

VICTOR 78/79 Process Multimeter

- Process Meter is a handheld, battery-operated tool for measuring electrical parameters. It has all the features of digital multimeter (besides the feature of RTD and TC), it could also output signals of direct voltage, current, resistance, temperature and frequency as well.
- Auto/manual range switch, Measure value display hold.
- The thermocouple high accuracy cold-end can auto offset.
- Panel auto calibrated.
- The function of auto close backlight and auto power-off.
- Large LCD include white LED backlight.
- It is easy to operation by user, cabinet and solid adapt to be used at locale.

Technical data



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Measuring function	Range	Measuring range	Resolving power	Accuracy	Remark
DC Voltage	4V	-4.000V~4.000V	1mV	0.2%+4	Input impedance: 10MΩ
	40V	-40.00V~40.00V	0.01V	0.2%+4	
	400V	-400.0V~400.0V	0.1V	0.2%+4	
	400mV	0~400.0mV	0.1mV	1%+4	
AC Voltage (40Hz~500Hz) (5%~100%RANG)	4V	0~4.000V	1mV	0.5%+4	Input impedance: 10MΩ<100pF
	40V	0~40.00V	0.01V	0.5%+4	
	400V	0~400.0V	0.1V	0.5%+4	
	400mV	-40.00mV~40.00mV	0.01mV	0.5%+6	
DCmV Voltage	400mV	-400.0mV~400.0mV	0.1mV	0.2%+4	Input impedance: 10MΩ
	400mV	-400.0mV~400.0mV	0.1mV	0.2%+4	
	400mV	-400.0mV~400.0mV	0.1mV	0.2%+4	
	400mV	-400.0mV~400.0mV	0.1mV	0.2%+4	
OHM	400Ω	0~400.0Ω	0.1Ω	0.2%+4	Plough voltage: 0.4V Not including the accuracy of down-lead resistance
	4kΩ	0~4.000kΩ	1Ω	0.2%+4	
	40kΩ	0~40.00kΩ	0.01kΩ	0.2%+4	
	400kΩ	0~400.0kΩ	0.1kΩ	0.2%+4	
DC Current	40mA	-40.00mA~40.00mA	0.01mA	0.2%+4	Input impedance: 1Ω
	400mA	-400.00mA~400.00mA	0.1mA	0.2%+4	
	40mA	0~40.00mA	0.01mA	0.5%+4	
	400mA	0~400.00mA	0.1mA	0.5%+4	
Frequency	50Hz	0~50.0Hz	0.01Hz	0.1%+3	
	500Hz	0~500.0Hz	0.1Hz	0.1%+3	
	5kHz	0~5.000kHz	1Hz	0.1%+3	
	50kHz	0~50.00kHz	0.01kHz	0.1%+3	
Duty cycle	0.1%~99%		0.1%	1%	
	0.1%~99%		0.1%	1%	
	0.1%~99%		0.1%	1%	
	0.1%~99%		0.1%	1%	
Diode test	1V		0.001V	10%	Plough voltage 1.1V~1.6V Current of short circuit 0.6mA
	1V		0.001V	10%	
	1V		0.001V	10%	
	1V		0.001V	10%	
Continuity test	≤50ΩBB		0.1Ω		
	≤50ΩBB		0.1Ω		
	≤50ΩBB		0.1Ω		
	≤50ΩBB		0.1Ω		
Thermocouple*	R	-40℃~1760℃	1℃	0.5%+3(≤100℃) 0.5%+2(>100℃)	Adopt ITS-90 thermometric scale not including the accuracy of RJC error RJC error: ±2℃
	S	-20℃~1760℃	1℃	0.2%+2(≤100℃) 0.5%+1(>100℃)	
	K	-200℃~950℃	1℃	0.2%+2(≤100℃) 0.5%+1(>100℃)	
	E	-200℃~500℃	1℃	0.2%+2(≤100℃) 0.5%+1(>100℃)	
Thermo resistance*	Pt100	-200℃~850℃	1℃	0.5%+2	Pt100-385 thermometric scale, Not including the accuracy of down-lead resistance
	Pt100	-200℃~850℃	1℃	0.5%+2	
	Pt100	-200℃~850℃	1℃	0.5%+2	
	Pt100	-200℃~850℃	1℃	0.5%+2	

Output Function

function	Range	Measuring range	Resolving power	Accuracy	Remark
OMH*	400Ω	0~400.0Ω	0.1Ω	0.2%+4	±1mA current not including the accuracy of down-lead resistance Max. output current: 5mA
78DCmV	500mV	-50.00mV~550.00mV	0.1mV	0.5%+6	
79DCmV	100mV	-10.00mV~110.00mV	0.01mV	0.2%+4	
DCV	5V	-0.5000V~5.5000V	1mV	0.2%+4	
FREQ	100Hz	1.0Hz~110.0Hz	0.1Hz	0.2%+2	50% Duty cycle 5Vp-p
	1kHz	0.100kHz~1.100kHz	0.001kHz		
	10kHz	1.0kHz~11.0kHz	0.1kHz		
	10kHz	1.0kHz~11.0kHz	0.1kHz		
Analog transducer XMT	-20mA	0~22.000mA	0.01mA	0.2%+4	Outside power supply 28V when 20mA 1kΩ resistance
DCmA	20mA	0~22.000mA	0.01mA	0.2%+4	Outside power supply 15V when 20mA 400Ω resistance
Thermocouple*	R	-40℃~1760℃	1℃	0.2%+3(≤100℃) 0.5%+2(>100℃)	Adopt ITS-90 thermometric scale not including the accuracy of RJC error RJC error: ±2℃
	S	-20℃~1760℃	1℃	0.2%+3(≤100℃) 0.5%+2(>100℃)	
	K	-200℃~1370℃	1℃	0.2%+3(≤100℃) 0.5%+2(>100℃)	
	E	-200℃~1000℃	1℃	0.2%+3(≤100℃) 0.5%+2(>100℃)	
Thermo resistance*	Pt100	-200℃~850℃	1℃	0.5%+2	Pt100-385 thermometric scale ± 0.1mA not including the accuracy of down-lead resistance
	Pt100	-200℃~850℃	1℃	0.5%+2	
	Pt100	-200℃~850℃	1℃	0.5%+2	
	Pt100	-200℃~850℃	1℃	0.5%+2	

Note: * only for model 79



VICTOR 25
Accuracy: ±0.02%

Technical data Measuring Function

Measuring function	Range	Measuring range	Resolving power	Accuracy	Remark
DC Voltage	50mV	-5.000mV~55.000mV	1μV	0.02%+10	Input impedance: about 100MΩ
	500mV	-10.00mV~550.00mV	10μV	0.02%+2	
	5V	-0.1000V~5.5000V	0.1mV	0.02%+5	
	50V	0.00V~55.00V	10mV	0.03%+5	
DC Current	50mA	-5.000mA~55.000mA	1μA	0.02%+2	Input impedance: 10Ω
	500Ω About 1mA exciting	0.00Ω~550.00Ω	0.01Ω	0.02%+0.1Ω	
	5KΩ About 0.1mA exciting	0.0000KΩ~5.5000KΩ	0.1Ω	0.02%+0.5Ω	
	500Ω About 0.1mA exciting	0.0000KΩ~5.5000KΩ	0.1Ω	0.02%+0.5Ω	
Frequency	100Hz	2Hz~110.0Hz	0.1Hz	±2	input impedance: 100kΩ or more Square wave at least 1Vp-p 50% duty cycle
	1kHz	0.100kHz~1.100kHz	1Hz		
	10kHz	0.10kHz~11.0kHz	0.1kHz		
	10kHz	0.10kHz~11.0kHz	0.1kHz		
Thermocouple	R	0~1767℃	1℃	0~500℃:1.8℃	Adopt ITS-90 thermometric scale not including the accuracy of inner temperature compensatory error
	S	0~1767℃	1℃	500~1767℃:1.5℃	
	K	-100℃~1372℃	0.1℃	-100~0℃:1.2℃ 0~1372℃:0.8℃	
	E	-50℃~1000℃	0.1℃	-50~0℃:0.9℃ 0~1000℃:1.5℃	
Thermo resistance	J	-60℃~1200℃	0.1℃	-60~0℃:1.0℃ 0~1200℃:0.7℃	Pt100-385 thermometric scale. Not including the accuracy of down-lead resistance
	T	-100℃~400℃	0.1℃	-100~0℃:1.0℃ 0~400℃:0.7℃	
	N	-200℃~1300℃	0.1℃	-200~0℃:1.5℃ 0~1300℃:0.9℃	
	B	600℃~1820℃	1℃	600~800℃:2.2℃ 800~1000℃:1.8℃ 1000~1800℃:1.4℃	
Switch mete measure	500Ω About 1mA exciting	≤50Ω vocalism	0.01℃		
Continuity test	500Ω about 1mA exciting	≤50Ω vocalism	0.01℃		

Technical data Output Function

Output function	Range	Measuring range	Resolving power	Accuracy	Remark
DC Voltage	100mV	-10.000mV~110.000mV	1μV	0.02%+10	Max. output current 5mA Output resistance≤0.1Ω
	1V	-0.10000V~1.10000V	10μV	0.02%+10	
	10V	-1.0000V~11.0000V	0.1mV	0.02%+10	
	20mA	0.000mA~22.000mA	1μA	0.02%+10	
DC Current	20mA	0.000mA~22.000mA	1μA	0.02%+10	Inside power supply 24V 1kΩ resistance when 20mA Outside power supply 5~28V 1kΩ resistance when 20mA
	20mA	0.000mA~22.000mA	1μA	0.02%+10	
	20mA	0.000mA~22.000mA	1μA	0.02%+10	
	20mA	0.000mA~22.000mA	1μA	0.02%+10	
Analogue transducer	400Ω	0.00Ω~400.00Ω	0.01Ω	0.02%+0.1Ω	±0.1~0.3mA exciting current not including the accuracy of down-lead resistance
	4kΩ	0.0000KΩ~4.0000KΩ	0.1Ω	0.05%+1Ω	
	40kΩ	0.000KΩ~40.000KΩ	1Ω	0.1%+10Ω	
	40kΩ	0.000KΩ~40.000KΩ	1Ω	0.1%+10Ω	
Frequency	100Hz	1.00Hz~110.00Hz	0.1Hz	±2	1~11Vp-p square wave Accuracy ±10% 50% duty cycle load>100kΩ
	1kHz	0.100kHz~1.100kHz	1Hz		
	10kHz	1.0kHz~11.0kHz	0.1kHz		
	100kHz	1kHz~110kHz	1kHz		
Thermocouple	R	0~1767℃	1℃	0~100℃:1.5℃ 100~1767℃:1.2℃	Adopt ITS-90 thermometric scale not including the accuracy of inner temperature compensatory error
	S	0~1767℃	1℃	-100~0℃:1.2℃ 0~1372℃:0.8℃	
	K	-200.0℃~1372.0℃	0.1℃	-200~100℃:0.6℃ -100~400℃:0.5℃ 400~1200℃:0.7℃ 1200~1372℃:0.9℃	
	E	-200.0℃~1000.0℃	0.1℃	-200~100℃:0.6℃ -100~600℃:0.5℃ 600~1000℃:0.4℃	
Thermo resistance	J	-200.0℃~1200.0℃	0.1℃	-200~100℃:0.6℃ -100~800℃:0.5℃ 800~1200℃:0.7℃	Pt100-385 thermometric scale Pt100, Cu50 ±0.1mA excitation current. Accuracy does not contain lead resistance
	T	-250.0℃~400.0℃	0.1℃	-250~400℃:0.6℃ -200~100℃:1.0℃	
	N	-200℃~1300℃	0.1℃	-200~100℃:1.0℃ -100~900℃:0.7℃ 900~1300℃:0.8℃	
	B	400℃~1820℃	1℃	400~600℃:2.0℃ 600~800℃:1.5℃ 800~1820℃:1.1℃	
PULSE	Pt100	-200.0℃~850.0℃	0.1℃	-200~0℃:0.3℃ 0~400℃:0.5℃ 400~850℃:0.8℃	Pt100-385 thermometric scale Pt100, Cu50 ±0.1mA excitation current. Accuracy does not contain lead resistance
	Pt1000	-200.0℃~630.0℃	0.1℃	-200~100℃:0.22℃ 100~300℃:0.3℃ 300~630℃:0.4℃	
	Cu50	-50℃~150.0℃	0.1℃	-50~150℃:0.6℃	
	1kHz	10~100000 Cycles	1 cyc	±2	
SWITCH	100Hz		0.1Hz	±2	Max. switch current voltage/ current: +28V/50mA
	1kHz		1Hz		
	10kHz		0.1kHz		
	100kHz		1kHz		
LOOP	24V	5 digits display Resolving power		±10%	Max. Output current about 25mA short circuit protection
PRESS	2.49Kpa~70Mpa	5 digits display Resolving power		0.025% range Consult precision 0.05% range whole precision	Using any of 32 pressure modules of APM series for details specifications refer to pressure modules in options and accessories. Modules available for differential gauge vacuum absolute dual and high pressure