

LOAD CELLS

TCLY-NA Tension/Compression Universal Load Cell 300kN~2MN



The TCLY-NA is a Tension/Compression Universal Load Cell with low-profile construction and high-capacity. It offers high precision, high output characteristics and an excellent stability because it uses a shear beam for the strain sensing element. This model is widely used in applications like one-axis loading test machine.

Low profile
High capacities

Protection ratings: IP40 equivalent

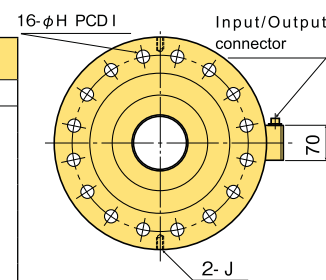
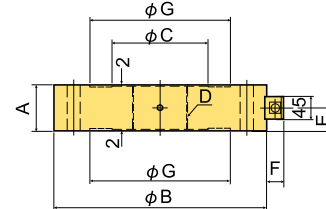
DIMENSIONS

TYPE	A	φB	φC	D	E	F	φG	φH	I	J
TCLY-300KNA	70	295	120	M65x3	35	33	198	17	245	M12 DP22
TCLY-500KNA	75	320	140	M85x3	37.5	33	220	22	270	M12 DP22
TCLY-1MNA	90	420	190	M110x3	45	34	278	26	350	M12 DP22
TCLY-1.5MNA	100	470	230	M140x4	50	34	318	32	395	M16 DP27
TCLY-2MNA	110	500	250	M160x4	55	34.5	338	38	420	M20 DP30

SPECIFICATIONS

TYPE	TCLY-300KNA	TCLY-500KNA	TCLY-1MNA	TCLY-1.5MNA	TCLY-2MNA	TCLY-5MNA	TCLY-10MNA
Capacity	300kN	500kN	1MN	1.5MN	2MN	5M	10M
Rated Output	2mV/V(4000×10 ⁻⁶ strain) ±0.5%						Build-to-order manufacturing
Non-linearity	0.2%RO						
Hysteresis	0.2%RO				0.5%RO		
Natural frequency	4.8kHz	5.4kHz	4.8kHz	4.9kHz	5.2kHz		
Temperature effect on zero	0.01%RO/°C						
Temperature effect on span	0.005%/°C						
Compensated temperature range	0 ~ +40°C						
Allowable temperature range	-10 ~ +60°C						
Over load	150%						
Ultimate overload rating	300%						
Input/Output resistance	700Ω±1%						
Recommended exciting voltage	10V or less						
Allowable exciting voltage	20V						
Zero balance	5%RO						
Weight	35kg	40kg	80kg	100kg	125kg		

Supplied cable : CT9-4N10/NP-STB NDIS plug(φ 9mm 0.5mm² 4-core shielded chloroprene cable 10m)



TCLN-NA Tension/Compression Universal Load Cell 500N~5kN



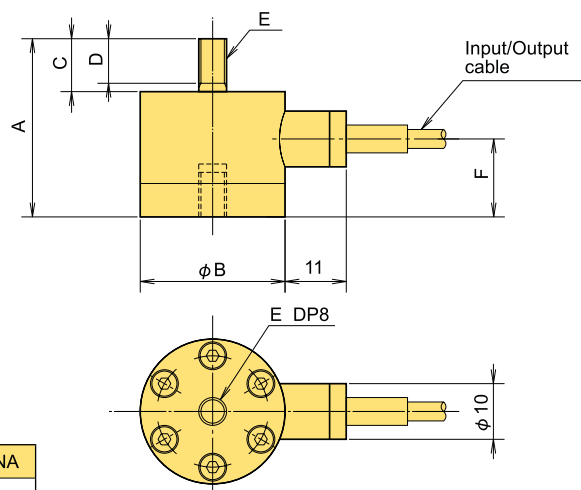
Small size
Hermetically sealed

Compared with TML ordinary Tension/Compression Universal Load Cells, the TCLN-NA is very small and light model. The Input/Output cable is as thin as 3mm in diameter for easiness to handle.

Protection ratings: IP67 equivalent

SPECIFICATIONS

TYPE	TCLN-500NA	TCLN-1KNA	TCLN-2KNA	TCLN-5KNA
Capacity	500N	1kN	2kN	5kN
Rated Output	1mV/V(2000×10 ⁻⁶ strain) ±20%			
Non-linearity	0.5%RO			
Hysteresis	0.1%RO			
Natural frequency	10kHz	12kHz	14kHz	14kHz
Temperature effect on zero	0.05%RO/°C			
Temperature effect on span	0.05%/°C			
Compensated temperature range	-10 ~ +60°C			
Allowable temperature range	-20 ~ +70°C			
Over load	150%			
Ultimate overload rating	200%			
Input/Output resistance	350Ω±2%			
Recommended exciting voltage	6V or less			
Allowable exciting voltage	15V			
Zero balance	10%RO			
Weight	80g	80g	80g	140g



DIMENSIONS

TYPE	A	φB	C	D	E	F
TCLN-500NA	32	26	9.5	8	M5 x 0.8	14
TCLN-1KNA	32	26	9.5	8	M5 x 0.8	14
TCLN-2KNA	32	26	9.5	8	M5 x 0.8	14
TCLN-5KNA	42	32	14	12	M8 x 1.25	15

FITTING ACCESSORY

TYPE	Rod End FE
TCLN-500NA~ 2KNA	FE-002C/FE-002D
TCLN-5KNA	FE-05C/FE-05D

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

Input/Output cable : φ 3mm 0.05mm² 4-core shielded chloroprene cable 5m