

SH Type LOAD CELL

INSTRUCTION MANUAL

NO. 01

●Cable connection methods.

Connection methods are shown in the <Fig1>
 If you have misconnecting, there might be troubles with zero balance and errors on output voltage under load condition.

●Maximum Admissible Excitation Voltage

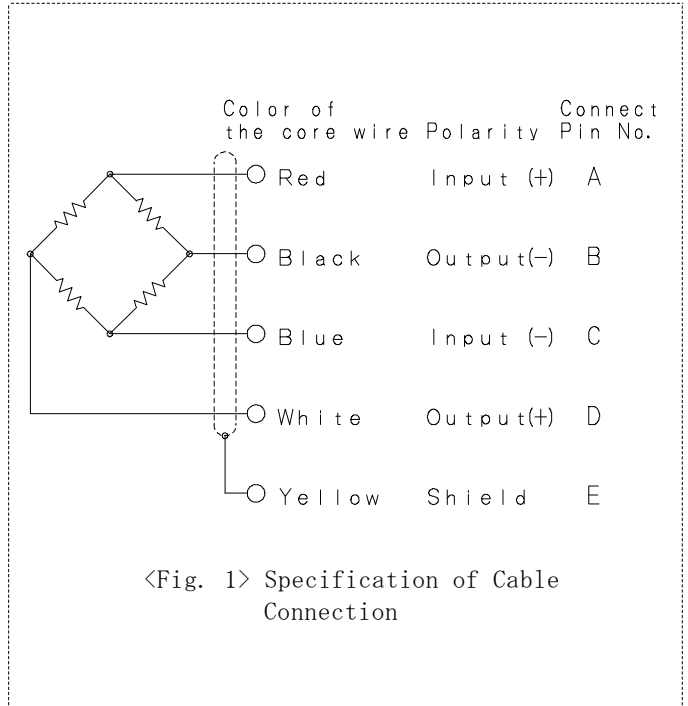
| | |
|--------------------------------------------------|-------|
| Maximum Admissible Excitation Voltage (AC/DC) | 2 0 V |
| Nominal Range of Excitation Voltage (AC/DC) | 1 2 V |

<Table 1>

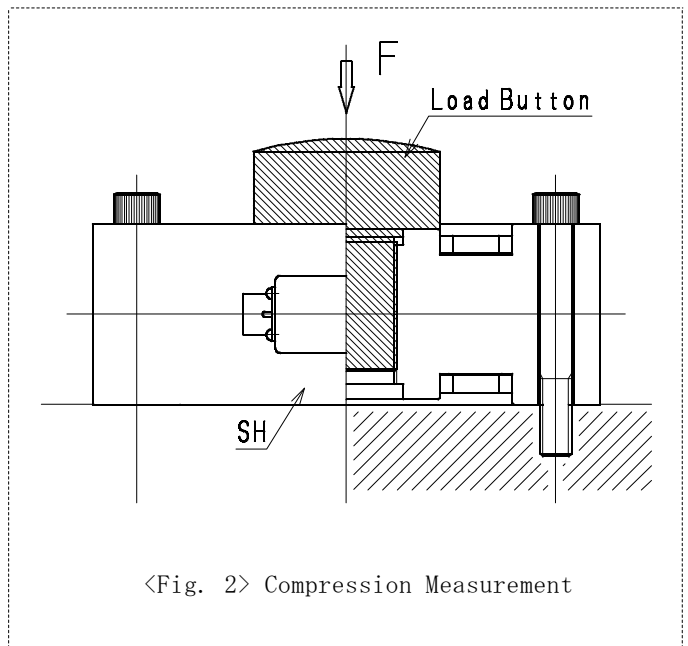
●Installation and Handling Cautions

Refer to Fig. 2 when this load cell is used for a measurement of compressive load. Refer to Fig. 3 when this load cell is used for a measurement of both tensile and compressive loads. With reference to Fig. 4, note that no output can be detected if a load is applied to a flange portion because this load cell is built to accept a load only applied to its centre portion.

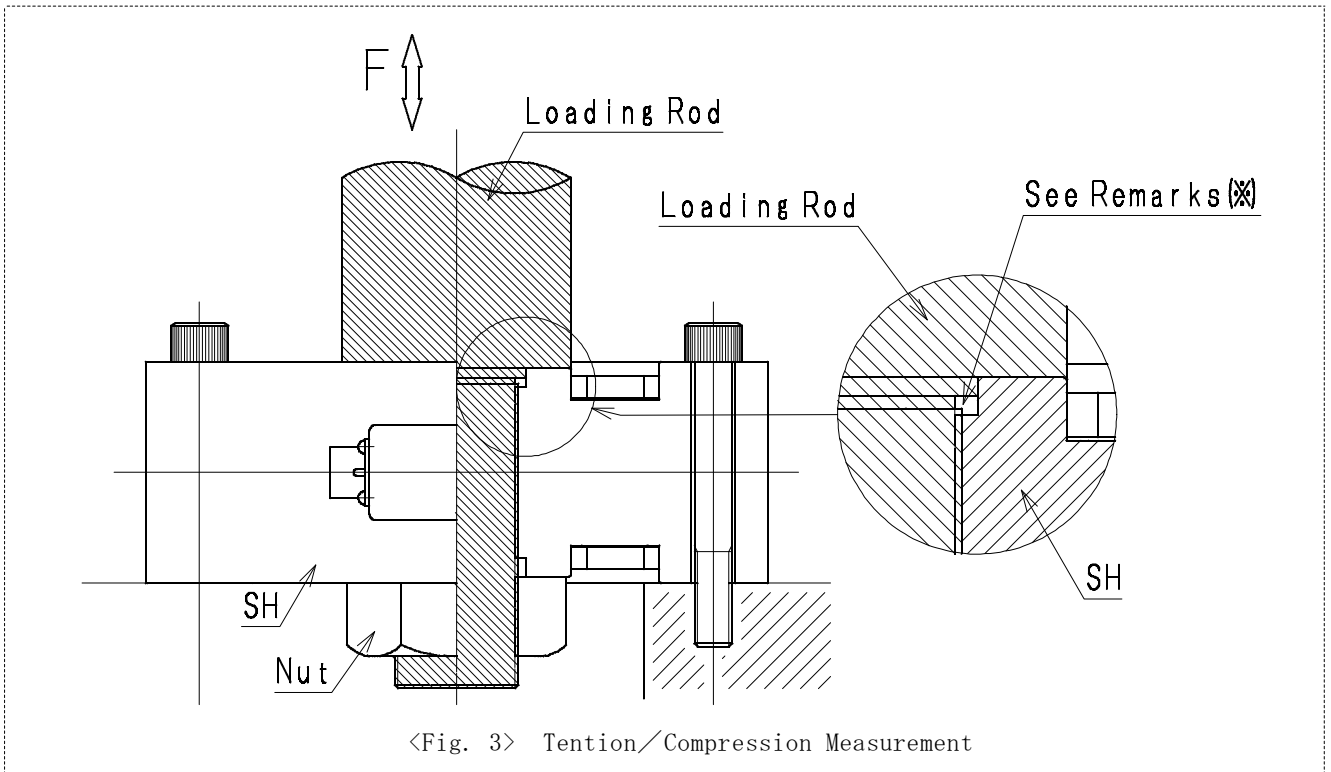
Because both surfaces of Model SH is finished by a parallel machining, there is a possibility of an output of this load cell being hurt if this load cell is not mounted correctly on an intended mounting surface in such a way as that its surface is exactly parallel with a mounting surface.



<Fig. 1> Specification of Cable Connection



<Fig. 2> Compression Measurement

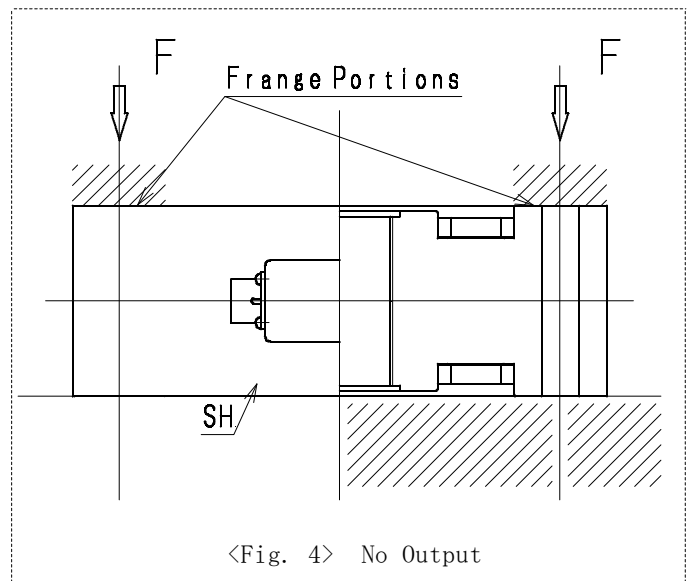


●Use Environment and Caution

1. This unit is not waterproof.
Please avoid from water and moisture.
2. Compensated temperature range is
-10 ~ 60 °C

●Maintenance

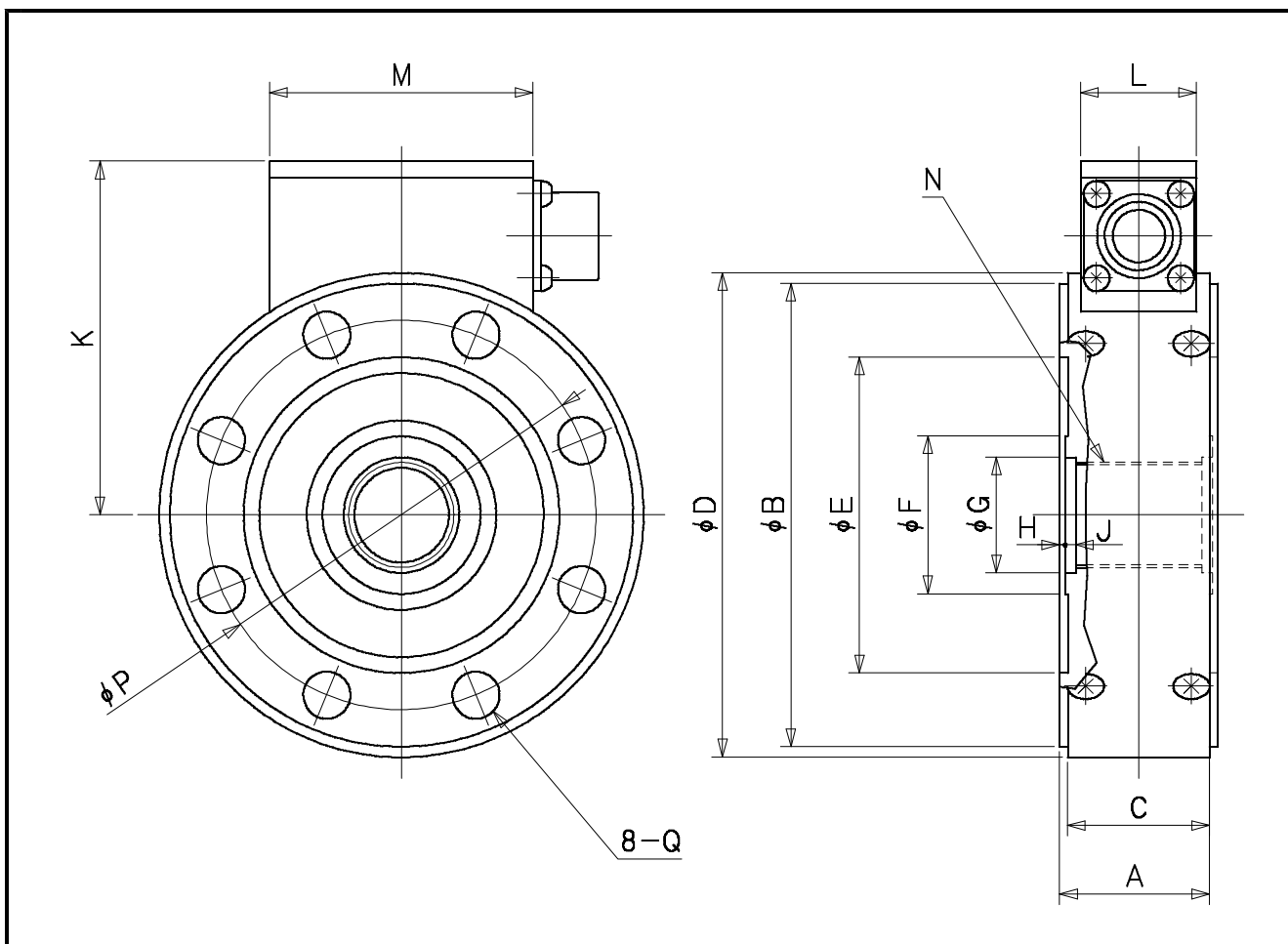
We suggest you to have a yearly maintenance and calibration (both with the extra charge) to maintain the quality of this product.



●Warranty

This product has a warranty of one year after purchase. When there is any troubles or machine break down, we will repair the machine without any additional charges. But for your misuse or disassembly, then we are not responsible for the gurantee. Please understand the situation that sometimes the machine is beyond repair due to the unlimited overload and voltage.

● Dimensional Drawing



● Dimensional Chart (Unit: mm)

| Model | Rated Capacity | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q |
|----------|----------------|----|-----|----|-----|-----|----|----|-----|---|-----|----|----|---------|-----|-----|
| SH- 1KN | 1 kN | 25 | 65 | 22 | 70 | 41 | 18 | 14 | 0.5 | 2 | 55 | 22 | 50 | M12×1 | 52 | 6.5 |
| SH- 2KN | 2 kN | 25 | 65 | 22 | 70 | 41 | 18 | 14 | 0.5 | 2 | 55 | 22 | 50 | M12×1 | 52 | 6.5 |
| SH- 5KN | 5 kN | 25 | 65 | 22 | 70 | 41 | 18 | 14 | 0.5 | 2 | 55 | 22 | 50 | M12×1 | 52 | 6.5 |
| SH- 10KN | 10 kN | 25 | 65 | 22 | 70 | 41 | 18 | 14 | 0.5 | 2 | 55 | 22 | 50 | M12×1 | 52 | 6.5 |
| SH- 20KN | 20 kN | 30 | 65 | 22 | 70 | 41 | 18 | 14 | 0.5 | 2 | 55 | 22 | 50 | M12×1 | 52 | 6.5 |
| SH- 50KN | 50 kN | 30 | 88 | 27 | 92 | 60 | 30 | 22 | 1 | 2 | 67 | 22 | 50 | M20×1.5 | 74 | 9 |
| SH-100KN | 100kN | 34 | 117 | 31 | 121 | 82 | 46 | 34 | 1 | 2 | 81 | 22 | 50 | M32×2 | 100 | 11 |
| SH-200KN | 200kN | 50 | 166 | - | - | 116 | 60 | 44 | 1 | 2 | 117 | 40 | 70 | M40×2 | 142 | 17 |

NOTES : 1. The tolerance of Column "G" above is H7 .

SPECIFICATIONS

| TYPE | SH |
|------------------------------------|------------------------------------------------------------------------------------------|
| Rated Capacity | 1 kN ~ 200 kN |
| Safe Overload Rating | 150% |
| Ultimate Overload Rating | 200% |
| Rated Output | 0.75 mV/V \pm 1% (1 kN) 1.0 mV/V \pm 1% (2 kN) 1.5 mV/V \pm 1% (5 kN~200 kN) |
| Linearity | 0.15% R. O. |
| Hysteresis | 0.15% R. O. |
| Repeatability | 0.1 % R. O. |
| Admissible Excitation Voltage | 20 V, Nominal Range 12 V |
| Input Resistance | 350 Ω |
| Output Resistance | 350 Ω |
| Compensated Temperature Range | -10 ~ 60 $^{\circ}$ C |
| Safe Temperature Range | -30 ~ 80 $^{\circ}$ C |
| Temperature Effect on Zero Balance | 0.01% R. O. / $^{\circ}$ C (1 kN, 2 kN) 0.005% R. O. / $^{\circ}$ C (5 kN~200 kN) |
| Temperature Effect on Output | 0.01%/ $^{\circ}$ C |
| | ϕ 6 mm Four Conductor Shielded Cable 5 m |
| Remarks | |

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