

# RM100 Nanotesla Meter



- 0.1 nT resolution in 100,000 nanotesla field
- ±0.01% basic accuracy traceable to NIST
- 0.5 ppm/°C stability
- ±200,000 nanotesla measurement range
- Analog output for recording or other purposes
- One button ambient field cancellation and measurement
- RS232 and 10 base-T Ethernet connectivity for remote programming and data acquisition
- Math functions (NULL, Min/Max/Average, peak-to-peak)
- Data storage (16384 samples) and plotting capability
- Settable upper and lower alarm limits

## Introduction

Vj g" TO 322" P cpqvgur" o gvgt" ku" c" uki pklcepvn" gpj cpegf" tgr ncego gpvhtq"vj g"J UO/4"Ucvkqp"O ci pvgqo gvgt0K/ku"r tgeklkqp" kputwo gpvhtq"ceevtcvgn"o gcuwtkpi "vj g"kpvgpuks{ "qh"o ci pvgle"hgfr" eqo r qppgwu0" Vj g" kputwo gpv" ecp" o gcuwtg" xctckvqpu" kp" vj g" o ci pvgle"hgfr" kpvgpuks{ "htqo" 208"pV"vq"322.222"pV"kp"cp"co dlgrp" hgfr"qh"322.222"pV0Vj g"TO 322"ku"kf gcm{ "uwxgf" hqt"cr r dckvqpu" kpenf kpi "o gcuwtkpi "

- O ci pvgle"uki pcwtgu"qh"xgj kngu"
- Vko g"xctckvqpu"qh"Gct y au"hgfr"
- O ci pvgle"eqpxco kpcvqp"qh"o cvgtkcu"
- Tqent0 ci pvgkuo "
- Gs wkr o gpv"cpf "ucvgnkg"r k qrg"o qo gpv"cpf "uvc{ "hgfr"u"

## Unsurpassed Accuracy

Vj g"TO 322"uagu"c" f hhtg pvtkn"o gcuwtgo gpv"vej pks wg"go r nq{ kpi " y q"uudu{ ugo u"vq"cej lxxg"ku"j ki j "ceevtcce{0Vj g"htuv"uudu{ ugo "ku" c"uagt"eqpvtqngf "hgfr"pgwtcrk{ cvkqp"vplk'y kj "c" f { pco le"tcpi g"qh" 0322.222"pV"cpf "c"tguqmwkqp"qh"208"pV0Vj g"ugeqpf "ku"c"tqy "pqkug" cpcnqi "qwr w"o ci pvgqo gvgt" vj cv"o gcuwtgu"vj g" f hhtg ppeg"dgw ggp" vj g"co dlgrp"cpf "pgwtcrk{ cvkqp"hgfr u0" Vj g"pgwtcrk{ kpi "hgfr"cpf" f hhtg ppeg" hgfr" ctg" f kur r{ gf" qp" c" ncti g" Xceewo " Hqtguegpv" F kur r{ "XHF" + "qp" vj g" hqtppv" r cpgn0" Vj g" f hhtg ppeg" hgfr" ku" cnq" r tqxkf gf "cu"cp"cpncnqi "xqnci g"vj tqwi j "c"eqppgevt"qp"vj g"dcen"qh" vj g"ej cuuku0Vj g"lcevtq{ "ecrkdckvqpu"qh"vj g"pgwtcrk{ cvkqp"uudu{ ugo " vq"±203" ku"tcegdng"vq"p"KUV0

## High Stability Neutralization Subsystem

Vj g"pgwtcrk{ cvkqp"uudu{ ugo "kpenf gu"c"uqngpqk{ "uwtqwpf kpi "vj g" hnz i cv"ugpulp i "grgo gpv"cpf "c"eqo r wgt"eqpvtqngf "ewtgpv"uqwtg0" Vj g"eqkhtqto "o cvgtkcn'y cu"ugrvegf "hqt"o gej cplecn"ej ctcevtkkuw" y j lej "kputwo g"ucdckk{ "qh"vj g"eqkhtqto"Vj g"ewtgpv"uqwtg"ku" eqpvtqngf" d{ "c" j ki j n" nkgct"cpf "ucdng" 3: /dk"cpncnqi /vq/f ki kcnl" eqpxgt vt0" Vj g"tguqmwkqp"qh"vj g"pgwtcrk{ cvkqp"hgfr" ku"3"pV0Cm" eqo r qppgwu" kp" vj g" pgwtcrk{ kpi "ektewk" j cxg" dggp" ugrvegf "hqt" o czko wo "vgo r gtcwag"cpf "vko g"ucdckk{0

## Convenient Controls and Data Display

O gcuwtgo gpvu" cpf " kputwo gpv" ucwui" ctg" f kur r{ gf" qp" c" ncti g" i tr j leu"xceewo "hqtg ggpv" f kur r{ "XHF -0" Hypevqpu"ctg"ugrvegf " wukpi "c" 38/dwqap" o go dtcpg"ng{ r cf 0" Vj g" dtki j v" f kur r{ "cmuy u" tgef kpi u" vq" dg" xkgy gf "kp" c" fctm{ tqoo "cpf" hqtqo "c" uki pklcepvn" f kurvegf0

## Analog Output

Tgct"r cpgn"vgo kpcn"r tqxkf g"cp"cpncnqi "qwr w"qh"±32022"xqnu" f e eqttgur qpf kpi " vq" vj g" ugrvegf" hmn"uecrg" tcpi g" uq" vj cv" hgfr" xctckvqpu"cdqmw"vj g"pgwtcrk{ kpi "rxxgn"ecp"dg"tgeqtf gf 0Hkqpvr" cpgn" eqpvtqngf"ctg"uagf "vq"ugrvegf"vj g"cpncnqi "qwr w"dcpf y kf vj "cpf" r qy gt rkp"t"glgekvqpu"hgfr"ucvgoCxcckdng"dcpf y kf vj u"ctg" f e"vq"32"J | .72 J | .322"J | .722"J | "qt"3222"J | 0Vj g"ucvpcf ctg" r qy gt"rhp"t"glgekvqpu" hgfr"htgs wgepe{ "ku"82"J | \*72"J | "qr vqkpcn0

## Built-in Statistics Functions

Vj g"TO 322" j cu" dwkn/kp" ecr cdkk{ " vq" eqo r wgt" vj g" cxgtci g. o kpo wo ." o czko wo " cpf" r gcm"vq/r gcm{ xcnvgu" qh" vj g" o gcuwtgo gpvu0Vj ku"eqo r wcvkqp"ecp"dg"r gthqto gf "eqpvtqngf"cu" vj g" f cv" ku" dgkpi " eqnvegf" qt" qpn{ "qp" vj g" f cv" vj cv" ku" uqgtgf kpgtpcn{ "kp"vj g"TO 322" f cv"dwhtg0



C"vqcn"qh"38.5: 6" f cv" r kplwu"ecp"dg"uqgtgf "kp"vj g"dwhtg." y j lej " tgr tguqpu" c" rkwng"qxgt"; 2"o kpwgu"qh" f cv"0"Vj g" f cv"uqgtgf "kp"vj g" dwhtg"ecp"dg" r nqvgf "qp"vj g"XHF" f kur r{ "hqt"ko o gf kcvg"xlgy kpi " cpf"cpncn{ uk0



## Remote Programming and Data acquisition

Vj g"hwpevqpu"qh"vj g"TO 322"ecp"dg"tgo qvgn{ "r tqi tco o gf"cpf" f cv" vcpulgtgf" vj tqwi j "gkj gt"vj g" TU454"ugtkn"r qt"v"qt"vj g"32"dcuq/V" Gj gtpgv" eqppgekvqpu" wukpi " UERK eqo o cpf" u{ pvcz0" Dcw" tcvgu" tcpi g"htqo "; .822"vq"337.4220"Vj g"Gj gtpgv"eqppgekvqpu"cmuy u"vj g" TO 322"vq"dg"eqpvtqngf"qxgt" c" NCP" qt"vj g" kpgtppg0



## Accuracy Specifications

Function	Range	Resolution	Accuracy	Temp. Co. 0°C - 50°C	1000 hrs @25°C±5°C
Absolute field	200 $\mu$ T	0.1 nT	$\pm(0.01\%$ of offset + 0.25% of difference + 1 nT)	See offset and difference specification	See offset and difference specification
Offset field	100 $\mu$ T	0.1 nT	$\pm(0.01\%$ of reading + 0.2 nT)	$\pm 0.5\text{ppm}/^\circ\text{C}$	$\pm 20\text{ppm}$
Difference field	100 $\mu$ T 10 $\mu$ T 1 $\mu$ T 100 nT	0.1 nT	$\pm(0.25\%$ of reading + 1 nT)	$\pm 5.0\text{ppm}/^\circ\text{C}$	$\pm 100\text{ppm}$
Analog output scale factor	10 Volts/FSR <sup>1</sup>		$\pm 1\%$	$\pm 50\text{ppm}/^\circ\text{C}$	$\pm 100\text{ppm}$
Low pass filter cutoff frequency	10, 50, 100, 500, 1000 Hz		$\pm 2\%$ of cutoff frequency	$\pm 100\text{ppm}/^\circ\text{C}$	
Power line reject filter frequency	60 Hz		$\pm 1.2$ Hz maximum	$\pm 100\text{ppm}/^\circ\text{C}$	
Power line rejection filter attenuation	60 Hz		40 dB minimum		

<sup>1</sup> Full scale range

## General Specifications

Digital Smoothing	
Type:	Running average
Points per average:	1, 3, 10, 50, 100
Sample rate:	3 samples per second (20 power line cycles @ 60 Hz)
RS232 serial interface	
Connector:	9-pin D female
Baud rates:	9600, 19200, 38400, 57600, 115200
Ethernet	
Connector:	RJ45
Type	10 base-T
Remote programming language:	SCPI (IEEE-488.2) syntax
Supply voltage:	100-240 VAC 50/60 Hz, 1.5A max.
Display:	256x64 dot graphics Vacuum Florescent
Controls:	16-key membrane keypad
Operating environment:	0°C to 50°C, 10% to 80% R.H.
Electronics unit	
Dimensions:	264 mm x 257.5 mm x 103 mm
Weight:	2.5 kg (5.5 lbs)
Sensor	
Type:	Single axis fluxgate
Dimensions:	89mm x 33mm x 24mm
Weight:	937 g
Cable length:	50 feet
Warranty:	1 year



联系人：曾祥满 手机：13632925349 QQ：812401203 电话：0755-28896837

深圳众裕康科技有限公司  
Shenzhen Zhong Yu Kang Technology Co., Ltd

地址：深圳市龙岗区沙平北路111号6008 网址：www.zykang.cn 邮箱：zykang2021@163.com