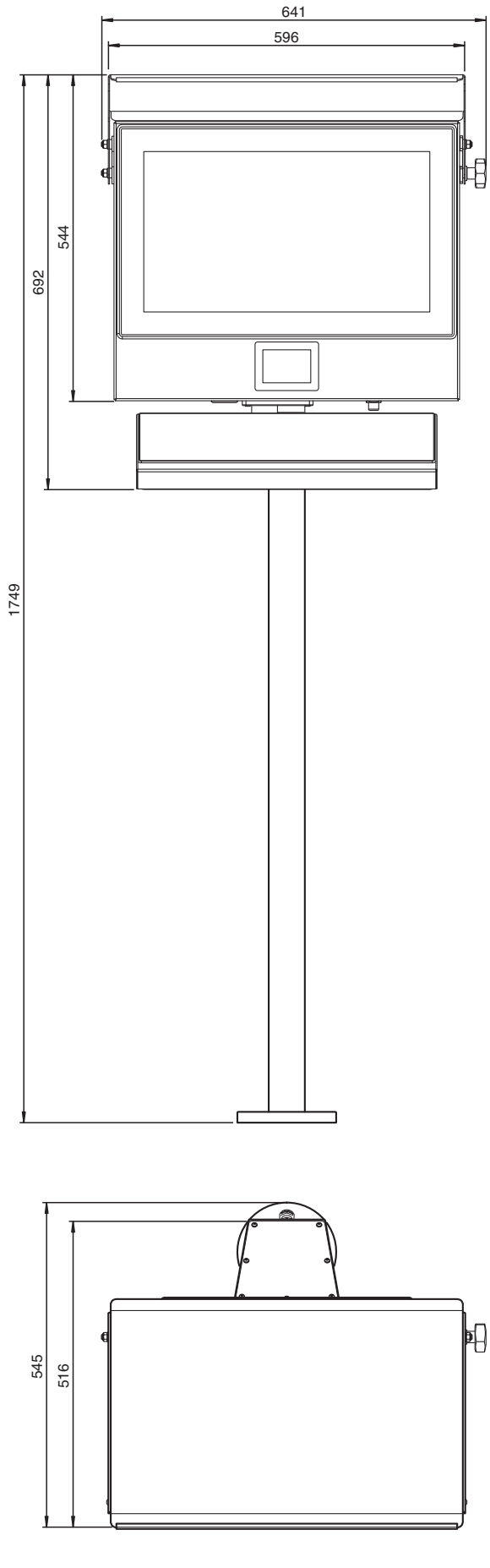
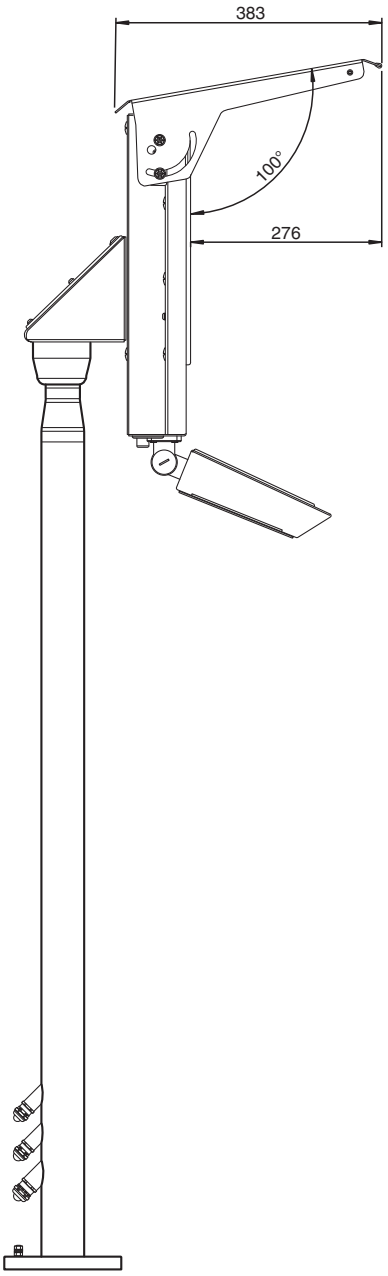
Dimensions





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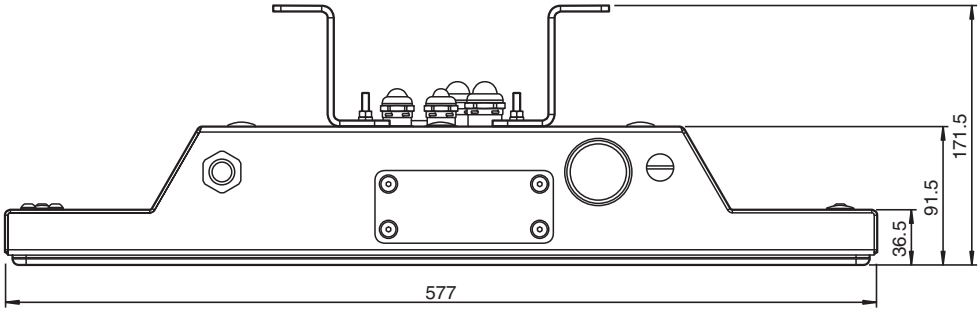
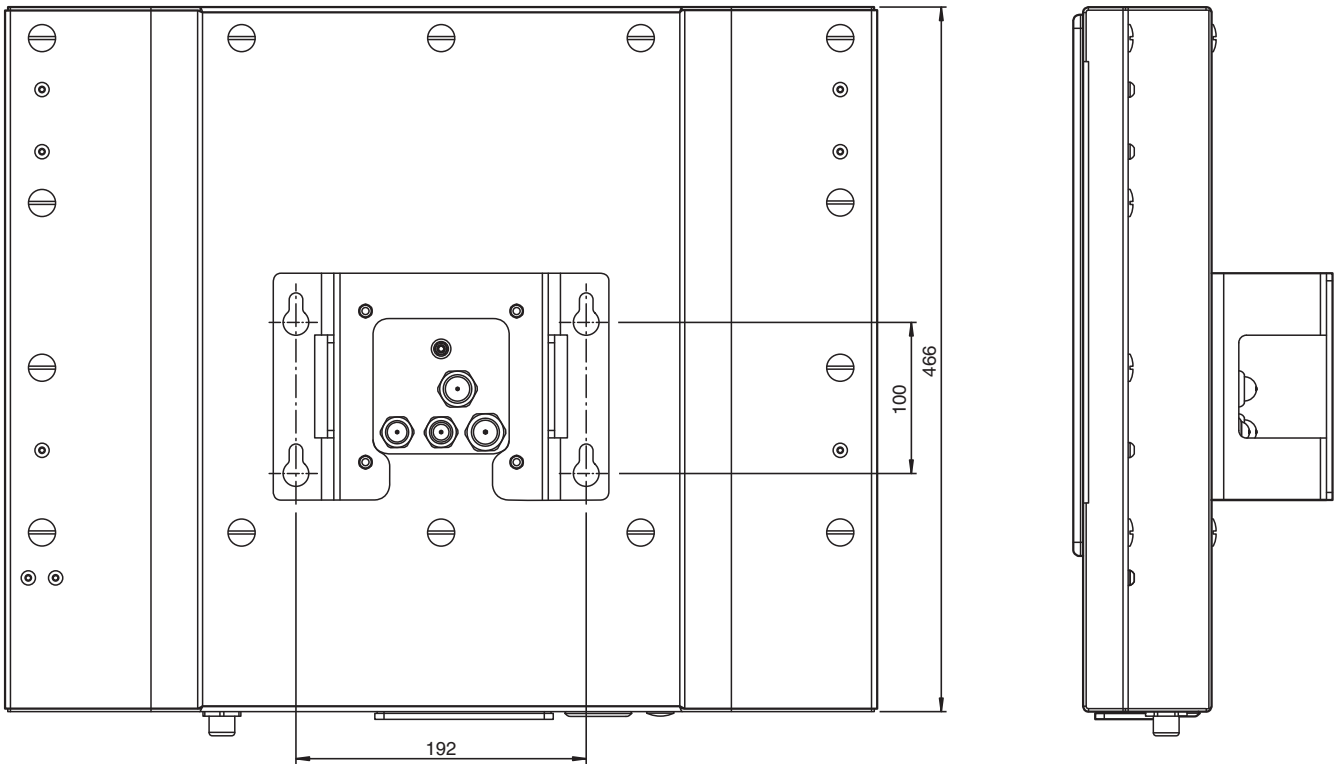
Dimensions

Dimensions for Wall Mounting Bracket





Technical Features

RM-320S-*

General specifications	
Type	Remote Monitor

Hardware	
Processor	Intel® Celeron™ 3965U
RAM	L: 1x 4 GB DDR4-2133, wide temperature grade [temperature class B] M: 1x 8 GB DDR4-2133, wide temperature grade [temperature class B]

Release date: 2024-11-26 Date of issue: 2024-11-26 Filename: t221763_eng.pdf

Technical Features

Hardware	
Mass storage	Storage interface: 1x M.2 2242/2280 M Key, PCIe + SATA 3 Storage: 64 GB M.2 SATA 3, wide temperature grade

Software	
Operating system	VisuNet RM Shell 6 (based on Windows® IoT 10 Enterprise LTSC 2021 x64) **Optional:** I: IGEL OS 11 (based on Linux, without licence) J: IGEL OS 12 (based on Linux, without licence) T: ThinManager Ready [Celeron, 4 GB RAM, no storage]

PC-320S-*

General specifications	
Type	Personal Computer

Hardware	
Processor	1N: Intel® Celeron 2N: Intel® Core™ i5-7300U
RAM	2x SO-DIMM slots, supports up to 32 GB DDR4-2133 (one SO-DIMM slot) **Configurable RAM options:** 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 **Configurable storage options:** 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)

Software	
Operating system	Windows® 10 IoT Enterprise LTSC 2021 x64

RM-320S-* and PC-320S-*

Supply	
Power consumption	
AC (110 V / 230 V)	RM: Maximum load: 60 W PC: Maximum Load: 64 W
DC (24 V)	RM: Maximum load: 51 W PC: Maximum load: 55 W

Indicators/operating means	
Display	
Type	Liquid Crystal Display (LCD) with LED backlight
Screen diagonal	54.61 cm (21.5 inches)
Resolution	1920 x 1080 (Full HD) Aspect ratio 16:9
Color depth	24 bit (16.7 M) color
Contrast	22FC: 5000:1
Brightness	22FC: 300 cd/m2
Reading angle	22FC: horizontal: 170°, vertical: 160°
Life span	22FC: back lamp life: 50.000-hrs typical half life, at 25°C (77°F)

Input devices	
Touch screen	22FC: Capacitive touch, optical bonding, 10-finger multi-touch, glove-friendly
Keyboard	Optional: Foil keyboard with different pointing device options available (see EXTA4 technical data)

Release date: 2024-11-26 Date of issue: 2024-11-26 Filename: t221763_eng.pdf

Technical Features

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	
Radio and telecommunication terminal equipment	
Directive 2014/53/EU	EN 301 489-1 V2.2.3:2019 EN 301 489-3 V2.3.2:2023 EN 62311:2020 ETSI EN 300 330 V2.1.1:2017
Explosion protection	
Directive 2014/34/EU	EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN IEC 60079-11:2012 EN IEC 60079-31:2014
RoHS	
Directive 2011/65/EU (RoHS)	EN IEC 63000:2018

Ambient conditions	
Operating temperature	-20 °C ... 50 °C (-4 ... 122 °F)
Storage temperature	-20 °C ... 65 °C (-4 ... 149 °F)
Relative humidity	max. relative humidity 95% at 50°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, 1 g, 10 cycles per axis according to EN60068-2-6

Mechanical specifications	
Degree of protection	IP66
Material	Housing: Powder coated, marine-grade aluminium alloy (EN AW-5754)
Installation	System with enclosure
Mass	approx. 11.4 kg aprprox. 13.4 kg with AC Power Supply with top sunshield: + approx. 1.6 kg with top and side sunshield: + approx. 3 kg
Dimensions	577 mm x 466 mm x 233 mm

Type Code

System-*B-* with Enclosure with RFID Reader RFID20-*

(1)-	(2)	(3)-	(4)-	(5)-	(6)	(7)	(8)	(9)	(10)-	(11)	(12)

(1)-	
RM-320S-	Remote monitor - "System with enclosure"
PC-320S-	Personal computer - "System with Enclosure"

(2)	Explosion protection
N	Industrial, general purpose (UL Ord Loc Listed for US & Canada)
R	ATEX Zone 2/22 (Self declaration)

(3)-	Temperature
B-	-20 °C…50 °C

(4)-	Display unit
22FC-	21.5 " (16:9), Full HD (1920 x 1080), capacitive touch, optical bonding

(5)-	Power supply
D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(6)	Computing unit
1N	Intel Celeron

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Type Code

(6)	Computing unit
2N	Intel Core i5-7300U

(7)	RAM
L	1x 8 GB, wide temperature grade
M	1x 16 GB, wide temperature grade

(8)	Storage
N	None [only ThinManager Ready]
L	64 GB M.2 SATA, wide temperature grade
P	256 GB, M.2 NVMe wide temperature grade
Q	512 GB, M.2 NVMe wide temperature grade

(9)	OS
3	Windows® 10 IoT Enterprise LTSC 2021 x64
4	VisuNet RM Shell 6 (based on Windows® 10 IoT Enterprise LTSC 2021 x64)
I	IGEL OS 11 (based on Linux, without licence)
J	IGEL OS 12 (based on Linux, without licence)
T	ThinManager Ready

(10)-	Housing
A1-	Powder-coated aluminum alloy enclosure

(11)	Reader
R	RFID Reader (TWN4 MulitTech 3 MLF HF)
F	RFID Reader with LEGIC (TWN4 Multi Tech 3 LEGIC M LF HF)

(12)	Options
N0	None

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