

INDUSTRIAL SERIES

PD-693/695/697







The industrial series of multimeters have been designed in conformity with the strictest quality control requirements in order to comply with the most rigorous safety standards. Their construction in **ABS anti shock material** and an optional shock proof protector guarantees a high resistance to shocks and falls, in compliance with the MIL T28800 standards.

The electrical safety of all the measurement ranges is ensured by a 600 V fast fuse. For safety purposes, the 20 Amp range is protected by a 600 V high energy special ceramic fuse. They are equipped with fast **action diodes and PTC** protection for all the measurement ranges. A spark gap has also been included to absorb transients of up to 6 kV.

The PROMAX Industrial Series complies with the IEC 348 and UL 1244 standards. The IEC (International Electrotechnical Commission) is an international body composed by many inspection agencies. One of its tasks is to formulate uniform inspection requirements on electrical safety. Standard IEC determines the explicit safety requirements for electronic measurement instruments.

True RMS value	SPECIFICATIONS	PD-693	PD-695	PD-697
DC voltage	True RMS value	-	-	Yes
AC voltage 200 mV, 2 V, 20 V, 200 V, 750 V 400 mV, 4 V, 40 V, 400 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mV, 2 V, 20 V, 200 V, 750 V 200 mA, 20 mA, 20 mA, 20 mA, 20 M 200 mV, 2 V, 20 V, 200 V, 750 V 200 mA, 20 mA, 20 mA, 20 M 200 mA, 20 mA, 20 mA, 20 M 200 mA, 20 mA, 20 mA, 20 M 200 mA, 20 M 200 mA, 20 mA, 20 mA, 20 M 200 mA, 20 M 200 mA, 20 mA, 20 mA, 20 M 200 mA, 20 M 200 mA, 20 M 200 mA, 20 mA,	LCD indicator	3 1/2 digits	3 3/4 digits	4 1/2 digits
DC current 200 μA, 2 mA, 20 mA, 20 A 40 mA, 400 mA, 20 A 200 μA, 2 mA, 20 mA, 20 M 200 μA, 2 mA, 20 mA, 2	DC voltage	200 mV, 2 V, 20 V, 200 V, 1000 V	400 mV, 4 V, 40 V, 400 V, 1000 V	200 mV, 2 V, 20 V, 200 V, 1000 V
AC current 20 mA, 200 mA, 20 A 40 mA, 400 mA, 20 A 200 μA, 2 mA, 20 mA, 20 M Resistence (Ω) 200, 2 k, 20 k, 200 k, 2M, 20 M 400, 4 k, 40 k, 400 k, 4M, 40 M 200, 2 k, 20 k, 200 mA, 20 M Diode test Yes Yes Yes Continuity audible Yes Yes Yes Indication Yes Yes Yes Capacitance 2 nF, 20 nF, 20 nF, 2 μF, 20 μF 4 nF, 40 nF, 400 nF, 4 μF, 40 μF Yes Frequency Yes 4 nF, 40 nF, 400 nF, 4 μF, 40 μF 2 kHz, 20 kHz, 200 kHz Yes Yes ± (0.5 % read. + 1 digit) ± (0.5 % read. + 1 digit) ± (0.05 % read. + 3 digits) "Duty Cycle" — Yes Yes Yes Yes Logic levels — Yes Yes <t< th=""><th>AC voltage</th><th>200 mV, 2 V, 20 V, 200 V, 750 V</th><th>400 mV, 4 V, 40 V, 400 V, 750 V</th><th>200 mV, 2 V, 20 V, 200 V, 750 V</th></t<>	AC voltage	200 mV, 2 V, 20 V, 200 V, 750 V	400 mV, 4 V, 40 V, 400 V, 750 V	200 mV, 2 V, 20 V, 200 V, 750 V
Resistence (Ω) 200, 2 k, 20 k, 200 k, 2M, 20 M 400, 4 k, 40 k, 400 k, 4M, 40 M 200, 2 k, 20 k, 200 k, 2M, 20 M Diode test Yes Yes Yes Continuity audible Yes Yes Yes Capacitance Yes Yes Yes Frequency - 4 kHz, 40 kHz, 400 kHz, 4 MHz 2 kHz, 20 kHz, 200 kHz h FE transistors Yes Yes - Basic accuracy ± (0.5 % read. + 1 digit) ± (0.5 % read. + 1 digit) ± (0.5 % read. + 3 digits) "Duty Cycle" - Yes Yes Yes Logic levels - Yes Yes Yes Peak Hold - Yes Yes Yes Auto power of IEC 348/UL 1244 standard. Yes Yes Yes Yes Holster 1 Yes Yes Yes Yes Yes Holster 1 Yes Yes Yes Yes Yes Raining proof - Yes Yes Yes Yes Yes Yes	DC current	200 μA, 2 mA, 20 mA, 200 mA, 20 A	40 mA, 400 mA, 20 A	200 μA, 2 mA, 20 mA, 200 mA, 20 A
Diode test Continuity audible Indication Yes	AC current	20 mA, 200 mA, 20 A	40 mA, 400 mA, 20 A	200 μA, 2 mA, 20 mA, 200 mA, 20 A
Continuity audible Indication Yes Y	Resistence (Ω)	200, 2 k, 20 k, 200 k, 2M, 20 M	400, 4 k, 40 k, 400 k, 4M, 40 M	200, 2 k, 20 k, 200 k, 2M, 20 M
The composition Yes Yes	Diode test	Yes	Yes	Yes
Capacitance 2 nF, 20 nF, 2 μF, 20 μF 4 nF, 40 nF, 40 μF 2 kHz, 20 kHz, 200 kHz Frequency - 4 kHz, 40 kHz, 400 kHz, 4 MHz 2 kHz, 20 kHz, 200 kHz h FE transistors ± (0.5 % read. + 1 digit) + (0.5 % read. + 1 digit) ± (0.5 % read. + 3 digits) "Duty Cycle" - Yes Yes Logic levels - Yes Yes Peak Hold - Yes Yes Memory reading - Yes Yes Auto power of IEC 348/UL 1244 standard. Yes Yes Yes Maximum voltage Yes 1000 V DC / 750 V AC 1000 V DC / 750 V AC Fuse for mA and A inputs Fuse for mA and A inputs Fuse for mA and A inputs Yes Holster 1 Yes - Yes Yes Raining proof - Yes Yes Carriying case Yes Yes Yes Guarantee 1 year 1 year 1 year	Continuity audible			
Frequency - 4 kHz, 40 kHz, 400 kHz, 4 MHz 2 kHz, 20 kHz, 200 kHz h FE transistors Yes ± (0.5 % read. + 1 digit) ± (0.5 % read. + 1 digit) ± (0.05 % read. + 3 digits) "Duty Cycle" - Yes Yes Yes Logic levels - Yes Yes Yes Peak Hold - Yes - Yes Auto power of - Yes Yes Yes IEC 348/UL 1244 standard. Yes Yes Yes Yes Maximum voltage 1000 V DC / 750 V AC Fuse for mA and A inputs Yes Raining proof - - Yes Yes Yes Carriying case Yes Yes Yes Yes Yes Guarantee 1 year 1 year 1 year 1 year	Indication	Yes	Yes	Yes
h FE transistors Yes Yes Yes ± (0.5 % read. + 1 digit) ± (0.5 % read. + 3 digits) ± (0.05 % read. + 1 digit) ± (0.05 % read. + 2 digits) ± (0.05 % read. + 1 digit) ± (0.05 % read. + 2 digits) ± (0.	Capacitance	2 nF, 20 nF, 200 nF, 2 μF, 20 μF	4 nF, 40 nF, 400 nF, 4 μF, 40 μF	-
Basic accuracy ± (0.5 % read. + 1 digit) ± (0.5 % read. + 1 digit) ± (0.05 % read. + 3 digits) "Duty Cycle" — — Yes Logic levels — Yes — Peak Hold — Yes — Memory reading — — Yes Auto power of — — Yes IEC 348/UL 1244 standard. Yes Yes Yes Maximum voltage 1000 V DC / 750 V AC 1000 V DC / 750 V AC 1000 V DC / 750 V AC Protection Fuse for mA and A inputs Fuse for mA and A inputs Fuse for mA and A inputs Holster 1 Yes — Yes Raining proof — — Yes Carriying case Yes Yes Yes Guarantee 1 year 1 year 1 year	Frequency	-	4 kHz, 40 kHz, 400 kHz, 4 MHz	2 kHz, 20 kHz, 200 kHz
"Duty Cycle" — Yes Yes Logic levels — Yes Yes Peak Hold — Yes — Memory reading — — Yes Auto power of — Yes Yes IEC 348/UL 1244 standard. Yes Yes Yes Maximum voltage 1000 V DC / 750 V AC 1000 V DC / 750 V AC 1000 V DC / 750 V AC Protection Fuse for mA and A inputs Fuse for mA and A inputs Fuse for mA and A inputs Holster 1 Yes Yes Yes Raining proof — — Yes Carriying case Yes Yes Yes Guarantee 1 year 1 year 1 year	h _{FE} transistors	Yes	Yes	-
Logic levels - Yes Yes Peak Hold - Yes - Memory reading - - Yes Auto power of - Yes Yes IEC 348/UL 1244 standard. Yes Yes Yes Maximum voltage 1000 V DC / 750 V AC 1000 V DC / 750 V AC 1000 V DC / 750 V AC Protection Fuse for mA and A inputs Fuse for mA and A inputs Fuse for mA and A inputs Holster 1 Yes Yes Yes Raining proof - - Yes Carriying case Yes Yes Guarantee 1 year 1 year 1 year	Basic accuracy	± (0.5 % read. + 1 digit)	± (0.5 % read. + 1 digit)	± (0.05 % read. + 3 digits)
Peak Hold Memory reading Auto power of IEC 348/UL 1244 standard. Maximum voltage Protection Holster 1 Raining proof Carriying case Guarantee Peak Hold - Yes Yes - Yes Yes Yes Yes 1000 V DC / 750 V AC 1000 V DC / 750 V AC Fuse for mA and A inputs Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	"Duty Cycle"	-	_	Yes
Memory reading Auto power of IEC 348/UL 1244 standard. Maximum voltage Protection Holster 1 Raining proof Carriying case Guarantee Pes Auto power of I — Yes Yes Yes Yes Yes 1000 V DC / 750 V AC Fuse for MA and A inputs Yes Yes 1000 V DC / 750 V AC Fuse for mA and A inputs Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	Logic levels	-	Yes	Yes
Auto power of IEC 348/UL 1244 standard. Maximum voltage Protection Holster 1 Raining proof Carriying case Guarantee Pyes Yes Yes Yes Yes Yes 1000 V DC / 750 V AC 1000 V DC / 750 V AC Fuse for mA and A inputs Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	Peak Hold	-	Yes	-
IEC 348/UL 1244 standard.YesYesYesMaximum voltage1000 V DC / 750 V AC1000 V DC / 750 V AC1000 V DC / 750 V ACProtectionFuse for mA and A inputsFuse for mA and A inputsFuse for mA and A inputsHolster 1YesYesYesRaining proofYesCarriying caseYesYesYesGuarantee1 year1 year1 year	Memory reading	-	_	Yes
Maximum voltage1000 V DC / 750 V AC1000 V DC / 750 V AC1000 V DC / 750 V ACProtectionFuse for mA and A inputsFuse for mA and A inputsHolster 1YesYesRaining proofCarriying caseYesYesGuarantee1 year1 year	Auto power of	-	Yes	Yes
Protection Fuse for mA and A inputs Yes Yes Yes Raining proof - Yes Yes Yes Carriying case Guarantee 1 year 1 year 1 year Fuse for mA and A inputs Yes Fuse for mA and A inputs Yes Yes Yes Yes Yes Yes 1 year 1 year	IEC 348/UL 1244 standard.	Yes	Yes	Yes
Holster 1YesYesYesRaining proofYesCarriying caseYesYesYesGuarantee1 year1 year1 year	Maximum voltage			1000 V DC / 750 V AC
Raining proof – Yes Carriying case Yes Yes Yes Guarantee 1 year 1 year 1 year	Protection	Fuse for mA and A inputs	Fuse for mA and A inputs	Fuse for mA and A inputs
Carriying caseYesYesYesGuarantee1 year1 year1 year	Holster 1	Yes	Yes	Yes
Guarantee 1 year 1 year 1 year	Raining proof	-	_	Yes
.,	Carriying case	Yes	Yes	Yes
	Guarantee	1 year	1 year	1 year
Battery life 200 hours 300 hours 300 hours	Battery life	200 hours	300 hours	300 hours