

# 6181X Hazardous Location Industrial Computers

Designed for extreme environments and hazardous locations

## A system that works

The 6181X line of industrial computers is part of the Rockwell Automation XT extreme environment system, which is completed by control, communication and distributed I/O products.

Our XT extreme environment system uses the Logix control engine and unique enhancements to meet the needs of hazardous location applications. This approach delivers complete control and information architecture, reducing integration and installation costs and providing users with the quality they have come to expect from Rockwell Automation. The extreme environment system helps protect your automation investment by sharing state-of-the-art, integrated control technologies across the architecture.

### Extreme environment system delivers:

- **-20 °C to 70 °C (-4 °F to 158 °F) operating range (backside)**
- **Fanless designs to help reduce required maintenance**
- **Certifications and ratings for stringent requirements:**
  - INMETRO certification
  - ATEX
  - IECEx certified
  - UL Class I, Division 2



6181X Integrated Display, resistive touch



6181X Non-Display



6181X Integrated Display, PCAP multi-touch



6181X Integrated Display with added sun shield accessory (sold separately)

## Industrial computers with extreme design

The Allen-Bradley® 6181X line of industrial computers complements the Rockwell Automation® XT extreme environment system portfolio with the ability not only to operate efficiently in hazardous locations but actually improve the working experience for operators in these harsh environments.

### Features shared by all models:

- Intel Dual Core i3, 2.1 GHz processor
- 8 GB RAM (16 GB System Max)
- 128 GB solid-state hard drive
- Windows 7\* or Windows 10 operating system
- 2 Gigabit Ethernet ports
- Display port and DVI-D port
- External CompactFlash Type II card slot (supports up to 16 GB)

\*Windows 7 operating system not available in PCAP model

### Additional Projected Capacitive (PCAP) features available:

The latest 6181X model features an integrated display with PCAP multi-touch functionality, delivering the familiar experience of a simple and responsive smartphone screen. Plus, added functionality for hazardous locations:

- Dry to damp screen operation
- Multi-touch settings for thick or thin gloves
- Sunlight readable (1300-nit LCD display)
- ThinManager Compatible Plus

## Industries and applications

Heat, cold, dust and hazardous gas challenge equipment and - even worse - threaten production. Our 6181X computers are suited for high performance under these conditions, especially necessary in these industries:

- Chemical and Pharmaceutical
- Energy and Power Generation
- Mining and Metals
- Water and Wastewater
- Oil and Gas

## Flexible options

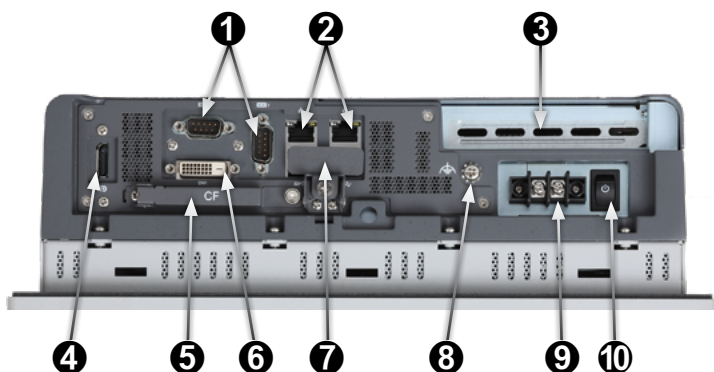
First, choose your preferred set-up. Choose a non-display computer to build a two-piece solution. Or choose one of our 12-inch touch screen integrated display models for an integrated experience. Computers can be mounted in the same enclosure with a Logix-XT Controller without requiring additional heating or cooling equipment.

For integrated display solutions, you may choose a resistive touch screen or a more intuitive, advanced projected capacitive (PCAP) model.

Finally, add accessories. Sun shield attachments offer added protection from UV and infrared radiation. PC riser cards add versatility. For added flexibility in the field, memory, CompactFlash drives, and solid-state drives (SSD) can be easily upgraded.

## Specifications





	Non-display models	Display models	
		PCAP multi-touch screen	Resistive touch screen
Catalog numbers	6181X-00N2SW71DC, 6181X-00N2SWX1DC	6181X-12P2SWX1DC	6181X-12A2SW71D, C6181X-12A2SWX1DC
Display size	NA	12.1 in. TFT PCAP, sunlight readable	12.1 in. TFT, sunlight readable
Resolution	NA	1024 x 768	
Display brightness	NA	1300 cd/m2 (nit)	700 cd/m2 (nit)
Bezel type	NA	Aluminum	
Processor Type	Intel Dual Core i3 - 5010U, 2.1 GHz		
RAM	8 GB DDR3 installed (16 GB max)		
Storage drive	128 GB Solid State Drive (SSD) 256 GB SSD Accessory available		
Expansion slots	1 half-length PCIe x1		
Operating system	Windows 10 IoT Enterprise (64 bit) Windows 7 Professional (64 bit)	Windows 10 IoT Enterprise (64 bit)	Windows 10 IoT Enterprise (64 bit) Windows 7 Professional (64 bit)
Power	18-32V DC		
Mounting	Wall	Panel	
Dimensions	251 x 353 x 83.4 mm (7.5 x 13.20 x 3.28 in.)	279 x 349 x 101.2 mm (10.98 x 13.74 x 3.98 in.)	
Shock, operating	15 g (1/2 sine, 11 ms)		
Vibration, operating	0.012 in. p-p, (10...57 Hz); 2 g peak, (57...640 Hz)		
Ratings	NA	UL TYPE 1, 4, 4X, 12, 13 and IEC 60529 IP66	UL TYPE 1, 4, 4X, 12 and IEC 60529 IP66
Certifications	cULus, IECEx, INMETRO, ATEX, CE, RCM, KC		cULus, IECEx, ATEX, CE, RCM, KC



Item	Component	Item	Component
1	Serial COM ports, 2	6	DVI-D port
2	Ethernet ports (RJ-45), 2	7	Hinged door covering the USB 3.0 ports, 4
3	PCIe slot	8	Functional ground screw
4	Display port	9	DC input terminal block
5	External CompactFlash Type II card slot	10	Power switch

## Hazardous location certifications and ratings

	Catalog numbers	Region	Rating	Temperature Range
Non-display models	6181X-00N2SW71DC, 6181X-00N2SWX1DC	United States (UL)	Class I Division 2, Groups A, B, C, D T4 Class I Zone 2, IIC, T4	-20 °C < Ta < 70 °C (-4 °F < Ta < 158 °F)
		Canada (cUL)	Class I Division 2, Groups A, B, C, D T4 Class I Zone 2, IIC, T4	
		Europe (ATEX)	II 3 G, Ex ec IIC T4 Gc, DEMKO 19 ATEX 2274 X	
		Global (IECEx)	Ex ec IIC T4 Gc, IECEx UL 19.0091 X	
		Brazil (INMETRO)	Ex ec IIC T4 Gc, UL-BR 19.1305 X	
	Catalog numbers	Region	Rating	Temperature Range
Display models	PCAP multi-touch: 6181X-12P2SWX1DC	United States (UL)	Class I Division 2, Groups A, B, C, D T4 Class II Division 2, Groups F, G T6 Class III Division 1 T6	-20 °C < Ta < 55 °C (-4 °F < Ta < 131 °F) (display side) -20 °C < Ta < 70 °C (-4 °F < Ta < 158 °F) (backside)
			Class I Zone 2, IIC, T4 Class II Zone 22, IIIB, T70 °C	
		Canada (cUL)	Class I Division 2, Groups A, B, C, D T4 Class II Division 2, Groups F, G T6 Class III Division 1 T6	
			Class I Zone 2, IIC, T4 Class II Zone 22, IIIB, T70 °C	
		Europe (ATEX)	II 3 GD, Ex ec IIC T4 Gc IP66, Ex tc IIIC T70 °C Dc IP66, DEMKO 19 ATEX 2274 X	
		Global (IECEx)	Ex ec IIC T4 Gc IP66, Ex tc IIIC T70 °C Dc IP66, IECEx UL 19.0091 X	
	Brazil (INMETRO)	Ex ec IIC T4 Gc IP66, Ex tc IIIC T70 °C Dc IP66, UL-BR 19.1305 X		
	Resistive touch: 6181X-12A2SW71DC, 6181X-12A2SWX1DC	United States (UL)	Class I Division 2, Groups A, B, C, D T4 Class I Zone 2, IIC, T4	
		Canada (cUL)	Class I Division 2, Groups A, B, C, D T4 Class I Zone 2, IIC, T4	
		Europe (ATEX)	II 3 GD, Ex nA nC IIC T4 Gc IP66, Ex tc IIIC T135 °C Dc IP66, DEMKO 17 ATEX 1851 X	
Global (IECEx)		Ex nA nC IIC T4 Gc IP66, Ex tc IIIC T135 °C Dc IP66, IECEx UL 17.0024 X		

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