



INTUITIVE MACHINE OPERATION

Machine operation and thus the human machine interface are among the most important elements in industrial automation. Bosch Rexroth therefore offers simple and intuitive solutions with ctrlX HMI.

ctrlX HMI is part of the ctrlX AUTOMATION family. With tailored hardware and software, it allows cutting-edge HMI solutions. The broad hardware portfolio includes displays, panel PCs offering excellent graphics capabilities, web panels, panel frames and machine operating panels in a wide range of sizes.

 [Configurator](#)

 [Community](#)

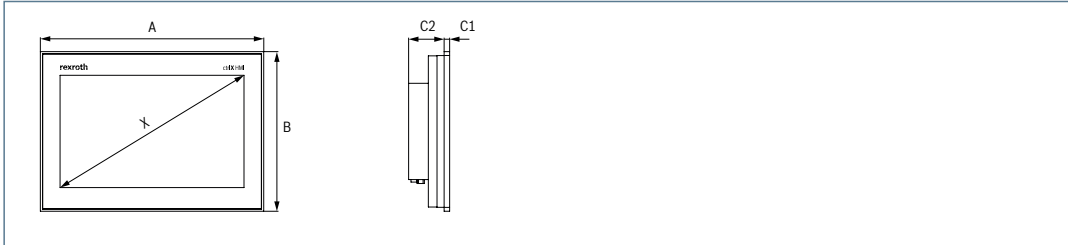
 [Contact](#)

You can find more information at: www.ctrlx-automation.com/ctrlx-hmi





Web Panel – WR21



Dimensions	Unit	WR2107	WR2110	WR2115
A	mm	205.0	283.1	419.7
B	mm	146.9	202.3	269.0
C	mm	52.0	52.0	52.0
Mass	kg	1.2	2.2	4.2

 [Configurator](#)

 [Community](#)

 [Contact](#)

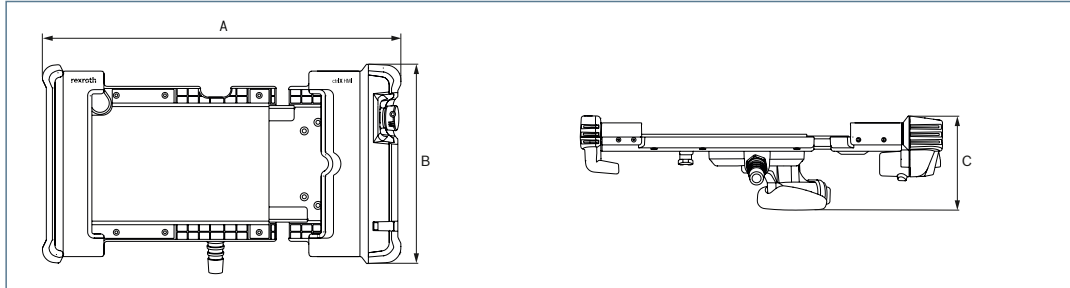
Technical data	
Performance data	WR21
CPU	ARM i.MX8M Mini Quad Core; 1.6 GHz
RAM	2 GB
Memory	16 GB; eMMC
Web browser	Chromium
Display	WR21
Screen size	7" (1024 x 600; WSVGA) 10.1" (1280 x 800; WXGA) 15.6" (1366 x 768; HD)
Orientation	Horizontal
Operation	Capacitive 10 point multi-touchscreen/EDT
Interfaces	WR21
Ethernet	2x 10/100/1000 MBit/s Ethernet (RJ45)
Serial	1x RS232/422/485, 1x RS485
USB	2x USB-A (2.0), 1x Micro USB (2.0/internal)
SD card	1x Micro-SD (internal)
Electrical data	WR21
Input voltage	24 V DC, ±20 %
General data	WR21
Mounting	Panel mounting, VESA mounting
Degree of protection	IP66 (front), IP20 (rear)
Norms and Standards	WR21
Standards	CE, UL, cUL, FCC, CCC
Certification	Industrial area class A



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



Panel Frame - PF10



Dimensions	Unit	PF10
A	mm	350 - 395
B	mm	190
C	mm	90
Mass (without cable)	kg	1

Technical data

Display	PF10
Suitable tablet size	10" tablets
Interfaces	PF10
USB	USB-C connector (charging function only)
Safety elements	PF10
Emergency stop	Emergency stop key (2-circuit)
Accept key	3-stage accept key (2-circuit)
Safety category	SIL3 conformity for emergency stop key and accept key
Electrical data	PF10
Input voltage	5.5 VDC (5m) 5.5 V DC (10 m); 6 V DC (for iPad 8th generation)
Cable length	5 m 10 m
Norms and Standards	PF10
Standards	CE, UL
Certification	Industrial area class A

 [Configurator](#)

 [Community](#)

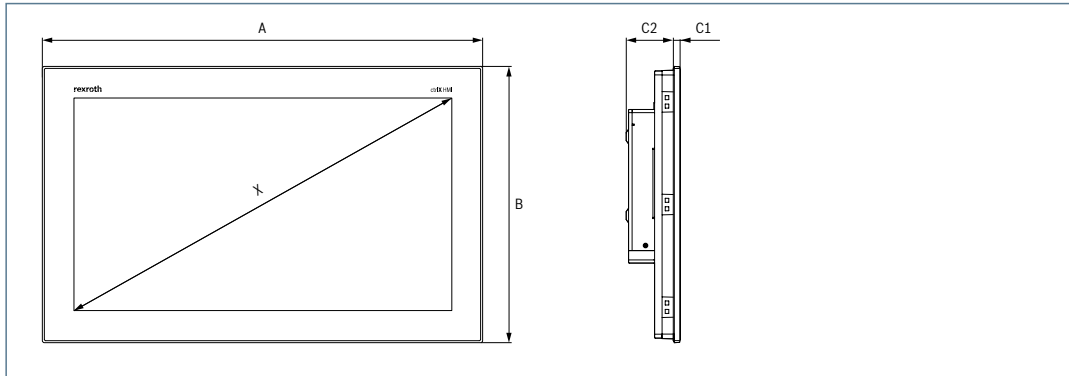
 [Contact](#)



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.




Display – DR



Dimensions	Unit	DR0012	DR0015	DR0018	DR0021
A	mm	329	420	488	558
B	mm	231	269	309	350
C1 (Panel mounting)	mm	7	7	7	7
C2 (Panel mounting)	mm	58	58	58	58
C (Vesa mounting)	m	–	–	–	–
C (Tube mounting)	m	–	–	–	–
X	mm/"	307/12.1	396/15.6	470/18.5	546/21.5
Mass	kg	4.4	6.0	7.5	8.4

Technical data

Display	DR
Type of device	Built-in device
Screen size	307 mm/12.1" (1280 x 800) 470 mm/18.5" (1366 x 768) 396 mm/15.6" (1366 x 768) 546 mm/21.5" (1920 x 1080)
Orientation	Horizontal, Vertical (21.5" variant)
Operation	Capacitive 10 point multi-touchscreen/EDT
Interfaces	DR
Video	1 x CDI+ (1x RJ45) 1 x DisplayPort
USB	2x USB-A (2.0) at the connector panel
Safety and operation elements	DR
Emergency stop	–
Button	–
Electrical data	DR
Input voltage	24 V DC (-20/+25 %)
General data	DR
Mounting	Panel mounting
Degree of protection	IP66 (front), IP20 (rear)
Norms and Standards	DR
Standards	CE, FCC, UL, CSA
Certification	Industrial area class A

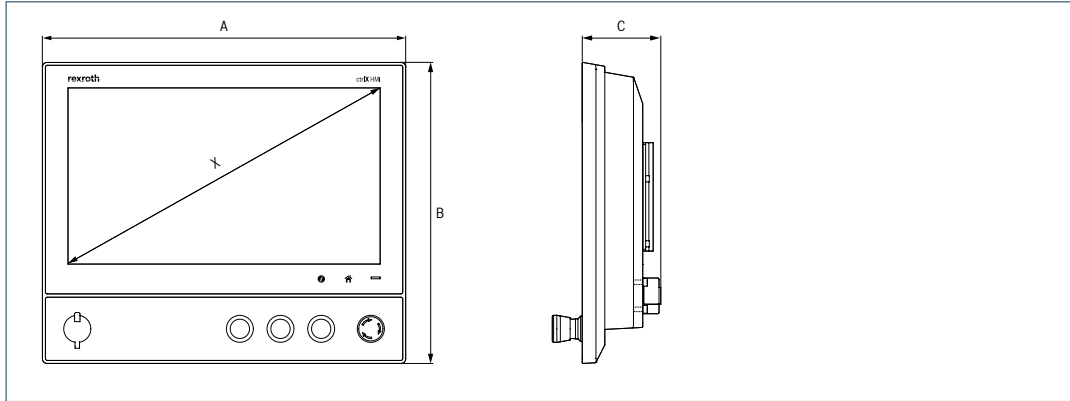
-  [Configurator](#)
-  [Community](#)
-  [Contact](#)



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



Display – DE



Dimensions	Unit	DE0015	DE0021
A	mm	402	546.8
B	mm	333	420
C1 (Panel mounting)	mm	–	–
C2 (Panel mounting)	mm	–	–
C (Vesa mounting)	m	87	87
C (Tube mounting)	m	160	160
X	mm/"	396/15.6	546/21.5
Mass	kg	6.8	9.6

Technical data

Display	DE
Type of device	Housed device
Screen size	396 mm/15.6" (1366 x 768) 546 mm/21.5" (1920 x 1080)
Orientation	Horizontal
Operation	Capacitive 10 point multi-touchscreen/EDT
Interfaces	DE
Video	HDMI connector Type A, 1x CDI+ (1x RJ45), 1x DisplayPort
USB	2x USB-A (2.0) at the connector panel, 1x USB-A (2.0) at the front 1x USB-B (2.0) at the connector panel
Safety and operation elements	DE
Emergency stop	1x Emergency stop key (2-circuit)
Button	3x Pushbuttons
Electrical data	DE
Input voltage	24 V DC (-20/+25 %)
General data	DE
Mounting	VESA mounting, tube mounting
Degree of protection	IP65
Norms and Standards	DE
Standards	CE, FCC, UL, CSA
Certification	Industrial area class A

 [Configurator](#)

 [Community](#)

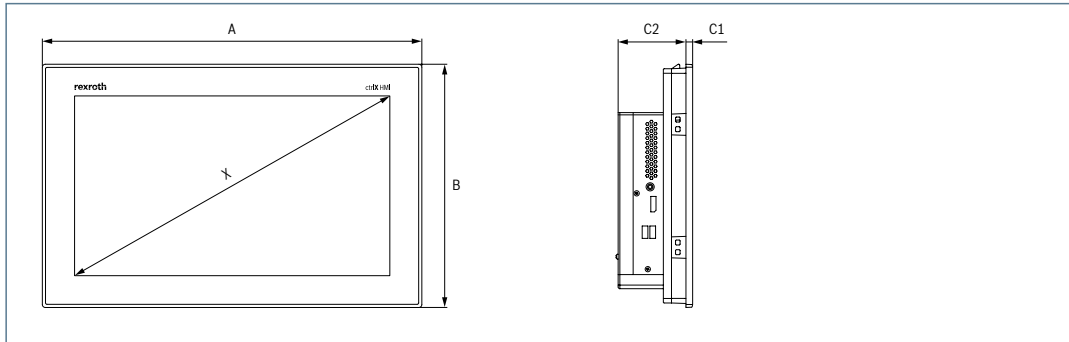
 [Contact](#)



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



Panel PC – VR



Dimensions	Unit	VR3110	VR3115	VR3121	VR4x15	VR4x21
A	mm	238	420	558	420	558
B	mm	202	269	350	269	350
C1 (Panel mounting)	mm	7	7	7	7	–
C2 (Panel mounting)	mm	75	75	75	108	108
X	mm/°	257/10.1	396/15.6	546/21.5	396/15.6	546/21.5
Mass	kg	4.1	7.0	9.4	8.7	11.1

 [Configurator](#)

 [Community](#)

 [Contact](#)

Technical data

Performance data	VR31	VR4x
CPU	Intel Atom x5-E3940; 1.6 GHz	Intel Core i3-6100U; 2.3 GHz Intel Core i5-6300U; 2.4 GHz Intel Core i7-6600U; 2.6 GHz
RAM	4 GB, 8 GB (Option)	8 GB, 16 GB (Option)
SSD memory	32 GB, 256 GB	32 GB, 256 GB, 2x 320 GB (RAID 1)
HDD memory	320 GB	320 GB, 2x 256 GB (RAID 1)
Operating system	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise
Display	VR31	VR4x
Screen size	257 mm/10" (1280 x 800) 396 mm/15.6" (1366 x 768) 546 mm/21.5" (1920 x 1080)	396 mm/15.6" (1366 x 768) 546 mm/21.5" (1920 x 1080)
Orientation	Horizontal	Horizontal
Operation	Capacitive 10 point multi-touchscreen/EDT	Capacitive 10 point multi-touchscreen/EDT
Plug-in slots	VR31	VR4x
PCI/PCIe slots	–	1x half size PCIe
Mini PCIe slots	1x full size Mini PCIe	2x full size Mini PCIe
Flash memory (Option)	M.2-Flash + CFast slot	M.2-Flash + CFast slot
Interfaces	VR31	VR4x
Ethernet	2x Gbit (Intel i210)	2x Gbit (Intel i210), 1x Gbit (Intel i219)
Serial	1x RS232, 1x RS232/422/485	1x RS232, 1x RS232/422/485
USB	2x USB-A (2.0), 2x USB-A (3.0)	2x USB-A (2.0), 2x USB-A (3.0)
Video	DisplayPort	DisplayPort
Audio	Line out	Line out



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



Panel PC – VR

Technical data

Electrical data	VR31	VR4x
Input voltage	24 V DC (-20/+25 %)	24 V DC (-20/+25 %)
General data	VR31	VR4x
Mounting	Panel mounting	Panel mounting
Degree of protection	IP66 (front), IP20 (rear)	IP66 (front), IP20 (rear)
Norms and Standards	VR31	VR4x
Standards	CE, FCC, UL, CSA	CE, FCC, UL, CSA
Certification	Industrial area class A	Industrial area class A



[Configurator](#)



[Community](#)



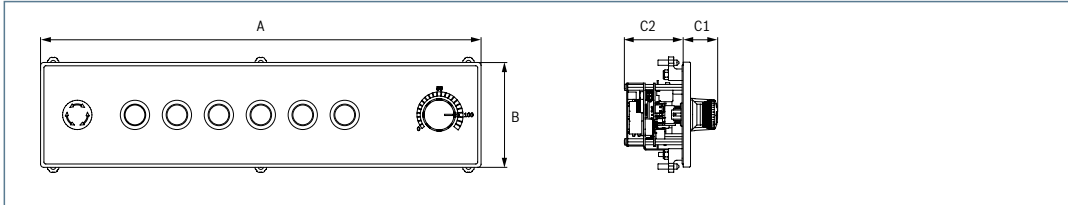
[Contact](#)



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.



Machine operating panel – VAM



Dimensions	Unit	VAM 15.2	VAM 21.2
A	mm	420	350
B	mm	100	100
C1	mm	33	33
C2	mm	56	56
Mass	kg	0.95	0.75

Technical data		
Interfaces	VAM 15.2	VAM 21.2
Fieldbus system	1x PROFINET+ (2x RJ45)	1x PROFINET+ (2x RJ45)
Safety and operation elements	VAM 15.2	VAM 21.2
Type	Machine operating panel for compact machine concepts	Machine operating panel for compact machine concepts
Function buttons	6x short-stroke pushbutton 1x E-STOP pushbutton 1x Feed override rotary switch	6x short-stroke pushbutton 1x E-STOP pushbutton 1x Feed override rotary switch
Electrical data	VAM 15.2	VAM 21.2
Logic supply	24 V DC	24 V DC
Input power supply	24 V DC	24 V DC
Mechanical tests	VAM 15.2	VAM 21.2
Vibration resistance	1 g	1 g
Shock resistance	15 g	15 g
General data	VAM 15.2	VAM 21.2
Degree of protection	IP54 (Front)	IP54 (Front)
Norms and Standards	VAM 15.2	VAM 21.2
Standards	CE, UL, UKCA, Reach, Rohs	CE, UL, UKCA, Reach, Rohs

 [Configurator](#)

 [Community](#)

 [Contact](#)



The data specified above only serve to describe the product. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. It must be remembered that our products are subject to a natural process of wear and aging.