SWITCHBOARD INSTRUMENTS

Yokogawa offers a complete line of switchboard instruments to meet your every needs.

Model are available 110 mm and 80 mm square size 250° to measure all electrical quantities.

All switchboard instruments in the series feature rugged, friction free and shock resistant taut-band suspension elements.

All model of AC instruments except 80 mm size wattmeters and varmeters are self-contained transducer needless external transducer boxes.

The built-in transducer system offer many advantages including low cost, linear scales, greatly reduced volt-ampere loss.

Yokogawa switchboard instruments offer a variety Models, such as from single phase to three phase four wire instruments, as well as model for balanced and unbalanced circuits. All instruments except synchroscope are complied with JIS C 1102.

Features

- RMS rectifier type AC instruments
- Platform scale --- No shadow on scale and readable, even from sharp angles
- Interchangeable scales save time
- Easy to read linear scales and wide deflection angles
- Taut-Band suspension --- eliminate friction and protects against shock
- Unti-framable case and terminal board
- Provide terminal protect cover for safety

Specifications

In accordance with Japan Industrial Standard JIS C 1102: 2007

- Accuracy ----- See next page
- Full Scale Deflection Angle ----- 250°(360° for Synchroscope)
- Full Scale Length ------ Approx. 196mm (7.7") for 110mm SQ
 - 140mm (5.5") for 80mm SQ
- Position of Use ----- Vertical (Scale)
- Pointer ------ Lance type Pointer, Black
- Operating Temperature Range ----- 0 to 40 °C
- Operating Humidity Range ----- 25 to 80 %RH
- Storage Temperature Range ------ -10 to 50°C
- Storage Humidity Range ------ 25 to 80 %RH Dielectric Strength ------ Between electrical circuit and the case: 3320V AC for 5 seconds Between current circuit and voltage circuit: 2600V AC for 5 seconds For Wattmeters, Varmeters and Power factormeters (2000V AC for 2185A, 2186A and 2187A) Insulation Resistance ------ More than 10 M Ω /500V DC between electrical circuit and the case,

current circuit and voltage circuit. More than 5M Ω /500V DC between current circuit and voltage circuit. For Wattmeters, Varmeters and Power factormeters

Measurement category III

Maximum working voltage:600V

Safety Requirements -----Structural requirements are in accordance with JIS C 1010 for safety of voltage test, insulation and other. Reinforced insulation, between electrical circuit and case Indoors, Altitudes up to 2000m, Pollution degree 2

(Measurement category is not applied for non- JIS products.)



Type 2101A to 2109A

110 mm square size switchboard instruments Series. Plastic case with safety terminal protection cover.



Type 2181A to 2188A

80 mm square size miniature switchboard instruments series high space utility.

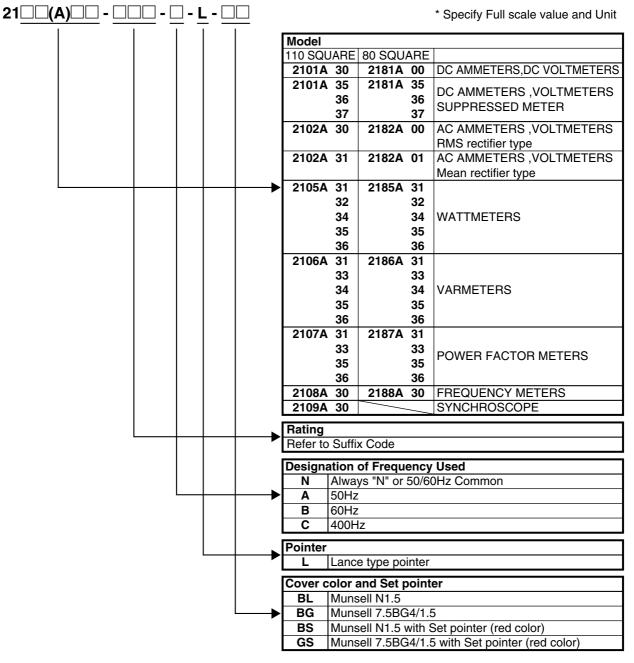
SWITCHBOARD INSTRUMENTS LINE UP -

		On constinue Deire site	Oursels al	Accuracy	Model		
Name			Operating Princile		Symbol	110mm SQ	80mm SQ
DC AMMETE	RS / VOLTM	ETERS		\bigcirc		2101A30	2181A00
DC SUPPRES	SSED METEI	RS	Moving coil type		1.5	2101A35,36,37	2181A35,36,37
AC AMMETERS / VOLTMETERS			RMS rectifier type		1.5	2102A30	2182A00
			Mean rectifier type	→	2.5	2102A31	2182A01
	Single phase	e 2-wire		€		2105A31	2185A31(*1)
	Single phase	e 3-wire			1.5	2105A32	2185A32(*1)
WATTMETERS	3-phase 3-wire	(Unbalanced)	Feedback time division multiplier type			2105A35	2185A35(*1)
	0 shaqa 4 wina	(Balanced)				2105A34	2185A34(*1)
	3-phase 4-wire	(Unbalanced)				2105A36	2185A36(*1)
	Single phase 2-wire					2106A31	2186A31(*1)
	3-phase 3-wire	(Balanced)	Feedback time division multiplier type		1.5	2106A33	2186A33(*1)
VARMETERS		(Unbalanced)				2106A35	2186A35(*1)
	3-phase 4-wire	(Balanced)				2106A34	2186A34(*1)
		(Unbalanced)				2106A36	2186A36(*1)
	Single phase 2-wire		Dhoos defection turns			2107A31	2187A31
POWER	3-phase 3-wire	(Balanced)	Phase defection type		5.0	2107A33	2187A33
FACTOR METERS		(Unbalanced)	Feedback time division			2107A35	2187A35(*1)
	3-phase 4-wire	(Unbalanced)	multiplier type			2107A36	2187A36(*1)
FREQUENCY METERS		Differential type		0.5 1.0	2108A30	2188A30	
SYNCHRO- Single phase		Moving Magnet type		2.5	2109A30		
SCOPE (*2) 3-phase		Moving Magnet type				_	

Note: *1: Attached external transducer box. *2: not complied with JIS standard.

KEY TO SWITCHBOARD NUMBERING SYSTEM -

[Model/Suffix Code]

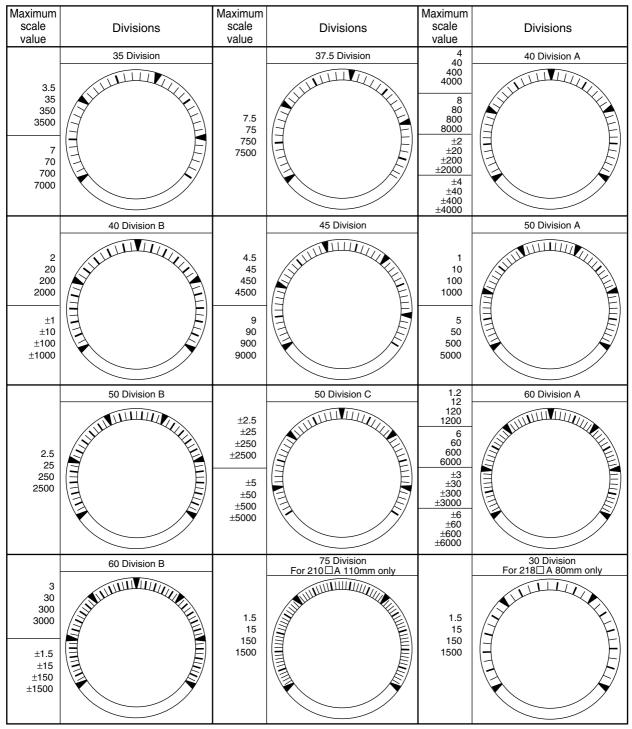


[EX.] Designation of Full scale value Cover color and Model Rating Pointer and Unit Frequency Used Set pointer 110 SQUARE AC AMMETERS 0 to 5A 0 to 100A 50/60Hz Common Lance type pointer Munsell N1.5 2102A30-A42-N-L-BL 0 to 100A

ACCESSORIES AND PARTS

Model				Descriptions		
Standard Scale Plate				1set (Specify Model and suffix codes, Full scale value		
			219900	and unit,VT ratio and CT ratio)		
				EX.: 2101A36-AHE-N-L-BL 0 to 250kPa		
Plank Soola D				1set (Specify Model and suffix codes, and Blank scale)		
Blank Scale Plate (With YOKOGAWA mark)			219900/001	EX.: 2101A36-AHE-N-L-BL Blank scale		
	Cover	(Black)	219930-11	1 pce		
110 SQUARE		(Blue Green)	219930-12	1 pce		
TTU SQUARE	Cover with Set	(Black)	219930-13	1 pce (Set pointer is red)		
	pointer	(Blue Green)	219930-14	1 pce (Set pointer is red)		
	Cover	(Black)	219930-31	1 pce		
	Cover	(Blue Green)	219930-32	1 pce		
80 SQUARE	Cover with Set	(Black)	219930-33	1 pce (Set pointer is red)		
	pointer	(Blue Green)	219930-34	1 pce (Set pointer is red)		
Terminal Cover (6 Terminal)			219930-22	10 sheets (up side)		
Terminal Cover (5 Terminal)			219930-21	10 sheets (down side)		
Terminal Cover (3 Terminal):(For 80 SQUARE)			219930-23	10 sheets		
Shunt lead			219930-24	Round Resits 0.05 Ω less, For M4 terminal, 1.5m 1set		

SCALE FORMS AND DIVISIONS



Note

1. This standard scale divisions are applied to 2101A, 2102A, 2105A, 2106A, 2181A, 2182A, 2185A and 2186A.

2. Numerals are indicated to the major line ($\mathbf{\nabla}$).

3. All scales divisions are linear distribution.

4. To be applied this standard scale division, when specify special maximum value.

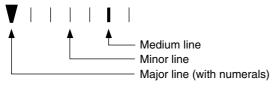
•not standard maximum scale value
•minimum scale value are not zero
(Ex.) 2300 --- 46 divisions
(Ex.) 50 to 100 --- 50 divisions

SCALE FORMS AND DIVISIONS

For Suppressed meter 2101A, 2181A	0 m ³ /s 5	Extended scale Ammeters 2102A, 2182A (Ex.)100A 2 times Red line and numerals for extended portion (Ex. 2 Times 150 and 200A) 3 Times 2 and 3 Times 5 Times 3 and 5 Times	0 A 200
For Expanded scale 2102A, 2182A voltmeter Ex. 70 to 130V=245°	100 100 110 80 120 70 V 130	For Power Factor meter 2107A, 2187A	LEAD LAG 7 .7 .7 .5 COS φ .5
For Frequency meter 2108A, 2188A Ex. 45 to 55Hz	46 54 45 Hz 55	For Synchroscope 2109A	SLOW FAST SYNCROSCOPE
Single division/Double numerals Ex. 0 to 5/0 to 10A (50 Div.) All div.line and numerals are black. Size of numerals are different high. Apply same division only.	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 2 \\ 1 \\ 1 \\ 0 \\ 4 \\ 1 \\ 1 \\ 4 \\ 1 \\ 4 \\ 1 \\ 4 \\ 1 \\ 4 \\ 1 \\ 4 \\ 1 \\ 4 \\ 5 \\ 1 \\ 1 \\ 4 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	Double division/Double numerals Ex.0 to 300/0 to 450 m/min (60 Div./45 Div.) Outer Black line and numerals Inner Red line and numerals	$\begin{array}{c} \begin{array}{c} & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ $

Kinds of division lines

1. Kinds of division lines



- 2. 3 characters, standard.
 - EX. (1) 1200V \rightarrow 1.2kV
 - (2) 20000rpm \rightarrow 20 \times 1000rpm

2101A/2181A



DC AMMETERS

2181A 00 80 SQUARE Class 1.5 Rating -AEG 0 to 300 microA (Approx. Internal Resistance : 1,050 ohm) -AFA 0 to 1mA (Approx. Internal Resistance : 630 ohm) (Approx. Internal Resistance : 185 ohm) -AFX 0 to 3mA (Approx. Internal Resistance : 17 ohm) (Approx. Internal Resistance : 10 ohm) -AFX 0 to 300 microA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -AFX 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -AFX 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -AFX 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -AFX 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -AHY 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -ALA 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Approx. Internal Resistance : 10 ohm) -ALC 0 to 30mA (Approx. Internal Resistance : 10 ohm) (Voltage Drop : 50mV)	Model	Suffix Co	odes	Descriptions			
AEG 0 to 300 microA (Approx. Internal Resistance : 1,050 ohm) -AEM 0 to 500 microA (Approx. Internal Resistance : 630 ohm) -AFA 0 to 1mA (Approx. Internal Resistance : 185 ohm) -AFN 0 to 3mA (Approx. Internal Resistance : 10 ohm) -AFX 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AFX 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AFX 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AFX 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AFA 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AFX 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AFA 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AFA 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AFA 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALA 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALA 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALE 0 to 50mA (Auternal Resistance : 10 ohm) -ALB 0 to 5A (Auternal Resistance : 10 ohm) -AND	2101A 30						
-AEM 0 to 500 microA (Approx. Internal Resistance : 630 ohm) -AFA 0 to 1mA (Approx. Internal Resistance : 115 ohm) -AFN 0 to 5mA (Approx. Internal Resistance : 110 ohm) -AFX 0 to 5mA (Approx. Internal Resistance : 110 ohm) -AGZ 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AGZ 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AGK 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AGZ 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AGK 0 to 30mA (Approx. Internal Resistance : 10 ohm) -ALB 0 to 30mA (Approx. Internal Resistance : 10 ohm) -ALK 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALA 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALE 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALE 0 to 500mA (Approx. Internal Resistance : 10 ohm) -ALE 0 to 500mA (Autre approx. Internal Resistance : 10 ohm) -ALE 0 to 500mA (Autre approx. Internal Resistance : 10 ohm) -ALS 0 to 50A (Autre approx. Internal Resistance : 10 ohm)	2181A 00			80 SQUARE	Class 1.5		
-AFA 0 to 1mA (Approx. Internal Resistance : 185 ohm) -AFN 0 to 3mA (Approx. Internal Resistance : 17 ohm) -AFX 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AGZ 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AGX 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AHM 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AHM 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALC 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AKG 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALE 0 to 50mA (Approx. Internal Resistance : 10 ohm) -ALE 0 to 50mA (Voltage Drop : 50mV) -ALE 0 to 7.5A (Voltage Drop : 50mV) -ALS 0 to 5A (Voltage Drop : 50mV) -AND 0 to 5A (AnMF -AND 0 to 7.5A (AnND -AND 0 to 7.5A (AnNL -AND 0 to 50mV, For external shurt use (Aot + 50 external shurt use -AO1 0 to 50mV, For external shurt use (No shurt is manufactured) -AO5	Rating	-AEG		0 to 300 microA	(Approx. Internal Resistance : 1,050 ohm)		
-AFN 0 to 3mA (Approx. Internal Resistance : 17 ohm) -AFX 0 to 5mA (Approx. Internal Resistance : 10 ohm) -AGZ 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AHM 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AHY 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AJR 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AJR 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AJR 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AJR 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AJR 0 to 30mA (Approx. Internal Resistance : 10 ohm) -AJR 0 to 300mA (Approx. Internal Resistance : 10 ohm) -ALC 0 to 300mA (Voltage Drop : 50mV) -ALS 0 to 7.5A (Voltage Drop : 50mV) -ALS 0 to 7.5A (Voltage Drop : 50mV) -AND 0 to 10A (Approx. Internal Resistance : 10 ohm) -AND 0 to 10A (Voltage Drop : 50mV) -AND 0 to 10A (Voltage Drop : 50mV) -AND 0 to 50M, For external shunt use (Aot 0 to 20M	-	-AEM		0 to 500 microA	(Approx. Internal Resistance : 630 ohm)		
-AFX 0 to 5mA (Approx. Internal Resistance : 10 ohm) -AGZ 0 to 10mA (Approx. Internal Resistance : 10 ohm) -AHM 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AHM 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AHM 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AHX 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AHX 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AHX 0 to 50mA (Approx. Internal Resistance : 10 ohm) -AKG 0 to 300mA (Approx. Internal Resistance : 10 ohm) -ALA 0 to 50mA (Voltage Drop : 50mV) -ALE 0 to 15A (Voltage Drop : 50mV) -ALS 0 to 7.5A (Voltage Drop : 50mV) -ANF 0 to 7.5A (Voltage Drop : 50mV) -ANG 0 to 15A (Voltage Drop : 50mV) -ANG 0 to 20A (Antal to 2A -ANL 0 to 300 microA to 1A), (Voltage Drop : 50mV) -A00 0 to 50mV, For external shunt use (No shunt is manufactured) -A01 0 to 50mV, For external shunt use (No shunt is manufactured)				0 to 1mA	(Approx. Internal Resistance : 185 ohm)		
-AGZ 0 to 10mA -AHM 0 to 30mA -AHM 0 to 30mA -AHY 0 to 50mA -AJR 0 to 100mA -AJR 0 to 100mA -AKG 0 to 300mA -AKG 0 to 300mA -AKG 0 to 300mA -AKG 0 to 100mA -AKG 0 to 100mA -AKG 0 to 100mA -ALA 0 to 100mA -ALE 0 to 20A -ALS 0 to 15A -ANF 0 to 15A -ANG 0 to 300m ciroA to 1A), Optional intermediate rating - -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter - -A01 0 to 50mV, For external shunt use -A05 0 to 100mV Specify scale range (No shunt is manufactured) -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Always "-N" - Pointer -L Cover color and Set pointer -BL				0 to 3mA	(Approx. Internal Resistance : 17 ohm)		
-AHM 0 to 30mA -AJR 0 to 50mA -AJR 0 to 100mA -AKG 0 to 300mA -AKM 0 to 50mA -AKM 0 to 50mA -AKM 0 to 50mA -AKM 0 to 50mA -ALA 0 to 1A -ALC 0 to 15A -ALS 0 to 5A -AMF 0 to 7.5A -AMF 0 to 10A -ANG 0 to 15A -ANG 0 to 20A -ANL 0 to 50mV, For external shunt use -A00 0 to 50mV, For external shunt use -A01 0 to 50mV, For external shunt use -A04 0 to 100mV -A05 0 to 100mV -b00 -a to 0 to +b (b=50mV) where a or less 50mV, -A05 0 to 100mV -A05 0 to 50mV, Here with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L -A06 0 to 50mV, Always "-N" Pointer -L Cover color and Set pointer -BL				0 to 5mA	(Approx. Internal Resistance : 10 ohm)		
-AHY 0 to 50mA -AJR 0 to 100mA -AJR 0 to 100mA -AKG 0 to 300mA -AKM 0 to 500mA -ALA 0 to 1A -ALC 0 to 1.5A -ALE 0 to 5A -ALS 0 to 5A -ALS 0 to 5A -ALF 0 to 7.5A -AMF 0 to 10A -AND 0 to 15A -ANG 0 to 30A -ANG 0 to 30A -ANL 0 to 30A -ANG 0 to 15A -ANG 0 to 30A -ANG 0 to 30A -ANG 0 to 30A -ANG 0 to 50mV, For external shunt use -A04 0 to 60mV Specify scale range -A05 0 to 100mV (No shunt is manufactured) -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Froe zero-center and similar scale meter -A06 -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Freequency Used -N Pointer -L L				0 to 10mA	1		
-AJR 0 to 100mA -AKG 0 to 300mA -AKG 0 to 500mA -ALA 0 to 1 -ALC 0 to 1.5A -ALE 0 to 2A -ALJ 0 to 3A -ALS 0 to 7.5A -AMF 0 to 10A -AMF 0 to 10A -AND 0 to 15A -ANG 0 to 10A -ANG 0 to 30A -ANG 0 to 15A -ANG 0 to 30A -ANG 0 to 10A -ANG 0 to 15A -ANG 0 to 15A -ANG 0 to 15A -ANG 0 to 100A -ANG 0 to 50mV, For external similar scale meter -AO0 For zero-center and similar scale meter -AO4 0 to 60mV Specify scale range (No shunt is manufactured) -A05 0 to 10 +b (b=50mV) where a or less 50mV, -poo -a to 0 to +b (b=50mV) where a or less 50mV, -poo -a to 0 to +b (b=50mV) where a or less 50mV, -poo -a to 0 to b 0mV (No shunt is manufactured) -A05 0 to		-АНМ		0 to 30mA			
-AKG 0 to 300mA -AKM 0 to 500mA -ALA 0 to 1A -ALC 0 to 1.5A -ALE 0 to 3A -ALS 0 to 5A -AMF 0 to 10A -AND 0 to 15A -AND 0 to 15A -ANG 0 to 30A -AND 0 to 10A -ANQ 0 to 30A -ANI 0 to 30A -ANI 0 to 30A -ANI 0 to 50mV, For external shunt use -A00 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -B00 -a to 0 to +b (b=50mV) where a or less 50mV, -A04 0 to 50mV, For external shunt use -A05 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Always "-N" Pointer -L Pointer -L -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL		-AHY		0 to 50mA			
-AKM 0 to 500mA -ALA 0 to 1A -ALC 0 to 1.5A -ALE 0 to 2A -ALJ 0 to 3A -ALS 0 to 7.5A -AMF 0 to 10A -AND 0 to 10A -AND 0 to 10A -ANI 0 to 10A -AND 0 to 10A -ANI 0 to 10A -ANI 0 to 10A -ANI 0 to 10A -ANI 0 to 50A -ANI 0 to 50MV, For external shunt use -Doo -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 -A01 0 to 50mV, For external shunt use -A04 0 to 50mV -Doo -a to 0 to +b (b=50mV) where a or less 50mV, For zero-center and similar scale meter -A06 -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of		-AJR		0 to 100mA			
-ALA 0 to 1A -ALC 0 to 1.5A -ALE 0 to 2A -ALJ 0 to 3A -ALS 0 to 7.5A -AMF 0 to 10A -AND 0 to 15A -ANG 0 to 30A 0 to 30A 0 to 20A -ANIL 0 to 30A 0 to 30A 0 to 30A -ANIL 0 to 30A -ANIL 0 to 50A -ANIL 0 to 50MV, For external shunt use -Doo -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 -A03 0 to 60mV -A04 0 to 50mV, For external shunt use -A05 0 to 100mV -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Pointer -L -B< Munsell N1.5		-AKG		0 to 300mA			
-ALC 0 to 1.5A -ALE 0 to 2A -ALJ 0 to 3A -ALS 0 to 5A -AMF 0 to 1.5A -AMF 0 to 7.5A -AMMT 0 to 10A -AND 0 to 15A -ANQ 0 to 20A -ANL 0 to 30A -ANL 0 to 30A -ANIL 0 to 30A -ANIL 0 to 30A -ANIL 0 to 30A -ANIL 0 to 50mV, For external shunt use -A00 For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -D00 -a to 0 to +b (b=50mV) where a or less 50mV, -A05 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Pointer -L Pointer -L Cover color and Set pointer -BL Munsell N1.5 Munsell N1.5		-AKM		0 to 500mA			
-ALE 0 to 2A -ALJ 0 to 3A -ALS 0 to 5A -AMF 0 to 7.5A -AMD 0 to 10A -AND 0 to 15A -ANL 0 to 30A -ANL 0 to 600 microA to 1A), Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A04 0 to 60mV -A05 0 to 100mV -A06 0 to 50mV, For external shunt use -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Pointer -L Cover color and Set pointer -BL		-ALA		0 to 1A			
-ALJ 0 to 3A -ALS 0 to 5A -AMF 0 to 7.5A -AMT 0 to 10A -ANQ 0 to 15A -ANG 0 to 20A -ANL 0 to 30A Optional intermediate rating -A00 -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL				0 to 1.5A			
-ALJ 0 10 3A -ALS 0 to 5A -AMF 0 to 7.5A -AMT 0 to 10A -AND 0 to 15A -ANG 0 to 20A -ANL 0 to 30A -ANL 0 to 30A -ANL 0 to 30A -ANL 0 to 30A -ANL 0 to 50N -A00 Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL		-ALE		0 to 2A	(Valtage Drep : E0m)()		
-AMF 0 to 7.5A -AMT 0 to 10A -AND 0 to 15A -ANG 0 to 20A -ANL 0 to 30A -A00 0 to (300 microA to 1A), Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N -N Always "-N" Pointer -L Cover color and Set pointer -BL		-ALJ		0 to 3A	(voltage Drop : 50mv)		
-AMT 0 to 10A -AND 0 to 15A -ANG 0 to 20A -ANL 0 to 30A -ANL 0 to 30A -A00 Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -D00 -a to 0 to +b (b=50mV) where a or less 50mV, -D00 -a to 0 to +b (b=50mV) where a or less 50mV, -A05 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Always "-N" Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL Munsell N1.5		-ALS		0 to 5A			
-AND 0 to 15A -ANG 0 to 20A -ANL 0 to 30A -A00 0 to (300 microA to 1A), Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -D00 -a to 0 to +b (b=50mV) where a or less 50mV, For zero-center and similar scale meter -A04 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Always "-N" Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL		-		0 to 7.5A			
-ANG 0 to 20A -ANL 0 to 30A -A00 Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -D00 Specify scale range -A05 0 to 100mV -D00 -a to 0 to +b (b=50mV) where a or less 50mV, For zero-center and similar scale meter -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Always "-N" Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL Munsell N1.5		-AMT		0 to 10A			
-ANL 0 to 30A -A00 0 to (300 microA to 1A), Optional intermediate rating -D00 -a to 0 to +b where a or less 72% × (a+b), a+b=1mA to 2A For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -D00 -a to 0 to +b (b=50mV) where a or less 50mV, For zero-center and similar scale meter -A04 0 to 50mV, For external shunt use -A05 0 to 100mV -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL				0 to 15A			
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-D00 For zero-center and similar scale meter -A01 0 to 50mV, For external shunt use -A04 0 to 60mV -A05 0 to 100mV -D00 -a to 0 to +b (b=50mV) where a or less 50mV, -D00 For zero-center and similar scale meter -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL		-400			J		
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-A04 0 to 60mV Specify scale range (No shunt is manufactured) -A05 0 to 100mV (No shunt is manufactured) -D00 -a to 0 to +b (b=50mV) where a or less 50mV, For zero-center and similar scale meter -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL		-000		For zero-center and similar scale meter			
-A05 0 to 100mV (No shunt is manufactured) -D00 -a to 0 to +b (b=50mV) where a or less 50mV, For zero-center and similar scale meter -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL							
-D00				0 to 60mV			
-D00 For zero-center and similar scale meter -A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of Frequency Used -N Pointer -L Cover color and Set pointer -BL							
-A06 0 to 50mV, Meter with VR, 0 to 2 ohm Variable Designation of -N Frequency Used -L Pointer -L Lance type pointer (Black), Always "-L" Cover color and Set pointer -BL							
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Cover color and Set pointer -BL Munsell N1.5	Frequency L	Jsed		-			
	Pointer						
	-BG -BS -GS			Munsell 7.5BG4/1.5			
				Munsell N1.5 with Set pointer (red color)			
-GS Munsell 7.5BG4/1.5 with Set pointer (red color)				Munsell 7.5BG4/1.5 with Set pointer (red color)			

SPECIFY THE FOLLOWING WHEN ORDERING

(1) Model and Suffix codes

(2) Full scale value and unit

(3) For suffix code A00 or D00, specifiy rating and full scale value.

Notes :

Scale other than Yokogawa' standard format will be special order.
For each meter with the rating of 50mV,60mV or 100mV, one-pair(1.5m) of shunt leads are supplied.

(3) External shunts are not supplied.