# UPP-100NX3/FS300

3D FORCE SENSOR



## 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.

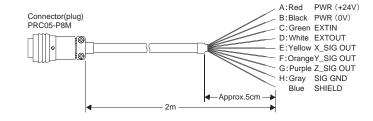


# Dedicated amplifier FS300

 $\pm 5$ 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 DC24V power supply to FS300.

## FS300 attached cable



### **Specifications**

| Model                         | Sensor : UPP-100NX3, Amplifier : FS300  |
|-------------------------------|---|
| Rated capacity                | Fx, Fy: ±100N、Fz: 100N  |
| Power supply voltage          | DC24V±15%   |
| Consumption current           | 150mA or less   |
| Load signal output            | Fx, Fy, Fz : ±5V  |
| Load resistance               | 2k or more  |
| Response                      | 2kHz  |
| I/O signal                    | Input: Auto zero command<br>Output: Auto zero response                        |
| Safe overload                 | 500%FS  |
| Non-linearity                 | 0.5%FS  |
| Hysteresis                    | 0.5%FS  |
| Repeatability                 | 0.5%FS  |
| Compensated temperature range | 0 to +40℃   |
| Safe temperature range        | −10 to +50°C  |
| Temperature effect on zero    | 0.5%FS/°C   |
| Temperature effect on span    | 0.05%FS/℃   |
| Sensor material               | Aluminum alloy  |
| Weight                        | Sensor : Approx. 70g,<br>Amplifier : Approx. 180g<br>(Excluding the cable)    |
| Cable                         | 8 conductor flexible cable 1m<br>(Connector is included for FS300 connection) |

- $\ast$  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 -5V.

### External dimension

