

## Operation Instructions for T300

Thank you for choosing the ViewX human-machine interface. For more efficient use of the ViewX human-machine interface, please read the included quick startup guide before using this product.

In addition to the HMI machine, this package includes the following items:

One DC socket terminal block (socket terminal block, P=5.08mm) Four retaining brackets (made of iron and 2set screws 【Metric M4\*25】 Machine Dimensions The machine is 96 mm in width, 96 mm in height, and 33 mm in depth. (including the height of the power socket terminal block)

### Installation Dimensions

The opening size of the T300HMI is 91mm\*91mm with an error of +1mm.

Please do not leave the set screws over tightened or unbalanced. The maximum torque of the retaining bracket is 0.3 Nt·m.

### Safety

Please be mindful of the following for the installation, maintenance, wiring, and related inspections:



Please follow the instructions to install ViewX HMI to avoid damage to the equipment. It is prohibited to expose ViewX HMI to environments with high humidity, hazardous gases and liquids to avoid electrical shock or fire hazard.



Please make sure the ground terminal is below 100Ω before connecting it to ground. Poor grounding may cause poor signal reception, electric shock, or fire hazard.



The operation of ViewX HMI requires dedicated planning software. Failure of software planning or ViewX HIM verification may cause abnormal machine operation.



Please remove the socket terminal block from ViewX HMI during wiring. Only one wire can be inserted into each slot of the inlet on the quick connector. In case of error, remove the wire. Examine the wire and start the machine again.



Please use wiring materials by following the specifications. The communication wires must comply with the specifications. Correct ground loop must be used to avoid communication problems.

Please read these instructions carefully before operating the machine and be mindful of the following reminders !

Beware of the environmental safety. (hazardous gases, caustic liquid, high humidity, elevated operation, and dangerous operation)

Please follow the instructions for HMI wiring. Make sure secured ground engineering and conduct all jobs by following the National Electrical Code. (Please see NFPA 70 - National Electrical Code (2008))

When the power is on, please do not conduct any disassembling or wiring modifications. During the HMI operation, please do not touch the power. For any questions about machine operation, please contact your local distributors. In addition, all new information of our products will be updated on our website. Please check [www.vx-hmi.com](http://www.vx-hmi.com) at your convenience to download the most recent operation instructions.

**Other Notes of Caution:**

Do not alter the wiring when the power is still on to avoid electrical shock or personal injury.

Please do not touch the panel with sharp objects, which may cause operation problems of the ViewX human-machine interface.

It is prohibited to disassemble the ViewX human-machine interface to avoid electric shock.

Once the power is turned on, it is prohibited to disassemble the panel of the ViewX human-machine interface.

Within ten minutes after the power is turned off, it is prohibited to touch the connection terminal of the ViewX human-machine interface, for the residual voltage may cause electric shock.

When the ViewX human-machine interface is in running, the vent must be kept clear to avoid abnormal signals or malfunction caused by machine overheating.

**Conditions of Installation Environment**

This product must be stored in the packaging box if it is to be used immediately. To ensure that the product

will be eligible for warranty and future maintenance, the storage must be done by the following measures:

Store in clean and dry locations.

The temperature of the storage environment must be -20 C~+60 C.

The humidity for storage must be 20~85% RH (with no condensation)

Avoid storing the package in any environments with dangerous or harmful materials (please look for signs for Dangerous and Harmful Materials of General Rules)

Please store the package on attended countertop or shelf.

Locations suitable for installation include: clean room, environment with no high temperature (no high temperature operation), locations with no water drops, steam or dust, environment with no dangerous or harmful materials, locations without dust and smoke,; locations with no vibrations and high intensity of electromagnetic waves.

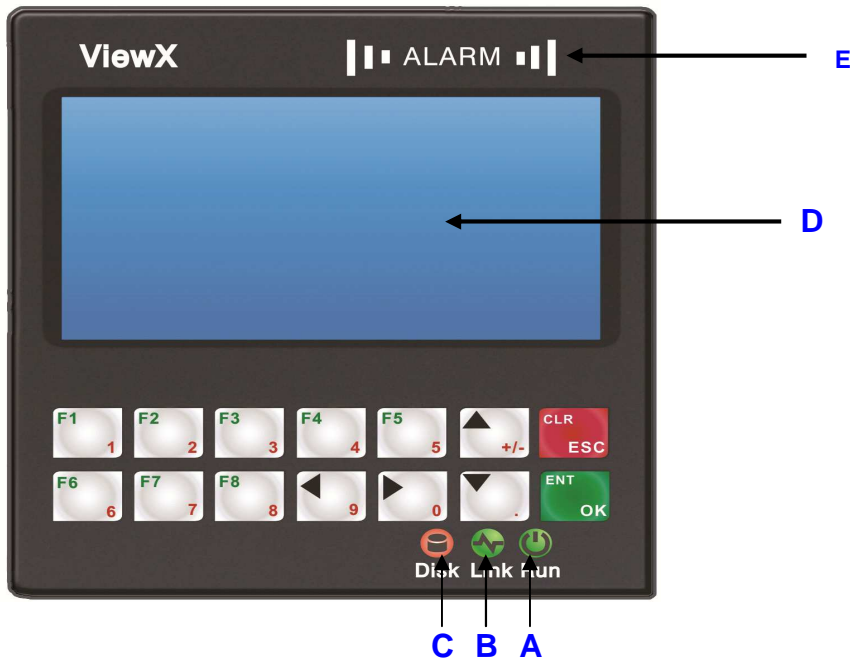
**Orientation and Space of Installation Notes of Caution**

The installation must be done by the instructions. Otherwise, improper installation may cause malfunction.

To ensure good cooling during the HMI operation, the HMI must be installed with at least 50 mm of space on the four sides and adjacent environment to avoid accumulation of heat. The maximum thickness of the installed panel cannot exceed 5 mm.

**Descriptions of Individual Parts**

**T300(Front)**



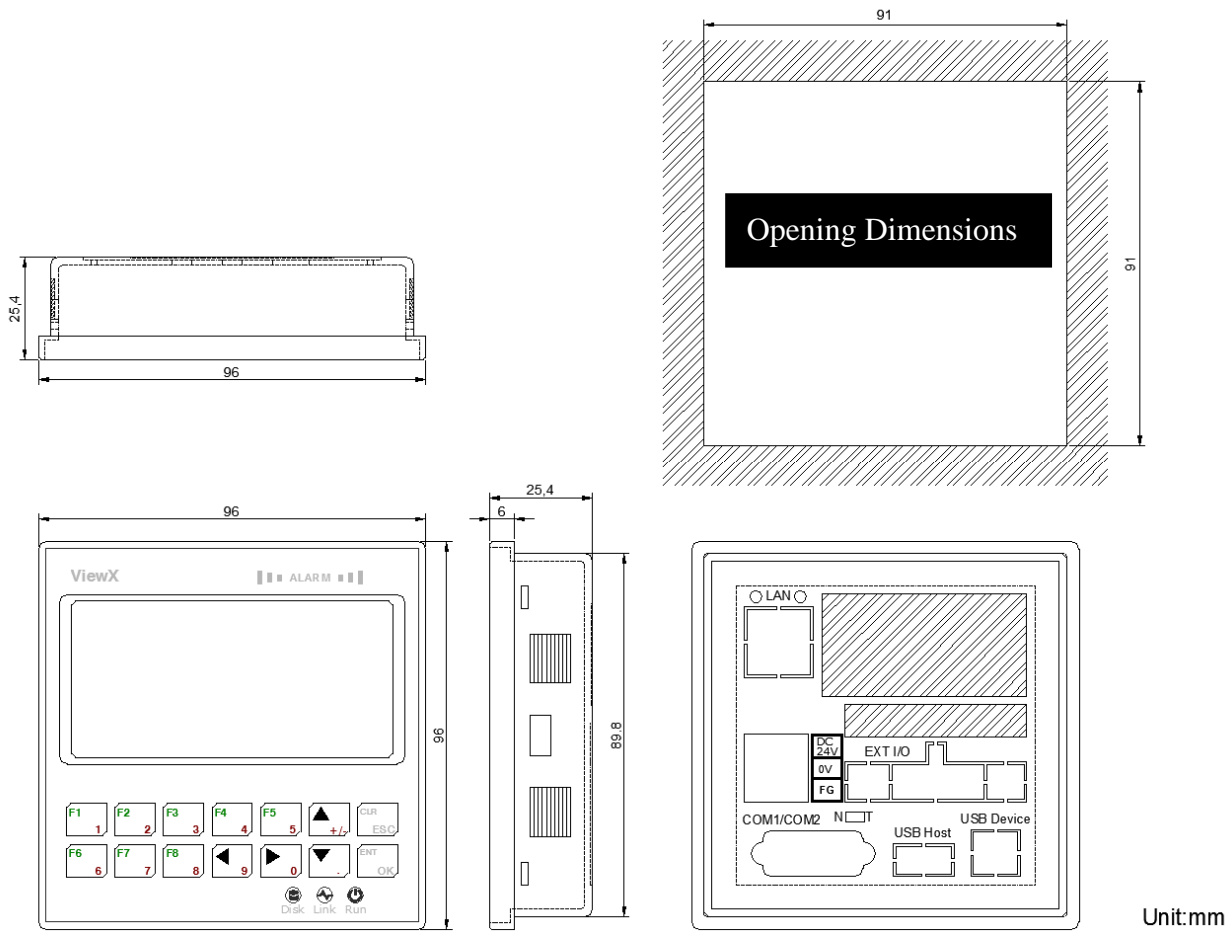
- A RUN: The red light indicates STOP and program download pending. Blinking green light indicates normal operation
- B Link: Connection indicator
- C DISC: Memory Access
- D Operation/Display Area
- E Alarm indicator

**T300 (back)**



- A Power Input Terminal
- B COM1 communication port COM1:RS232/RS422/RS485
- C COM1 RS422/R485 terminal resistance(120Ω)switch T/N : Terminal Resistance ON/OFF

**Machine/Opening Dimensions (Unit : mm)**



Unit:mm


**Recommended wiring materials**

Type	Power wiring (AWG)	Strip Length
Single Core wire	28~12	7~8 mm
Multi-Core wire	30~12	7~8 mm

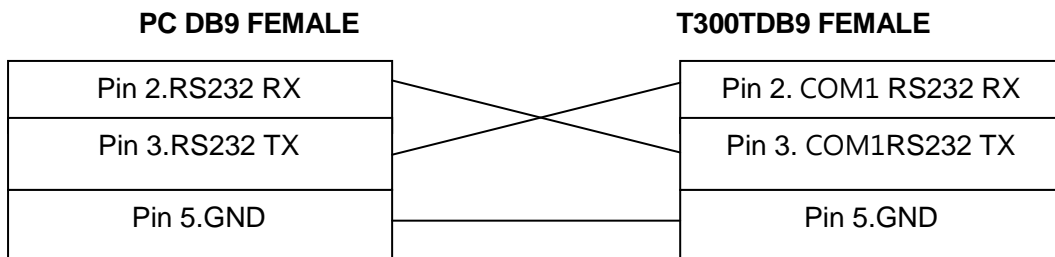
**Basic Inspection**

Items of inspection	Content of Inspection
General Inspection	Regularly inspect if the screws and connection points between the HMI and the equipment are intact. The vent opening should be kept clear and not be blocked by any objects. Beware of falling of small foreign objects in installation. If the HMI is installed in locations with dust and harmful gases, it is necessary to install the facility or equipment that can block the dust and harmful gases
Inspection before Operation (Control power is not supplied)	Please appropriately insulate the connection segment of the wiring terminal. Ensure correct wiring to avoid abnormal actions. Inspect for any conducting materials such as small metal flakes inside the HMI and watch for hazardous substances such as flammable materials and inflammable gases. If the electronic instruments near the HMI are affected by the electromagnetic interference, please use the calibration instrument to reduce the interference. Please make sure the voltage of the HMI is correct and stable
Inspection before Running (control power is supplied)	Check whether the power indicator is on . Check if the communications between various systems are normal. Please contact your local distributor if there is any abnormal behavior by the HMI.

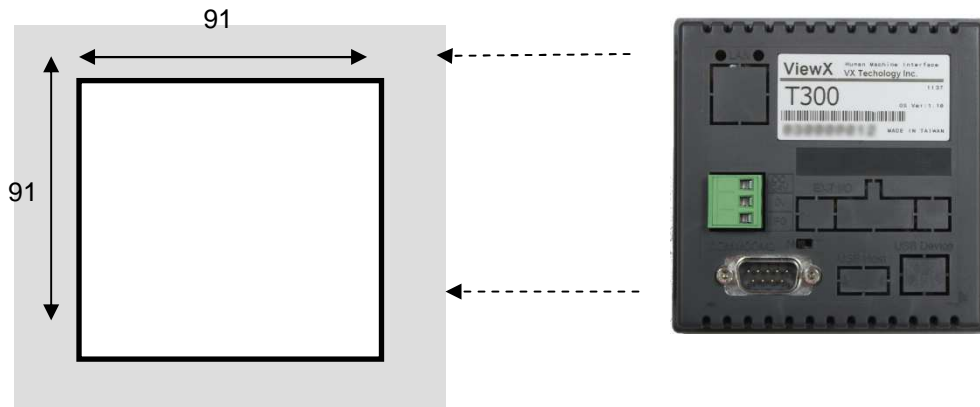
**T300COM1/COM2 Connector (DB 9)**

COM F 1	Schematic diagram	Pin Number	Description
		1	COM1RS422 RX+
		2	COM1 RS232 RX
		3	COM1 RS232 TX
		4	COM1RS485 TX+
		5	GND
		6	COM1RS422 RX-
		7	COM1 RS232 RTS
		8	COM1 RS232 CTS
		9	COM2 RS485 TX-

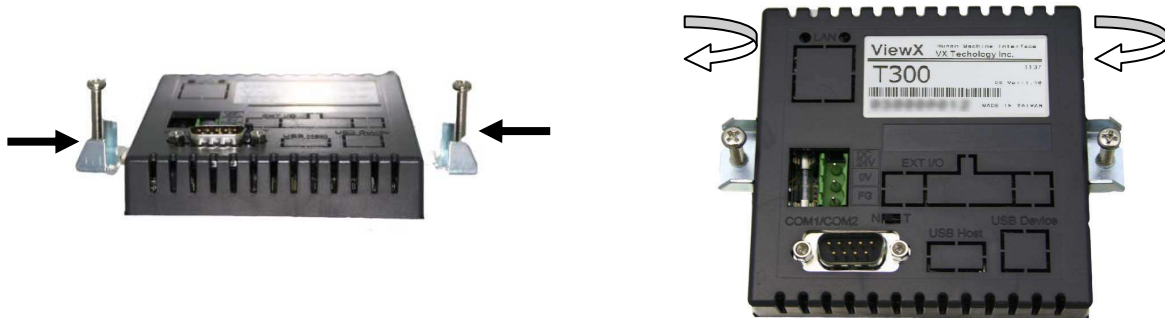
**Download Adaptor Wire**



Schematic Diagram for Installation :



Please place the HMI with its back facing the opening side of the machine



Please install the metal retaining bracket on the side of T300 with the metal clip hooking the front cap and the top of the screw pushing against the inside of the control box.







Please secure the screws on the side (the maximum torque for the retaining bracket is 0.3 Nt·m)

**Product Specification**

	Function Specifications	T300
Product Specifications	Central Processing Unit (CPU)	32 Bits RISC
	Memory	512K
	Communication Port	COM1 (RS-232/RS-422/RS-485)
Display Device	Calendar	Built-in (powered by rechargeable lithium battery)
	Display Type	FSTNLCD
	Display Size	3inches
	Display Color	Black
	Brightness	100cd/m <sup>2</sup>
	Screen pixels	132*64
	Brightness Adjustment	Digital (0-100)
	Contrast Adjustment	Digital (0-100)
	Screen Contrast Ratio	5 : 1
	Backlight	Blue LED
	Language	All texts available in Windows
Touch Panel	Type	6-System Buttons,8-self-define Buttons
Electrical Specifications	Audio Output	Buzzer
	Rated Voltage	10~30V DC
	Power Consumption	Below 3W
	Anti-statics	Contact discharge : -6KV~+6KV (Grade 3 by IEC61000-4-2) Non-contact discharge : -15KV~+15KV (Grade 4 by ICEC61000-4-2)
Environmental Specifications	Working Temperature	0°C ~45°C
	Storage Temperature	-20°C ~60°C
	Humidity	20~85% RH (no condensation allowed)
	Anti-Shock Capability	10Hz~25Hz (0.5 mm along X, Y, and Z directions for 30 minutes)
	Waterproof Capability	IP65/NEMA4
Machine Dimensions	Cooling	Natural air circulation
	Exterior Dimensions 【mm】	96*96*33
	Opening Dimensions 【mm】	91*91
	Weight	152g
	Exterior Material	ABS (Acrylonitrile Butadiene Styrene)

**T300 International certification mark**

																	
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>Verification of Conformity</b></p> <p style="text-align: center;">Interocean Technology Corp.    Filing No.: 11A061302F</p> <p><b>Applicant :</b> VX Technology, Inc. 2F, No. 262, Sec. 2, Guangfu Rd., East District, Hsinchu City 300, Taiwan, R.O.C.</p> <p><b>Product :</b> Human Machine Interface <b>Model No. :</b> T300</p> <p>On the basis of the tests undertaken, the sample(s) of the above product have been found to comply with the essential requirements of the referenced specifications at the time the tests were carried out.</p> <p><b>Relevant Standard(s) / Specification(s)</b> 47 CFR FCC Part 15 Subpart B (Class A) ANSI C63.4: 2009</p> <p>Note: Those work performed by the laboratory issuing this document is covered in the scope of accreditation by FCC (Designation No.: TW1020).</p> <p><b>Issued By:</b>     <b>Date:</b> Sep. 13, 2011 JT Chen / General Manager</p> </div>	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>Verification of Conformity</b></p> <p style="text-align: center;">Interocean Technology Corp.    Filing No.: 11A061302C</p> <p><b>Applicant :</b> VX Technology, Inc. 2F, No. 262, Sec. 2, Guangfu Rd., East District, Hsinchu City 300, Taiwan, R.O.C.</p> <p><b>Product :</b> Human Machine Interface <b>Model No. :</b> T300</p> <p>On the basis of the tests undertaken, the sample(s) of the above product have been found to comply with the essential requirements of the referenced specifications at the time the tests were carried out.</p> <p>The holder of the verification is authorized to use this document in connecting with the EC declaration of conformity is according to the Directives. The CE marking may only be used if all relevant and effective EC Directives are complied with. Together with the manufacturer's own documented production control, the manufacturer (or his European authorized representative) can in his EC Declaration of Conformity verify compliance with the Directives.</p> <p><b>Harmonized Standards:</b> EN 61131-2: 2007 (Clause 8 EMC Requirements)</p> <p><b>Reference Basic Standards:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Emission:</td> <td style="width: 50%;">Immunity:</td> </tr> <tr> <td>IEC 61000-6-4: 2006</td> <td>IEC 61000-4-2: 2008</td> </tr> <tr> <td></td> <td>IEC 61000-4-3: 2006+A1: 2007+A2: 2010</td> </tr> <tr> <td></td> <td>IEC 61000-4-4: 2004+A1: 2010</td> </tr> <tr> <td></td> <td>IEC 61000-4-5: 2005</td> </tr> <tr> <td></td> <td>IEC 61000-4-6: 2008</td> </tr> <tr> <td></td> <td>IEC 61000-4-8: 2009</td> </tr> <tr> <td></td> <td>IEC 61000-4-11: 2004</td> </tr> </table> <p>Note: The equipment covered by this document is subject to mandatory compliance with – the European Council Directive (2004/108/EC)</p> <p><b>Issued By:</b>     <b>Date:</b> Sep. 13, 2011 JT Chen / General Manager</p> </div>	Emission:	Immunity:	IEC 61000-6-4: 2006	IEC 61000-4-2: 2008		IEC 61000-4-3: 2006+A1: 2007+A2: 2010		IEC 61000-4-4: 2004+A1: 2010		IEC 61000-4-5: 2005		IEC 61000-4-6: 2008		IEC 61000-4-8: 2009		IEC 61000-4-11: 2004
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