## VCL-5000 Center-Neutral Limit Switch

## VCL-5000 series

## Central-neuatral limit switch

## OVERVIEW

- In center neutral operation type, according to hand of cut (clockwise or counterclockwise) of the actuator, respectively internal switch work.
- Two points of the upper/lower limit, fully-close/open and etc. on valve drive parts can be detected with one limit switch.
- It has excelent seal, season resistance, and corrosion resistance.
- It is high sensitibity so that the maximum of P.T. (pretravel) is $10^{\circ}$ and the maximum of D.T. (differential travel) is $3^{\circ}$.


## Electrical rating

5A: 250 V AC
$0.4 \mathrm{~A}: 125 \mathrm{~V}$ DC, $\quad 0.2 \mathrm{~A}: 250 \mathrm{~V}$ DC

## SPECIFICATIONS

| Item |  |
| :--- | :--- |
| VCL-5001 * |  |
| Dielectric <br> strength <br> (50/60 Hz <br> for a <br> minute) | Between non- <br> continuous terminals |
| Between each <br> terminal and an <br> uncharged metal part | 600 V |
|  | Between each <br> terminal and the <br> ground |



| Item | VCL-5001 * |
| :--- | :--- |
| Vibration resistance (for two <br> continuous hours) | 10 to 55 Hz 1.5 mm double <br> amplitude * |
| Operating speed | $0.32 \mathrm{~mm} / \mathrm{s}$ to $0.5 \mathrm{~m} / \mathrm{s} *$ |
| Operating cycle | 120 cycles per minute max. |
| Operating temperature range | $-10^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ |
| Humidity range | $100 \% \mathrm{RH}$ max. |
| Mechanical life | Over 2 million cycles |
| Electrical life | Over 0.1 million cycles under a 3A <br> -250 V AC resistive load |

Note)*: The value marked with an asterisk (*) are applicable to the VCL5001 only. Values without an asterisk $\left(^{*}\right.$ ) are common to all models in the VCL-5000 series.

## MODEL SELECTION



## Contact arrangement

| Type | Center neutral |  |  | Simulanesou |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actuation | CCW | FP | CW | CCW | FP | CW |
| Switch 1 | $-\underbrace{\mathrm{C} 1 \mathrm{NC}_{1}-}_{\mathrm{NO} 10-}$ | $\underbrace{\mathrm{NO}-}_{\mathrm{O}_{1} \mathrm{NC}_{10}-10-}$ | $\underbrace{\mathrm{C}_{1} \mathrm{NC} 10-}_{a^{C 1}}$ | $\xrightarrow[a_{\text {NOTO- }}^{\mathrm{C}}]{\mathrm{Cl} 10-}$ | $\underbrace{\mathrm{N}}_{\mathrm{O}_{1} \mathrm{NO}_{1} \mathrm{NC} 10-}$ | $\xrightarrow[a_{\text {NOIO- }}^{C 1}]{\text { NC1O- }}$ |
| Switch 2 | $\underbrace{\mathrm{C} 2 \mathrm{NC2O}}_{\mathrm{a}^{\mathrm{NO} 2 \mathrm{O}}}$ | $-\mathrm{O}_{\mathrm{C} 2}^{\mathrm{NC2O}} \frac{\mathrm{NO} 2 \mathrm{O}}{2}$ | $-\mathrm{O}_{\mathrm{C} 2 \mathrm{NC} 2 \mathrm{O}}^{\mathrm{NO} 2 \mathrm{O}}$ | $\underbrace{\mathrm{C} 2 \mathrm{O} 2 \mathrm{O}}_{\mathrm{a}^{\mathrm{NO} 2 \mathrm{O}}}$ | $-\mathrm{O}_{\mathrm{C} 2}^{\mathrm{NC} 2 \mathrm{O}} \mathrm{NO2O}$ | $\underbrace{\mathrm{C} 2 \mathrm{NC2O}}_{\mathrm{NO} 2 \mathrm{O}}$ |

## Direction of head installation

- The central-neutral type can be set only by two directions for forward and for backward. Moreover, the operation of switch 1 and 2 reverse in case of the backward.
- The 2-circuit simultaneous can be set also in the direction of four directions.


## DIMENSIONS

## Roller lever

O.F. (max.) $\quad 15.7 \mathrm{~N}$
R.F. (min.) $\quad 2.2 \mathrm{~N}$
P.T. (max.) $\quad 10^{\circ}$ (VCL-5001)
$12^{\circ}(\mathrm{VCL}-5101)$
M.D. (max.) $3^{\circ}$
O.T. (min.) $35^{\circ}$
$\qquad$


## Adjustable lever

O.F. (max.) 15.7 N *
R.F. (min.) $\quad 2.2 \mathrm{~N} *$
P.T. (max.) $\quad 10^{\circ}(\mathrm{VCL}-5001)$
$12^{\circ}$ (VCL-5101)
M.D. (max.) $3^{\circ}$
O.T. (min.) $35^{\circ}$

Note) *: When the length of the lever is 30 mm .


Do not scale print tolerances $\pm 0.8$
Note) The hole cap adheres to the G3/4 screw of conduit part, because it is kept the seal until wiring work.

## Operating Characteristics



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Specifications are subject to change without notice.

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