Applicable models: SCB series

Instruction Manual "Cable storage space Pressure Sensor Button Type"

Before using this product, please read this manual thoroughly and be sure to observe the precautions in this manual.
Futaba Corporation assumes no responsibility or warranty for injuries caused by the use of the product contrary to these precautions.

1. Introduction

Thank you very much for purchasing our cable storage space type pressure sensor button type. First, check that there is no damage during transportation or that there is no difference in the model.
If there are any defects, contact the distributor from whom you purchased the product or our sales office.

2. Overview

The cable diameter is smaller than that of conventional button-type sensors, making it easier to introduce into small molds. In addition, by using the dedicated junction box with cable storage space "UCP04", it is possible to prevent the cable from being crushed or broken outside the mold. These are used in conjunction with our MPS08 in-mold pressure measuring amplifier.

3. Precautions for Use

- Use the product within the rated capacity.
- Be careful not to apply current to the sensor body.
- Do not connect to other than our MPS08 amplifier (UCP04 spec.).
- Do not disassemble the internal parts. Doing so will impair the performance and safety of the product.
- For accurate measurement, the sensitivity must be set. Please refer to the MPS08 instruction manual for details on how to set the output sensitivity.
- Do not pull on the connection cable. Connect the connection cable with sufficient margin so that excessive force is not applied to the connection part. Pulling or applying excessive force may cause failure, interruption of measurement or abnormal measurement value.
- The heat resistance temperature is 200°C or less for the sensor and cable, and 120°C or less for the connector. Use the product within the specified range.
- When disposing of the product, take care of the environment and dispose of the product.

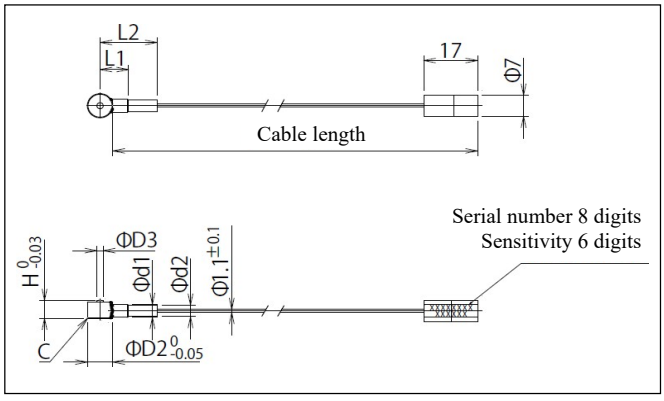
4. Measurement Amplifier & Software

When using the cable storage space pressure sensor button type, use software of the following versions or later for MPS08.

- Measurement software version on PC side Ver.11.10.43
- Firmware version in MPS08 amplifier Ver.00.00.48.00

If you are using an old version, please download the latest software from our website and use it after updating.
URL for the latest software downloads: http://www.futaba.co.jp/precision/mold_marshall/software

5. Product Specifications (Unit: mm)



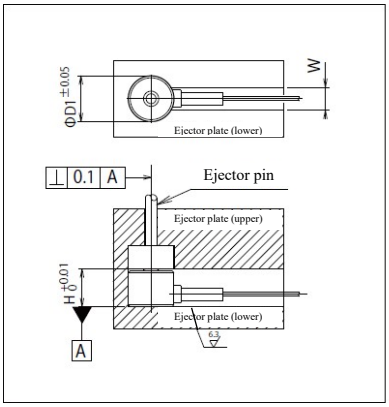
	D2	D3	H	L1	L2	d1	d2	L	C
50N/200N/1kN	8	2	6	8	13	4.2	3.4	1000	C0.2
4kN	10	4	8	11	16	4.5	3.4	1000	C0.5
16kN	12	4	10	12	17	4.5	3.4	1000	C0.5

Futaba

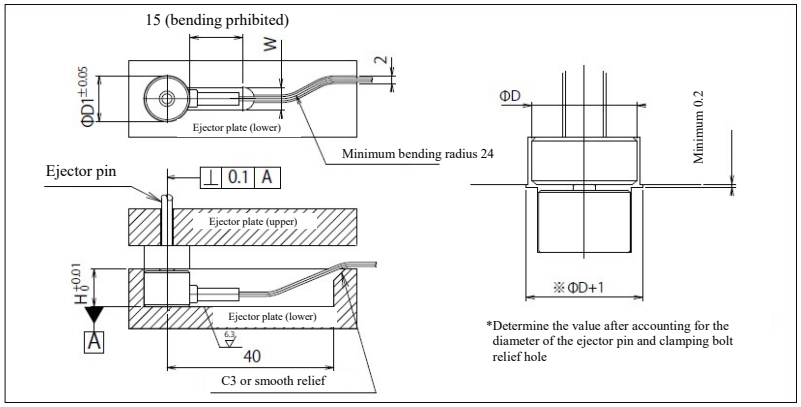
6. Embedded example (Unit: mm)

	D1	H	W
50N/200N/1kN	8.1	6	5
4kN	10.1	8	6
16kN	12.1	10	6

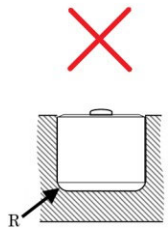
For the ejector plate specification counterbored type



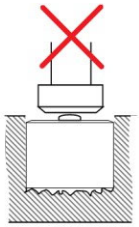
For ejector plate specification spacer type



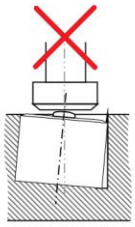
Precautions for sensor installation



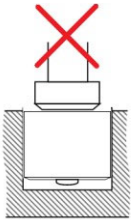
Do not machine the bottom with round edges



The machined underside must be smooth.



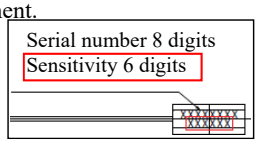
Install perpendicular to the pin shaft.



Do not install the sensor upside down.

7. Correction

Sensitivity varies depending on the installation environment temperature (ambient temperature of the sensor) due to the characteristics of the strain gauge. In order to perform measurement with higher accuracy, it is necessary to change the sensitivity classification according to the installed environment.



Calculation example

<Prerequisites for calculation example>

・Sensitivity classification of the pressure sensor: 71200A

・Installation environment temperature: 190°C (The coefficient in the table on the right is 1.027.)

Ambient temperature ℃	coefficient
25	0.999
30	0.999
35	0.999
40	1.000
45	1.000
50	1.000
55	1.000
60	1.001
65	1.001
70	1.001
75	1.002
80	1.002
85	1.003
90	1.004
95	1.004
100	1.005
105	1.006
110	1.007

Ambient temperature ℃	coefficient
115	1.008
120	1.008
125	1.009
130	1.011
135	1.012
140	1.013
145	1.014
150	1.015
155	1.017
160	1.018
165	1.019
170	1.021
175	1.022
180	1.024
185	1.026
190	1.027
195	1.029
200	1.031

<Calculation>

Use the factor "1.027" in the chart at 1200 on 71200A and at 190°C.

1200 ÷ 1.027 □ 1168

Fit this calculated 1168 to the 1200 positions used in the calculation, and change the sensitivity classification to be set for the software or amplifier as shown below to perform measurement.

(before conversion)	→	(after conversion)
71200A	→	71168A

2020 May

Futaba