

## TCLB-NA Tension/Compression Universal Load Cell 50~200N

Made-to-order



**Low capacity  
High precision**

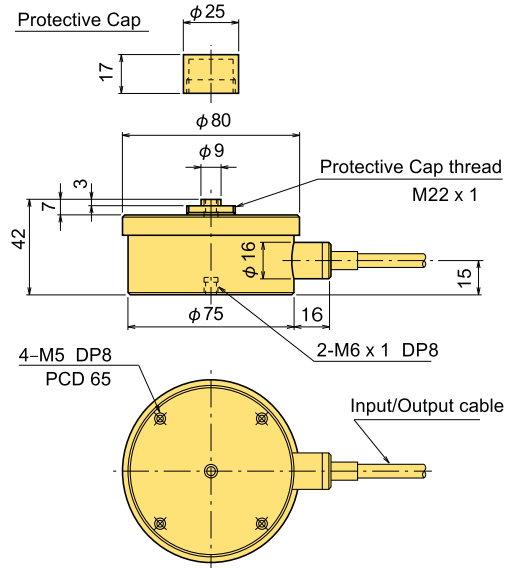


The TCLB-NA Tension/Compression Universal Load Cell is a low capacity load cell. It can be used for high precision measurement because the internal structure uses both ends fixed beam for the strain sensing element.

Protection ratings: IP40 equivalent TCLB-50NA  
IP42 equivalent TCLB-100NA/-200NA

### SPECIFICATIONS

| TYPE                          | TCLB-50NA                                   | TCLB-100NA | TCLB-200NA |
|-------------------------------|---|------------|------------|
| Capacity                      | 50N   | 100N       | 200N       |
| Rated Output                  | 1.5mV/V(3000×10 <sup>-6</sup> strain) ±0.5% |            |            |
| Non-linearity                 | 0.1%RO                                      |            |            |
| Hysteresis                    | 0.1%RO                                      |            |            |
| Natural frequency             | 0.9kHz                                      | 1.4kHz     | 2kHz       |
| Temperature effect on zero    | 0.01%RO/°C                                  |            |            |
| Temperature effect on span    | 0.01%/°C                                    |            |            |
| Compensated temperature range | -10 ~ +60°C                                 |            |            |
| Allowable temperature range   | -20 ~ +70°C                                 |            |            |
| Over load                     | 150%  |            |            |
| Input/Output resistance       | 350Ω±2%                                     |            |            |
| Recommended exciting voltage  | 6V or less                                  |            |            |
| Allowable exciting voltage    | 15V   |            |            |
| Zero balance                  | 5%RO  |            |            |
| Weight                        | 0.45kg                                      |            | 0.9kg      |



### FITTING ACCESSORY

| Spherical Cap FA | Mounting Flange FB | Rotary at-tachment FD | Rod End FE | Load Button FG |
|------------------|--------------------|-----------------------|------------|----------------|
| FA-20            | FB-002-65          | FD-002                | FE-002A    | FG-002         |

Refer to pages 35~38 for load cell fitting accessories.

Input/Output cable :  
φ9mm 0.5mm<sup>2</sup> 4-core shielded chloroprene cable 5m

## TCLA-NB Tension/Compression Universal Load Cell 500N~20kN



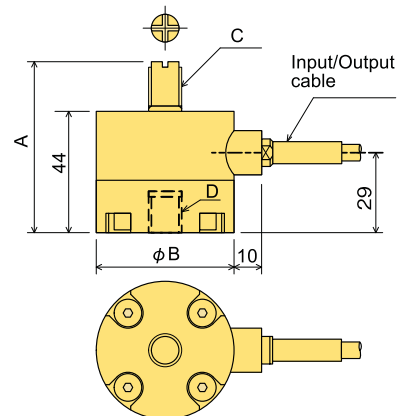
**Small size  
Hermetically sealed**

The TCLA-NB Tension/Compression Universal Load Cell comes to much smaller and lightweight than conventional TCLA-NA. High capacity ranges of 10kN and 20kN are added on the line. It is hermetically sealed, enabling highly precise and consistent measurement.

Protection ratings: IP67 equivalent

### SPECIFICATIONS

| TYPE                          | TCLA-500NB                                | TCLA-1KNB                                 | TCLA-2KNB                                 | TCLA-5KNB | TCLA-10KNB | TCLA-20KNB |
|-------------------------------|---|---|---|-----------|------------|------------|
| Capacity                      | 500N                                      | 1kN                                       | 2kN                                       | 5kN       | 10kN       | 20kN       |
| Rated Output                  | 1.5mV/V(3000×10 <sup>-6</sup> strain) ±2% | 1.5mV/V(3000×10 <sup>-6</sup> strain) ±1% | 2.0mV/V(4000×10 <sup>-6</sup> strain) ±1% |           |            |            |
| Non-linearity                 | 0.3%RO                                    |   | 0.2%RO                                    |           |            |            |
| Hysteresis                    | 0.1%RO                                    |   |   |           |            |            |
| Natural frequency             | 4.5kHz                                    | 6.7kHz                                    | 8.5kHz                                    | 13kHz     | 17kHz      | 16kHz      |
| Temperature effect on zero    | 0.01%RO/°C                                |   |   |           |            |            |
| Temperature effect on span    | 0.01%/°C                                  |   |   |           |            |            |
| Compensated temperature range | -10 ~ +60°C                               |   |   |           |            |            |
| Allowable temperature range   | -20 ~ +70°C                               |   |   |           |            |            |
| Over load                     | 150%                                      |   |   | 120%      |            |            |
| Input/Output resistance       | 350Ω±2%                                   |   |   |           |            |            |
| Recommended exciting voltage  | 6V or less                                |   |   |           |            |            |
| Allowable exciting voltage    | 15V                                       |   |   |           |            |            |
| Zero balance                  | 5%RO                                      |   |   |           |            |            |
| Weight                        | 0.6kg                                     |   |   |           | 0.7kg      |            |



### DIMENSIONS

| TYPE               | A  | φB | C          | D               |
|--------------------|----|----|------------|-----------------|
| TCLA-500NB ~ 10KNB | 62 | 50 | M12 x 1.75 | M12 x 1.75 DP15 |
| TCLA-20KNB         | 64 | 55 | M18 x 1.5  | M18 x 1.5 DP15  |

### FITTING ACCESSORY

| TYPE              | Rotary at-tachment FD | Rod End FE          |
|-------------------|-----------------------|---------------------|
| TCLA-500NB ~ 5KNB | FD-05B                | FE - 0 5 A / FE-05B |
| TCLA-10KNB        | FD-1B                 | FE-1A/FE-1B         |
| TCLA-20KNB        | FD-2B                 | FE-2A/FE-2B         |

Refer to pages 35~38 for load cell fitting accessories.  
Input/Output cable :  
φ6mm 0.35mm<sup>2</sup> 4-core shielded chloroprene cable 5m