

ITS Series

LSB Position Monitoring Switch Box



Weather Proof position monitoring switches



ITS series position monitoring switch boxes are primary a rotary position indication device designed to integrate valve and NAMUR rotary pneumatic actuator with a variety of mounting options, internal switches or sensors and configurations.

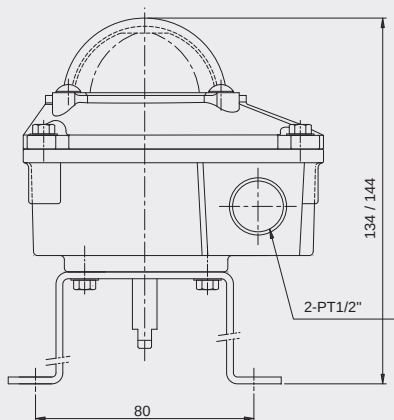
ITS 100 series

ITS 100 series are specially designed suitable for small size pneumatic actuator and valves to reduce installation space, but provides high performance by equipping a variety of switches and sensors.

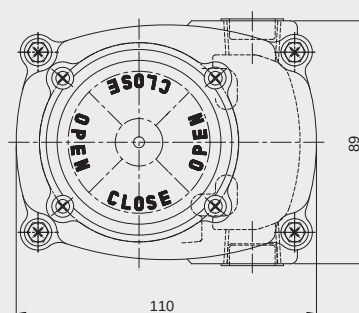
SPECIFICATION	Standard	Option
Enclosure	Weather proof IP67, O-ring sealed	IP 68
Outside coating	Epoxy-Polyester inside and outside against corrosion	Nylon Coating Special color Coating
Ambient temperature	-20°C~+80°C	Higher(~+100°C) and lower (-40°C~) temperature
Cable entries	2 - PT1/2", other standard threads	(NPT1/2", PF1/2", M20x1.5 and PG13.5)
Terminal block	8 nos of terminal strips (6 for switches, 2 for solenoid valve power)	
Position indicator	Dome type 0°~90°	Others(3 way L-port, T-port)
Mounting bracket	Stainless steel acc. to VDI/VDE3845, NAMUR, SS1, SS2 as standard	SS3, MT1 as option
Switches(Sensors)	2-SPDT mechanical switch(Form C) as standard	Proximity sensors(P & F, Autonics), Magnetic sensors, Others

DIMENSION

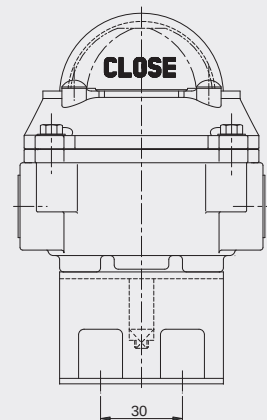
ITS 100 series



Front view



Top view



Side view

Explosion Proof position monitoring switches

Rigid and compact design constructed from aluminum alloy die-casting capable of operating even in arduous conditions

ITS 300 series

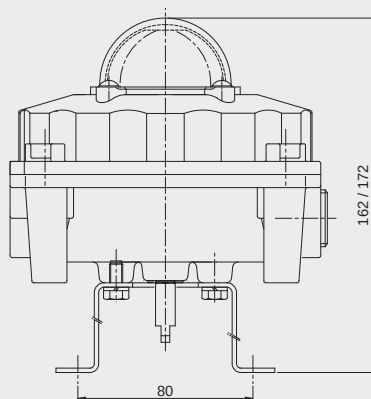
ITS 300 series are designed suitable for valve and actuators in hazardous area application, having compact but robust construction conforms to EN50014 and 50018, also suitable in Zone 1 and 2, and ingress protection IP67
Standard aluminum housing provides reliable explosion proof performance.



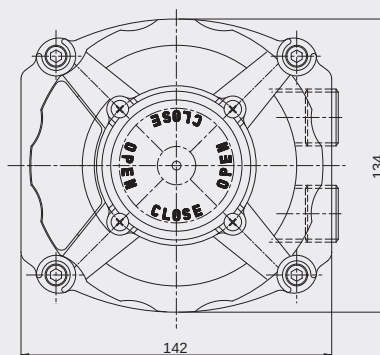
SPECIFICATION	Standard	Option
Enclosure	Explosion proof Ex d IIC T6, IP67, O-ring sealed	IP 68
Outside coating	Epoxy-Polyester outside against corrosion	Nylon Coating Special color Coating
Ambient temperature	-20°C~+80°C	Higher(~100°C) and lower (-40°C~) temperature (NPT3/4", PF3/4", M25x1.5)
Cable entries	2 - PF3/4", other standard threads	
Terminal block	8 nos of terminal strips (6 for switches, 2 for solenoid valve power)	
Position indicator	Dome type 0°~90°	Others(3 way L-port, T-port)
Mounting bracket	Stainless steel acc. to VDI/VDE3845 NAMUR, SS1, SS2 as standard	SS3, MT1 as option
Switches(Sensors)	2-SPDT mechanical switch(Form C)	DPDT Switches Proximity sensors(P & F, Autonics) Magnetic sensors Position transmitter (output 0~1Kohm, 4-20mA DC)

DIMENSION

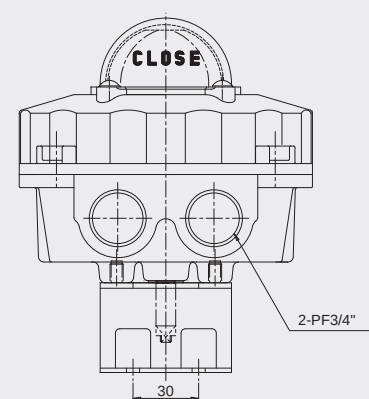
ITS 300 series



Front view



Top view



Side view

Special Material position monitoring switches

Dome position indicator constructed from high impact resistance poly-carbonate material which offers instant visual recognition of valve or actuator position up to 50 meters distance.



ITS 500 series

Special stainless steel housing(316L or Duplex) provide very high protection performance against extremely corrosive environmental condition. Suitable for off-shore application. Other specification is same with ITS 300 series except for enclosure & coating.

CONSTRUCTION MATERIAL

Housing	Low cooper aluminum die-casting
Coating	Epoxy-Polyester inside/outside(100 series) Chromated /Epoxy-Polyester(300 series) No painting on stainless steel housing
Sealing	NBR O-rings on each interface (Dome indicator, Lower/Upper housing, Shaft)
Cams	Poly-carbonate
Bushings	Bronze
Shaft	AISI303 Stainless steel
Earth Lug	Stainless steel
Bolts	All in stainless steel
Mounting bracket	Plate steel(ST series) Stainless steel(SS series and MT1)

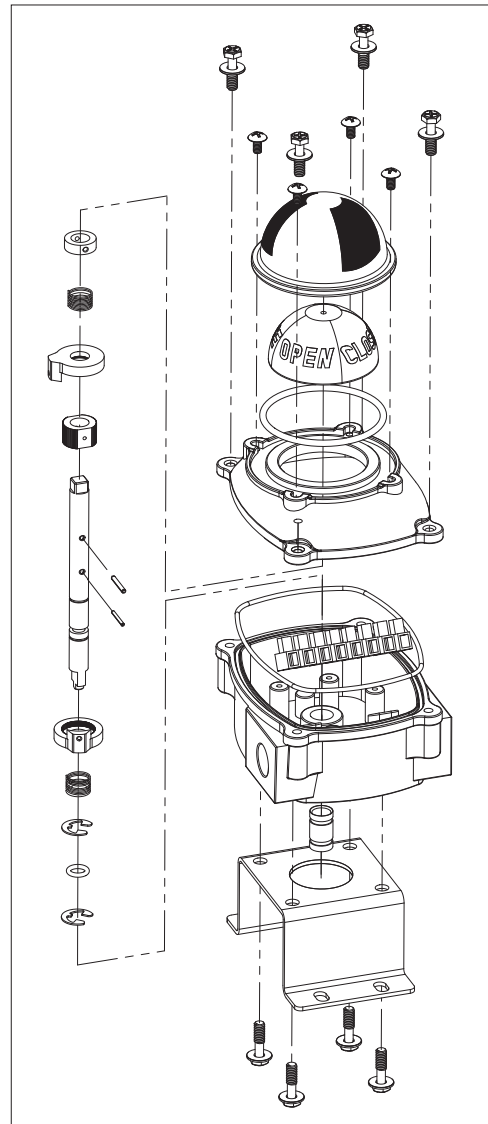
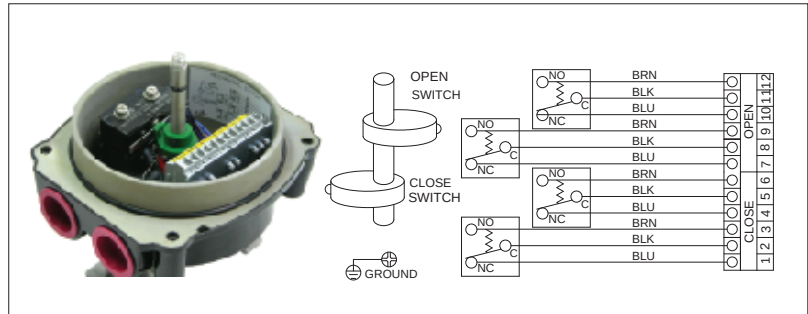


Diagram illustrating the wiring for a 12VDC alarm system. The system includes an OPEN SWITCH and a CLOSE SWITCH, both connected to a 12VDC source. The wiring involves three relays (BRO, BLA, BLU) and their contacts (NO, NC). The switches are connected to the NO contacts of the relays. The relays are connected to a 12VDC source and a common ground. The switches are connected to the NO contacts of the relays. The relays are connected to a 12VDC source and a common ground. The switches are connected to the NO contacts of the relays.

ITS Series position monitoring switches

Mechanical DPDT switches

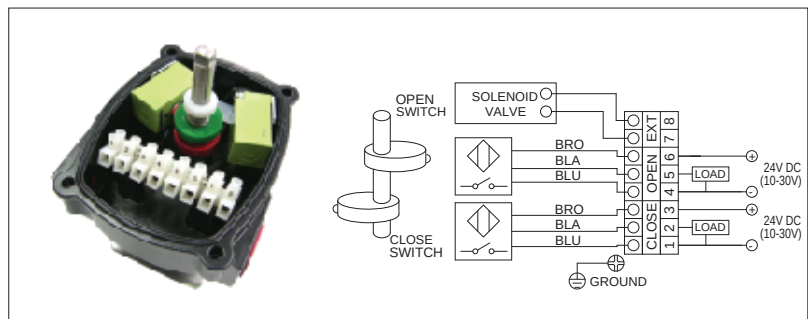
Rating : 10A 125 or 250V AC
 2A 480V AC
 1/8HP 125V AC
 0.25HP 250V AC
 0.5A 125V DC
 0.25A 250V DC
 approved by UL, CSA



Proximity Sensors

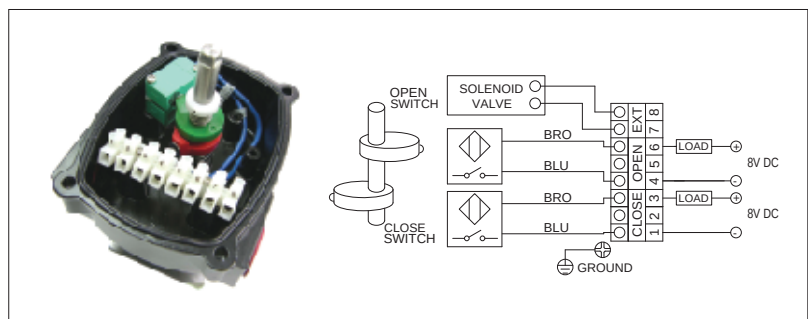
Autonics sensors

PS17-5DNU(NPN, PNP)
 Voltage rating : 10~30V DC
 Sensing distance : 5mm
 Ambient temperature : -25°C ~+70°C



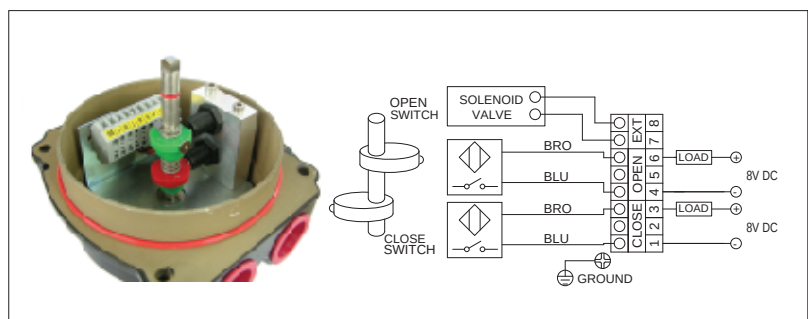
P & F sensors

NJ2-V3-N(Intrinsic safe, two wire)
 Voltage rating : 8V DC
 Sensing distance : 2mm
 Ambient temperature : -25°C ~+100°C



NJ4-12GK-SN

Voltage rating : 8V DC
 Sensing distance : 4mm
 Ambient temperature : -50°C ~+100°C



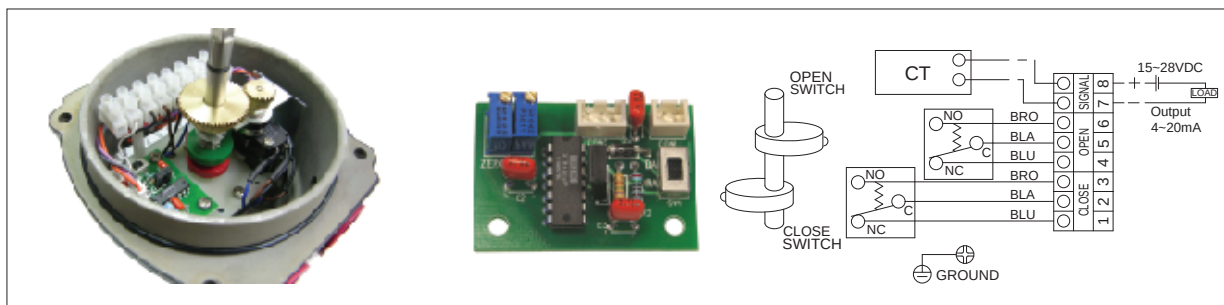
ITS Series position monitoring switches

Position transmitter

Providing 4-20mA DC(or 0~1Kohm) output signal as feedback, 15~28VDC loop power(24V DC input power)

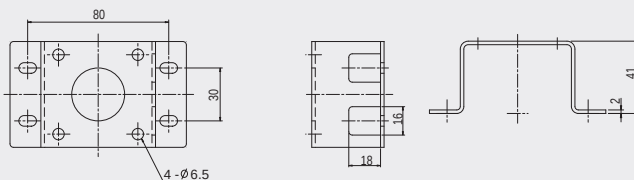
Load impedance : 0~600 Ohm, Max output : 35mA DC

Adjustment : Zero and span

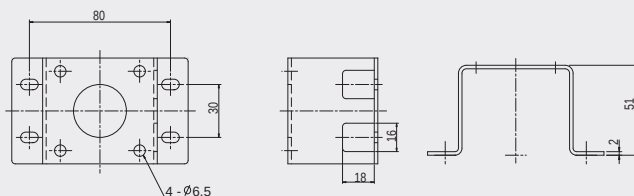


Mounting bracket(Acc. to VDI/VDE3845)

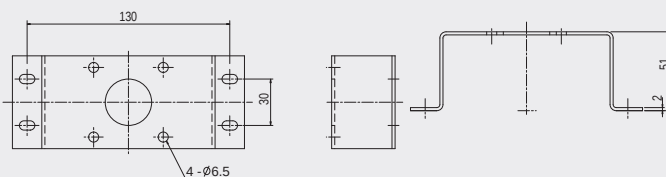
SS1



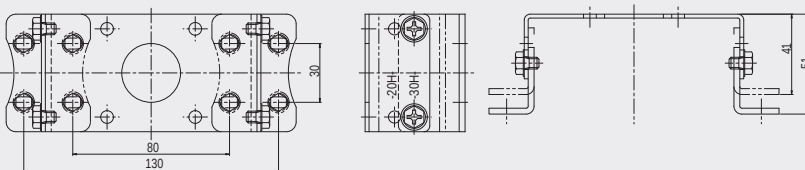
SS2



SS3



MT1



Standard bracket provided together with switch box(included)

SS1 30 x 80 x 20(H)

ST1 30 x 80 x 20(H)

SS2 30 x 80 x 30(H)

ST2 30 x 80 x 30(H)

Optional bracket provided with extra cost

SS3 30 x 130 x 30(H)

ST3 30 x 130 x 30(H)

MT1 30 x 80 x 20(H), 30 x 80 x 30(H)

30 x 130 x 20(H), 30 x 130 x 30(H)

Others as option