

OUTLINE

The SC7300R is a digital conductivity transmitter which uses a large-size display.

The cell combined type is installed a cell to the transmitter, and not necessary to installation of the transmitter.

FEATURES

- CELL COMBINED TYPE
- LARGE LCD DISPLAY
- SIMPLE OPERATION
- MULTI RANGE

SPECIFICATIONS

Input range: Refer to range table

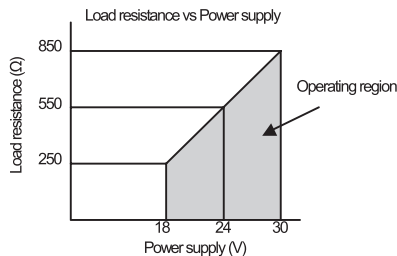
Display: Process variable, temperature, 4 digits, LCD

Linearity: $\pm 0.4\%$ or ± 2 digit whichever larger

Repeatability: $\pm 0.2\%$ or ± 1 digit whichever larger

Output: 4 ~ 20mA DC isolated, 550 Ω max. at 24VDC

Power supply voltage: 18 ~ 30VDC



Temperature compensation: 0 ~ 100°C Pt1000

Temperature sensor by dissociation and sodium chloride (NaCl) solution characteristics curve, and by coefficients of sample

Sample pressure: 1MPa (10kgf/cm²) max.

Sample flow rate: 10cm/min ~ 1m/sec

Cable conduit: G1/2(PF1/2 female)

Mounting:

Cell combined type

Flange mount: JIS 10K-50A flange (FF)

Screw-in mount: R3/4(PT3/4 male)

Nut mount: G1 (PF1 female)

Valve mount: Rc1 (PT1 female)

Cell remote type

2 inch pipe or Wall mount

Material:

Conductivity cell (detector)

Electrode: SUS 316. Carbon graphite

Flange: SUS 304

Bushing: SUS 304

Insulated sleeve: Polyphenylene, sulphide

Transmitter

Case: Aluminum casing

Top sheet: Polyester film



Case: Rain-proof, equivalent to IP67 or NEMA4

Case color: Blue (Munsell 10B 5/10.)

Operation conditions: -10 ~ 60°C, 5 ~ 95% R.H.

Weight:

Transmitter: 1.5kg

Cell, Flange mount: 4.7kg

Cell, Screw-in mount: 2.5kg

Cell, Nut mount: 2.6kg

Cell, Valve mount: 5kg

FUNCTION

Cable compensation: Line resistance

Error detection: Conductivity 120% and above of Span, conductivity 1% and below of span, temp.

150°C and above, temp. -25°C and below, EEPROM error, identification of error contents on the display

Output hold: Keeps current output

Key lock: Provided to avoid miss-resetting

OPTION

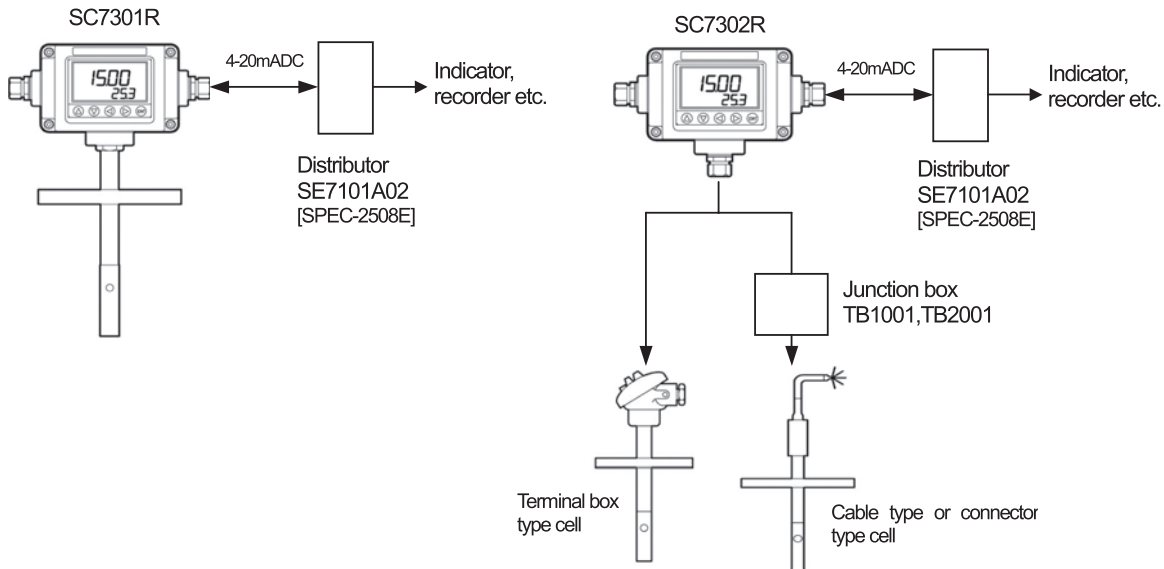
Non-linear output (option): Expands 10% of span into 50%

Mounting bracket: For 2B pipe

Hood: Against sunlight

Cell installed direction: Installation of a cell is possible to right and left of a transmitter

SYSTEM CONFIGURATION



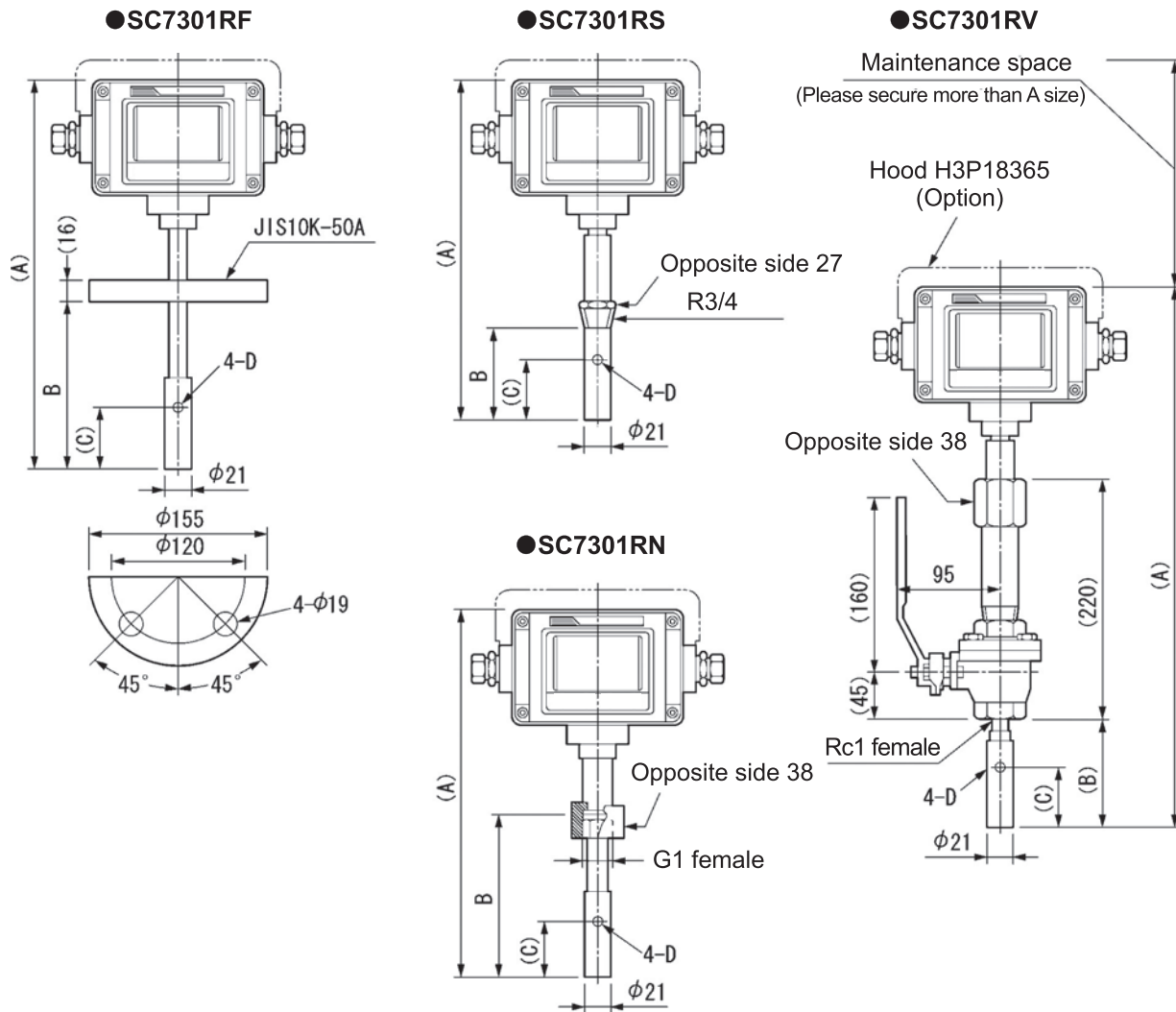
RANGE TABLE

SI UNIT				USUAL UNIT			
Range Code	Range	Unit	Cell Constant	Range Code	Range	Unit	Cell Constant
31	0.00 ~ 20.00	μS/m	1.0 (m ⁻¹)	01	0.000 ~ 0.200	μS/cm	0.01 (cm ⁻¹)
32	0.0 ~ 50.0			02	0.000 ~ 0.500		
33	0.0 ~ 100.0			03	0.000 ~ 1.000		
34	0.0 ~ 200.0			04	0.000 ~ 2.000		
35	0 ~ 500			05	0.00 ~ 5.00		
36	0 ~ 1000			06	0.00 ~ 10.00		
37	0 ~ 2000			07	0.00 ~ 20.00		
38	0.000 ~ 0.200	mS/m	10.0 (m ⁻¹)	08	0.000 ~ 2.000	μS/cm	0.1 (cm ⁻¹)
39	0.000 ~ 0.500			09	0.00 ~ 5.00		
40	0.000 ~ 1.000			10	0.00 ~ 10.00		
41	0.000 ~ 2.000			11	0.00 ~ 20.00		
42	0.00 ~ 5.00			12	0.00 ~ 50.00		
43	0.00 ~ 10.00			13	0.0 ~ 100.0		
44	0.00 ~ 20.00			14	0.0 ~ 200.0		
45	0.000 ~ 2.000	mS/m	100 (m ⁻¹)	15	0.00 ~ 20.00	μS/cm	1.0 (cm ⁻¹)
46	0.00 ~ 5.00			16	0.0 ~ 50.0		
47	0.00 ~ 10.00			17	0.0 ~ 100.0		
48	0.00 ~ 20.00			18	0.0 ~ 200.0		
49	0.0 ~ 50.0			19	0 ~ 500		
50	0.0 ~ 100.0			20	0 ~ 1000		
51	0.0 ~ 200.0			21	0 ~ 2000		
52	0.00 ~ 20.00	mS/m	1000 (m ⁻¹)	22	0.000 ~ 0.200	mS/m	10.0 (cm ⁻¹)
53	0.0 ~ 50.0			23	0.000 ~ 0.500		
54	0.0 ~ 100.0			24	0.000 ~ 1.000		
55	0.0 ~ 200.0			25	0.000 ~ 2.000		
56	0 ~ 500			26	0.00 ~ 5.00		
57	0 ~ 1000			27	0.00 ~ 10.00		
58	0 ~ 2000			28	0.00 ~ 20.00		

Note: Using range code 52 ~ 58 (22 ~ 28), cell separated type only can be manufactured.

DIMENSIONS(Cell combined type)

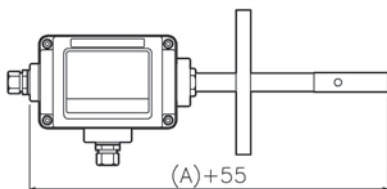
(Unit: mm)



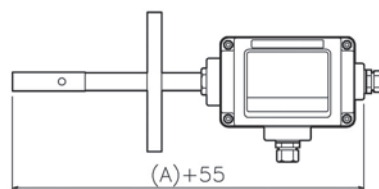
EACH DIMENSION (Unit: mm)

PART CODE/TYPE	A				B			C	D
	F	S	V	N	F,N	S	V		
31 ~ 37 (01 ~ 07)	331	286	512	325	150	81	136	55	Φ8
38 ~ 44 (08 ~ 14)	287	242	468	281	106	37	92	11	Φ6
45 ~ 51 (15 ~ 21)	331	286	512	325	150	81	136	55	Φ8

●The right installation of a cell



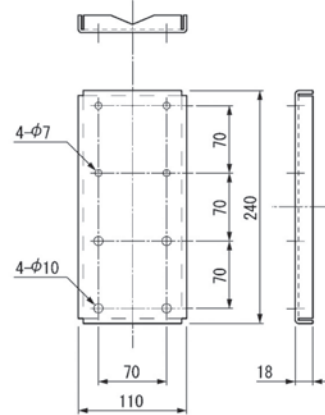
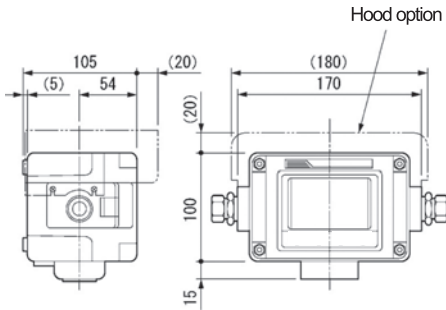
●The left installation of a cell



DIMENSIONS(Cell separated type)

MOUNTING BRACKET

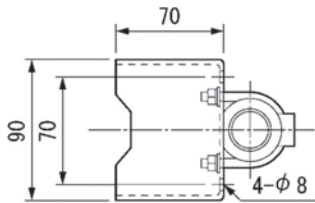
(Unit: mm)



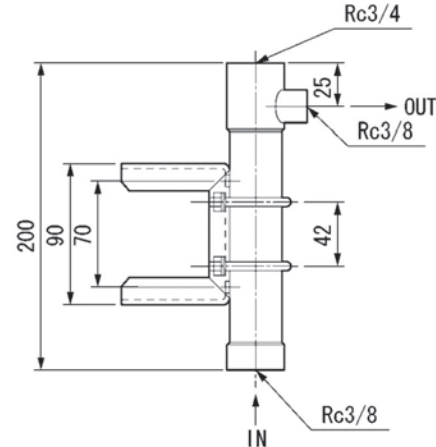
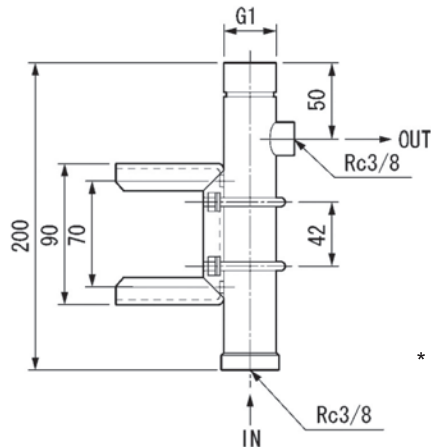
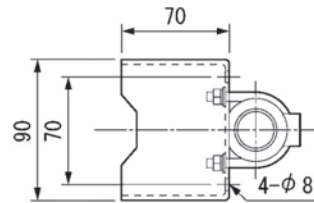
CELL CHAMBER

CH 1001AN

(Unit: mm)



CH 1001AS

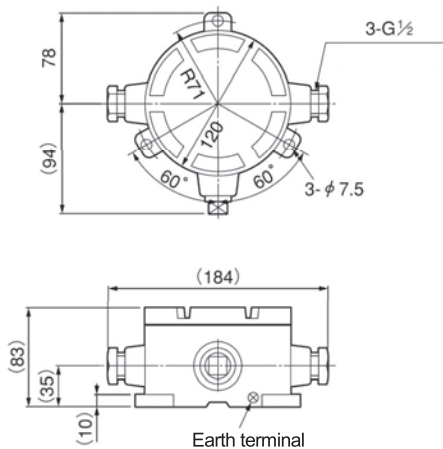


* Mounting bolts, nuts, U bolts for 2B pipe are attached.

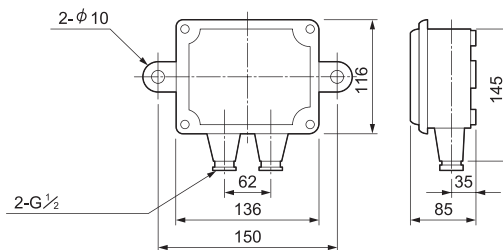
JUNCTION BOX

(Unit: mm)

TB1001

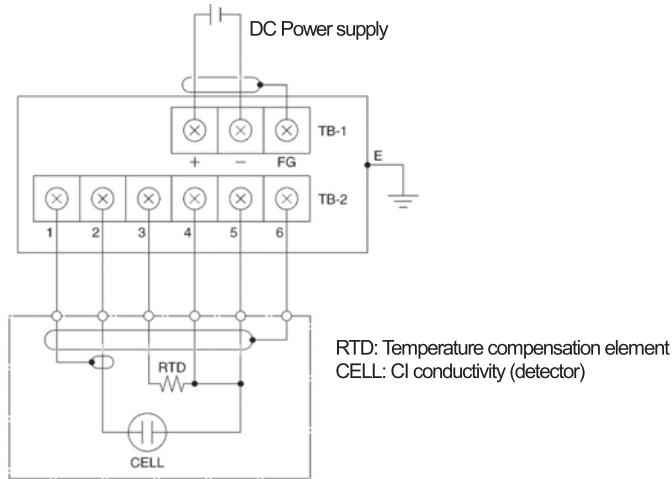


TB2001A3



A
B
C
D
E
F
G

TERMINAL ASSIGNMENT



Note: The terminal 1 & 6 of TB-2 are not connected; in case of the model is cell combined type.

MODEL CODE NUMBER

MODEL		DESCRIPTION	
SC7301R		Digital conductivity transmitter, cell combined, standard	
SC7302R		Digital conductivity transmitter, cell separated	
MOUNTING	F	Flange (JIS 10K-50A)	
	S	Screw – in (R3/4)	
	V	Valve (Rc1)	
	N	Nut (G1)	
	C	Valve (without valve)	
D	Fill "D" if model is cell separated type		
Z	Custom, consult factory		
RANGE		hh	Select code number from range table
OUTPUT		0	Standard output
		1	Non – linear output
OPTION		N	None
		A	Hood
		B	Mounting Bracket
		C	Hood & Mounting Bracket
OTHERS		N	Standard
		A	Transmitter only, for exchange
		C	Cell only, for exchange
SPECIFIC SPECIFICATION		N	None
		A	The right installation of a cell 1)
		B	The left installation of a cell 1)
		Z	Custom, consult factory

1) Refer to DIMENSION for direction of a cell.