

Model 1192 Compression Force Transmitters

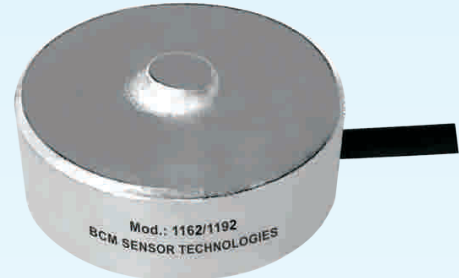
Description

Model 1192 is a low-profile disc-type transmitter which is developed from model 1190 and 1191 to measure compression force.

Comparing to the 1190 and 1191, the 1192 has integrated with the advanced sensor signal conditioner to provide various conditioned output signal, e.g., current loop of 4~20mA, voltage output of 10%~90%Vs ratiometric, 0~5 or 1~5, or digital output of I²C or SPI.

The transmitter has a robust design. Its body is made from 17-4PH stainless steel, and it can have the IP rating of IP65.

Thanks to the robust design and the advanced sensor signal conditioner, the 1192 can be easily integrated into the existing automation system or testing system.



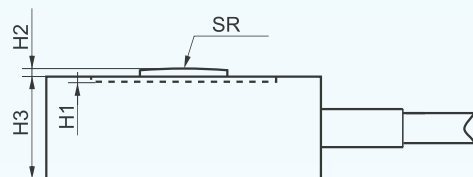
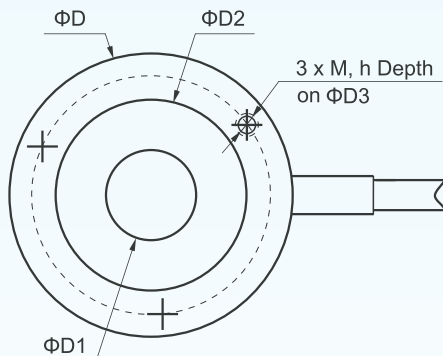
Features

- compact and robust design
- various conditioned output signals available
- accuracy of 0.5%fs
- IP65 rating

Applications

- automatic filling lines
- testing lines of electronics
- retro-fitment of existing machines or systems
- industrial process control

Dimensions



| force range (kN) | D1 | D2 | D3 | D | M | h | H1 | H2 | H3 | SR |
|-------------------------|-----|------|------|------|------|------|-----|-----|------|------|
| 0.1, 0.2, 0.3, 0.5, 0.7 | 2.8 | 22 | 25 | 32 | M2 | thru | 0.5 | 1.3 | 12.7 | SR40 |
| 1, 2, 3, 5, 7 | 8 | 25.5 | 30.7 | 38 | M2.5 | 6 | 0.5 | 1.3 | 13.5 | SR50 |
| 10, 20 | 12 | 32.4 | 39.2 | 44.9 | M3 | 8 | 0.7 | 1.7 | 19 | SR60 |

Note: All dimensions are in mm.

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Technical Data

| Parameters | | Units | Specifications |
|-----------------------------------|-----------------------|----------|---|
| capacity | | kN | 0.1, 0.2, 0.3, 0.5, 0.7, 1, 2, 3, 5, 7, 10, 20 |
| safe load limit | | %fs | 150 |
| ultimate overload | | %fs | 200 |
| output signal | | mA | 4~20 (standard) |
| | | Vdc | 10%~90%Vs ratiometric, 0~5, 1~5 |
| | | digital | I ² C, SPI |
| accuracy | | %fs | ±0.5, ±1 (standard) |
| creep error (30min) | | %fs | ≤±0.5 |
| long-term stability | | %fs/year | ±0.2 |
| power supply (Vs) | current loop | Vdc | 8, ..., 30 |
| | ratiometric & digital | Vdc | 3, ..., 5 |
| load resistance (R _L) | current loop | Ω | ≤(Vs - 10) / 0.02 - R ₀ , R ₀ refers to cable resistance, R _L can be 0Ω. |
| | ratiometric | Ω | ≥ Vout / 0.005, R _L the larger the better. |
| max. excitation voltage | | Vdc | 5 |
| input resistance | | Ω | 350±10 |
| output resistance | | Ω | 350±5 |
| insulation resistance | | MΩ | ≥500 @100Vdc |
| storage temp. range | | °C | -35 ~ +80 |
| operating temp. range | | °C | -20 ~ +80 |
| compensated temp. range | | °C | 10 ~ 70 |
| temp. coefficient of sensitivity | | %fso/°C | ≤±0.005 |
| temp. coefficient of zero | | %fso/°C | ≤±0.005 |
| body material | | | 17-4PH stainless steel |
| sealing | | | welded |
| mechanical interface | | | refer to its dimensions |
| electrical interface | | | Φ5mm, shielded PVC cable, 0.5m cable length |
| environment protection | | | IP65 |
| unit weight (without cable) | | g | ~40, ..., 80 according to capacity |

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Ordering Information

| | | | | | | |
|---|---------------|---------------|-----------------|---------------|---------------|---------------|
| position (pos.) 1: model | | | | | | |
| 1192 | | | | | | |
| pos. 2: capacities | | | | | | |
| 0/0.1kN | | 0/0.5kN | | 0/2kN | | 0/7kN |
| 0/0.2kN | | 0/0.7kN | | 0/3kN | | 0/10kN |
| 0/0.3kN | | 0/1kN | | 0/5kN | | 0/20kN |
| pos. 3: output signal | | | | | | |
| 4/20mA (standard) | | | | | | |
| 10%/90%Vs = 10%~90%Vs ratiometric | | | | 0/5V | | 1/5V |
| I2C | | | SPI | | | |
| pos. 4: accuracy | | | | | | |
| 0.5%fs | | | 1%fs (standard) | | | |
| pos. 5: electrical interface | | | | | | |
| 5/2(^)/PVC/0.5 = Φ 5mm, 2(^)-core shielded, PVC, cable length = 0.5m(#) | | | | | | |
| (^): 2-core for 4~20mA; | | | | | | |
| 3-core for 10%~90%Vs ratiometric, 0~5V, 1~5V; | | | | | | |
| 4-core for I ² C, SPI. | | | | | | |
| #): Cable length can be customized on request. | | | | | | |
| pos. 6: environment protection | | | | | | |
| IP65 | | | | | | |
| pos. 7: customized specifications | | | | | | |
| "(*)" is necessary only if any customized specification is required, otherwise it is neglectable. | | | | | | |
| pos.1 | pos. 2 | pos. 3 | pos. 4 | pos. 5 | pos. 6 | pos. 7 |

Examples of Ordering Code

- standard transmitter:

1192-0/0.1kN-4/20mA-1%fs-5/2/PVC/0.5-IP65

- customized transmitter:

1192-0/0.1kN-10%/90%Vs-1%fs-5/3/PVC/1-IP65-(*)

(*) The customized specifications are:

- output signal = 10%~90%Vs ratiometric;
- cable length = 1m.

The listed dimensions, specifications and ordering information are subject to change without prior notice.

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