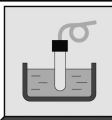


Specifications Sheet	No.SPEC-3109E	(3rd Edition)	
SP	pH (ORP) SENSOR ASSEMBLY		

SPECIFICATIONS

Flow-Through Type Probe

Electrode holder for pipe line or sampling method

Model		SP3101	SP3111
Process connection		Rc1(PT1 female screw) or JIS 10K-25A flange	JIS 10K-25A flange
Liquid contact materials	Body	Polypropylene	Polyvinyl chloride
	Others	Polypropylene, fluorine rubber, hasteloy C, fluorocarbon resin, IIR	TPX resin, glass, ceramic
Cable conduit		G1/2(PF1/2 female screw) (2 positions)	—
Operation temperature range		-5 ~ 50 °C	-5 ~ 50 °C
Operation pressure range		0 ~ 200kPa {0 ~ 2kgf/cm ² }	0 ~ 200kPa {0 ~ 2kgf/cm ² }
Operation flow range		20l/min or less	10l/min or less
Conductivity in measured liquid		10mS/m {100 μS/cm} or greater	10mS/m {100 μS/cm} or greater
Weight		Approx. 3kg	Approx. 1kg

IIR: Isobutylene-isoprene rubber



SP3101



SP3301



SP3311

Immersion Type Probe

Used, immersing into a reaction reservoir or tank directly, or sampling reservoir

Model		SP3301	SP3311
Mounting		JIS 10K-100A flange	Metal fittings
Liquid contact materials	Body	Polypropylene	Polypropylene
	Others	Polypropylene, fluorine rubber, hasteloy C, fluorocarbon resin, ceramic, glass, IIR	TPX resin, glass, ceramic
Cable conduit		PF1/2 female screw (2 positions)	—
Immersion length		0.5, 1.0, 1.5, 2.0m	0.5, 1.0, 1.5m
Operation temperature range		-5 ~ 50 °C	-5 ~ 50 °C
Operation pressure		Atmosphere	Atmosphere
Operation flow range		2m/sec or less	2m/sec or less
Conductivity in measured liquid		10mS/m {100 μS/cm} or greater	10mS/m {100 μS/cm} or greater
Weight		Approx. 3kg	Approx. 1kg

Submersion Type Probe

Used, submersing in water of an underground reservoir which is impossible in maintenance.

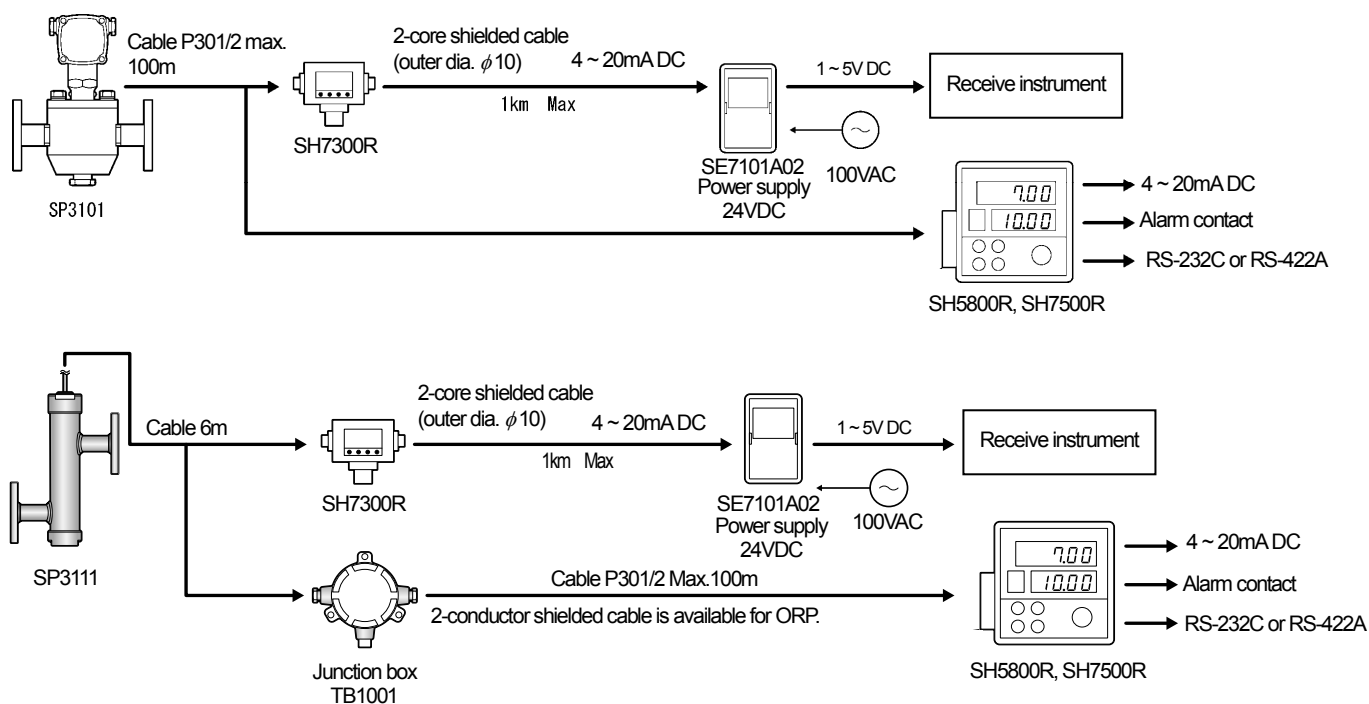
Model	SP3201
Liquid contact materials	TPX resin, glass, ceramic, IIR, Polyethylene
Cable	6m long, outer diameter φ6mm
Operation temperature range	-5 ~ 50 °C
Operation pressure range	3mH ₂ O or less
Operation flow speed range	2m/sec or less
Conductivity in measured liquid	10mS/m {100 μS/cm} or greater
Weight	Approx. 0.8kg



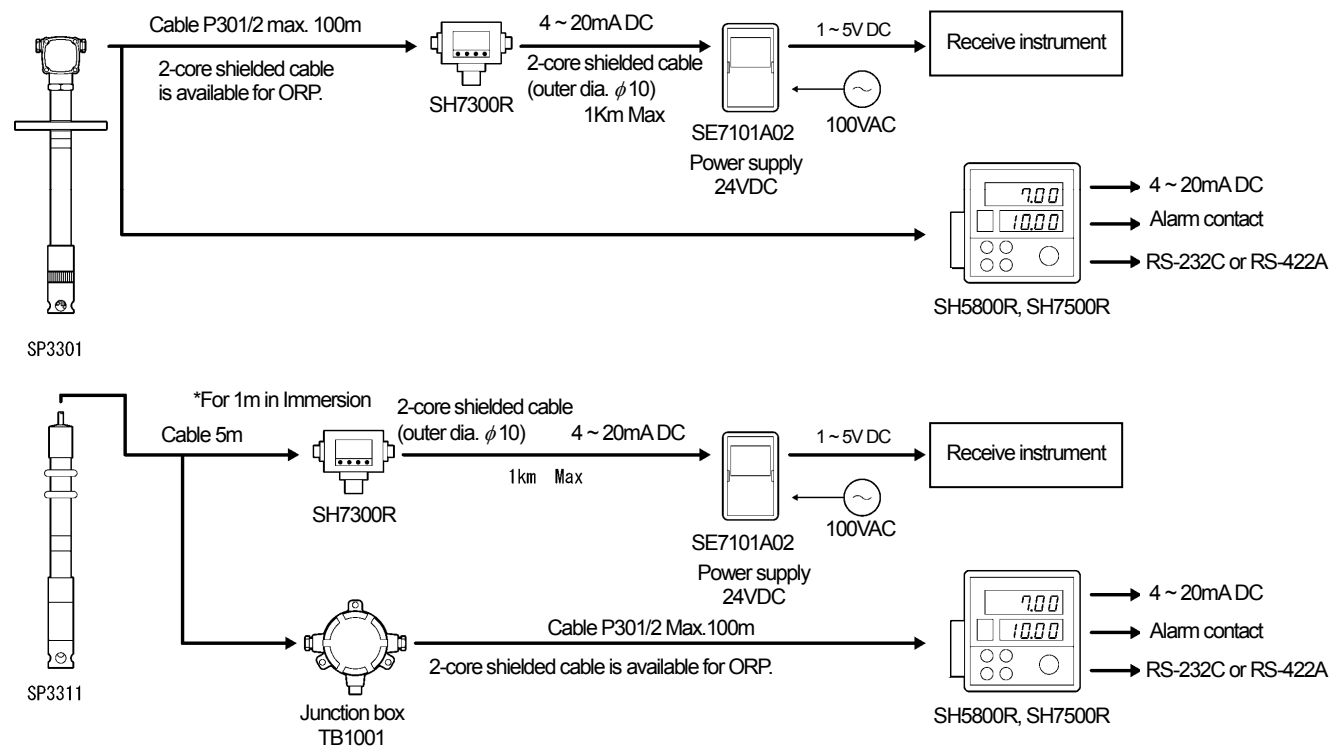
SP3201

SYSTEM CONFIGURATION

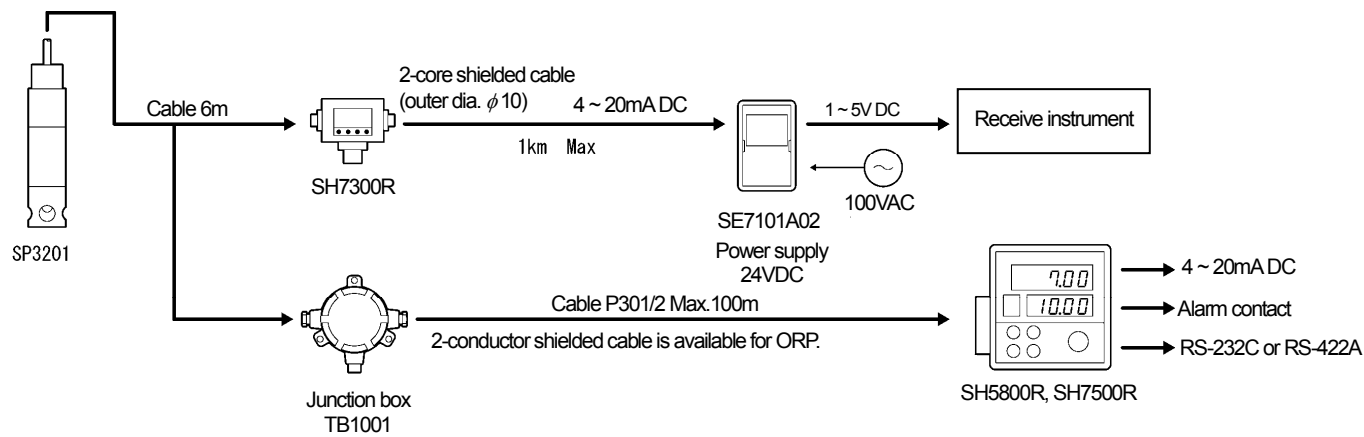
Flow-through type electrode probe SP3101 and SP3111



Immersion type electrode probe SP3301 and SP3311



Submersion type pH type assembly SP3201



MODEL CODE NUMBER

Flow-Through Type Probe

Basic code	Electrode	Process connection	Description
SP3101A			Body materials: Polypropylene
	3		MA8000 + NR3000
	4		MA8100 + NR3000
	7		GP1000 + NR3300 + TC6000
	9		GP1200 + NR3300 + TC6000
	Z		Others
		1	Rc1 (PT1 female screw)
		2	JIS 10K-25A flange

Basic code	Electrode	Process connection	Description
SP3311A			
	7		MP8801
	8		MP8802
	9		KP1016B
	Z		Others
		1	JIS 10K-25A flange
		Z	Others

Immersion Type Probe

Basic code	Electrode	Immersion length	Description
SP3301A			Body materials: Polypropylene (Flange mounting)
	3		MA8000 + NR3000
	4		MA8100 + NR3000
	7		GP1000 + NR3300 + TC6000
	9		GP1200 + NR3300 + TC6000
	Z		Others
		1	0.5m
		2	1.0m (Standard)
		3	1.5m
		4	2.0m
		Z	Special

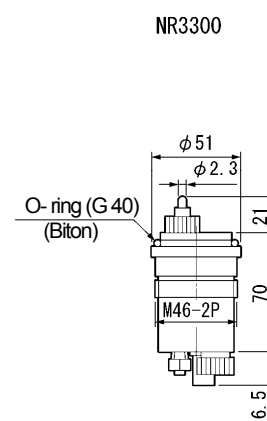
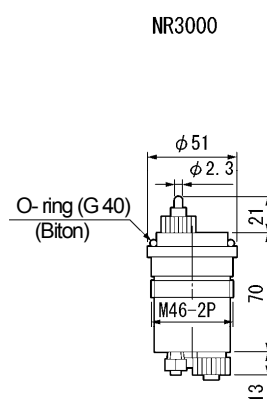
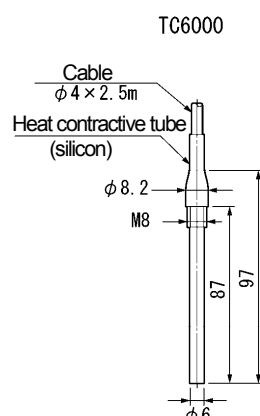
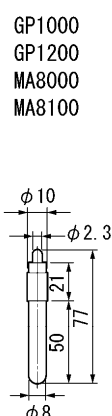
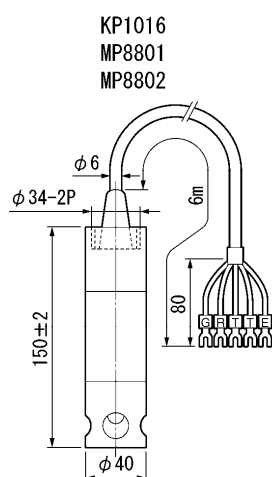
Basic code	Electrode	Immersion length	Description
SP3311A			Body materials: Polypropylene (Hook mounting)
	7		MP8801
	8		MP8802
	9		KP1016B
	Z		Others
		1	0.5m
		2	1.0m (Standard)
		3	1.5m
		Z	Special (Immersion length must be within 1.5m)

Submersion Type Probe

Basic code	Cable length	Description
SP3201B		Pt1000
	1	6m
	Z	Special

ELECTRODES

Unit: mm

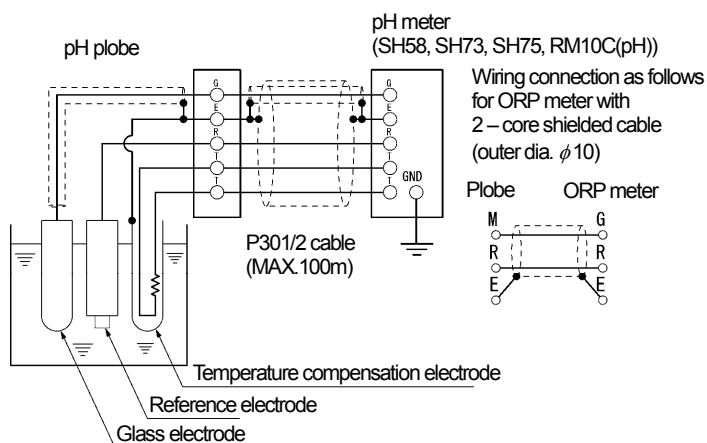


NAME	MODEL	CABLE LENGTH	ELECTRODE HOLDER	REMARKS
Glass electrode (for general)	GP1000	No cable type	SP3101,3301	-5 ~ 60°C
Glass electrode (for fluoric acid)	GP1200	No cable type	SP3101,3301	0 ~ 60°C
pH multiple electrode	KP1016B	6m	SP3311,3111	-5 ~ 50°C diffusion type
Reference electrode	NR3000	No cable type	SP3101,3301	-5 ~ 90°C diffusion type
Reference electrode	NR3300	No cable type	SP3101,3301	-5 ~ 90°C diffusion type
ORP electrode (Platinum)	MA8000	No cable type	SP3101,3301	-5 ~ 90°C
ORP electrode (Gold)	MA8100	No cable type	SP3101,3301	-5 ~ 90°C
ORP electrode (Platinum)	MP8801	6m	SP3311,3111	-5 ~ 50°C diffusion type
ORP electrode (Gold)	MP8802	6m	SP3311,3111	-5 ~ 50°C diffusion type
Temperature compensation electrode	TC6000	2.5m	SP3101,3301	-5 ~ 90°C Pt1000

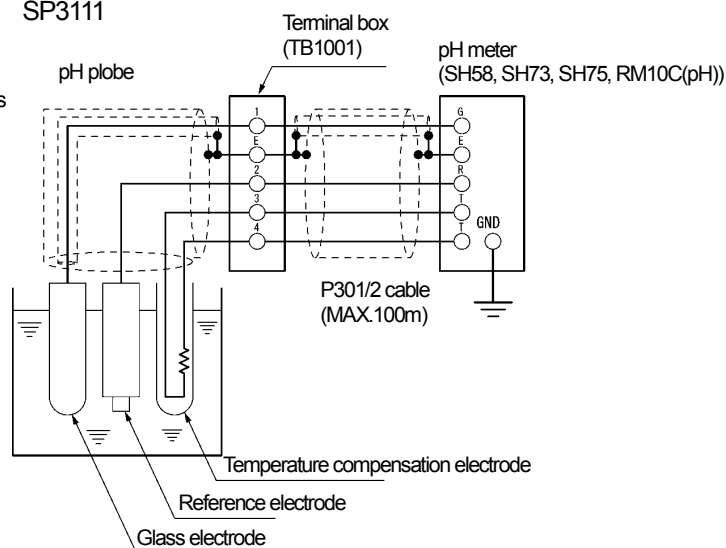
Note: Inner electrode is made of silver chloride.

OUTSIDE CONNECTION

●SP3101 SP3301 Wiring



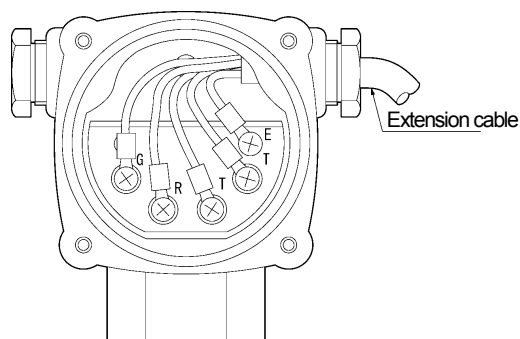
●SP3201 SP3311 Wiring SP3111



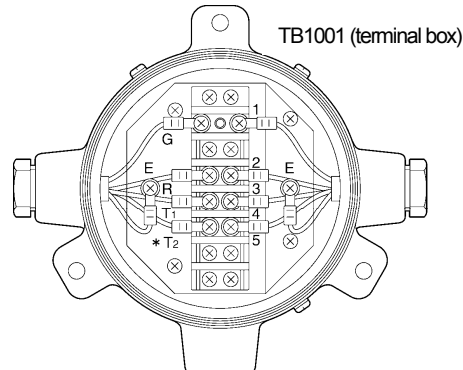
Note: As to the connection of pH meter, please refer to the spec sheets of SH5800R, SH7300R, SH7500R and RM10C(pH).

TERMINAL CONNECTION

●SP3101 ●SP3301



●SP3201 (with terminal box) ●SP3311 (with terminal box) ●SP3111 (with terminal box)



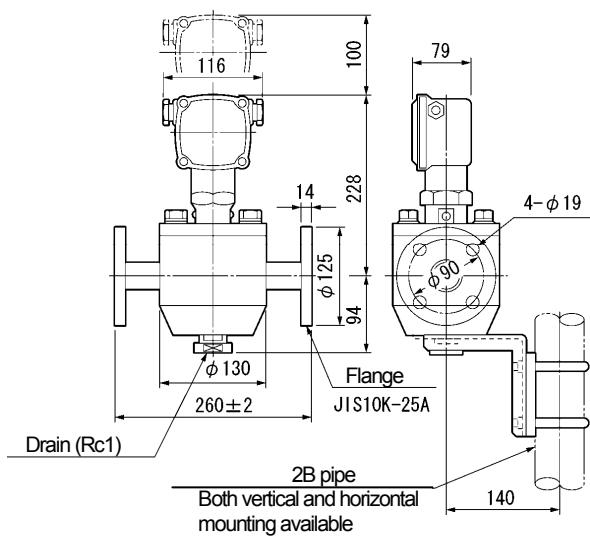
Note: Please connect T2 of pH probe to same terminals

DIMENSIONS

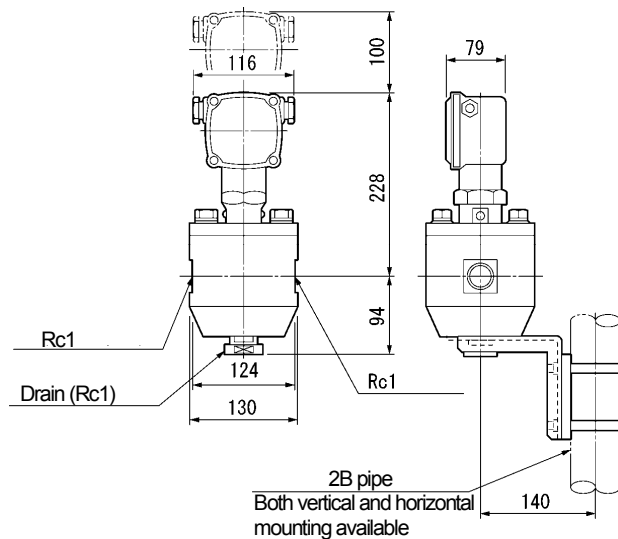
●SP3101

(Unit: mm)

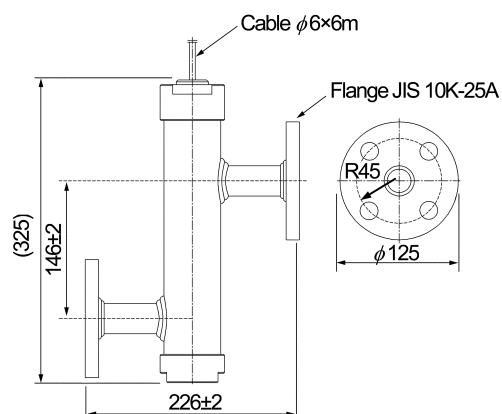
Process connection: JIS10K-25A flange



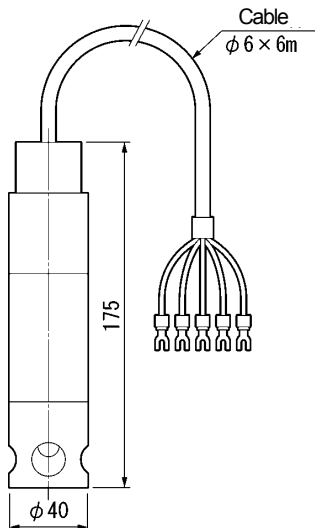
Process connection: Rc1



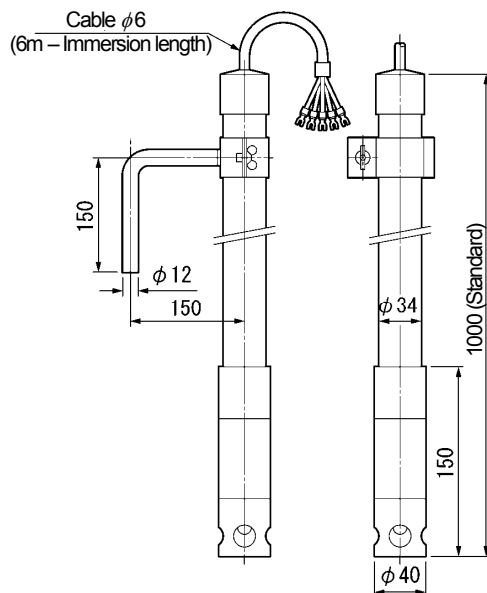
●SP3111



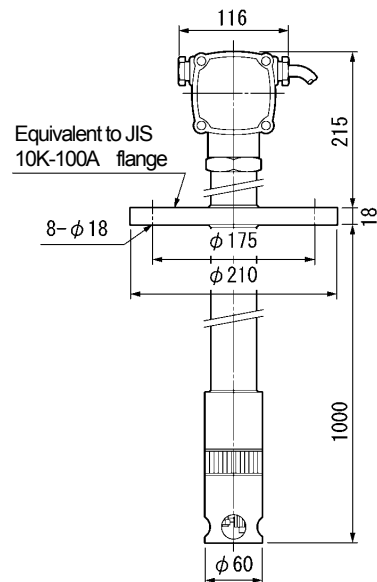
●SP3201



●SP3311

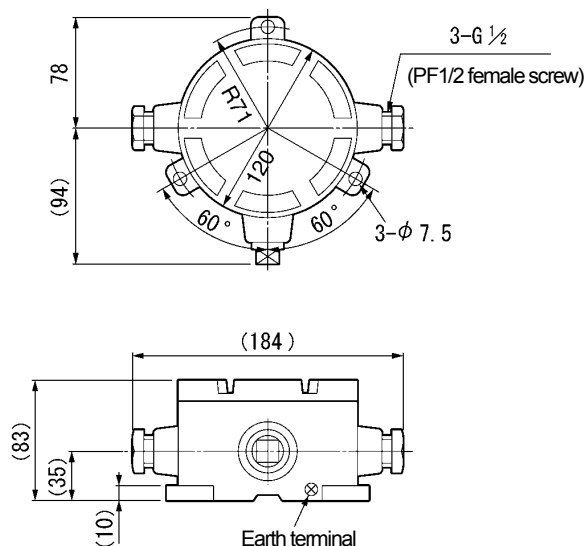


●SP3301



DIMENSIONS OF TB1001 (Junction box)

(Unit : mm)



⚠ CAUTION

Do not install this device before consulting instruction manual

Specifications are subject to change without notice.

For further information, a quotation or a demonstration please contact to:

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