# UPP-100NX3 / FS300

3D FORCE SENSOR

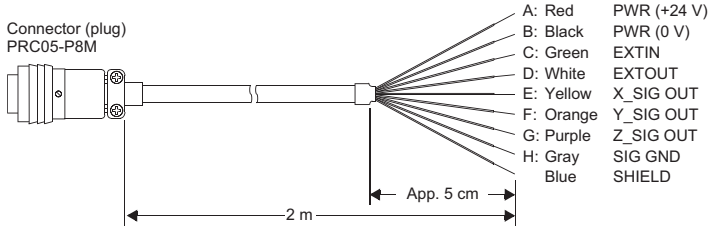
## Dedicated amplifier FS300

±5 V output at the rated capacity for each direction: Fx, Fy, Fz (three axis).
As output signals for each direction is adjusted before shipping out, you can get calibrated (scaled) output by just connecting sensor and DC 24 V power supply to FS300.

## 3D force sensor UPP-100NX3

Force in 3 dimensions(X, Y, Z) can be measured at the same time. Safe overload rating of 500%. The three-axis force sensor with the high sensitivity and rigidity.

● FS300 attached cable **Flexible cable**



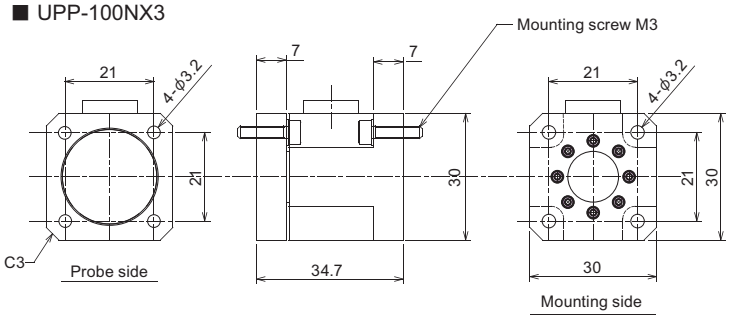

## Specifications

| | |
|---|---|
| Model | Sensor: UPP-100NX3, Amplifier: FS300 |
| Rated capacity | Fx, Fy: ±100 N, Fz: 100 N |
| Power supply voltage | DC 24 V±15% |
| Consumption current | 150 mA or less |
| Load signal output | Fx, Fy, Fz: ±5 V |
| Load resistance | 2 kΩ or more |
| Response | 2 kHz |
| I/O signal | Input: Auto zero command<br>Output: Auto zero response |
| Safe overload | 500% FS |
| Non-linearity | 0.5% FS or less |
| Hysteresis | 0.5% FS or less |
| Repeatability | 0.5% FS or less |
| Compensated temperature range | 0 to +40℃ |
| Safe temperature range | −10 to +50℃ |
| Temperature effect on zero | 0.5% FS/℃ or below |
| Temperature effect on span | 0.05% FS/℃ or below |
| Sensor material | Aluminum alloy |
| Weight | Sensor: Approx. 70 g<br>Amplifier: Approx. 180 g |
| Cable | 8-conductor flexible cable 1 m<br>(Connector is included for FS300 connection) |

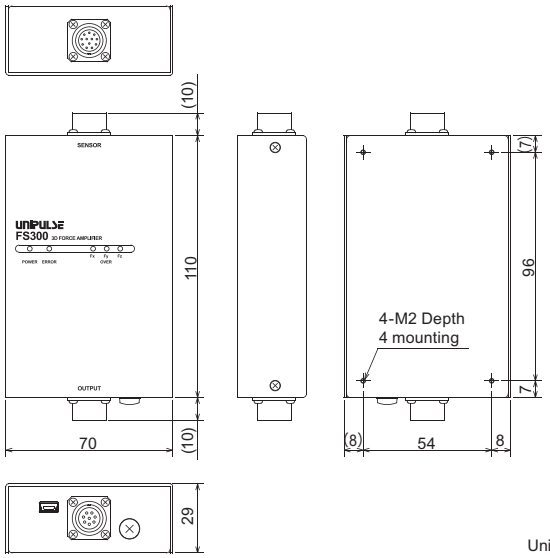
* Above specifications are achieved when the sensor (UPP-100NX3) is connected with the dedicated amplifier (FS300).
* Accuracy is not guaranteed in the range of Fz 0 to -5 V.
* Please note that there are possibilities of individual differences in a color tone on display devices such as LEDs, fluorescent display tubes and LCDs due to manufacturing process or production lots.

## External dimension

■ UPP-100NX3




■ FS300




Unit: mm