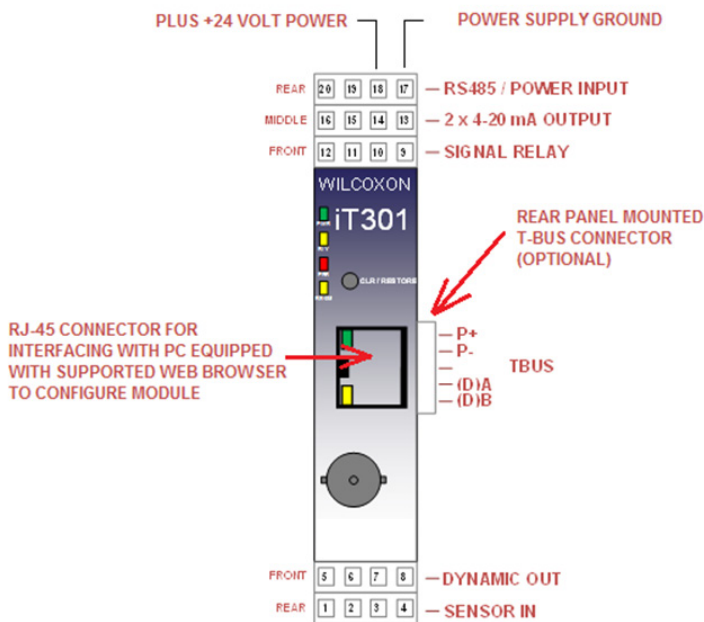


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Refer to below diagram.

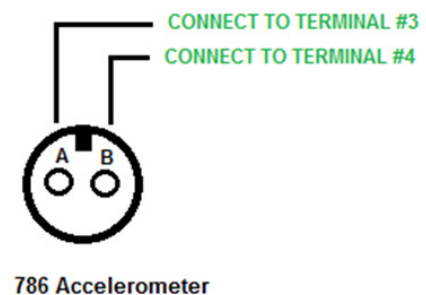
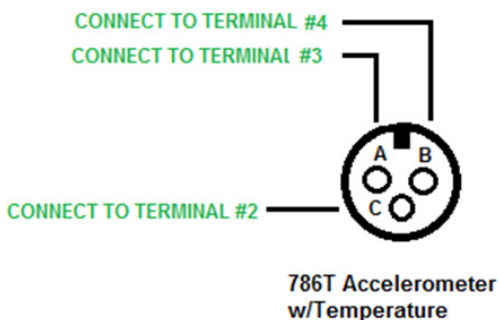
1. Determine sensor being used: Two wire IEPE sensor or two wire IEPE sensor with temperature (10 mV/°C)
2. Attach sensor leads to appropriate connector (Terminals 1-4)
3. Attach dynamic signals (acceleration or velocity) and optional temperature output to readout equipment (Terminals 5-8)
4. Attach 4-20 mA leads to readout equipment (Terminals 13-16)
5. Attach signal relay (Terminals 9-12)
6. Attach RS 485 as required (Terminals 19-20)
7. Verify all wiring before connecting power
8. Attach +24 volt power (Terminals 17-18)
9. After unit has cycled through its startup routine and the green power light illuminates, proceed to configuration

The full manual for the iT300 series modules can be found here: <https://buy.wilcoxon.com/it300-vibration-transmitter.html>



IO Port	Terminal numbers and signal assignments
Vibration sensor	1 – No connection
	2 – Temperature sensor (in T+)
	3 – Signal in / Sensor Power (IN+)
	4 – Circuit Common (COM)
Temperature dynamic output	5 – Circuit Common (COM)
	6 – Temperature out (T)
Sensor dynamic output	7 – Circuit Common (COM)
	8 – Sensor out (SENS)
Signal relay	9 – Normally closed (NC)
	10 – Relay common (COM)
	11 – Normally open (NO)
	12 – Relay common (COM)
4-20 mA Loop B	13 – B-
	14 – B+
4-20 mA Loop A	15 – A-
	16 – A+
Power input	17 – P-
	18 – P+
RS485	19 – (D)A
	20 – (D)B

Sensor connection, 2 wire or 3 wire sensor



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Built in web server: connect RJ45 port to PC and enter static IP address 192.168.0.100

Changes to network adaptor settings may be necessary. See full manual for details.

Login required before any changes can be made*

User entry of machine identity

User entry of sensor specific information

Frequency range selection

User selection of signal integration, frequency limits and detection type


Measured results display, alarm limits settings and relay configuration

4-20 mA mapping from measured results

Network defaults. Consult full manual on configuring your PC network adaptor

Modbus defaults

*Default user: user
Default password: admin
Remember to save your changes to have new values take effect


iT301

Save & Enable Changes
Abandon Changes
Login

Machine Information

Location: Machine ID:

Machine Name: Measurement Point:

Sensor Input

Sensor Type: IEPE Power:

Sensitivity (mV/g): Serial Number:

Averaging Time:

Frequency Range

F max: F min:

Sensor Band Configuration

	Output Type	F start (Hz)	F stop (Hz)	Detector Type
Band 1	<input type="text" value="Velocity"/>	<input type="text" value="5"/>	<input type="text" value="5000"/>	<input type="text" value="RMS"/>
Band 2	<input type="text" value="Acceleration"/>	<input type="text" value="5"/>	<input type="text" value="5000"/>	<input type="text" value="RMS"/>

Measurement Results and Alarms

	Result Unit	Present Level	Low Limit Enable	Low Limit Value	High Limit Enable	High Limit Value	Result Status	Alarm Status	Map to Relay
Band 1	<input type="text" value="in/sec"/>	0.001 in/sec	<input type="checkbox"/>	<input type="text" value="0"/>	<input type="checkbox"/>	<input type="text" value="500"/>	Disabled	OK	<input type="checkbox"/>
Band 2	<input type="text" value="g"/>	0.000 g	<input type="checkbox"/>	<input type="text" value="0"/>	<input type="checkbox"/>	<input type="text" value="500"/>	Disabled	OK	<input type="checkbox"/>
True Peak	<input type="text" value="g"/>	0.001 g	<input type="checkbox"/>	<input type="text" value="0"/>	<input type="checkbox"/>	<input type="text" value="500"/>	Disabled	OK	<input type="checkbox"/>
Temperature	<input type="text" value="Fahrenheit"/>	32.0 °F	<input type="checkbox"/>	<input type="text" value="32"/>	<input type="checkbox"/>	<input type="text" value="248"/>	Disabled	OK	<input type="checkbox"/>
BOV	Volts	11.8 Volts	<input checked="" type="checkbox"/>	<input type="text" value="5"/>	<input checked="" type="checkbox"/>	<input type="text" value="16"/>	OK	OK	<input type="checkbox"/>

Alarm Delay Time (sec): Relay Status:

Alarm Hold Time (sec): Clear Alarms Force Relay:

Current Loops

	Loop Source	Full Scale	Level	Destination	Force Loop	Force Value (mA)
Loop A	<input type="text" value="Band 1"/>	<input type="text" value="5"/>	in/sec 4.00 mA	<input type="text" value="Loop A Dest"/>	<input type="radio"/>	<input type="text" value="10"/>
Loop B	<input type="text" value="Disabled"/>	<input type="text" value="5"/>	0.00 mA	<input type="text" value="Loop B Dest"/>	<input type="radio"/>	<input type="text" value="10"/>

Network Configuration

IP Address: Subnet Mask:

Default Gateway: MAC Address:

Modbus/RS485

Slave Address: Format:

Baud Rate: Parity:

Module Information

Model: iT301 Hardware Revision: D3

Serial Number: ENG1 Firmware Revision: 1

Change Password
Load Configuration from File
Save Configuration to File
Restore Factory Defaults
Update Firmware

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Modbus Register Tables

Discrete Inputs (1X references) - Alerts, Alarms, Status

Read with function code 02

Input #	Register (decimal)	Address (hex)	Parameter name	Notes
1	10000	0000	ALERT - band 1 low	
2	10001	0001	ALERT - band 1 high	
3	10002	0002	ALERT - band 2 low	
4	10003	0003	ALERT - band 2 high	
5	10004	0004	ALERT - true peak low	
6	10005	0005	ALERT - true peak high	
7	10006	0006	ALERT - temperature low	
8	10007	0007	ALERT - temperature high	
9	10008	0008	ALERT - BOV low	
10	10009	0009	ALERT - BOV high	
11	10010	000A	ALERT - gap low	
12	10011	000B	ALERT - gap high	
13	10012	000C	ALARM - band 1	
14	10013	000D	ALARM - band 2	
15	10014	000E	ALARM - true peak	
16	10015	000F	ALARM - temperature	
17	10016	0010	ALARM - BOV	
18	10017	0011	ALARM - gap	
19	10018	0012	Relay energized	
20	10019	0013	Loop A fault	
21	10020	0014	Loop B fault	

Note: Not all registers are applicable to all product models.

Input Registers (3X references) - Measurement results, module information

Read with function code 04

Register (decimal)	Address (hex)	Parameter name	Data type	# of registers	Notes
30000	0000	Fmin	Float	2	Hertz
30002	0002	Band 1 level	Float	2	
30004	0004	Band 2 level	Float	2	
30006	0006	True Peak level	Float	2	
30008	0008	Temperature	Float	2	°F or °C
30010	000A	BOV	Float	2	Volts
30012	000C	Loop A level	Float	2	mA
30014	000E	Loop B level	Float	2	mA
30016	0010	Gap	Float	2	mils or mm
30018	0012	Gap voltage	Float	2	Volts
30020	0014	MAC address	8-bit binary (6x)	3	
30023	0017	Firmware revision	Float	2	

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Holding Registers (4X references) - User configurable parameters

Read with function code 03

Register (decimal)	Address (hex)	Parameter name	Data type	# of registers	Notes
40000	0000	Machine location	ASCII	12	Text, 24 characters
40012	000C	Machine name	ASCII	12	Text, 24 characters
40024	0018	Machine ID	ASCII	12	Text, 24 characters
40036	0024	Measurement point	ASCII	12	Text, 24 characters
40048	0030	Sensor type	Binary	1	0=accel, 1=vel, 2=disp
40049	0031	Sensor sensitivity	Float	2	
40051	0033	Averaging time	Float	2	Seconds
40053	0035	IEPE power enabled	Boolean	1	
40054	0036	Sensor serial number	ASCII	12	Text, 24 characters
40066	0042	Fmax	Float	2	Hertz
40068	0044	Band 1 output type	Binary	1	0=accel, 1=vel, 2=disp
40069	0045	Band 1 start frequency	Float	2	Hertz
40071	0047	Band 1 stop frequency	Float	2	Hertz
40073	0049	Band 1 detector type	Binary	1	0=RMS, 1=peak, 2=p-p
40074	004A	Band 2 output type	Binary	1	0=accel, 1=vel, 2=disp
40075	004B	Band 2 start frequency	Float	2	Hertz
40077	004D	Band 2 stop frequency	Float	2	Hertz
40079	004F	Band 2 detector type	Binary	1	0=RMS, 1=peak, 2=p-p
40080	0050	Band 1 eng. units	Binary	1	0=g, 1=m/s ² , 2=in/sec, 3=mm/sec, 4=mils, 5=mm
40081	0051	Band 2 eng. units	Binary	1	0=g, 1=m/s ² , 2=in/sec, 3=mm/sec, 4=mils, 5=mm
40082	0052	True peak eng. units	Binary	1	0=g, 1=m/s ² , 2=in/sec, 3=mm/sec, 4=mils, 5=mm
40083	0053	Temperature eng. units	Binary	1	0=Fahrenheit, 1=Celsius
40084	0054	Gap eng. units	Binary	1	4=mils, 5=mm
40085	0055	Band 1 low limit	Float	2	
40087	0057	Band 1 high limit	Float	2	
40089	0059	Band 2 low limit	Float	2	
40091	005B	Band 2 high limit	Float	2	
40093	005D	True peak low limit	Float	2	
40095	005F	True peak high limit	Float	2	
40097	0061	Temperature low limit	Float	2	
40099	0063	Temperature high limit	Float	2	
40101	0065	BOV low limit	Float	2	Volts
40103	0067	BOV high limit	Float	2	Volts
40105	0069	Gap low limit	Float	2	
40107	006B	Gap high limit	Float	2	

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Register (decimal)	Address (hex)	Parameter name	Data type	# of registers	Notes
40109	006D	Alert low limit enables	Bitwise [5:0]	1	Bit 5: gap Bit 4: true peak Bit 3: temperature Bit 2: band 2 Bit 1: band 1 Bit 0: BOV
40110	006E	Alert high limit enables	Bitwise [5:0]	1	Bit 5: gap Bit 4: true peak Bit 3: temperature Bit 2: band 2 Bit 1: band 1 Bit 0: BOV
40111	006F	Delay time	Float	2	Seconds
40113	0071	Hold time	Float	2	Seconds
40115	0073	Map to relay	Bitwise [5:0]	1	Bit 5: gap Bit 4: true peak Bit 3: temperature Bit 2: band 2 Bit 1: band 1 Bit 0: BOV
40116	0074	Force relay	Boolean	1	1=forced, 0=normal
40117	0075	Loop A source	Binary	1	6=gap, 5=temperature, 4= BOV, 3=true peak, 2=band 2, 1=band 1, 0=disabled
40118	0076	Loop A full scale	Float	2	
40120	0078	Loop A destination	ASCII	8	Text, 16 characters
40128	0080	Loop A force mode current	Float	2	mA
40130	0082	Loop A force mode	Boolean	1	1=forced, 0=normal
40131	0083	Loop B source	Binary	1	6=gap, 5=temperature, 4= BOV, 3=true peak, 2=band 2, 1=band 1, 0=disabled
40132	0084	Loop B full scale	Float	2	
40134	0086	Loop B destination	ASCII	8	Text, 16 characters
40142	008E	Loop B force mode current	Float	2	mA
40144	0090	Loop B force mode	Boolean	1	1=forced, 0=normal
40145	0091	Modbus RTU mode	Boolean	1	1=RTU, 0=ASCII
40146	0092	Modbus slave address	8-bit binary	1	
40147	0093	RS485 baud rate	32-bit binary	2	
40149	0095	RS485 parity	Binary	1	0=none, 1=odd, 2=even
40150	0096	IP address	8-bit binary (4x)	2	
40152	0098	Subnet mask	8-bit binary (4x)	2	
40154	009A	Default gateway	8-bit binary (4x)	2	