



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

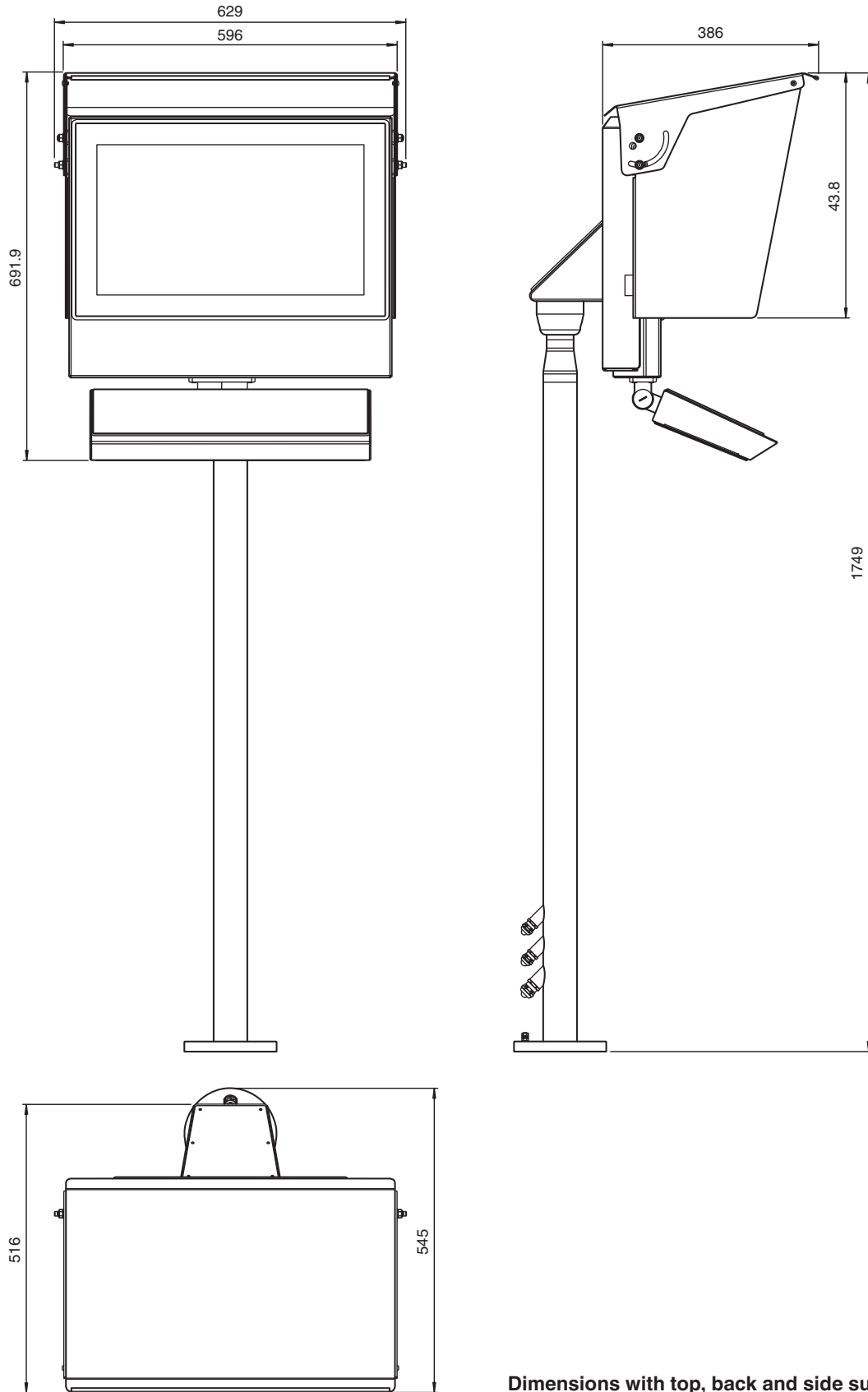
Remote Monitor - System with enclosure



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.

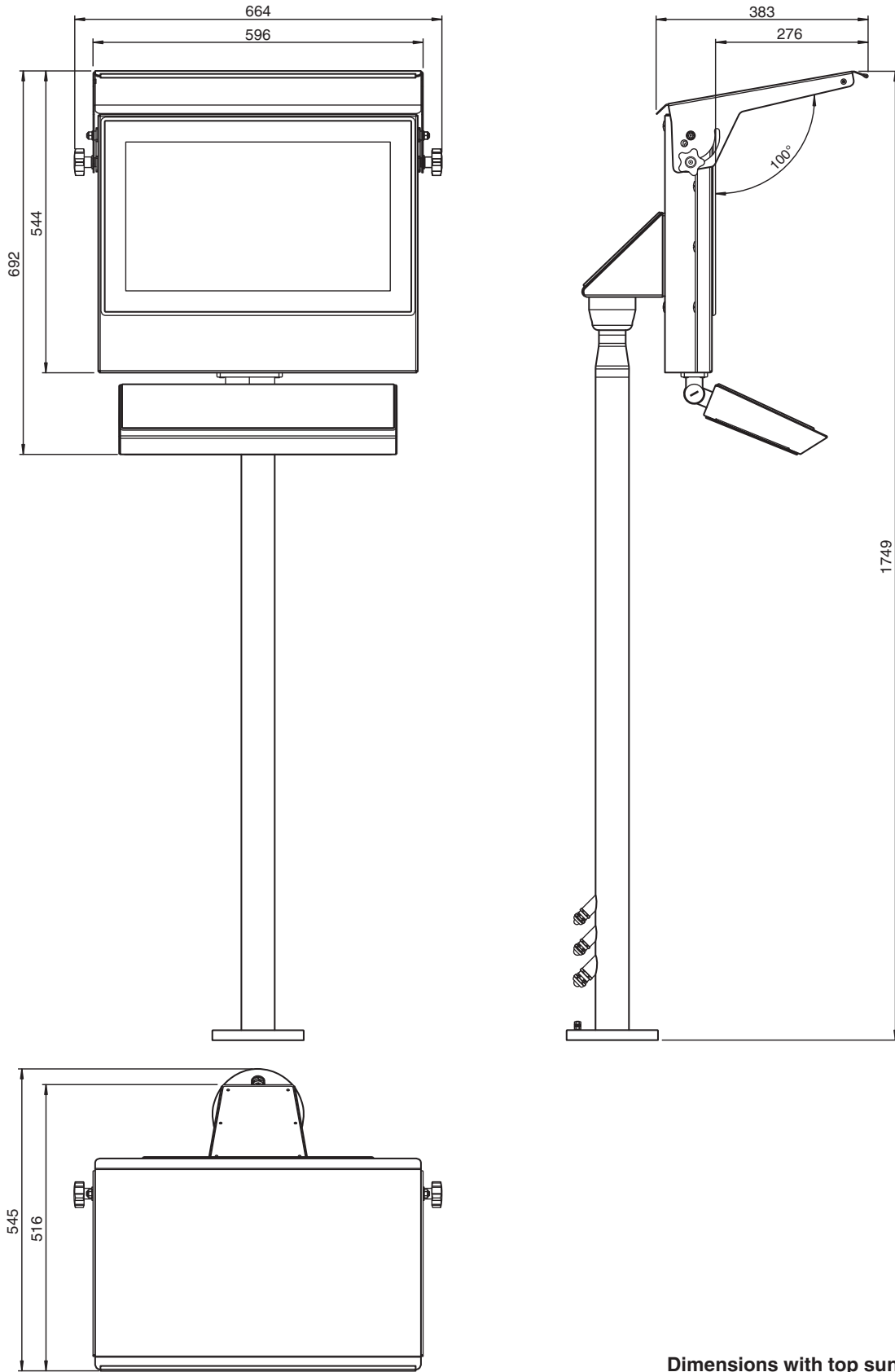
Dimensions



Dimensions with top, back and side sunshields

Release date: 2023-11-28 Date of issue: 2023-11-28 Filename: t215347_eng.pdf

Dimensions



Dimensions with top sunshield

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

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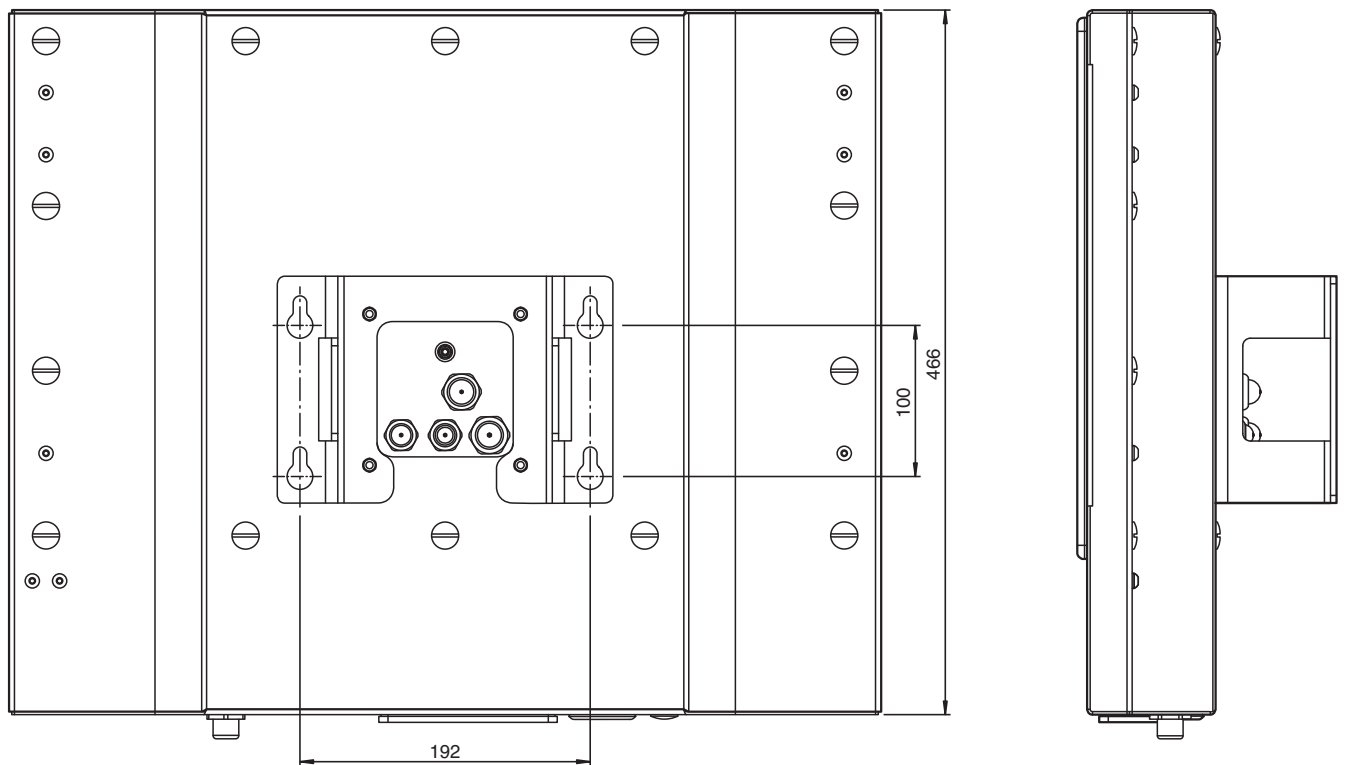
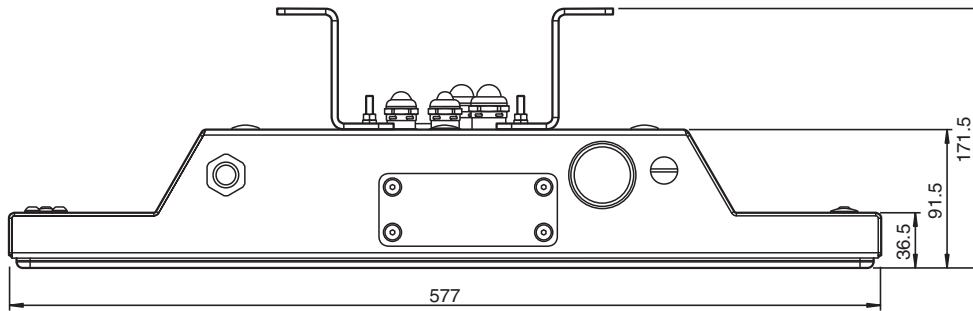
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PF PEPPERL+FUCHS

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 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/m ²
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	
Touchscreen	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	Pepperl+Fuchs RM Shell 6 (based on Microsoft® Windows® 10 IoT Enterprise 2021 LTSC (x64)) Optional: T: ACP ThinManager Ready BIOS
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

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Technical Data

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	<p>UL OrdLoc UL approval E223772 UL61010-1 Ed.3 UL 61010-2-201 Ed2 CAN/CSA C22.2 No 61010-1-12 CAN/CSA C22.2 No 61010-2-201</p> <p>UL HazLoc UL approval E492874 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</p> <p>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</p>
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

Type Code

RM-320S-*

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

RM-320S-	Remote monitor - "System with enclosure"
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(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
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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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Type Code

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

(5) Computing platform	
1N	Intel® Celeron

(6) RAM	
K	1x 4 GB, wide temperature grade, DDR4-2133
L	1x 8 GB, wide temperature grade, DDR4-2133
M	1x 16 GB, wide temperature grade, DDR4-2133

(7) Storage	
N	None (only in combination with ACP ThinManager Ready)
L	64 GB, wide temperature grade, M.2 SATA III
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	
4	Pepperl+Fuchs VisuNet RM Shell 6.x (based on Win 10 IoT Enterprise 2021 LTSC)
T	ACP ThinManager Ready BIOS

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

(10) Options	
NN0	Standard

Example:

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