Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

Minitrend QX

Minitrend QX, paperless rec., 140 mm [5.5 in] screen, DIN, 0.1% acc., univ. in., scrn. design, ethernet, data stor., event mark., data sec., alarms, digital in., math, math scripts, remote view, comm., xmit power, totalization, CE, UL, CSA, FM CL 1 Div 2

Description

The TVMIQX Minitrend Electronic Data Recorder represents the latest in displaying and recording process data electronically. The Minitrend QX uses a 5.5 inch digital color LCD display and fits the standard DIN cutout used by 100 mm [4.0 in] strip chart paper recorders. It provides such advance features as custom screen design, allowing the customer to design the display that best meets the process needs. Other features include the ability to have up to 16 analog inputs, Ethernet communications, up to 16 discrete inputs/outputs, totalization, math, retransmission outputs and transmitter power. The Minitrend QX supports 20 ms scan rates and storage capacities up to 2 gigabyte. The operator can mark the "chart" to indicate specific events and process data, allowing for easy batch tracking. The data storage supports multiple levels of password protection to comply with the requirements of 21CFR Part 11. The Ethernet communications capability and Trend Manager Software provide networking and real time data acquisition as well as analysis of the data.

Minitrend QX

Minitrend QX, paperless rec., 140 mm [5.5 in] screen, DIN, 0.1% acc., univ. in., scrn. design, ethernet, data stor., event mark., data sec., alarms, digital in., math, math scripts, remote view, comm., xmit power, totalization, CE, UL, CSA, FM CL 1 Div 2

Product Specifications	
Recorder Type	Paperless
Chart Size / Screen Size	140 mm [5.5 in]
Number of Inputs	Up to 16
Input Signal Type	Thermocouple, RTD, 0 mA to 20 mA/4 mA to 20 mA, mV, V, ohms
Scan Rate	20 ms, 100 ms, 200 ms, 500 ms
Chart Speed/Display rate	1 mm/hr to 6000 mm/hr [0.04 in/hr to 240 in/hr]
Accuracy	0.1% Typical - T/C
Display	Color Active Matrix LCD
Alarms	Up to 16 (optional)
Digital Inputs	Up to 16 (optional)
Auxiliary Output	Up to 4
Transmitter Power	Yes (optional)
Totalizer(s)	Yes (optional)
Math Functions	Yes plus math scripts
Communications	Ethernet/RS485
Data Storage	Compact Flash/USB Key
Chart Type	Electronic media
Chart Documentation and Messages	Yes
Front Face Protection Rating	IP 55 - NEMA3 (standard)/IP66 - NEMA 4X (optional)
Product Configuration	PC or Touchscreen

Case Size (W x H x D)	144 mm x 144 mm x 200 mm [5.7 in x 5.7 in x 7.9 in]
Cutout Size (W x H)	138 mm x 138 mm [5.4 in x 5.4 in]
Portable Case	Yes
Instrument Power	90 Vac to 240 Vac, 24 Vac/Vdc
Approval	CE/UL/CSA/FM CL1 Div. 2
Availability	Global

Minitrend QX

Minitrend QX, paperless rec., 140 mm [5.5 in] screen, DIN, 0.1% acc., univ. in., scrn. design, ethernet, data stor., event mark., data sec., alarms, digital in., math, math scripts, remote view, comm., xmit power, totalization, CE, UL, CSA, FM CL 1 Div 2

PERSONAL INJURY
DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

MISUSE OF DOCUMENTATION

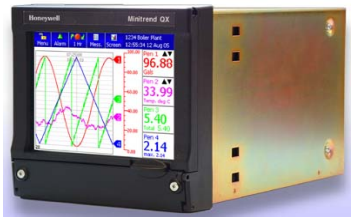
- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

Minitrend QX Recorder

Model Selection Guide

The Minitrend QX represents the latest in data acquisition and recording. Standard features include Ethernet communications, multiple USB ports, touch screen interface for easy configuration and navigation, a single digital output along with a wide selection of optional features to handle most data acquisition applications.



Instructions

Make the desired selections from Option Tables using the column below the arrow.
A dot (•) denotes unrestricted availability. Restrictions follow Table VII.

Key Number	I	II	III	IV	V	VI	VII
_ _ _ _ _ _	- _ _	- _	- _ _	- _	- _ _ _	- _ _ _ _ _ _	- _ _ _

KEY NUMBER		Selection	Availability
Minitrend QX Advanced Graphics Recorder		TVMIQX	↓

TABLE I - ANALOG INPUTS/OUTPUTS

Slot A	None		0 _	•
	Four Analog Inputs	(Note 1)	4 _	•
	Six Analog Inputs	(Note 1)	6 _	•
	Eight Analog Inputs	(Note 1)	8 _	•
	Four Pulse Inputs		P _	•
Slot B	None		_ 0	•
	Four Additional Analog Inputs	(Note 1)	_ 4	g
	Six Additional Analog Inputs	(Note 1)	_ 6	f
	Eight Additional Analog Inputs	(Note 1)	_ 8	f
	Four Additional Pulse Inputs		_ P	f
	Two Analog Outputs		_ A	•
	Four Analog Outputs		_ B	•

TABLE II - DISCRETE INPUTS/OUTPUTS

Discrete Inputs/ Outputs (Slot G)	None (One Discrete Output Supplied Standard)		0	•
	Four Relay Outputs		1	•
	8 Relay/2 Digital Inputs-6 Fixed Outputs/2 Configurable DI or DO	(Note 2)	2	•
	8 Configurable Digital Inputs/Discrete 24V Relay Outputs	(Note 3)	3	•
	16 Configurable Digital Inputs/Discrete 24V Relay Outputs	(Note 3)	4	•

TABLE III - POWER

Power	90 - 240 VAC with IEC Power Plug		1 _	•
	90 - 240 VAC with US Power Cord		2 _	•
	90 - 240 VAC with IEC Power Plug/Transmitter Power		3 _	•
	90 - 240 VAC with US Power Cord/Transmitter Power		4 _	•
	24/48VDC - 24VAC Instrument Power	(Note 4)	5 _	•
Input Frequency Filter Value	50 Hz	(Note 11)	_ 1	•
	60 Hz	(Note 11)	_ 2	•

TABLE IV - INTERNAL MEMORY FOR DISPLAY/DATA STORAGE

Memory Card Expansion	None - (Standard 70MB)	0	•
	180 MBytes	1	•
	400 MBytes	2	•
	890 MBytes	3	•
	1850 MBytes	4	•

TABLE V - FIRMWARE CREDITS/OPTIONS

		Selection	TVMIQX Availability
Security/Firmware Credits	None	0 _ _	•
	Extended System Security	S _ _	•
	None	_ 0 _	•
	Ten Credits	_ 1 _	•
	Twenty Credits	_ 2 _	•
	Thirty Credits	_ 3 _	•
	Fifty Credits	_ 5 _	•
	Sixty Credits	_ 6 _	•
	Seventy Credits	_ 7 _	•
	Eighty Credits	_ 8 _	•
	None	_ _ 0	•
	Two Credits	_ _ 2	•
	Five Credits	_ _ 5	•
	Eight Credits	_ _ 8	•

CREDITS - Decide what functions are needed and select that many total "Credits" when ordering firmware options. For Example: If Math, Events and Totals are needed for the application, sum the values for each function listed below to determine the number of credits to purchase. Additional credits are available if needed using the Upgrade Procedure Credits can be selected/deselected and used interchangeably as long as the total credits purchased is not exceeded. Maximum number of credits required to enable all functions is 82 credits.

VALUE	FUNCTION	
2	Health/Maintenance	
2	Print Function (USB)	**(Note 13)**
2	4 Extra Pens	**(Note 6)**
3	Remote Viewing	
3	Reports	
3	e-Mail	
3	Counters	
4	Totals	
4	Full Maths	

VALUE	FUNCTION	
4	Custom Screens	**(Note 14)**
5	AMS2750 Process Mode	**(Note 17)**
5	Fast Scan	**(Note 5)**
5	Batch	
5	Password Net Sync	
6	Events	**(Note 12)**
6	FF Math & Scripts	
8	OPC Interface	
10	Modbus Master	**(Note 16)**

TABLE VI - OPTIONS

Case/Mounting	Standard Panel Mounting	0 _ _ _ _ _	•
	Standard Panel Mounting with Rear cover	R _ _ _ _ _	•
	Rear Panel Connection for TDC Vutronik Trend Recorder **(Note 10)**	V _ _ _ _ _	**e**
Documentation Manuals **(Note 15)**	Product Information on CD with TrendViewer	_ 0 _ _ _ _	•
	English Manual & Language Prompts with TrendViewer	_ U _ _ _ _	•
	French Language PromptsManual with TrendViewer	_ F _ _ _ _	•
	German Language PromptsManual with TrendViewer	_ G _ _ _ _	•
Tagging	None	_ _ 0 _ _ _	•
	Linen Tag **(Note 7)**	_ _ L _ _ _	•
	Stainless Steel Tag **(Note 7)**	_ _ S _ _ _	•
Standards	CE Mark/IP55/NEMA 3	_ _ _ 0 _ _	•
	CE Mark/IP66/NEMA 4X	_ _ _ 1 _ _	•
	CE Mark, UL Listed & CSA Approval/IP55/NEMA 3	_ _ _ 2 _ _	**c**
	CE Mark, UL Listed & CSA Approval/IP66/NEMA 4X	_ _ _ 3 _ _	**c**
	CE Mark/FM CL 1 DIV 2	_ _ _ 5 _ _	**c**
	CE Mark, UL Listed & CSA Approval/FM CL1 Div 2/IP66/NEMA 4X	_ _ _ 7 _ _	**c**
Certificates	None	_ _ _ _ 0 _	•
	Certificate of Conformance (F3391)	_ _ _ _ B _	•
	Custom Calibration Test Report (F3399) **(Note 8)**	_ _ _ _ C _	•
	Certificate of Conformance & Calibration Test Report **(Note 8)**	_ _ _ _ E _	•
Software **(Note 9)**	None	_ _ _ _ _ 0	•
	Trend Manager Pro (Single User License)	_ _ _ _ _ P	•
	Trend Server Pro (Single User License)	_ _ _ _ _ S	•
	Trend Server Pro with OPC capability (Single User License)	_ _ _ _ _ T	•
	Screen Designer with Trendviewer	_ _ _ _ _ E	•
	Screen Designer with Trend Manager Pro (Single User License)	_ _ _ _ _ F	•
	Screen Designer with Trend Server Pro (Single User License)	_ _ _ _ _ G	•

TABLE VII		**Selection**	**Availability**
Factory Use Only	Standard Honeywell Version	000	•

RESTRICTIONS

Restriction	**Available Only With**			**Not Available With**
Letter	**Table**	**Selection**	**Table**	**Selection**
c			**VI**	**V _ _ _ _ _**
e	**III**	**5 _**		
f			**I**	**0 _**
g			**I**	**0 _, 4 _, P _**

Notes:

1. Standard inputs include T/C, mV, V, Ma, Ohms and RTD actuations.
2. Relay Outputs are high level outputs (240VAC/3 Amp non-inductive loads).
3. Discrete Outputs are low level outputs (24VDC/1 Amp non-inductive loads).
   Any channel on the 8 or 16 Discrete I/O Card can be used as a Digital Input if not used as an Alarm Output.
4. For 24V Instrument Power, the Input Filter Frequency Noise Rejection can be set for either 50 or 60 Hz
5. Fast Scanning only applies when an input is configured as linear (mV, V, Ma) inputs.
6. Extra Pens can be used to write analog values to the recorder using the Ethernet Modbus protocol without needing the full complement of analog inputs. Using all the virtual pens with many complicated maths and other functions can affect the overall performance of the recorder. Maximum available extra pens are 16.
7. Customer must supply tagging information, Up to 3 lines of 22 characters each are allowed
8. Calibration Test Reports/Certificates require specific Range and Input Actuation data from the customer. Form F3399 Supplemental Data must be completed. This can be downloaded from the Honeywell SaleNet site or the Global Technical Services site: http://content.honeywell.com/ipc/faq/>
9. Software Packages can be ordered separately (see Accessories price page)
10. Rear Panel for Vutronik Trend Recorder is wired to support 3 Analog Inputs and 24 VDC instrument power only. All other options must be wired individually. Recommended Model Number is TVMIQX-40-0-51-0-000-V00000-000.
11. The 50/60 Hz setting can be changed in the recorder setup to match the local power conditions. It can be ordered set for either 50Hz or 60Hz. This setting should match the local powerline frequency to provide the best noise rejection.
12. The events currently include: Into, Out of and Alarm Ack, Start, Stop, Reset, Reset & Start Totals, Digital Input ON/OFF/State Change, T/C Burnout, Mark Chart, Start/Stop Logging, Digital Output ON/OFF, Scheduled - Once/Interval/Specific Days/Month End, User Counters, Reset Max/Mins, Emails, Screen Change, Print Screen, Counters - Reset/Increment, Chart Control - Pause/Stop/Resume/Clear/Prefill, Clear All Messages, System - Power ON, Setup Change, Internal Memory Low, Export Memory Low, FTP Memory Low , User Action - Mark Chart, Batch - Start/Stop/Pause, Delayed Event, Script Timers - Start/Stop/Reset/Reset & Start, Play Sound - Start/Stop, Display Alert, Reports, TUS - Start/Stop, AMS2750 Timer - TC Timers/Process Timers, Update Tabular Readings.
13. The Printer function can print screens from the Recorder to a PCL type printer.
14. Custom Screen credits provide the ability to load custom screens into the recorder; the X-series Screen Designer software is required for designing these custom screens at the PC.
15. The recorder supports local language prompts for the following languages: English, French, German, Italian, Spanish, Brazilian, Polish, Hungarian, Slovakian, Czech, Turkish, Romanian, Russian, Portuguese, Greek and Bulgarian.
16. To write Modbus Slave values to the pens using Modbus Master requires FF Math or MathScripts to assign these values to a pen.
17. AMS2750 Process Mode credits allow the user to monitor T/C Usages, SAT Cal Due Date, TUS Due Date, Instrument Cal Due Date and Control T/C Due Date.