

Operation Manual

Position Monitoring Switchbox

Model: NTS-A,C,E & H Series



NTS-A



NTS-C



NTS-E



NTS-H

1. Instruction:

The switch boxes are primary a rotary position indication designed to integrate valve and pneumatic actuator with a variety of mounting options, internal switches or sensors and configurations. It gives signals through the terminal block to the outside and being showed by the outer indicator of the switch boxes.

2. Installation:

1) Close cam setting:

Push down top cam and turn until the switch is activated and then release cam will come back into spline shaft by spring loaded;

2) Open cam setting:

Lift up bottom cam and turn until the switch is activated and then release cam will come back into spline shaft by spring loaded;

3) Checking the switch cam setting:

Operate the actuator fully open and closed in both direct on several times to check that the switch cams are operated correctly.

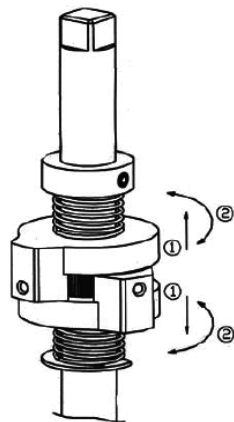
3. Operation Caution:

1) Before open the cover, always disconnect the electrical supplies;

2) Position indicator & switch boxes comers are sealed with o-ring.

Care should be taken not to cause and damage to the O-ring during disassembly or reassembly.

3) Wiring connections unused must be jammed and stopped.


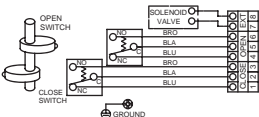

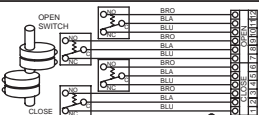

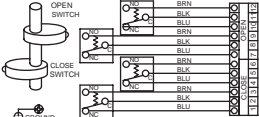

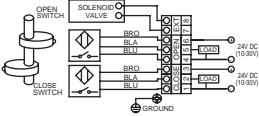

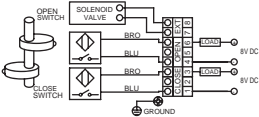

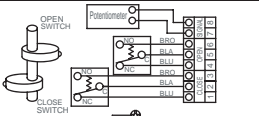

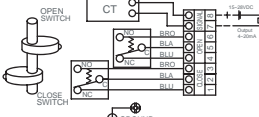



NUTORK[®]

Actuators & Controls

NTS Valve Position Monitor (Limit Switchbox)

Switches, Wiring and Bracket(NTS-A,C,E & H series)

<p>2-SPDT mechanical switches Rating : 16A 1/2HP 125/250VAC, 0.6A 125VDC, 0.3A 250VDC approved by UL, CSA</p>		
<p>4-SPDT mechanical switches Rating : 5A 125 VAC LT130 0.6A 125VDC approved by UL, CSA</p>		
<p>2-DPDT mechanical switches Rating : 10A 125 or 250VAC 2A 480VAC 1/8HP 125VAC, 0.25HP 250VAC 0.5A 125VDC, 0.25A 250VDC approved by UL, CSA</p>		
<p>Autonics proximity sensors PS17-5DNU(NPN, PNP), 3-wire Voltage rating : 10~30VDC Sensing distance : 5mm Ambient temperature : -25~+70°C</p>		
<p>P & F proximity sensors NJ2-V3-N(Intrinsic safe, 2-wire) Voltage rating : 8V DC Sensing distance : 2mm Ambient temperature : -25~+100°C</p>		
<p>Potentiometer Providing 0-1K ohm output signal, Options: 0-5K or 10K ohm</p>		
<p>Position Transmitter Providing 4-20mA DC(or 0~1K ohm) output signal as feedback, 15~28VDC loop power(24V DC input power) Load impedance : 0~600 Ohm, Max output : 35mA DC Adjustment : Zero and span</p>		
 <p>SS1- SS4 Universal Type</p>	<p>Standard bracket provided together with switch box(included)</p> <ol style="list-style-type: none"> 1. SS1 30 x 80 x 20(H) 2. SS2 30 x 80 x 30(H) 3. SS3 30 x 130 x 30(H) 4. SS4 30 x 130 x 50(H) 5. Universal Type 	

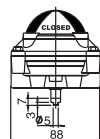
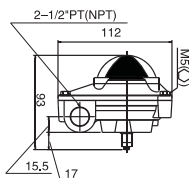
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Actuators & Controls

NTS Valve Position Monitor (Limit Switchbox)

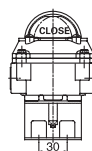
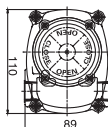
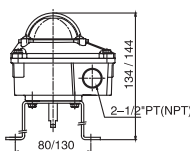
Dimension

NTS-A Series

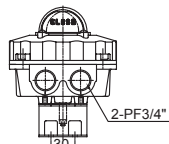
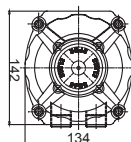
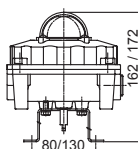


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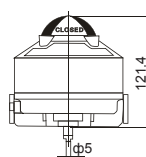
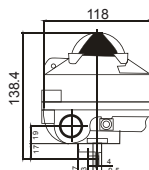
NTS-C Series



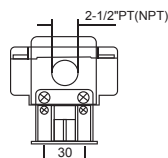
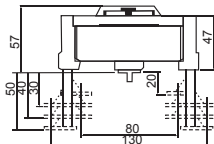
NTS-E Series



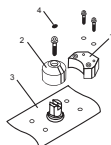
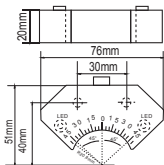
NTS-H Series



NTS-D Series



NTS-F Series

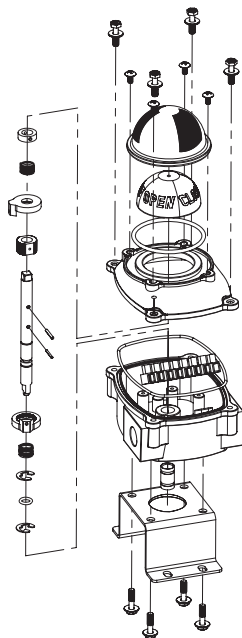


NUTORK®

Actuators & Controls

Material of Construction

Housing	Low cooper aluminum die-casting
Coating	Epoxy-Polyester
Sealing	NBR O-rings on each interface (Dome indicator, Lower/Upper Housing, Shaft)
Cams	Poly-Carbonate
Bushings	Bronze
Shaft	AISI304 Stainless Steel
Earth Lug	Stainless Steel
Mounting Bracket	AISI304 Stainless Steel



Ordering Information:

NTS - A - 10

Enclosure:

- A Series(Aluminum Die-Casting,Weather-Proof)
- C Series(Aluminum Die-Casting,Weather-Proof)
- E Series(Aluminum Die-Casting,Explosion-Proof, EExdIIBT6)
- ES Series(316SS Stainless Steel, Explosion-Proof, EExdIIBT6)
- H Series(Aluminum Die-Casting,Explosion-Proof, EExdIIBT6)
- D Series(ABS, Weather-Proof)
- F Series(ABS, Weather-Proof)

Switch Type:

Mechanical Switch:

- 10 - 2 x SPDT, mechanical type
- 11 - 3 x SPDT, mechanical type(Not available in A & D series)
- 12 - 4 x SPDT, mechanical type(Not available in A & D series)
- 13 - 2 x DPDT, mechanical type(Not available in A & D series)
- 15 - 2 x SPDT+Potentiometer(only available in E series)
- 16 - 2 x SPDT+Position Transmitter(4-20mADC output)
(only available in E series)

Proximity Sensor:

- 21 - P&F NJ2-V3-N(2-wire/NO,EExialICT6)
- 22 - P&F NJ4-12GM-N(2-wire/NO,EExialICT6, SIL 2)
- 23 - P&F NBB2-V3-E2(3-wire/PNP or NPN,IP67)
- 24 - Autonics PS17-5DNU(3-wire/PNP or NPN,IP67)
- 25 - Nutork model 2PS-100 Inductive Type, 2-wire/NO, IP67
- 26 - Nutork model 3PS-200 Inductive Type, 3-wire/NO,NPN or PNP, IP67
- 27 - Nutork Magnet Type, 2xSPDT reed switch, 0.5A at 240VAC
- 30 - Nutork magnet Type, 2xSPST reed switch, 0.3A at 250VAC
(NTS-F series only)

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