



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 configured as required
- Optional preinstalled RFID20-* reader

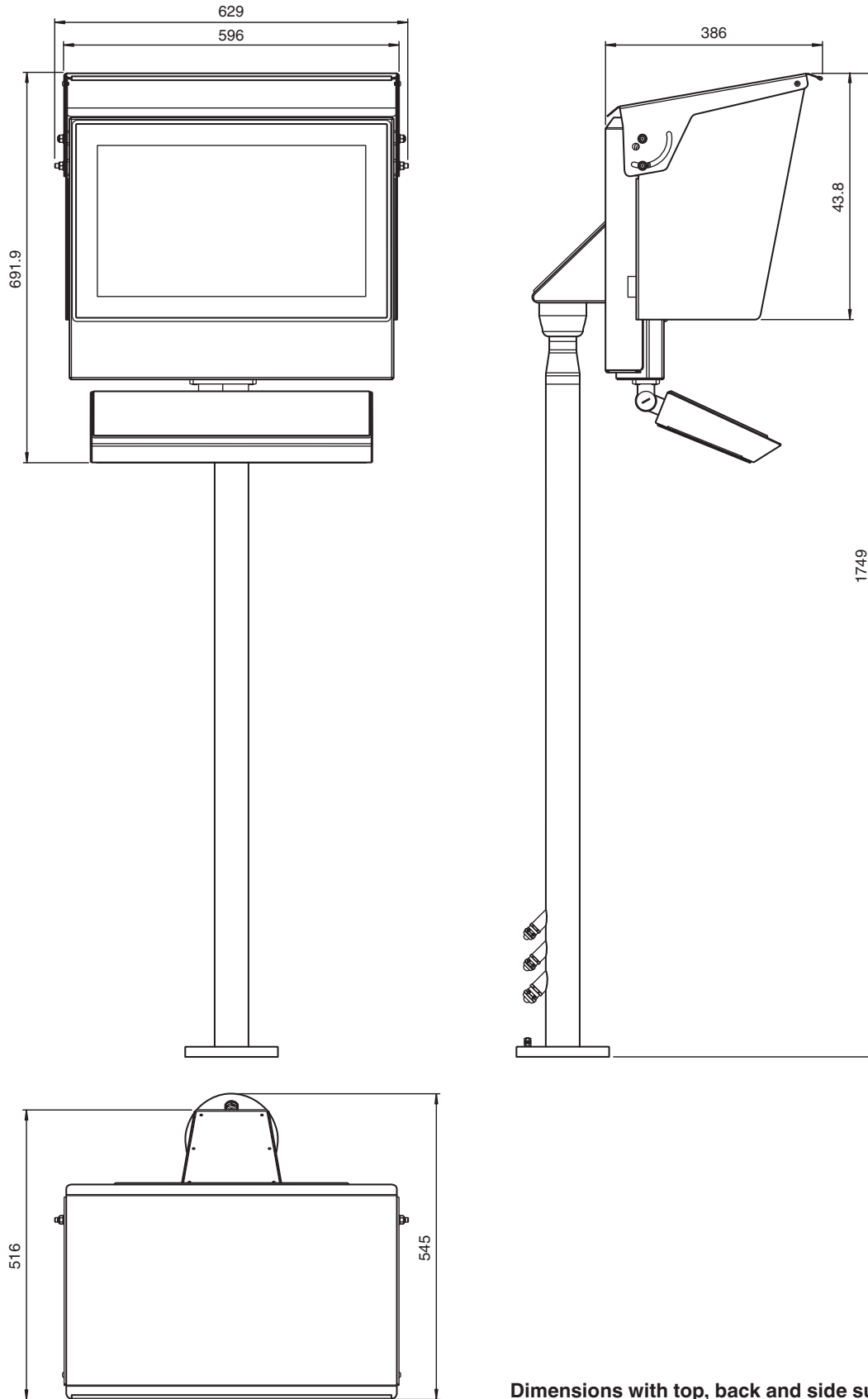
Remote Monitor - System with enclosure



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.

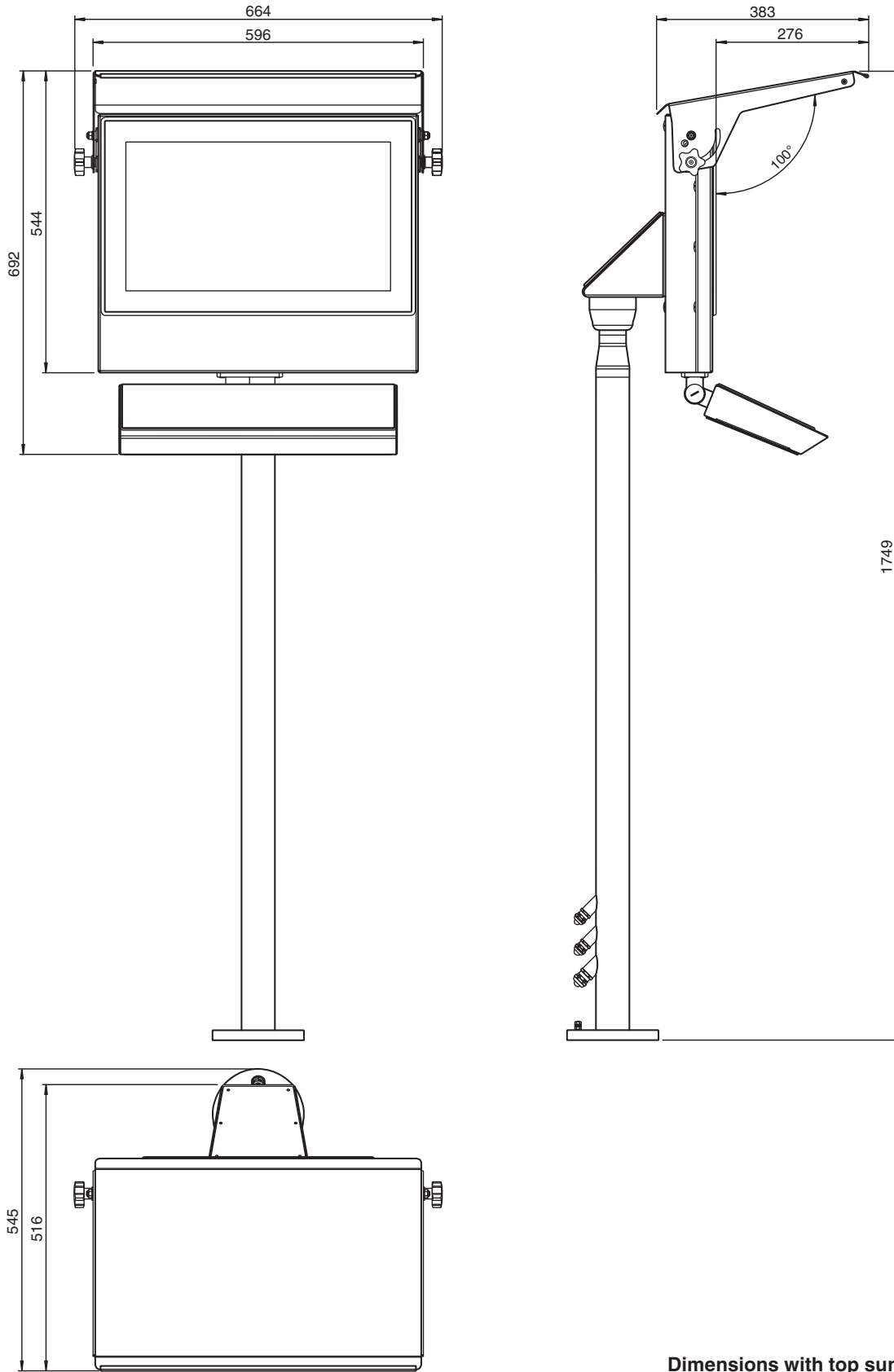
Dimensions



Dimensions with top, back and side sunshields

Release date: 2025-06-26 Date of issue: 2025-06-26 Filename: t215347_eng.pdf

Dimensions

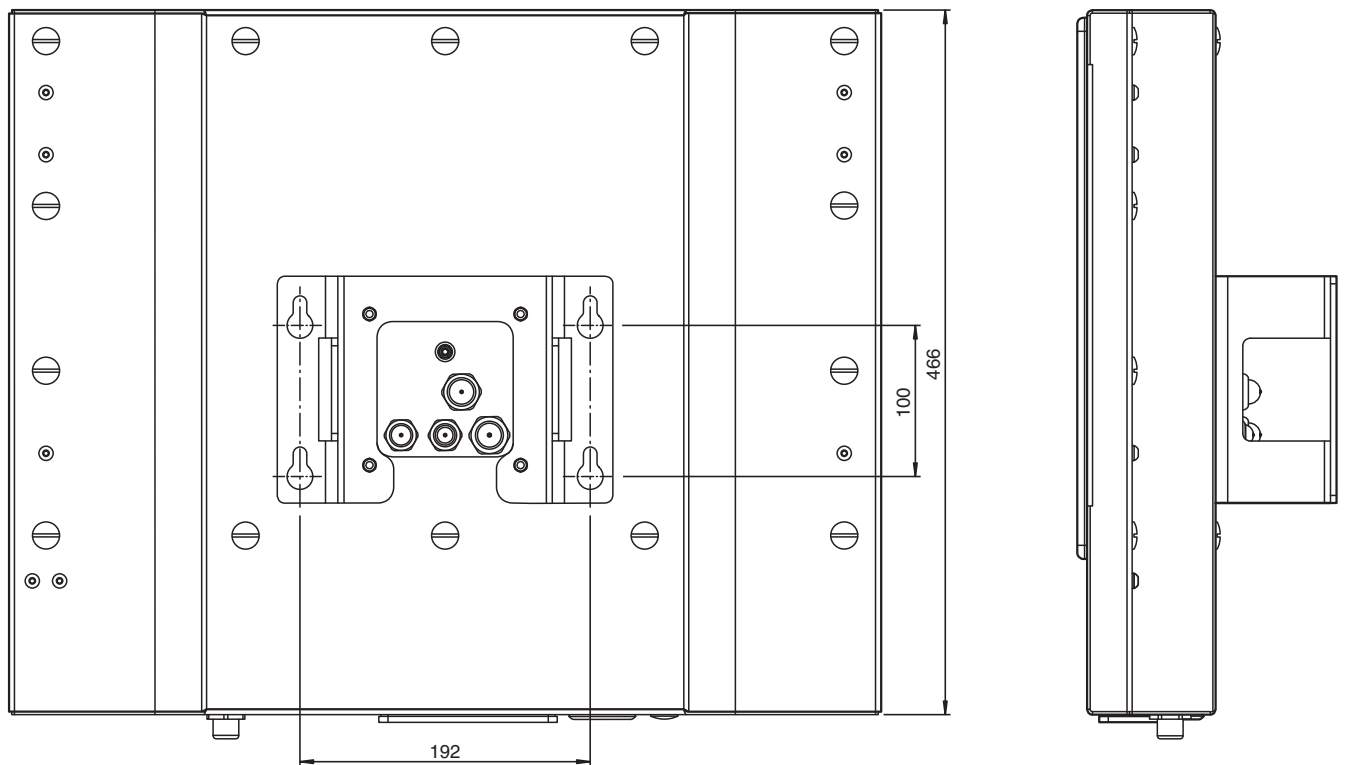
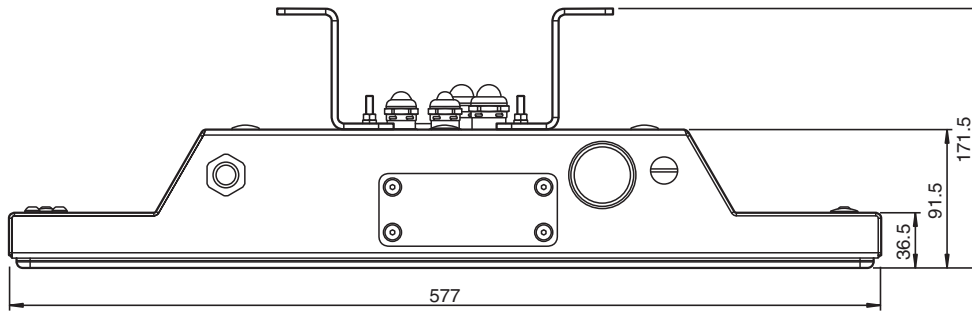


Dimensions with top sunshield

Release date: 2025-06-26 Date of issue: 2025-06-26 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

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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 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 size	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 ratio	22FC: 5000:1
Brightness	22FC: 300 cd/m ²
Viewing 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)
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	
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

Technical Data

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.
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: 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. 3

Technical Data

CCC approval		
CCC certificate		2024322309005748
CCC marking		Ex ec [ic Gc] IIC T4 Gc Ex tc [ic Dc] IIC 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)
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Model

RM-320S-	Remote monitor (RM) - "System with enclosure"
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(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
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(3)- Display unit

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

D-	24 V DC
A-	115/230 V AC, 50-60 Hz

(5) Computing platform

1N	Intel® Celeron
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(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
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(10) Options

NN0	Standard
FN0	RFID Reader with LEGIC (TWN4 Multi Tech 3 LEGIC M LF HF)
RN0	RFID Reader (TWN4 MultiTech 3 MLF HF)

Example:

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