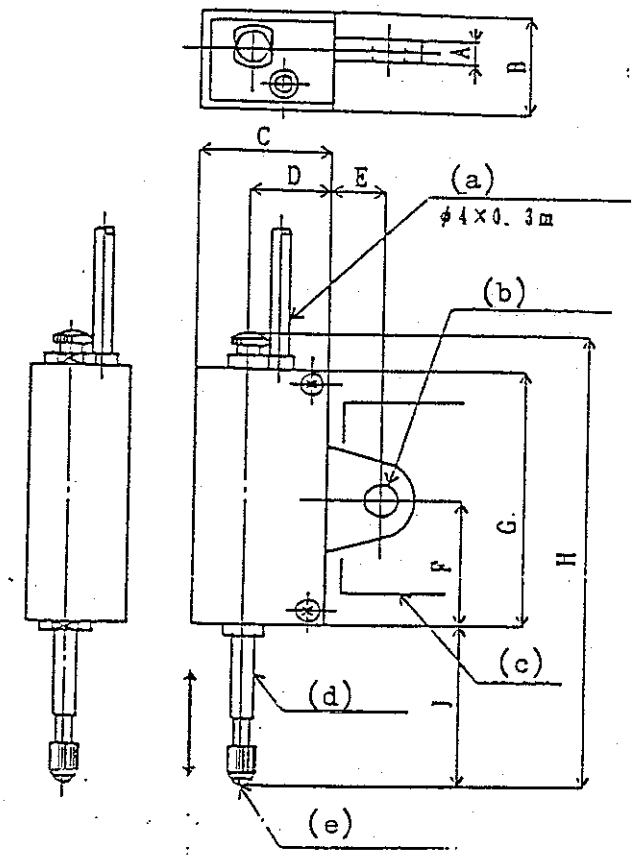
OPERATION MANUAL FOR MODEL TCL-M SERIES DISPLACEMENT TRANSDUCERS

Read through this manual carefully in order to operate this displacement transducer correctly.

Fig. 1 shows the external dimensions and mounting method of this transducer.

This transducer contains in it a cantilever type sensing element on which strain gauges are installed. Movements of the spindle is converted into a corresponding displacement of the coil spring, whose force is transferred to the cantilever type sensing element, from which a relative output signal is transmitted.

The transducer is fastened on to the supporting base by means of an M6 bolt, in such a manner as the direction of the spindle coinciding with the direction of displacement that may take place on the test specimen.



(a) 4-Cond., Shielded Cable.
(b) 6.5 mm dia., Mounting Hole, for M6 Bolt.
(c) Supporting Base.
(d) Spindle.
(e) Point-Head.

FIG. 1

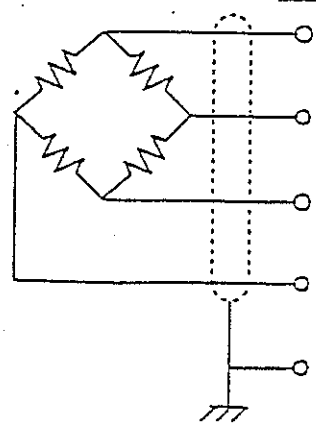
Main dimensions of the transducer are given in Table 1.

TABLE 1

Models	A	B	C	D	E	F	G	H	J
TCL-5M	5	22	25	15	10	20	45	67	18
TCL-10M	5	18	25	15	10	30	60	91	25
TCL-20M	5	18	25	15	10	30	60	101	35
TCL-30M	5	18	25	15	10	40	80	131	45
TCL-50M	5	18	25	15	10	50	100	171	65

Fig. 2 shows cable connections of the transducer.

Wrong connections may cause a difficulty in getting the balance in the transducer or also cause errors in the reading when load is applied to the transducer.



Colour	Polarity	Connector Pin
Red	Input (+)	A
Black	Output(-)	B
Blue	Input (-)	C
White	Output(+)	D
	Shield	E

Connector :PRC03-12A10-7M9

FIG. 2

CAUTIONS

1. Note that this transducer is NOT waterproofed.
2. Do not pull the cable strongly, nor bend the cable sharply for avoiding disconnections of wires in the cable.
3. No lubrication is to be made to the spindle. Dirts are likely to adhere to the spindle if lubrication is made to it. Such dirts may prevent it from travelling smoothly.
4. Do not drop the transducer, nor apply impulsive shock to it.
5. Do not disassemble the transducer unless approved by the manufacturer.

WARRANTY

This displacement transducer is guaranteed for its sound quality for one year after delivery. Within this period, the transducer can be repaired free of charge for any disorder or failures that may take place under a normal and correct operating condition. On such occasion, return the transducer to the head office of the manufacturer or to its local representaive with detailed descriptions on the disorder or failures that the transducer may be suffering.

Repair should be paid for by the user if disorder or failures were caused by the misuse, improper operations, or by disassembling not approved by the manufacturer.

Note that the transducer cannot be repaired any more if it does not recover its original function due to a larger load or moment applied exceeding its rated capacity or to a larger voltage applied exceeding its rated excitation voltage.

Periodic inspection or calibration should also be paid for by the user.

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