

SMX2055 vs. PXI-4060

\$795



The Basics

- **Lowest Cost PXI DMMs \$795**
- **5-1/2 Digits**
- **For High Volume, Cost Sensitive apps.**
- **Beats NI 4060 Specs & Price (\$1,000)**
- **Function & Range switch 100 X Faster**
- **Isolated barrier to 330V from Chassis**

Basic Features

- TRMS ACV
- BW 10Hz - 100KHz (vs. 60Hz+/-10Hz)
- True 4-Wire (vs. 200m Ω)
- Stable – No AutoZero
- Fast - No AutoZero
- No Spurious Pulses emitted
- A lot more reliable; 3 relays vs. 12

SMX2055 Readings (ranges)

- **DCV: 240.000mV to 240.000V (4)**
- **ACV: 240.000mV to 240.000V (4)**
- **DCI: 2.40000mA to 2.40000A (4)**
- **ACI: 2.40000mA to 2.40000A (4)**
- **2-W Ω : 240.000 Ω to 24.0000M Ω (6)**
- **4-W Ω : 240.000 Ω to 240.000k Ω (4)**
- **Settable Reading rate: 0.5 to 107 R/s**

DCV Specs

	SMX2055	PXI-4060 *
240mV	0.015% + 5uV	0.017% + 6uV
2.4V	0.014% + 8uV	0.017% + 10uV
24V	0.02% + 0.5mV	0.024% + 1mV
240V	0.02% + 1.2mV	0.024% + 1.25mV
Error @ 20V with 1K source	6.5mV	25.8mV

* Autozero On

ACV Specs at 50Hz

	SMX2055	PXI-4060*
240mV	0.15% + 0.15mV	2.68% + 1.2mV
2.4V	0.25% + 10mV	2.8% + 21mV
24V	0.15% + 100mV	2.68% + 210mV
240V	0.25% + 400mV	3.12% + 680mV

* Autozero On

2-Wire Ohms

	SMX2055	PXI-4060*
I Sources	5: 0.1uA...1mA	2: 1uA, 100uA
240Ω	0.02% + 0.1Ω	0.027% + 0.8Ω
2.4kΩ	0.02% + 0.2Ω	0.027% + 0.8Ω
24kΩ	0.02% + 0.2Ω	0.027% + 0.9Ω
240kΩ	0.06% + 10Ω	0.08% + 22.6Ω
2.4MΩ	0.076% + 25Ω	0.08% + 27.6Ω
24MΩ	0.07% + 25kΩ	0.1% + 60kΩ
Measr. 50Ω	0.11Ω (0.22%)	0.815Ω (1.63%)

* Autozero On

4-Wire Ohms

	SMX2055	PXI-4060*
I sources	5	2
240 Ohm	0.02% + 50mΩ	0.027% + 200mΩ
2.4kΩ	0.02% + 100mΩ	0.027% + 200mΩ
24kΩ	0.02% + 0.2Ω	0.027% + 0.3Ω
240kΩ	0.06% + 9Ω	0.08% + 22Ω
2.4MΩ	0.076% + 26Ω	0.08% + 27Ω
24MΩ	0.07% + 25kΩ	0.1% + 60kΩ
Measr. 10Ω	52mΩ (0.52%)	203mΩ (2.03%)

* Autozero On

DC Current

	SMX2055	PXI-4060*
Shunts	2	1
2.4mA	0.04% + 7μA	NO
24mA	0.04% + 9μA	0.042% + 10uA
240mA	0.04% + 60μA	0.042% + 10uA
2.4A	0.06% + 160μA	NO
Burden V @ 200mA	55mV	400mV

* Autozero On

AC Current

	SMX2055	PXI-4060*
Shunts	2	1
2.4mA	0.3% + 20µA	NO
24mA	0.2 + 100µA	0.32% + 170uA
240mA	0.17% + 1mA	0.2% + 1.2mA
2.4A	0.31% + 100mA	NO

* Autozero On

Additional Characteristics

	SMX2055	PXI-4060*
DCV High input	10Meg	1Meg
ACV B-Width	10Hz-100kHz	50Hz to 200Hz
Reliability	3 relays	12 relays
Diode test currents	1mA, 100uA, 10uA, 1uA	100uA
Speed Read./s	107	60, No AutoCal
Range/Func Switch	50ms	Observed 9s to 23s

* Autozero On

And the Winner is...

	SMX2055	PXI-4060*
Special requir	None	+AutoCal: Slow
Honest Specs	Yes, Open	Hidden “Features”
LabView VIs	YES	YES
Driver Access	Any S/W	Few
Installation	Easy	Difficult
Install. Size	5Meg	> 200Meg
Price	\$795	\$995

* Autozero On

Customers Comments on 4060

- Hard to keep going - unreliable
- Emitting Pulses
- S/W is unstable
- Driver locks up
- Difficult to maintain over time



Agilent Technologies



BOSCH



Raytheon



Bayer

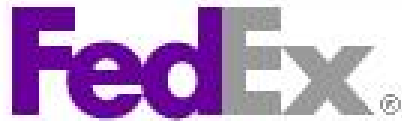


NORTHROP GRUMMAN

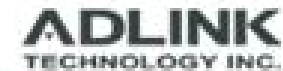


United States Navy





Sheer Driving Pleasure



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