MODEL: VOS2T

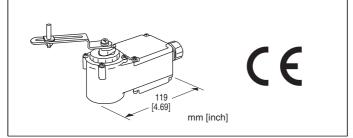
Position Sensors

2-WIRE POSITION TRANSMITTER

(linear motion type; 45 degrees)

Functions & Features

- Detecting stroke positions of a valve actuator or moving positions of other mechanisms and transmits standard 4 to 20 mA DC proportional to the position
- Light weight and compact design
- High resolution
- · Excellent reliability & durability
- Field selectable direct or reverse action
- Rugged enclosure



MODEL: VOS2T-[1][2][3][4]

ORDERING INFORMATION

• Code number: VOS2T-[1][2][3][4]

Specify a code from below for each of [1] through [4]. (e.g. VOS2T-11R0)

[1] LEVER

1: Stroke 10 - 30 mm (0.39" - 1.18")

2: Stroke 30 - 100 mm (1.18" - 3.94")

3: Stroke 25 - 60 mm (0.98" - 2.36")

[2] LEVER POSITION

1: Upper side

2: Lower side

[3] RETURN SPRING

0: None

L: Counterclockwise return (Seen from the lever side)

R: Clockwise return (Seen from the lever side)

[4] WIRING CONDUIT

0: G 1/2

1: 1/2" NPT fitting

2: G 1/2 with cable connector

4: Cables connected (approx. 1 meter or 3.3 ft)

RELATED PRODUCTS

Clamp set (model: VOCP)

GENERAL SPECIFICATIONS

Degree of protection: IP66

(Screw torque for cover: 1.2 - 1.6 N·m)

Action: Direct or reverse; field selectable by change of the

jumper pins' positions; factory set to direct action

Wiring conduit: G 1/2

Connection: M3.5 screw terminals (torque 0.8 N·m)

Materials

Housing: Cast aluminium

Screw terminals: Nickel-plated steel

Cable connector: Nylon 66

(applicable cable's external dia. 6.5 - 8.5 mm)

Lever: Stainless-steel **Painting color**: Silver

Isolation: Output to metal housing

Zero adjustment: -2.2 - +2.2° of input angle

The Zero indicates such input angle where the transmitter

outputs 12 mA.

Span adjustment: 22.5 – 45° of input angle

The Span indicates the absolute difference between such

input angle for 4 mA and that for 20 mA.

INPUT SPECIFICATIONS

Input: Mechanical rotating angle

Effective rotating angle: Approx. -27 - +27° (54°) Linearity assured range: -22.5 - +22.5° (45°) Stopper strength: 1.37 N·m (1.011 ft·lbf)

With static load

OUTPUT SPECIFICATIONS

Output: 4 - 20 mA DC

Operational range: 3.5 - 23 mA DC Load resistance v.s. supply voltage:

Load Resistance (Ω) = (Supply Voltage (V) - 12 (V)) \div 0.02

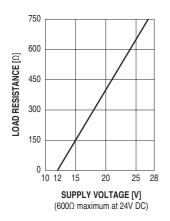
(A) (including leadwire resistance)

(Refer to the graphic on the end of the section)

Output characteristics: Proportional to the sine of rotating

angle of the lever

MODEL: VOS2T



INSTALLATION

Supply voltage: 15 - 28 V DC

Operating temperature: -5 to +60°C (23 to 140°F)

Operating humidity: 30 to 90 % RH (non-condensing inside)

Environemnt: Protect from strong magnetic field.

Vibration: \leq 2 G (19.6 m/s²) Mounting position: All directions

Weight: 550 g (1.21 lb) without lever and cable

PERFORMANCE in percentage of angle ±22.5 degrees

Linearity: 1.0 % within the linearity assured range Temp. coefficient: ± 0.06 %/°C (± 0.04 %/°F) Insulation resistance: \geq 100 MΩ with 500 V DC Dielectric strength: 500 V AC @ 1 minute

(output to metal housing)

STANDARDS & APPROVALS

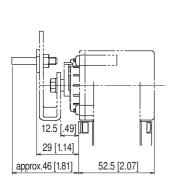
EU conformity: EMC Directive EMI EN 61000-6-4 EMS EN 61000-6-2 RoHS Directive

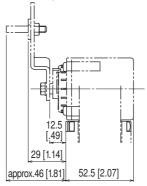
MODEL: VOS2T

EXTERNAL DIMENSIONS unit: mm [inch]

LEVER ATTACHED TO THE LOWER SIDE

• Stroke 10 – 30 mm • Stroke 30 – 100, or 25 – 60 mm





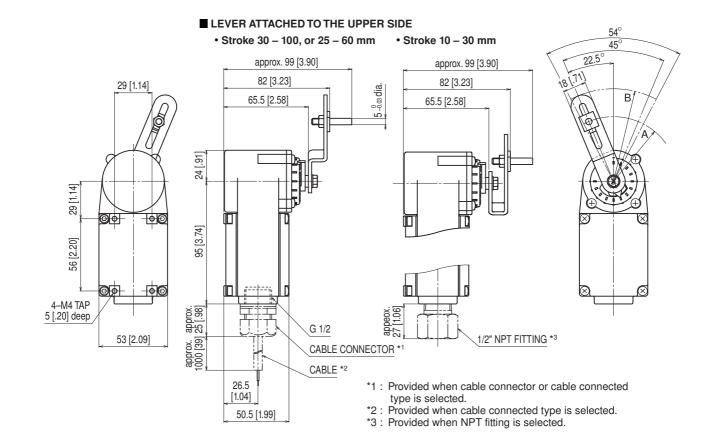
 LEVER SIZE mm [inch]

 LEVER TYPE
 A
 B

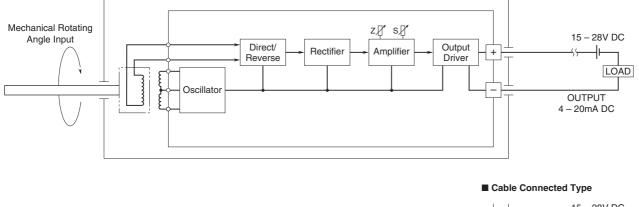
 Stroke 10 – 30 mm [.39" – 1.18"]
 R12 – R45
 54 [2.13]

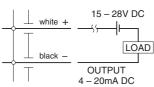
 Stroke 30 – 100 mm [1.18" – 3.94"]
 R38 – R132
 141 [5.55]

 Stroke 25 – 60 mm [.98" – 2.36"]
 R30 – R82.5
 91.5 [3.60]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





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Specifications are subject to change without notice.