



Type 251 and 255
Horizon Line

Specifications

Accuracy: All DC and AC iron-vane; $\pm 2\%$ of full-scale, AC rectifier type; $\pm 3\%$ of full scale (with 60 Hz sine wave at 25° C). When standard 60 Hz iron vane ammeters are used at the extreme limits of 20 or 400 Hz, additional error (approx. .75%) may be experienced. Expanded-scale voltmeters; $\pm 5\%$ of full scale value.

ANSI Specification: All meters meet ANSI Specifications C-39.1.

Overload: Voltmeters (AC and DC) - 50% momentary, 20% sustained. Ammeters (AC and DC) momentary: 10 times the rated current for 10 consecutive intervals of .5 second with a 1 minute interval between successive applications; sustained: 20% for six hours.

Scale Data: 90 degree rotation.

Scale Length:

Size	Horizon Line
1½"	1.50"
2½"	2.06"
3½"	2.88"
4½"	3.93"

Insulation Level: All meters (except 1½"), 2600 VRMS Hi-pot, 1½"-1500 VRMS Hi-pot.

Burden Data: AC ammeter-5 amps, 0.5 va max. 0.5 power-factor lagging. @60 Hz. AC Voltmeter-unity power factor.

Response Time and Overshoot:

Response time: 3 seconds (max.) for 2½",

3½", 4½" size for microammeters: 2 seconds (max.) for all other DC ratings, and 2.5 seconds (max.) for AC ratings. Maximum of 40% overshoot.

Dimensions: See page 34-35.

How To Order

To Order Horizon Line panel meters use the appropriate catalog numbers provided in the tables. Taut band instruments have a 251 prefix number, Pivot & jewel instruments have a 255 prefix number, except AC Iron Vane prefix which is 251.

Ordering Examples:

- 21/2", 300 V DC Voltmeter, zero left, taut band - 251 220 RXRX
- 21/2", 300 V DC Voltmeter, zero left, pivot & jewel - 255 220 RXRX
- 21/2", 300 VAC (Iron Vane) pivot & jewel - 251 244 RXRX

Severe-duty meters are available to meet UL 1437 requirements. UL/CSA version, with flame retardant window and base, is not offered in 11/2". To order, add /UL or /CSA after catalog number, or contact factory. For ratings and scales not listed contact factory.

Links to Yokogawa Webpage: [Biglook](#), [Horizon](#), [Stylist](#), [Edgewise](#), [Thin Edgewise](#)

AC Frequency Meters - Available in Horizon Line or New Big Look

Size			1½"	2½"	3½"	4½"
Voltage	Center Frequency Hertz	Scale Hertz	Cat. No.	Cat. No.	Cat. No.	Cat. No.

AC FREQUENCY — PIVOT AND JEWEL, SELF-CONTAINED, ACCURACY ± 3 PERCENT OF SPAN; I.E., 0.3 Hz FOR 45-55 AND 55-65, AND 1.2 Hz FOR 380-420 RANGE

120	50	45-55	.....	250 AGAG	350 AGAG	450 AGAG
120	55	45-65	.....	250 AJAJ	350 AJAJ	450 AJAJ
120	60	55-65	.....	250 ANAN	350 ANAN	450 ANAN
120	400	380-420	.....	250 BKBK	350 BKBK	450 BKBK
				Choose prefix 254 or 255	Choose prefix 254 or 255	Choose prefix 254 or 255
208	50	45-55	.....	250 GGGG	350 GGGG	450 GGGG
208	55	45-65	.....	250 GJGJ	350 GJGJ	450 GJGJ
208	60	55-65	.....	250 GNGN	350 GNGN	450 GNGN
208	400	380-420	.....	250 HKHK	350 HKHK	450 HKHK
240	50	45-55	.....	250 DGDG	350 DGDG	450 DGDG
240	55	45-65	.....	250 DJDJ	350 DJDJ	450 DJDJ
240	60	55-65	.....	250 DNDN	350 DNDN	450 DNDN
240	400	380-420	.....	250 EKEK	350 EKEK	450 EKEK

NOTE: For non-listed voltages, up to 480 VAC, frequency ranges or special calibration (accuracy $\pm 2\%$ of span) contact factory. For taut-band suspension replace prefix 254 with 250 and prefix 255 with 251.

DC Voltmeters

Size	1½	2½		3½		4½	
Rating & Scale \ Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

DC VOLTMETERS - ZERO-LEFT

1.0 Volts	251 120 LALA	251 220 LALA	255 220 LALA	251 320 LALA	255 320 LALA	251 420 LALA	255 420 LALA
1.5 Volts	251 120 LCLC	251 220 LCLC	255 220 LCLC	251 320 LCLC	255 320 LCLC	251 420 LCLC	255 420 LCLC
3 Volts	251 120 LJLJ	251 220 LJLJ	255 220 LJLJ	251 320 LJLJ	255 320 LJLJ	251 420 LJLJ	255 420 LJLJ
5 Volts	251 120 LSLS	251 220 LSLS	255 220 LSLS	251 320 LSLS	255 320 LSLS	251 420 LSLS	255 420 LSLS
8 Volts	251 120 MJMJ	251 220 MJMJ	255 220 MJMJ	251 320 MJMJ	255 320 MJMJ	251 420 MJMJ	255 420 MJMJ
10 Volts	251 120 MTMT	251 220 MTMT	255 220 MTMT	251 320 MTMT	255 320 MTMT	251 420 MTMT	255 420 MTMT
15 Volts	251 120 NDND	251 220 NDND	255 220 NDND	251 320 NDND	255 320 NDND	251 420 NDND	255 420 NDND
30 Volts	251 120 NLNL	251 220 NLNL	255 220 NLNL	251 320 NLNL	255 320 NLNL	251 420 NLNL	255 420 NLNL
40 Volts	251 120 NPNP	251 220 NPNP	255 220 NPNP	251 320 NPNP	255 320 NPNP	251 420 NPNP	255 420 NPNP
50 Volts	251 120 NTNT	251 220 NTNT	255 220 NTNT	251 320 NTNT	255 320 NTNT	251 420 NTNT	255 420 NTNT
80 Volts	251 120 PDPD	251 220 PDPD	255 220 PDPD	251 320 PDPD	255 320 PDPD	251 420 PDPD	255 420 PDPD
100 Volts	251 120 PKPK	251 220 PKPK	255 220 PKPK	251 320 PKPK	255 320 PKPK	251 420 PKPK	255 420 PKPK
150 Volts	251 120 PZPZ	251 220 PZPZ	255 220 PZPZ	251 320 PZPZ	255 320 PZPZ	251 420 PZPZ	255 420 PZPZ
200 Volts	251 120 RLRL	251 220 RLRL	255 220 RLRL	251 320 RLRL	255 320 RLRL	251 420 RLRL	255 420 RLRL
250 Volts	251 120 RSRs	251 220 RSRs	255 220 RSRs	251 320 RSRs	255 320 RSRs	251 420 RSRs	255 420 RSRs
300 Volts	251 120 RXXR	251 220 RXXR	255 220 RXXR	251 320 RXXR	255 320 RXXR	251 420 RXXR	255 420 RXXR
500 Volts	.....	.....	.....	251 320 SFSF	255 320 SFSF	251 420 SFSF	255 420 SFSF
600 Volts	.....	.....	.....	251 320 SJSJ	255 320 SJSJ	251 420 SJSJ	255 420 SJSJ

DC VOLTMETERS — ZERO-LEFT, RATED 0-1 mA DC, FOR USE WITH EXTERNAL RESISTORS, RESISTORS NOT INCLUDED (SEE PAGE 29 FOR RESISTORS)

500 Volts	251 104 FASF	251 204 FASF	255 204 FASF	.....	.....	.....	.....
600 Volts	251 104 FASJ	251 204 FASJ	255 204 FASJ	.....	.....	.....	.....
750 Volts	251 104 FASM	251 204 FASM	255 204 FASM	251 304 FASM	255 304 FASM	251 404 FASM	255 404 FASM

DC VOLTMETERS — ZERO-CENTER

5-0-5 Volts	251 121 LSLS	251 221 LSLS	255 221 LSLS	251 321 LSLS	255 321 LSLS	251 421 LSLS	255 421 LSLS
10-0-10 Volts	251 121 MTMT	251 221 MTMT	255 221 MTMT	251 321 MTMT	255 321 MTMT	251 421 MTMT	255 421 MTMT
30-0-30 Volts	251 121 NLNL	251 221 NLNL	255 221 NLNL	251 321 NLNL	255 321 NLNL	251 421 NLNL	255 421 NLNL
50-0-50 Volts	251 121 NTNT	251 221 NTNT	255 221 NTNT	251 321 NTNT	255 321 NTNT	251 421 NTNT	255 421 NTNT
80-0-80 Volts	251 121 PDPD	251 221 PDPD	255 221 PDPD	251 321 PDPD	255 321 PDPD	251 421 PDPD	255 421 PDPD
150-0-150 Volts	251 121 PZPZ	251 221 PZPZ	255 221 PZPZ	251 321 PZPZ	255 321 PZPZ	251 421 PZPZ	255 421 PZPZ
300-0-300 Volts	251 121 RXXR	251 221 RXXR	255 221 RXXR	251 321 RXXR	255 321 RXXR	251 421 RXXR	255 421 RXXR
500-0-500 Volts	.....	.....	.....	251 321 SFSF	255 321 SFSF	251 421 SFSF	255 421 SFSF
600-0-600 Volts	.....	.....	.....	251 321 SJSJ	255 321 SJSJ	251 421 SJSJ	255 421 SJSJ

DC VOLTMETERS — ZERO-CENTER, RATED 1-0-1 mA, DC, FOR USE WITH EXTERNAL RESISTORS, RESISTORS NOT INCLUDED (SEE PAGE 29 FOR RESISTORS)

500-0-500 Volts	251 105 FASF	251 205 FASF	255 205 FASF	.....	.....	.....	.....
600-0-600 Volts	251 105 FASJ	251 205 FASJ	255 205 FASJ	.....	.....	.....	.....
750-0-750 Volts	251 105 FASM	251 205 FASM	255 205 FASM	251 305 FASM	255 305 FASM	251 405 FASM	255 405 FASM

DC VOLTMETERS — EXPANDED SCALE; ZENER DIODE TYPE

24-30 Volts	.....	.....	.....	251 338 NNNN	255 338 NNNN	251 438 NNNN	255 438 NNNN
110-130 Volts	.....	.....	.....	251 338 PNPn	255 338 PNPn	251 438 PNPn	255 438 PNPn
220-260 Volts	.....	.....	.....	251 338 RTRT	255 338 RTRT	251 438 RTRT	255 438 RTRT

DC Ammeters

Size	1½	2½		3½		4½	
Rating & Scale \ Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

DC MICROAMMETERS — ZERO-LEFT

20 µA	251 100 CFCF	251 200 CFCF	.....	251 300 CFCF	.....	.....	.....
50 µA	251 100 CYCY	251 200 CYCY	.....	251 300 CYCY	.....	251 400 CYCY	.....
100 µA	251 100 DRDR	251 200 DRDR	.....	251 300 DRDR	.....	251 400 DRDR	.....
200 µA	251 100 EAEA	251 200 EAEA	255 200 EAEA	251 300 EAEA	255 300 EAEA	251 400 EAEA	255 400 EAEA
500 µA	251 100 EMEM	251 200 EMEM	255 200 EMEM	251 300 EMEM	255 300 EMEM	251 400 EMEM	255 400 EMEM

DC Ammeters Cont'd

Size	1½	2½		3½		4½		
Rating & Scale	Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

DC MICROAMMETERS — ZERO-CENTER

20-0-20 µA	251 101 CFCF	251 201 CFCF	.....	251 301 CFCF	.....	.....	.....
50-0-50 µA	251 101 CYCY	251 201 CYCY	.....	251 301 CYCY	.....	251 401 CYCY	.....
100-0-100 µA	251 101 DRDR	251 201 DRDR	255 201 DRDR	251 301 DRDR	255 301 DRDR	251 401 DRDR	255 401 DRDR
200-0-200 µA	251 101 EAEA	251 201 EAEA	255 201 EAEA	251 301 EAEA	255 301 EAEA	251 401 EAEA	255 401 EAEA
500-0-500 µA	251 101 EMEM	251 201 EMEM	255 201 EMEM	251 301 EMEM	255 301 EMEM	251 401 EMEM	255 401 EMEM

DC MILLIAMMETERS — ZERO-LEFT

1 mA	251 100 FAFA	251 200 FAFA	255 200 FAFA	251 300 FAFA	255 300 FAFA	251 400 FAFA	255 400 FAFA
5 mA	251 100 FFXF	251 200 FFXF	255 200 FFXF	251 300 FFXF	255 300 FFXF	251 400 FFXF	255 400 FFXF
10 mA	251 100 GZGZ	251 200 GZGZ	255 200 GZGZ	251 300 GZGZ	255 300 GZGZ	251 400 GZGZ	255 400 GZGZ
20 mA	251 100 HFHF	251 200 HFHF	255 200 HFHF	251 300 HFHF	255 300 HFHF	251 400 HFHF	255 400 HFHF
25 mA	251 100 HJHJ	251 200 HJHJ	255 200 HJHJ	251 300 HJHJ	255 300 HJHJ	251 400 HJHJ	255 400 HJHJ
30 mA	251 100 HMHM	251 200 HMHM	255 200 HMHM	251 300 HMHM	255 300 HMHM	251 400 HMHM	255 400 HMHM
50 mA	251 100 HYHY	251 200 HYHY	255 200 HYHY	251 300 HYHY	255 300 HYHY	251 400 HYHY	255 400 HYHY
80 mA	251 100 JJJJ	251 200 JJJJ	255 200 JJJJ	251 300 JJJJ	255 300 JJJJ	251 400 JJJJ	255 400 JJJJ
100 mA	251 100 JRJR	251 200 JRJR	255 200 JRJR	251 300 JRJR	255 300 JRJR	251 400 JRJR	255 400 JRJR
150 mA	251 100 JXJX	251 200 JXJX	255 200 JXJX	251 300 JXJX	255 300 JXJX	251 400 JXJX	255 400 JXJX
200 mA	251 100 KAKA	251 200 KAKA	255 200 KAKA	251 300 KAKA	255 300 KAKA	251 400 KAKA	255 400 KAKA
250 mA	251 100 KDKD	251 200 KDKD	255 200 KDKD	251 300 KDKD	255 300 KDKD	251 400 KDKD	255 400 KDKD
300 mA	251 100 KGKG	251 200 KGKG	255 200 KGKG	251 300 KGKG	255 300 KGKG	251 400 KGKG	255 400 KGKG
500 mA	251 100 KMKM	251 200 KMKM	255 200 KMKM	251 300 KMKM	255 300 KMKM	251 400 KMKM	255 400 KMKM
800 mA	251 100 KWKW	251 200 KWKW	255 200 KWKW	251 300 KWKW	255 300 KWKW	251 400 KWKW	255 400 KWKW

DC MILLIAMMETERS — ZERO-CENTER

1-0-1 mA	251 101 FAFA	251 201 FAFA	255 201 FAFA	251 301 FAFA	255 301 FAFA	251 401 FAFA	255 401 FAFA
5-0-5 mA	251 101 FFXF	251 201 FFXF	255 201 FFXF	251 301 FFXF	255 301 FFXF	251 401 FFXF	255 401 FFXF
10-0-10 mA	251 101 GZGZ	251 201 GZGZ	255 201 GZGZ	251 301 GZGZ	255 301 GZGZ	251 401 GZGZ	255 401 GZGZ
20-0-20 mA	251 101 HFHF	251 201 HFHF	255 201 HFHF	251 301 HFHF	255 301 HFHF	251 401 HFHF	255 401 HFHF
25-0-25 mA	251 101 HJHJ	251 201 HJHJ	255 201 HJHJ	251 301 HJHJ	255 301 HJHJ	251 401 HJHJ	255 401 HJHJ
30-0-30 mA	251 101 HMHM	251 201 HMHM	255 201 HMHM	251 301 HMHM	255 301 HMHM	251 401 HMHM	255 401 HMHM
50-0-50 mA	251 101 HYHY	251 201 HYHY	255 201 HYHY	251 301 HYHY	255 301 HYHY	251 401 HYHY	255 401 HYHY
100-0-100 mA	251 101 JRJR	251 201 JRJR	255 201 JRJR	251 301 JRJR	255 301 JRJR	251 401 JRJR	255 401 JRJR
150-0-150 mA	251 101 JXJX	251 201 JXJX	255 201 JXJX	251 301 JXJX	255 301 JXJX	251 401 JXJX	255 401 JXJX
200-0-200 mA	251 101 KAKA	251 201 KAKA	255 201 KAKA	251 301 KAKA	255 301 KAKA	251 401 KAKA	255 401 KAKA
250-0-250 mA	251 101 KDKD	251 201 KDKD	255 201 KDKD	251 301 KDKD	255 301 KDKD	251 401 KDKD	255 401 KDKD
300-0-300 mA	251 101 KGKG	251 201 KGKG	255 201 KGKG	251 301 KGKG	255 301 KGKG	251 401 KGKG	255 401 KGKG
500-0-500 mA	251 101 KMKM	251 201 KMKM	255 201 KMKM	251 301 KMKM	255 301 KMKM	251 401 KMKM	255 401 KMKM

DC AMMETERS — ZERO-LEFT

1 Amp	251 100 LALA	251 200 LALA	255 200 LALA	251 300 LALA	255 300 LALA	251 400 LALA	255 400 LALA
1.5 Amp	251 100 LCLC	251 200 LCLC	255 200 LCLC	251 300 LCLC	255 300 LCLC	251 400 LCLC	255 400 LCLC
2 Amp	251 100 LELE	251 200 LELE	255 200 LELE	251 300 LELE	255 300 LELE	251 400 LELE	255 400 LELE
3 Amp	251 100 LJLJ	251 200 LJLJ	255 200 LJLJ	251 300 LJLJ	255 300 LJLJ	251 400 LJLJ	255 400 LJLJ
5 Amp	251 100 LSLS	251 200 LSLS	255 200 LSLS	251 300 LSLS	255 300 LSLS	251 400 LSLS	255 400 LSLS
10 Amp	251 100 MTMT	251 200 MTMT	255 200 MTMT	251 300 MTMT	255 300 MTMT	251 400 MTMT	255 400 MTMT
15 Amp	.....	251 200 NDND	255 200 NDND	251 300 NDND	255 300 NDND	251 400 NDND	255 400 NDND
20 Amp	.....	251 200 NGNG	255 200 NGNG	251 300 NGNG	255 300 NGNG	251 400 NGNG	255 400 NGNG
30 Amp	.....	251 200 NLNL	255 200 NLNL	251 300 NLNL	255 300 NLNL	251 400 NLNL	255 400 NLNL
50 Amp	.....	251 200 NTNT	.....	251 300 NTNT	255 300 NTNT	251 400 NTNT	255 400 NTNT

DC AMMETERS — ZERO-LEFT, 50 mV, SHUNT RATED (LEAD RES. RANGE: .05-.07Ω)*

20 Amp	251 124 ECNG	251 224 ECNG	255 224 ECNG	251 324 ECNG	255 324 ECNG	251 424 ECNG	255 424 ECNG
30 Amp	251 124 ECNL	251 224 ECNL	255 224 ECNL	251 324 ECNL	255 324 ECNL	251 424 ECNL	255 424 ECNL
50 Amp	251 124 ECNT	251 224 ECNT	255 224 ECNT	251 324 ECNT	255 324 ECNT	251 424 ECNT	255 424 ECNT
75 Amp	251 124 ECPB	251 224 ECPB	255 224 ECPB	251 324 ECPB	255 324 ECPB	251 424 ECPB	255 424 ECPB
100 Amp	251 124 ECPK	251 224 ECPK	255 224 ECPK	251 324 ECPK	255 324 ECPK	251 424 ECPK	255 424 ECPK
150 Amp	251 124 ECPZ	251 224 ECPZ	255 224 ECPZ	251 324 ECPZ	255 324 ECPZ	251 424 ECPZ	255 424 ECPZ
200 Amp	251 124 ECRL	251 224 ECRL	255 224 ECRL	251 324 ECRL	255 324 ECRL	251 424 ECRL	255 424 ECRL
250 Amp	251 124 ECRS	251 224 ECRS	255 224 ECRS	251 324 ECRS	255 324 ECRS	251 424 ECRS	255 424 ECRS
300 Amp	251 124 ECRX	251 224 ECRX	255 224 ECRX	251 324 ECRX	255 324 ECRX	251 424 ECRX	255 424 ECRX
400 Amp	251 124 ECSC	251 224 ECSC	255 224 ECSC	251 324 ECSC	255 324 ECSC	251 424 ECSC	255 424 ECSC

DC Ammeters Cont'd

Size	1½	2½	3½	4½			
Rating & Scale / Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

DC AMMETERS — ZERO-LEFT, 50mV, SHUNT RATED* - continued

SCALE	500 Amp	251 124 ECSF	251 224 ECSF	255 224 ECSF	251 324 ECSF	255 324 ECSF	251 424 ECSF	255 424 ECSF
	600 Amp	251 124 ECSJ	251 224 ECSJ	255 224 ECSJ	251 324 ECSJ	255 324 ECSJ	251 424 ECSJ	255 424 ECSJ
	800 Amp	251 124 ECSN	251 224 ECSN	255 224 ECSN	251 324 ECSN	255 324 ECSN	251 424 ECSN	255 424 ECSN
	1 Kilomap	251 124 ECVA	251 224 ECVA	255 224 ECVA	251 324 ECVA	255 324 ECVA	251 424 ECVA	255 424 ECVA
	1.5 Kiloamp	251 124 ECVC	251 224 ECVC	255 224 ECVC	251 324 ECVC	255 324 ECVC	251 424 ECVC	255 424 ECVC
	2 Kiloamp	251 124 ECVE	251 224 ECVE	255 224 ECVE	251 324 ECVE	255 324 ECVE	251 424 ECVE	255 424 ECVE

DC AMMETERS — ZERO-LEFT, 100mV, SHUNT RATED (LEAD RES. RANGE: .04-.08Ω)*

SCALE	20 Amp	251 124 GBNG	251 224 GBNG	255 224 GBNG	251 324 GBNG	255 324 GBNG	251 424 GBNG	255 424 GBNG
	40 Amp	251 124 GBNP	251 224 GBNP	255 224 GBNP	251 324 GBNP	255 324 GBNP	251 424 GBNP	255 424 GBNP
	50 Amp	251 124 GBNT	251 224 GBNT	255 224 GBNT	251 324 GBNT	255 324 GBNT	251 424 GBNT	255 424 GBNT
	75 Amp	251 124 GBPB	251 224 GBPB	255 224 GBPB	251 324 GBPB	255 324 GBPB	251 424 GBPB	255 424 GBPB
	100 Amp	251 124 GBPK	251 224 GBPK	255 224 GBPK	251 324 GBPK	255 324 GBPK	251 424 GBPK	255 424 GBPK
	150 Amp	251 124 GBPZ	251 224 GBPZ	255 224 GBPZ	251 324 GBPZ	255 324 GBPZ	251 424 GBPZ	255 424 GBPZ
	200 Amp	251 124 GBRL	251 224 GBRL	255 224 GBRL	251 324 GBRL	255 324 GBRL	251 424 GBRL	255 424 GBRL
	250 Amp	251 124 GBRS	251 224 GBRS	255 224 GBRS	251 324 GBRS	255 324 GBRS	251 424 GBRS	255 424 GBRS
	300 Amp	251 124 GBRX	251 224 GBRX	255 224 GBRX	251 324 GBRX	255 324 GBRX	251 424 GBRX	255 424 GBRX
	400 Amp	251 124 GBSC	251 224 GBSC	255 224 GBSC	251 324 GBSC	255 324 GBSC	251 424 GBSC	255 424 GBSC
500 Amp	251 124 GBSF	251 224 GBSF	255 224 GBSF	251 324 GBSF	255 324 GBSF	251 424 GBSF	255 424 GBSF	
600 Amp	251 124 GBSJ	251 224 GBSJ	255 224 GBSJ	251 324 GBSJ	255 324 GBSJ	251 424 GBSJ	255 424 GBSJ	
800 Amp	251 124 GBSN	251 224 GBSN	255 224 GBSN	251 324 GBSN	255 324 GBSN	251 424 GBSN	255 424 GBSN	
1 Kiloamp	251 124 GBVA	251 224 GBVA	255 224 GBVA	251 324 GBVA	255 324 GBVA	251 424 GBVA	255 424 GBVA	
2 Kiloamp	251 124 GBVE	251 224 GBVE	255 224 GBVE	251 324 GBVE	255 324 GBVE	251 424 GBVE	255 424 GBVE	

DC AMMETERS — ZERO-CENTER

1-0-1 Amp	251 101 LALA	251 201 LALA	255 201 LALA	251 301 LALA	255 301 LALA	251 401 LALA	255 401 LALA
2-0-2 Amp	251 101 LELE	251 201 LELE	255 201 LELE	251 301 LELE	255 301 LELE	251 401 LELE	255 401 LELE
5-0-5 Amp	251 101 LSLS	251 201 LSLS	255 201 LSLS	251 301 LSLS	255 301 LSLS	251 401 LSLS	255 401 LSLS
10-0-10 Amp	251 101 MTMT	251 201 MTMT	255 201 MTMT	251 301 MTMT	255 301 MTMT	251 401 MTMT	255 401 MTMT
15-0-15 Amp	.....	251 201 NDND	255 201 NDND	251 301 NDND	255 301 NDND	251 401 NDND	255 401 NDND
20-0-20 Amp	.....	251 201 NGNG	255 201 NGNG	251 301 NGNG	255 301 NGNG	251 401 NGNG	255 401 NGNG
30-0-30 Amp	.....	251 201 NLNL	255 201 NLNL	251 301 NLNL	255 301 NLNL	251 401 NLNL	255 401 NLNL
50-0-50 Amp	.....	.....	.....	251 301 NTNT	255 301 NTNT	251 401 NTNT	255 401 NTNT

DC AMMETERS — ZERO-CENTER, 50mV, SHUNT RATED (LEAD RES. RANGE .05-.07Ω)*

SCALE	20-0-20 Amp	251 125 ECNG	251 225 ECNG	255 225 ECNG	251 325 ECNG	255 325 ECNG	.....	.....
	40-0-40 Amp	251 125 ECNP	251 225 ECNP	255 225 ECNP	251 325 ECNP	255 325 ECNP	251 425 ECNP	225 425 ECNP
	50-0-50 Amp	251 125 ECNT	251 225 ECNT	255 225 ECNT	251 325 ECNT	255 325 ECNT	251 425 ECNT	225 425 ECNT
	75-0-75 Amp	251 125 ECPB	251 225 ECPB	255 225 ECPB	251 325 ECPB	255 325 ECPB	251 425 ECPB	225 425 ECPB
	100-0-100 Amp	251 125 ECPK	251 225 ECPK	255 225 ECPK	251 325 ECPK	255 325 ECPK	251 425 ECPK	225 425 ECPK

*Shunts are not included: For 50mV shunts, see page 29

AC Voltmeters

Size	1½	2½	3½	4½			
Rating & Scale / Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

AC VOLTMETERS — SELF-CONTAINED, IRON VANE TYPE, 60 Hz

3 Volts	.....	.....	251 244 LJLJ	.....	251 344 LJLJ	.....	251 444 LJLJ
5 Volts	.....	.....	251 244 LSLS	.....	251 344 LSLS	.....	251 444 LSLS
10 Volts	.....	.....	251 244 MTMT	.....	251 344 MTMT	.....	251 444 MTMT
15 Volts	.....	.....	251 244 NDND	.....	251 344 NDND	.....	251 444 NDND
30 Volts	.....	.....	251 244 NLNL	.....	251 344 NLNL	.....	251 444 NLNL
50 Volts	.....	.....	251 244 NTNT	.....	251 344 NTNT	.....	251 444 NTNT
150 Volts	.....	.....	251 244 PZPZ	.....	251 344 PZPZ	.....	251 444 PZPZ
300 Volts	.....	.....	251 244 RXRX	.....	251 344 RXRX	.....	251 444 RXRX
500 Volts	.....	.....	.....	.....	251 344 SFSF	.....	251 444 SFSF
600 Volts	.....	.....	.....	.....	251 344 SJSJ	.....	251 444 SJSJ

AC Voltmeters Cont'd

Size	1½	2½	3½	4½			
Rating & Scale \ Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

AC VOLTMETERS — SELF-CONTAINED, IRON VANE TYPE, 400 Hz

150 Volts 300 Volts	251 245 PZPZ 251 245 RXRX	251 345 PZPZ 251 345 RXRX	251 445 PZPZ 251 445 RXRX
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AC VOLTMETERS — TRANSFORMER RATED, 0-150 VOLTS, IRON VANE TYPE, 60 Hz. (See Page 29 For Transformers)

SCALY E

600 Volts 750 Volts 3 kV	251 244 PZSJ 251 244 PZSM 251 244 PZVJ	251 344 PZSJ 251 344 PZSM 251 344 PZVJ	251 444 PZSJ 251 444 PZSM 251 444 PZVJ
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AC VOLTMETERS — EXPANDED SCALE, RECTIFIER TYPE

110-130 Volts 105-125 Volts	251 337 PPNP 251 337 PTPT	255 337 PPNP 255 337 PTPT	251 437 PPNP 251 437 PTPT	255 437 PPNP 255 437 PTPT
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AC VOLTMETERS — SELF-CONTAINED, RECTIFIER TYPE

10 Volts 15 Volts 20 Volts 25 Volts 30 Volts	251 130 MTMT 251 130 NDND 251 130 NGNG 251 130 NJNJ 251 130 NLNL	251 230 MTMT 251 230 NDND 251 230 NGNG 251 230 NJNJ 251 230 NLNL	255 230 MTMT 255 230 NDND 255 230 NGNG 255 230 NJNJ 255 230 NLNL	251 330 MTMT 251 330 NDND 251 330 NGNG 251 330 NJNJ 251 330 NLNL	255 330 MTMT 255 330 NDND 255 330 NGNG 255 330 NJNJ 255 330 NLNL	251 430 MTMT 251 430 NDND 251 430 NGNG 251 430 NJNJ 251 430 NLNL	255 430 MTMT 255 430 NDND 255 430 NGNG 255 430 NJNJ 255 430 NLNL
50 Volts 80 Volts 100 Volts 150 Volts 200 Volts	251 130 NTNT 251 130 PDPD 251 130 PKPK 251 130 PZPZ	251 230 NTNT 251 230 PDPD 251 230 PKPK 251 230 PZPZ	255 230 NTNT 255 230 PDPD 255 230 PKPK 255 230 PZPZ	251 330 NTNT 251 330 PDPD 251 330 PKPK 251 330 PZPZ 251 330 RLRL	255 330 NTNT 255 330 PDPD 255 330 PKPK 255 330 PZPZ 255 330 RLRL	251 430 NTNT 251 430 PDPD 251 430 PKPK 251 430 PZPZ 251 430 RLRL	255 430 NTNT 255 430 PDPD 255 430 PKPK 255 430 PZPZ 255 430 RLRL
250 Volts 300 Volts	..... .....	..... .....	..... .....	251 330 RSRS 251 330 RXRX	255 330 RSRS 255 330 RXRX	251 430 RSRS 251 430 RXRX	255 430 RSRS 255 430 RXRX

AC Ammeters

Size	1½	2½	3½	4½			
Rating & Scale \ Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

AC MICROAMMETERS AND MILLIAMMETERS — RECTIFIER TYPE

500 µA 800 µA 1 mA 1.5 mA 2 mA	251 110 EMEM 251 110 EWEW 251 110 FAFA 251 110 FDFD 251 110 FGFG	251 210 EMEM 251 210 EWEW 251 210 FAFA 251 210 FDFD 251 210 FGFG	255 210 EMEM 255 210 EWEW 255 210 FAFA 255 210 FDFD 255 210 FGFG	251 310 EMEM 251 310 EWEW 251 310 FAFA 251 310 FDFD 251 310 FGFG	255 310 EMEM 255 310 EWEW 255 310 FAFA 255 310 FDFD 255 310 FGFG	251 410 EMEM 251 410 EWEW 251 410 FAFA 251 410 FDFD 251 410 FGFG	255 410 EMEM 255 410 EWEW 255 410 FAFA 255 410 FDFD 255 410 FGFG
3 mA 5 mA 10 mA 20 mA	251 110 FNFN 251 110 FFXF 251 110 GZGZ 251 110 HFHF	251 210 FNFN 251 210 FFXF 251 210 GZGZ 251 210 HFHF	255 210 FNFN 255 210 FFXF 255 210 GZGZ 255 210 HFHF	251 310 FNFN 251 310 FFXF 251 310 GZGZ 251 310 HFHF	255 310 FNFN 255 310 FFXF 255 310 GZGZ 255 310 HFHF	251 410 FNFN 251 410 FFXF 251 410 GZGZ 251 410 HFHF	255 410 FNFN 255 410 FFXF 255 410 GZGZ 255 410 HFHF

AC MILLIAMMETERS — SELF-CONTAINED, 25-400 Hz, IRON VANE

10 mA 25 mA 50 mA 100 mA 200 mA	..... ..... ..... ..... .....	..... ..... ..... ..... .....	251 240 GZGZ 251 240 HJHJ 251 240 HYHY 251 240 JRJR 251 240 KAKA	..... ..... ..... ..... .....	251 340 GZGZ 251 340 HJHJ 251 340 HYHY 251 340 JRJR 251 340 KAKA	..... ..... ..... ..... .....	251 440 GZGZ 251 440 HJHJ 251 440 HYHY 251 440 JRJR 251 440 KAKA
500 mA	.....	.....	251 240 KMKM	.....	251 340 KMKM	.....	251 440 KMKM

AC Ammeters Cont'd

Size		1½	2½		3½		4½	
Rating & Scale	Type	Taut Band	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel	Taut Band	Pivot and Jewel

AC AMMETERS — SELF-CONTAINED, 25-400 Hz, IRON VANE

1 Amp	.....	.....	251 240 LALA	.....	251 340 LALA	.....	251 440 LALA
3 Amp	.....	.....	251 240 LJLJ	.....	251 340 LJLJ	.....	251 440 LJLJ
5 Amp	.....	.....	251 240 LSLS	.....	251 340 LSLS	.....	251 440 LSLS
8 Amp	.....	.....	251 240 MJMJ	.....	251 340 MJMJ	.....	251 440 MJMJ
10 Amp	.....	.....	251 240 MTMT	.....	251 340 MTMT	.....	251 440 MTMT
15 Amp	.....	.....	251 240 NDND	.....	251 340 NDND	.....	251 440 NDND
20 Amp	.....	.....	251 240 NGNG*	.....	251 340 NGNG*	.....	251 440 NGNG*
30 Amp	.....	.....	251 240 NLNL*	.....	251 340 NLNL*	.....	251 440 NLNL*
50 Amp	.....	.....	.....	.....	251 340 NTNT*	.....	251 440 NTNT*
80 Amp	.....	.....	.....	.....	251 340 PDPD*	.....	251 440 PDPD*

*External magnetic shield included

AC AMMETERS — TRANSFORMER-RATED, 0-5 AMPERES, 25-400 Hz, IRON VANE (See Page 29 For Transformers)

10 Amp	.....	.....	251 240 LSMT	.....	251 340 LSMT	.....	251 440 LSMT
15 Amp	.....	.....	251 240 LSND	.....	251 340 LSND	.....	251 440 LSND
20 Amp	.....	.....	251 240 LSNG	.....	251 340 LSNG	.....	251 440 LSNG
30 Amp	.....	.....	251 240 LSNL	.....	251 340 LSNL	.....	251 440 LSNL
40 Amp	.....	.....	251 240 LSNP	.....	251 340 LSNP	.....	251 440 LSNP
50 Amp	.....	.....	251 240 LSNT	.....	251 340 LSNT	.....	251 440 LSNT
75 Amp	.....	.....	251 240 LSPB	.....	251 340 LSPB	.....	251 440 LSPB
80 Amp	.....	.....	251 240 LSPD	.....	251 340 LSPD	.....	251 440 LSPD
100 Amp	.....	.....	251 240 LSPK	.....	251 340 LSPK	.....	251 440 LSPK
150 Amp	.....	.....	251 240 LSPZ	.....	251 340 LSPZ	.....	251 440 LSPZ
200 Amp	.....	.....	251 240 LSRL	.....	251 340 LSRL	.....	251 440 LSRL
300 Amp	.....	.....	251 240 LSRX	.....	251 340 LSRX	.....	251 440 LSRX
400 Amp	.....	.....	251 240 LSSC	.....	251 340 LSSC	.....	251 440 LSSC
500 Amp	.....	.....	251 240 LSSF	.....	251 340 LSSF	.....	251 440 LSSF
600 Amp	.....	.....	251 240 LSSJ	.....	251 340 LSSJ	.....	251 440 LSSJ
800 Amp	.....	.....	251 240 LSSN	.....	251 340 LSSN	.....	251 440 LSSN
1 Kiloamp	.....	.....	251 240 LSVA	.....	251 340 LSVA	.....	251 440 LSVA
1.2 Kiloamp	.....	.....	251 240 LSVB	.....	251 340 LSVB	.....	251 440 LSVB
1.5 Kiloamp	.....	.....	251 240 L SVC	.....	251 340 L SVC	.....	251 440 L SVC
2.0 Kiloamp	.....	.....	251 240 LSVE	.....	251 340 LSVE	.....	251 440 LSVE
3.0 Kiloamp	.....	.....	251 240 LSVJ	.....	251 340 LSVJ	.....	251 440 LSVJ

SCALE ONLY

AC Motor Load Indicators - Available in Horizon Line or New Big Look

	Size		2½	3½	4½
Rating Amps	Scale Marking	Terminal Resistance Ohms (±15%)	Cat. No.	Cat. No.	Cat. No.

AC LOAD INDICATORS, PIVOT AND JEWEL TYPE 250 — 5-AMP CURRENT TRANSFORMER RATED, 60 Hz — IRON VANE TYPE

5	0-150% Motor Load Current Red Band — 100-150	0.007	250 240 LSPZ7AAA	250 340 LSPZ7AAA	250 440 LSPZ7AAA
5	0-150% Motor Load Current Green — 0-100 Yellow — 100-125, Red — 125-150	0.007	250 240 LSPZ7AAB	250 340 LSPZ7AAB	250 440 LSPZ7AAB

AC LOAD INDICATORS, PIVOT AND JEWEL TYPE 251 — 5-AMP CURRENT TRANSFORMER RATED, 60 Hz — IRON VANE TYPE

5	0-150% Motor Load Current Red Band — 100-150	0.007	251 240 LSPZ7AAJ	251 340 LSPZ7AAJ	251 440 LSPZ7AAJ
5	0-150% Motor Load Current Green — 0-100 Yellow — 100-125, Red — 125-150	0.007	251 240 LSPZ7AAK	251 340 LSPZ7AAK	251 440 LSPZ7AAK