

## Minitrend V5 Recorder

## Model Selection Guide

### Instructions

- Select the desired key number. The arrow to the right marks the selection available.
- Make the desired selections from Table I using the column below the proper arrow.  
A dot (•) denotes unrestricted availability. Restrictions follow Table VII.

Key Number      I      II      III      IV      V      VI      VII  
 [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

### KEY NUMBER

### Selection Availability

Minitrend V5 Electronic Data Recorder

TVMI

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### TABLE I - ANALOG INPUTS

Analog Inputs	Four	4 _	•
	Six	6 _	k
	Eight	8 _	•
	Twelve	A _	c
	Sixteen	B _	c
	Eight Linear Inputs	L _	g
	Sixteen Linear Inputs	M _	p
Input Type	Universal (T/C, RTD, mV, V, mA) (Note 5)	_ 0	•
	Fast Scanning (Note 6)	_ F	•
	Linear Input (mV, V, mA)	_ L	h
	Fast Scan Card Slot 1/Universal Card Slot 2 (Note 12)	_ M	m

### TABLE II - DISCRETE INPUTS/OUTPUTS & ANALOG OUTPUTS

Discrete Inputs/Outputs	None	0 _	•
	Four Relay Outputs	4 _	•
	8 Relay/2 Digital Inputs-6 Fixed Outputs/2 Configurable DI or Relay (Note 7)	8 _	•
	8 Configurable Digital Inputs/Discrete 24V Outputs (Note 8)	A _	•
	16 Configurable Digital Inputs/Discrete 24V Outputs (Note 8)	B _	•
Analog Outputs	None	_ 0	•
	Two Analog Outputs (Not Available with 12 or 16 AI)	_ 2	d
	Four Analog Outputs (Not Available with 12 or 16 AI)	_ 4	d

### TABLE III - FIRMWARE OPTIONS

Firmware	None	0 _ _	•
	Math + Eight Extra Pens	M _ _	•
	Event Markers	E _ _	•
	Math + Totalizers + Eight Pens	C _ _	•
	Math + Event Markers + Eight Pens	G _ _	•
	Math + Totalizers + Event Markers + Eight Pens	A _ _	•
	Math + Totalizers + Event Markers + 16 Extra Pens (Note 13)	P _ _	•
Screen Options	None	_ 0 _	•
	Custom Screens	_ C _	•
	Custom Screens w/8MB RAM Card	_ E _	•
	Mimics and Custom Screens with 8MB RAM	_ M _	•
	Screen Designer w/Mimics & Custom Screen	_ S _	•
Security	Standard	_ _ 0	•
	Extended System Security with 8MB Processor	_ _ S	•

**TABLE IV - COMMUNICATIONS**

Selection

Availability

Communication Protocol	None	0 _ _	•
(Note 9)	RS485 (Real time Trendbus )	T _ _	•
	Ethernet (Real time Trendbus, Web, FTP, E-mail, Modbus)	E _ _	•
	Ethernet/RS232/485 (Real time Trendbus, Web, FTP, eMail, Modbus, RS232 Barcode, RS485 Trendbus) (Note 10)	A _ _	•
	RS485 Modbus Protocol	M _ _	•
Instrument Power	Universal Power 90 - 240 VAC with IEC Power Plug	_ 0 _	•
	90-240 VAC with US Power Cord	_ B _	•
	12/24 VDC	_ 2 _	•
Transmitter Power	None	_ _ 0	•
	Transmitter Power	_ _ P	•

**TABLE V - DATA STORAGE/MEMORY CARD**

Data Storage	None	0 _ _	•
	1.44 Mbyte Floppy	F _ _	•
Memory Card Interface	Memory Card Interface (Note 1)	_ 1 _	•
No Selection	None	_ _ 0	•

**TABLE VI - OPTIONS**

Case/Mounting	Standard Panel Mounting	0 _ _ _ _	•
	NEMA4/IP65 Cover	C _ _ _ _	•
	Portable Case	P _ _ _ _	•
	Rear Panel Connection for TDC Vutronik Trend Recorder (Note 11)	V _ _ _ _	j
Documentation Manuals	English Manual & Language Prompts with TrendViewer	_ U _ _ _	•
	French Manual & Language Prompts with TrendViewer	_ F _ _ _	•
	German Manual & Language Prompts with TrendViewer	_ G _ _ _	•
	Italian Manual & Language Prompts with TrendViewer	_ I _ _ _	•
	Spanish Manual & Language Prompts with TrendViewer	_ S _ _ _	•
	Product Information on CD Rom with TrendViewer	_ 0 _ _ _	•
Tagging	None	_ _ 0 _ _	•
	Linen Tag (Note 2)	_ _ L _ _	•
	Stainless Steel Tag (Note 2)	_ _ S _ _	•
Approvals	None (CE Standard)	_ _ _ 0 _	•
	CSA Approval	_ _ _ C _	f
	UL Listed	_ _ _ U _	f
	UL Listed & CSA Approval	_ _ _ B _	f
Certifications	None	_ _ _ _ 0 _	•
	Certificate of Conformance (F3391)	_ _ _ _ B _	•
	Custom Calibration Test Report (Note 3)	_ _ _ _ C _	•
	Certificate of Conformance & Calib. Test Report (Note 3)	_ _ _ _ E _	•
	Validation Manual	_ _ _ _ V _	n
	Validation Manual with Certificate of Conformance/ Calibration Test Report (Note 3)	_ _ _ _ W _	n
Software (Note 4)	None	_ _ _ _ _ 0	•
	Trend Manager Pro	_ _ _ _ _ P	•
	Trend Server Pro (Single User License)	_ _ _ _ _ S	•
	Trend Server Pro (Single User License) with OPC capability	_ _ _ _ _ T	•

**TABLE VII**

Factory Use Only		00	•
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**RESTRICTIONS**

Restriction Letter	Available Only With		Not Available With	
	Table	Selection	Table	Selection
c			II	_ 2 or _ 4
d			I	A _, B _, M _ or _ M
f			VI	P _ _ _ _ , V _ _ _ _
g	I	_ L	VI	_ _ C _ _ , _ _ U _ _ , _ _ B _ _
h	I	L _, M _	VI	_ _ C _ _ , _ _ U _ _ , _ _ B _ _
j	IV	_ 2 _	I	_ F, _ L, _ M
k	I	_ F,		
m	I	8 _, A _, B _	I II	4 _, 6 _, L _, M _ _ 2, _ 4
n	III	_ _ S		
p	I	_ L	II VI	_ 2 or _ 4 _ _ C _ _ , _ _ U _ _ , _ _ B _ _

**Notes:**

- Memory cards must be purchased separately when using the dual capability it requires Math and the use of extra pens to record data to both media. (See Accessories price page)
- Customer must supply tagging information, Up to 3 lines of 22 characters each are allowed
- Customer must supply Input Actuation and Range information for each input in the free form section of the order, otherwise the calibration certificate will be based on the factory default ranges.
- Software Packages can be ordered separately (see Accessories price page)  
Manual is currently supplied in English only.
- Standard inputs include T/C, mV, V, Ma, RTD actuations.
- Fast Scanning only applies when all inputs are configured as linear (mV, V, Ma) inputs.  
If T/C or RTD is programmed for any single input, the scan rate slows to the rate specified for T/C & RTD's.
- Relay Outputs are high level outputs (240VAC/3 Amp).
- Discrete Outputs are low level outputs (24VDC/1 Amp). 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.
- Trendbus is a Honeywell proprietary protocol that works in conjunction with Trend Server Pro. Use Modbus Protocol or Trend Server Pro with OPC capability for communications using third party software packages.
- When using the RS232 communications port, Event Markers (Option Table III, Selection E \_ \_ , G \_ \_ or A \_ \_ ) is required in order for the recorder to accept a message or barcode information.  
RS485 Port supports Real Time Trendbus, Ethernet Link supports Real Time Trendbus, Web, FTP, TCP/IP Modbus Protocols.
- Rear Panel for Vutronik Trend Recorder is wired to support 3 Universal Analog Inputs and 24 VDC instrument power only. All other options must be wired individually. Recommended Model Number is TVMI-40-00-000-020-F10-V00000-00.
- Table I, Selection \_ M allows 1 Fast Scan Card and 1 Standard Universal Card to be used.  
This is not available with Analog Outputs. Fast Scan Card is always in Slot 1.
- 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.