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
- Optional preinstalled RFID20-* reader

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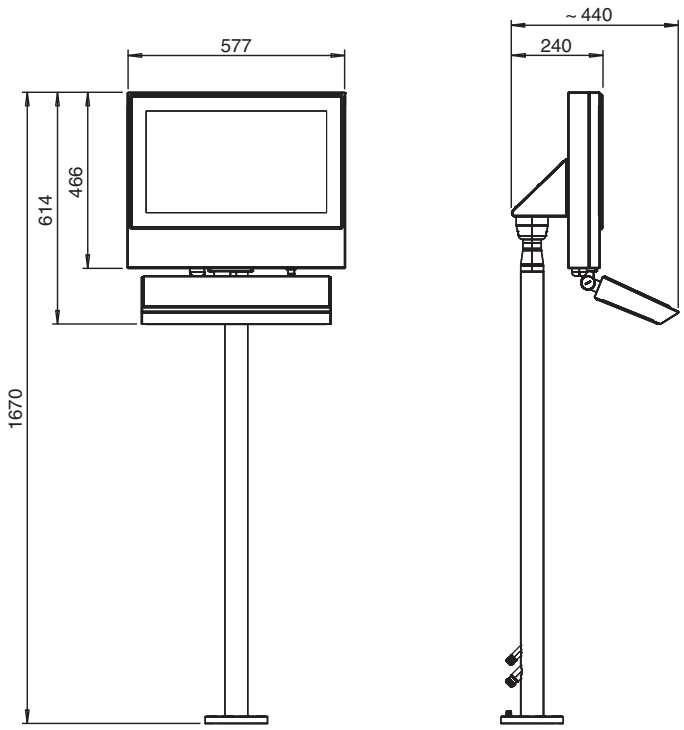
Function

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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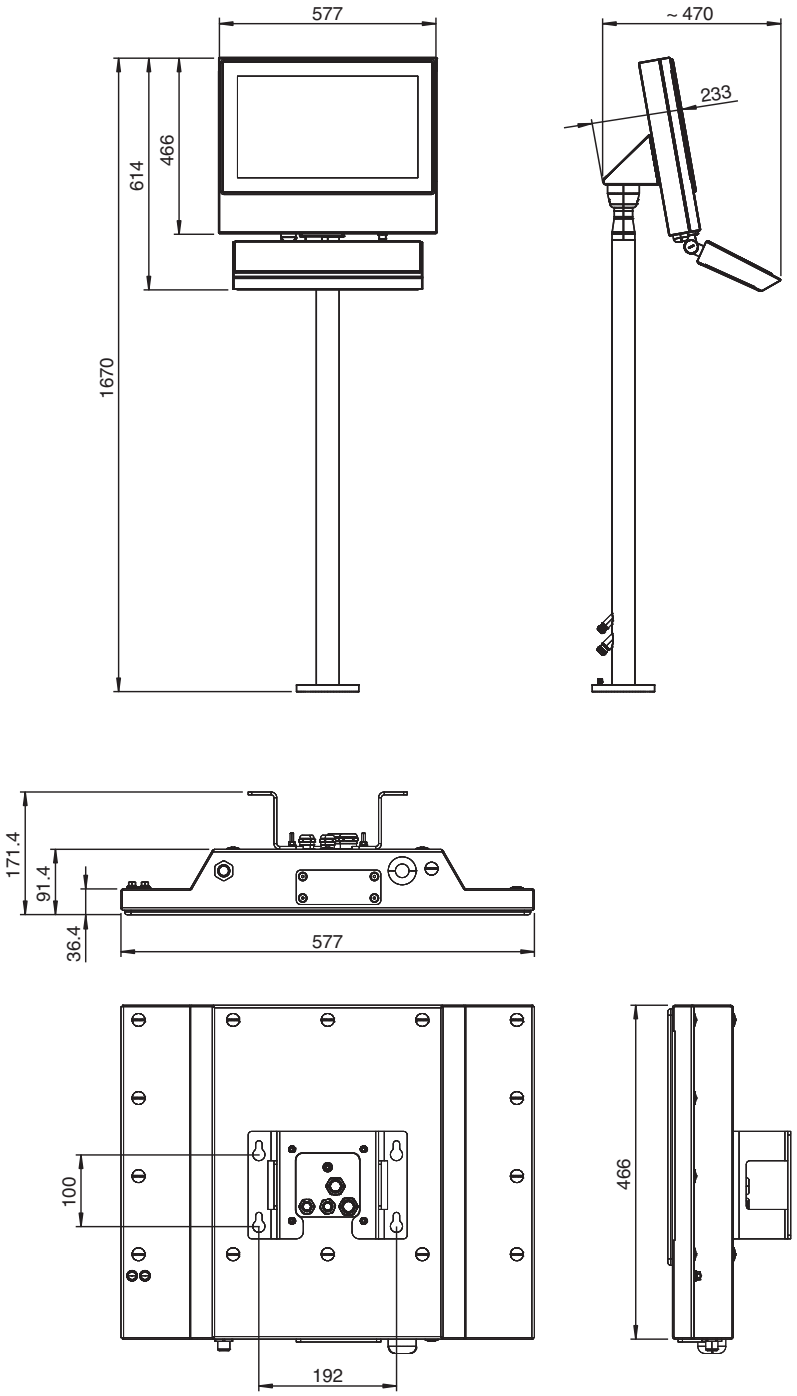

Technical Data

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

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 D: 2x 16GB DDR4-2133 [Industrial, general purpose (Non-Ex), i5]
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 size		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 ratio		Typically 22GT: 1000:1 22FC: 5000:1
Brightness		Configurable display options: 22GT: 250 cd/m2 22FC: 300 cd/m2
Viewing 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)
RFID reader		Optional: Integrated in the VisuNet FLX housing, 2 configuration options available: TWN4 MultiTech 3 M LF HF TWN4 MultiTech 3 LEGIC M LF HF (see RFID20-* 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		
Electromagnetic compatibility		
Directive 2014/30/EU		Non-RFID products only EN 61000-6-4:2007 EN 61000-6-4:2007/A1:2011 EN 61326-1:2013
Explosion protection		

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Directive 2014/34/EU		EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-11:2012 EN IEC 60079-31:2024
Radio and telecommunication terminal equipment		
Directive 2014/53/EU		RFID products only EN 301489-1 V2.2.3:2019 EN 301489-3 V2.3.2:2023 EN 300 330 V2.1.1:2017 EN 61326-1:2013 EN 61000-6-4:2007 EN 61000-6-4:2007/A1:2011 EN 61010-1:2010 EN 62479 :2010 EN 62311:2008
RoHS		
Directive 2011/65/EU (RoHS)		EN IEC 63000:2018
Software		
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: with RFID option for indoor use only
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

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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. 3
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

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
FN0	RFID Reader with LEGIC (TWN4 Multi Tech 3 LEGIC M LF HF)
RN0	RFID Reader (TWN4 MulitTech 3 MLF HF)

Example:

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

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