

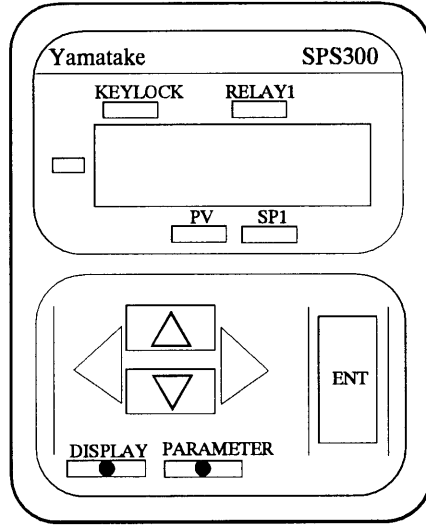
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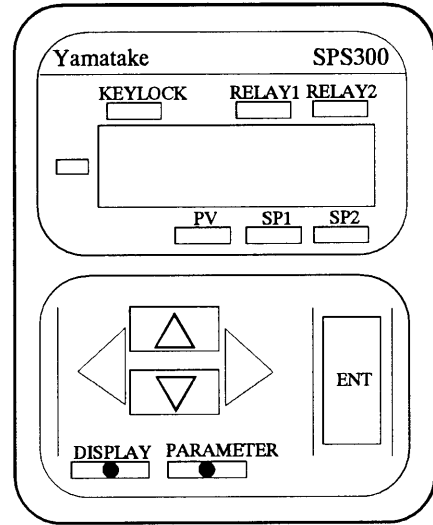
製品仕様書
SPECIFICATIONS

3. APPEARANCE

SPS300-A (SENSOR)



SPS300-B (SWITCH)



作成 DR.		尺度 SCALE	記入のない公差 TOL. UNLESS NOTED
I. Harada			
検図 CHK.	形番 MODEL	SPS300A, B	
Yoshikawa			
認可 APPD	名称 NAME	Intelligent Pressure Sensor and Switch	
S. Ichida			
日付 DATE	図番 NO.	改番 REV.	2/11
8-12-97	AD2894E	01	

01	JEO98-0914	10-30-98	Harada	Yoshikawa
改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閱 APPD.

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
製品仕様書 SPECIFICATIONS

5.3 Environmental Specifications

- | | |
|--------------------------|---|
| (1) Applicable fluids | Gases and liquids, except corrosive fluids that may corrode pressure receiver material (SUS316L) |
| (2) Ambient temperature | -20 to +60°C |
| (3) Storage temperature | -20 to +80°C |
| (4) Ambient humidity | 90%RH max. at 40°C |
| (5) Vibration | 4.9m/s ² max. X, Y and Z directions, 2 hours each |
| (6) Shock | 490m/s ² max. X, Y and Z directions, 3 times |
| (7) Mounting | Vertical |
| (8) Degree of protection | JIS C 0920 Class 3 Spray-proof type |
| (9) Breakdown pressure | 3 times of span |
| | (1.5 times for Range Code: 105, 109, 111, 205, 209, 211
305, 309, 311, 709
805, 809, 811, 905, 911) |
| (10) Allowable pressure | 1.1 times of span |
| | (Equal to the Range Code: 105, 109, 111, 205, 209, 211
305, 309, 311, 709
805, 809, 811, 905, 911) |

5.4 Mechanical Specifications

- | | |
|---------------------------|---|
| (1) Electronic components | Piezo/resistance type silicone pressure sensor |
| (2) Pressure sensor | Oil filled SUS316L seal diaphragm type |
| (3) Wetted parts | SUS316L Diaphragm
SUS316L Pressure inlet |
| (4) Material | Case Aluminum die cast
Cover Aluminum die cast
Door Plastic
Face plate Plastic |
| (5) Mounting | Wall-mount/Panel-mount (depends on Model No.) |
| (6) Pipe size | Rc1/4 |
| (7) Weight (Mass) | Approx. 1,100g |

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検 査 CHK. Yoshikawa	形 番 MODEL	SPS300A, B	
認 可 APPD S.Ichida	名 称 NAME	Intelligent Pressure Sensor and Switch	
改 番 REV. 01	来 歴 RECORD	日 付 DATE 10-30-98	担 当 検 閲 BY APPD. HaradaYoshikawa
頁 改番		日 付 DATE 8-12-97	図 番 NO. AD2894E
		改 番 REV. 01	5 / 11

SP. No.

6. CAUTION IN USE

- (1) This unit is a precision instrument. Carefully handle not to give excessive shock while installation.
- (2) Install the device upright only, other poise may cause inaccuracy.
- (3) Firmly mount the device onto a mounting plate.
- (4) Do not hold the case or body while mounting to a nipple, apply wrench to the hexagon inlet and fix firmly not to leak.
- (5) This device is designed to meet Protection Grade of JIS C 0920 Class 3, however, install it out of sunlight or rain. Also when it must be protected from rain, use a water-proof conduit fitting.
- (6) When wiring, special care shall be given not to make miss-wiring, such as reverse connection of 4 to 20mA output polarity, selection of 100V/200V tap, etc. Also care must be taken not to damage electronics or internal wires by driver-slip, etc. After wiring fasten the door firmly not to degrade protection degree.
- (7) Do not run low voltage wires (4 to 20mA, etc.) and line voltage wires in a same conduit pipe.
- (8) When perform dielectric withstand voltage test, remove the test pin and be sure to insert it after the test.
- (9) Do not apply over pressure exceeding allowable pressure, if applied, check the unit before use, it may cause shift in display or output signal.
- (10) This device is designed to have a sufficient tolerance when allowable pressures are exceeded, however take into consideration that the surge pressure may be induced by on-off of valve in the pipe line of non-compressible medium such as water or oil.
- (11) Allow 10 min. after turning the power ON for stabilization.
- (12) If freezing at wet parts is anticipated provide with insulation or heating not to freeze.
- (13) Reduce the pressure inlet temperature to 60°C or lower by installing a siphon when measuring high-temperature media.

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検図 CHK.	形番 MODEL	SPS300A, B	
Yoshikawa			
認可 APPD	名称 NAME	Intelligent Pressure Sensor and Switch	
S.Ichida			
日付 DATE	図番 NO.	改番 REV.	6/11
8-12-97	AD2894E	01	

改番 REV.	来歴 RECORD	日付 DATE	担当 BY	検閲 APPD.
01	JEO98-0914	10-30-98	Harada	Yoshikawa

No.
SP.

Yamatake Corporation

製品仕様書 SPECIFICATIONS

7. SMART FUNCTIONS

7.1 Type and Smart Functions

Smart Functions	Type	SPS300A (Sensor)	SPS300B (Switch)
(1) Pressure readings		○	○
(2) 4 to 20mA output		○	×
(3) Relay contact output		1-stage	2-stage
(4) Digital setting (relay setpoint, Diff.)		○	○
(5) Keylock		○	○
(6) Display digit		○	○
(7) Peak hold		○	○
(8) Filter time constant change		○	○
(9) HI/LO operation switching		○	○
(10) PV bias		○	○
(11) Current value manual output		○	×
(12) Current value scaling (zero, span)		○	×
(13) PV value adjusting (zero, span)		○	○
(14) Self-diagnostics		○	○

Note ○: With
×: None

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認可 APPD S.Ichida	名称 NAME	Intelligent Pressure Sensor and Switch	
改番 REV. 01	来歴 RECORD : JEO98-0914	日付 DATE 10-30-98	担当 BY HaradaYoshikawa
改番 REV. 01	日付 DATE 8-12-97	検閱 APPD. 日付 DATE	図番 NO. AD2894E
改番 REV. 01	改番 REV. 01	改番 REV. 01	改番 REV. 7/11

SP. No.

7.2 Smart Functions

(1) Pressure readings

Pressure value (PV value) are displayed by 4 digits, 7-segment LED min. resolution varies by measuring range.

(2) 4 to 20mA output

PV values are converted to 4 to 20mA output for either full range or a preset span.

(3) Relay contact output

Relay ON/OFF control is carried out by contacts according to the digital settings below.

(4) Digital settings (set point, differential)

Relay contact and pressure differential set points can be input by key input while monitoring process pressures (digital readings and set points can be checked as needed).

(5) Keylock

The DISPLAY and PARAMETER mode details can be displayed and checked in the keylock state. However, these modes cannot be set. This prevents inadvertent and erroneous setting.

(6) Display digit

The display digit can be changed so that the lowermost digit is hidden. This prevents flickering on the display caused by small pressure fluctuations.

(7) Peak hold

The previous maximum pressure value can be stored to memory and checked when required. This value is cleared when the power supply is turned OFF.

(8) Filter time constant change


Sudden fluctuations in PV value can be suppressed by the preset time constant. This function is effective for both display and output.

(9) HI/LO operation switching

Pull-in / drop-out can be changed as follows.


HI: Relay drops-out on pressure rise and pulls-in on pressure fall

LO: Relay pulls-in on pressure rise and drops-out on pressure fall

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		8-12-97	図番 NO.
			改番 REV. 8/11
			AD2894E

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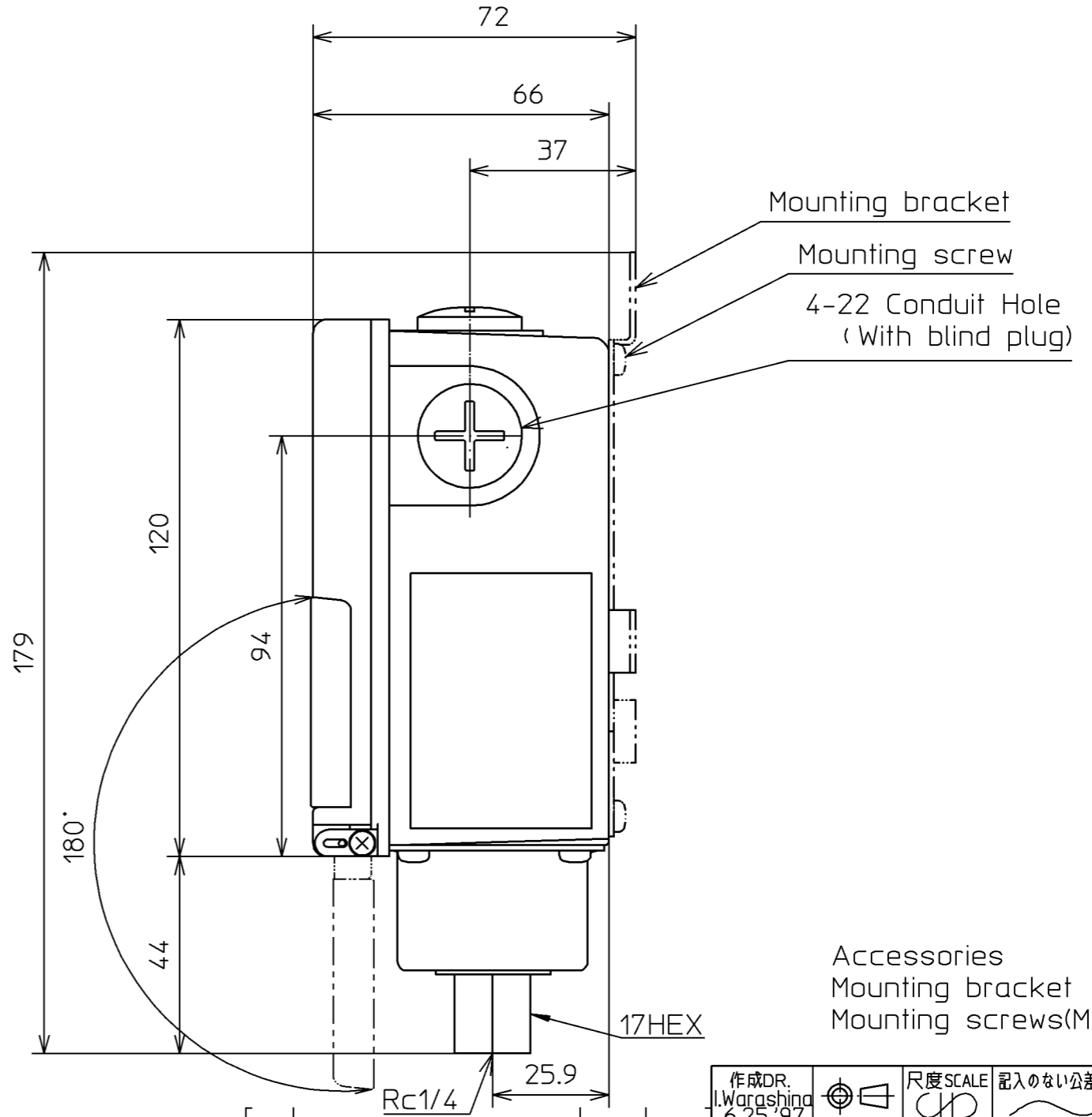
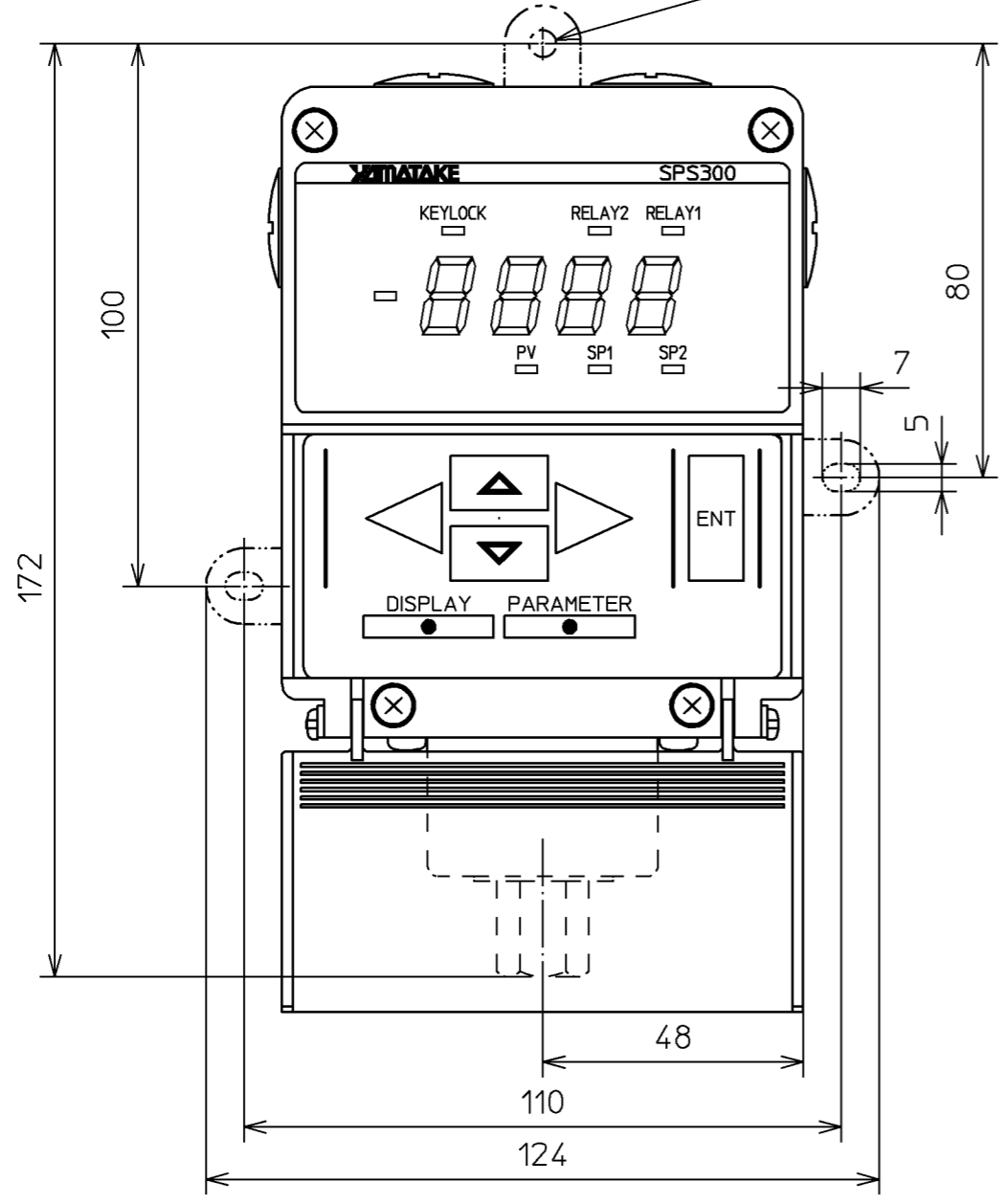
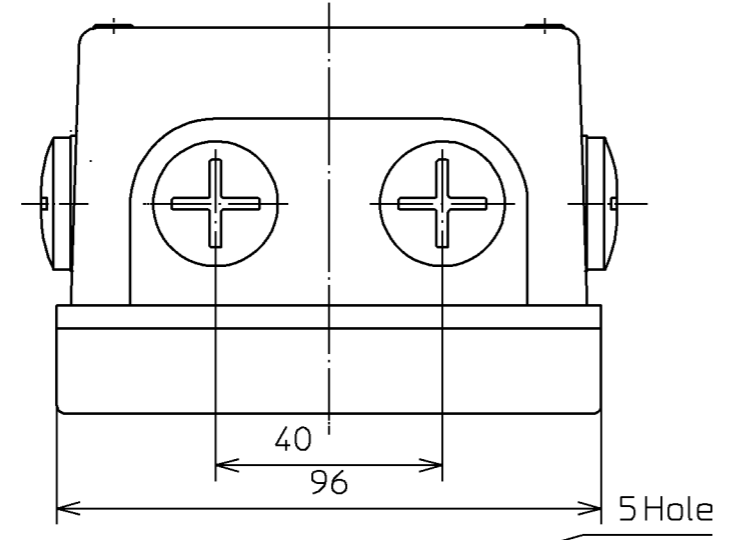
- (10) PV bias
Process variables can be increased or decrease with preset values.
- (11) Current value manual output
Manually set pressure values can be output in order to check controllers and recorders during trial runs.
- (12) Current value scaling (zero, span)
Output current range (4 to 20mA) can be assign to any portion within the pressure range.
- (13) PV adjusting values (zero point, span point)
Zero and span point of PV values are adjustable.
- (14) Self-diagnostics
Abnormal conditions are monitored by an integral microcomputer so that remedial measures can be quickly carried out.

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頁 改番	改番 REV. 01	日付 DATE 8-12-97	図番 NO. AD2894E
			改番 REV. 9 / 11

SP. No.

Yamatake Corporation

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SPECIFICATIONS



Accessories
Mounting bracket 1pc
Mounting screws(M4) 4pcs

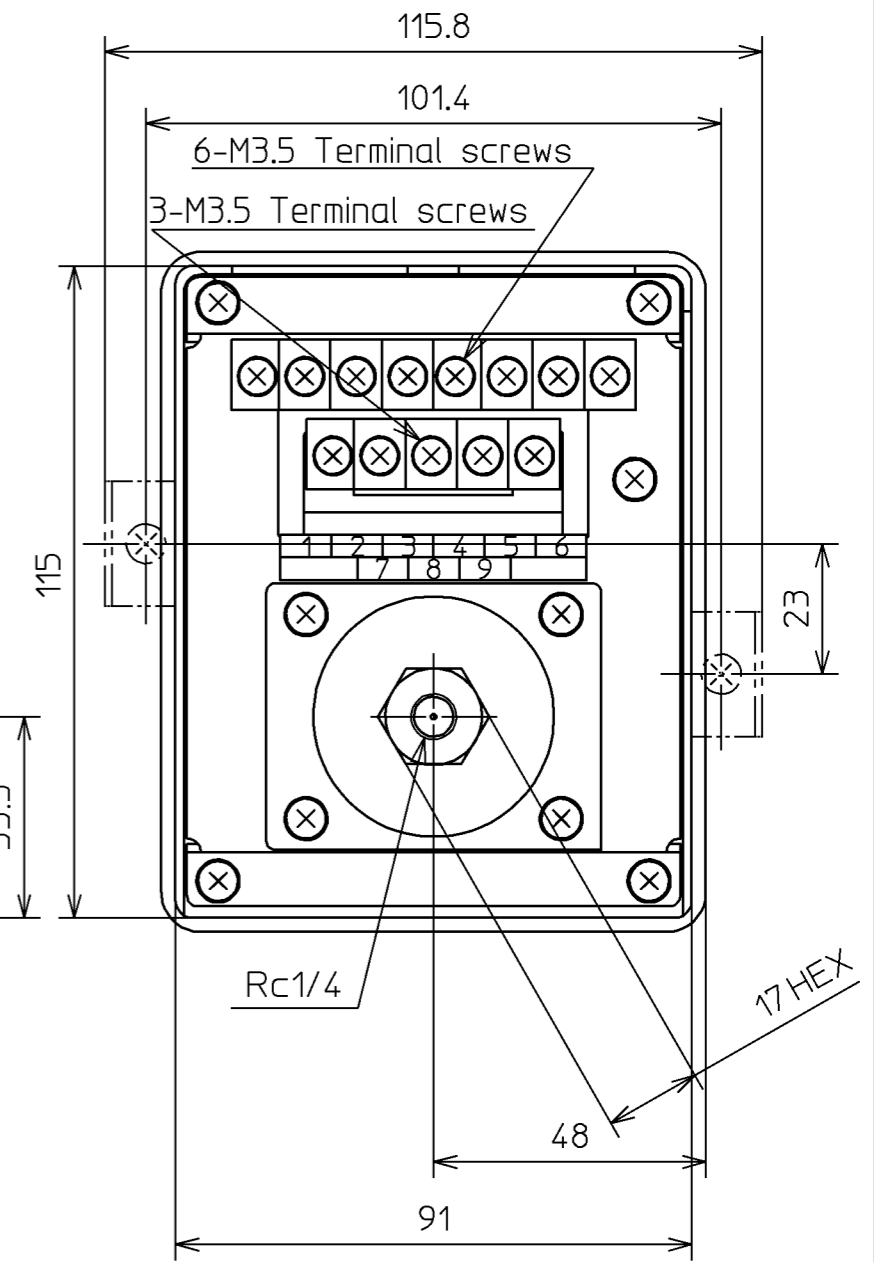
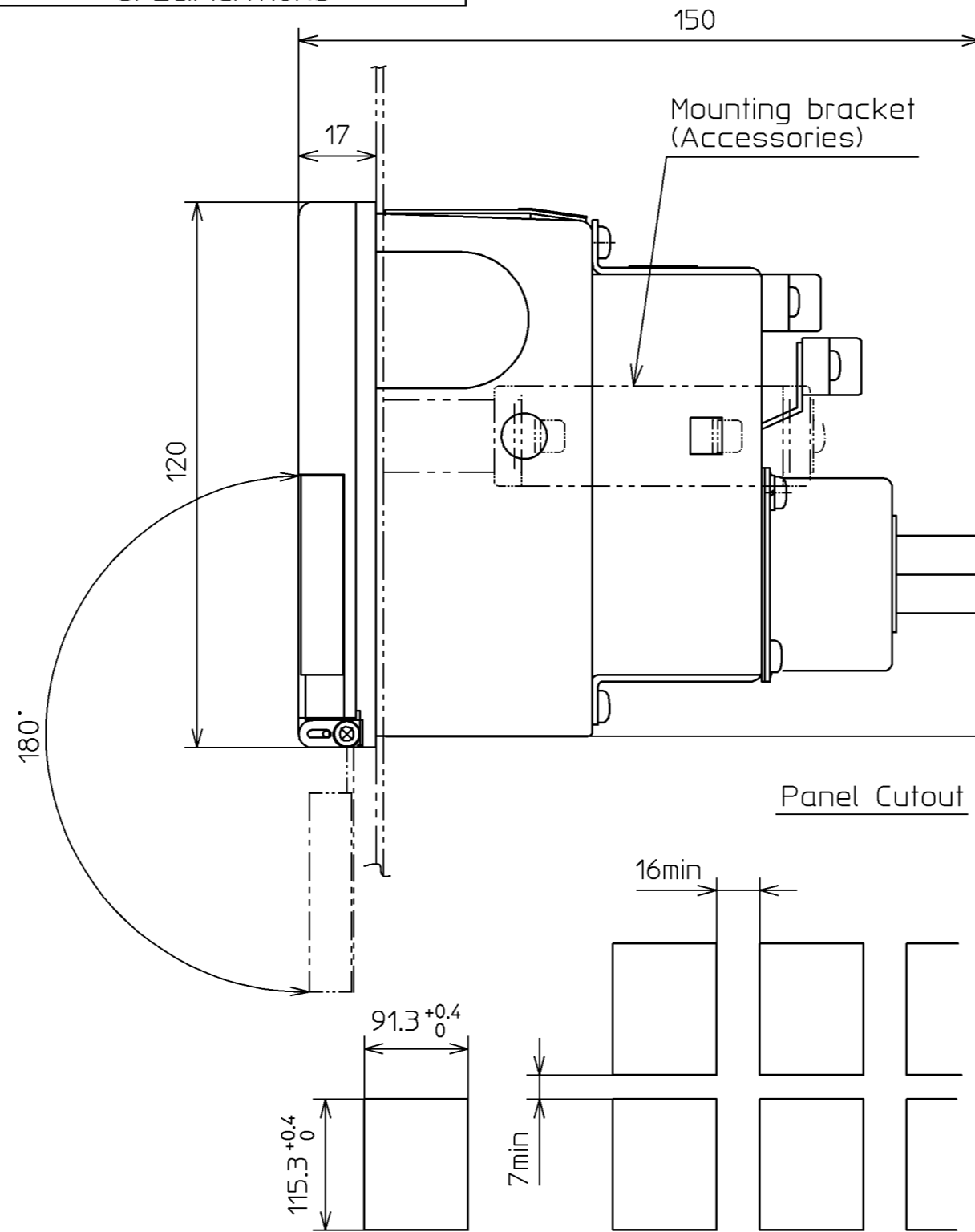
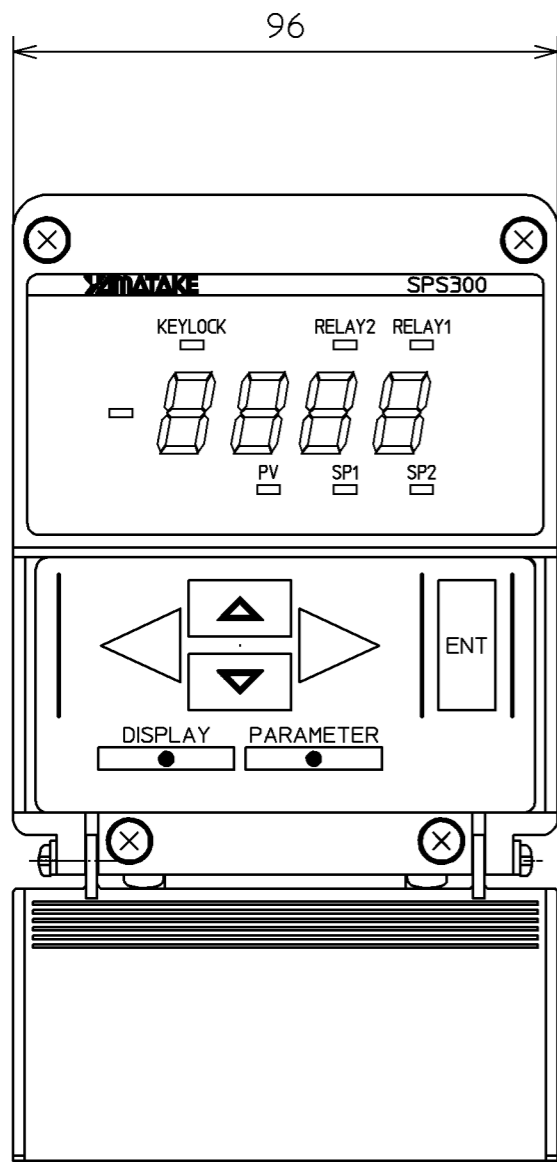
01	JE098-0914	11.5.'98	M.Watanabe	I.Warashina
改番 REV.	来歴 RECORD	: 日付 DATE	担当 BY	検閲 APPD.

作成DR. I.Warashina 6.25.'97	検図CHK. T.Akimoto 6.25.'97	認可APPD. K.Murata 6.25.'97	日付DATE 6.25.'97	尺度SCALE UN	記入のない公差 TOL. UNLESS NOTED
形番 MODEL	SPS300 A XXXA B				
名称 NAME	Intelligent Pressure Sensor and Switch (Wall-mount)				
図番 NO.	AD2894E				改番REV. 01
					10/11

SP. No.

Yamatake Corporation

製品仕様書
SPECIFICATIONS



作成DR. I.Warashina 6.25.'97	検図CHK. T.Akimoto 6.25.'97	認可APPD K.Murata 6.25.'97	日付DATE 6.25.'97	形状 SPS300 ^A XXXB _B	名称 Intelligent Pressure Sensor and Switch (Panel-mount)	図番 AD2894E	改番REV. 01/11
尺度SCALE CD		記入のない公差 TOL. UNLESS NOTED					

01	JE098-0914	10.30.'98	M.Watanabe	I.Warashina
改番 REV.	来歴 RECORD	: 日付 DATE	担当 BY	検閲 APPD.