

# ITS Series

## Position Monitoring Switch



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## Description

ITS position monitoring switch is used for the valve and actuators which rotates 90degree quarter turn. The first function of ITS is to provide the visual indication of the current position of the valve and actuator. Dome indicator unit shows current position by color indication.

Secondly ITS provide electrical signal at the fully open or closed position by activating mechanical switches (SPDT, SPST), Proximity sensors and other magnetic sensors which independently makes function. Switches vary in a wide range and construction to meet customer's requirement.

## Ordering Code

ITS	1	0	0
	1: Weather proof	0: Mechanical switches	0 : 2 - SPDT
	3: Explosion proof		1 : 3 - SPDT
	5: Special material housing (316L, Duplex)		2 : 4 - SPDT
			3 : 2 - SPST
			4 : 2 - DPDT
			5 : 2 - SPDT + output(0~1Kohm)
			6 : S - SPDT + output(4-20mA)
		1 : Proximity sensors	0 : Autonics(PS17-5DNU)
			1 : P & F (NJ2-V3-N)
			S: Other type sensors

## Weather Proof

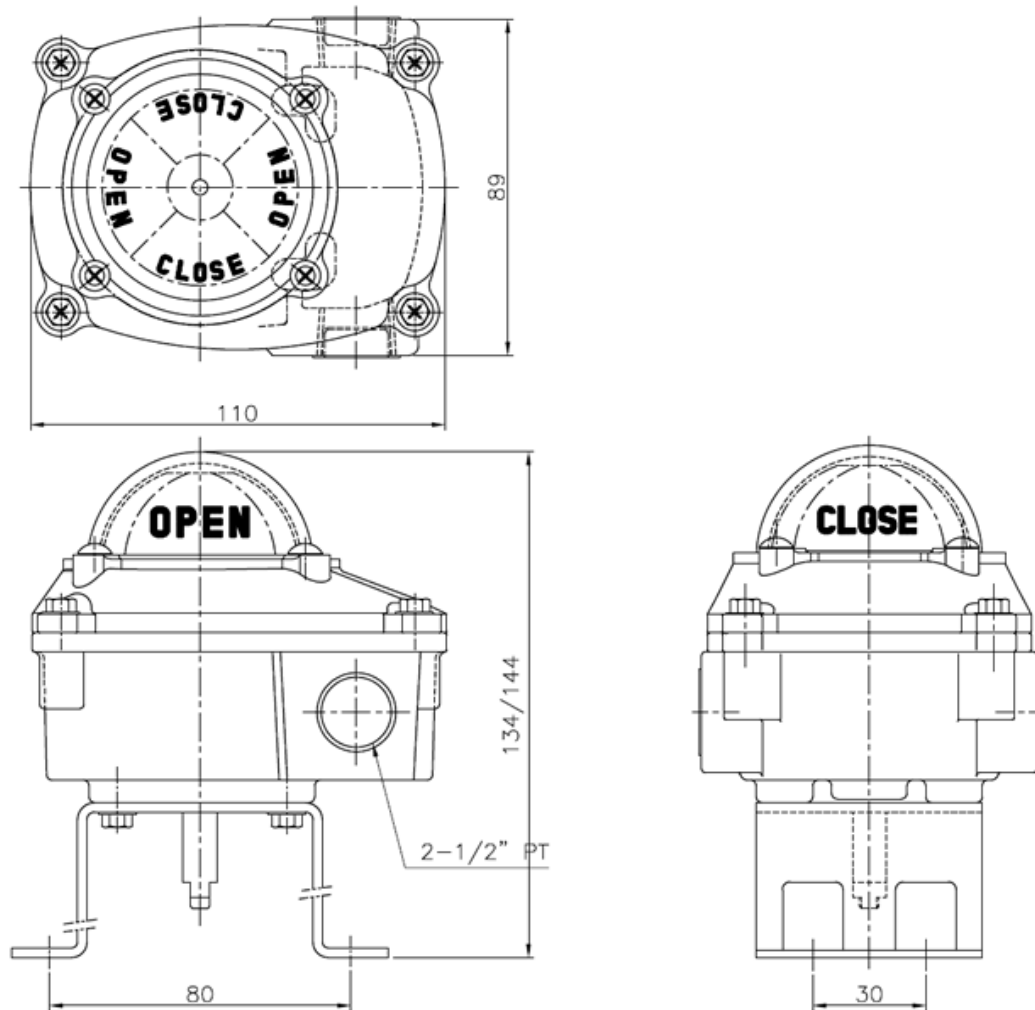
### Position Monitoring Switches

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 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 ~)
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), Others

## Dimensions



## Explosion Proof

### Position Monitoring Switches

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

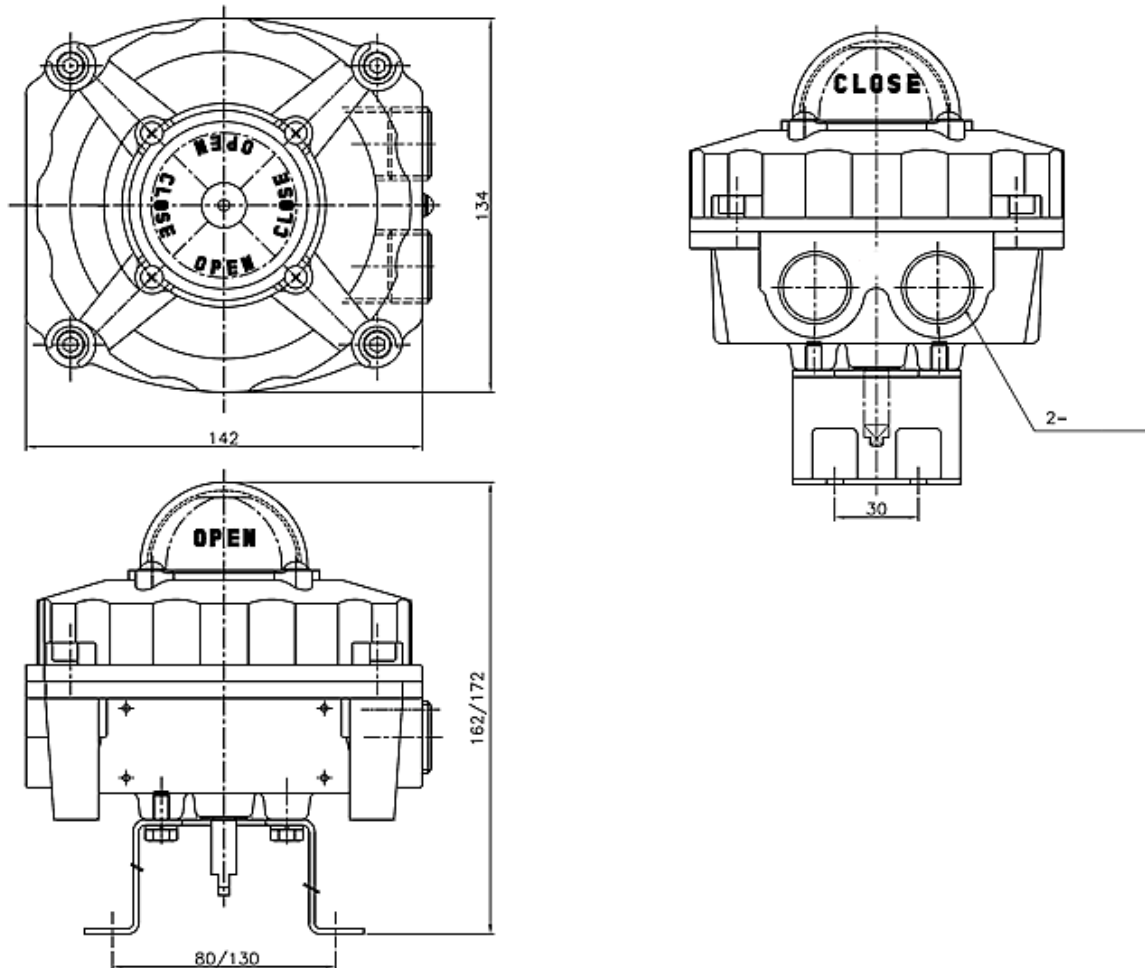
ITS 300 series are designed suitable for valve and actuators in hazardous area application, having compact but robust construction conforms to EN50014 and 50018, also suitable in Zone 1 and 2, and ingress protection IP67.

Standard aluminum housing provides reliable explosion proof performance.

Specification	Standard	Option
Enclosure	Explosion proof Ex d IIC T6, 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
Cable entries	2 – PF3/4", other standard threads	(NPT3/4", PF3/4", M25x1.5
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)	DPDT Switches Proximity sensors(P & F, Autonics) Magnetic sensors Position transmitter (output 0~1Kohm, 4-20mA DC)

## Dimensions



## 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.

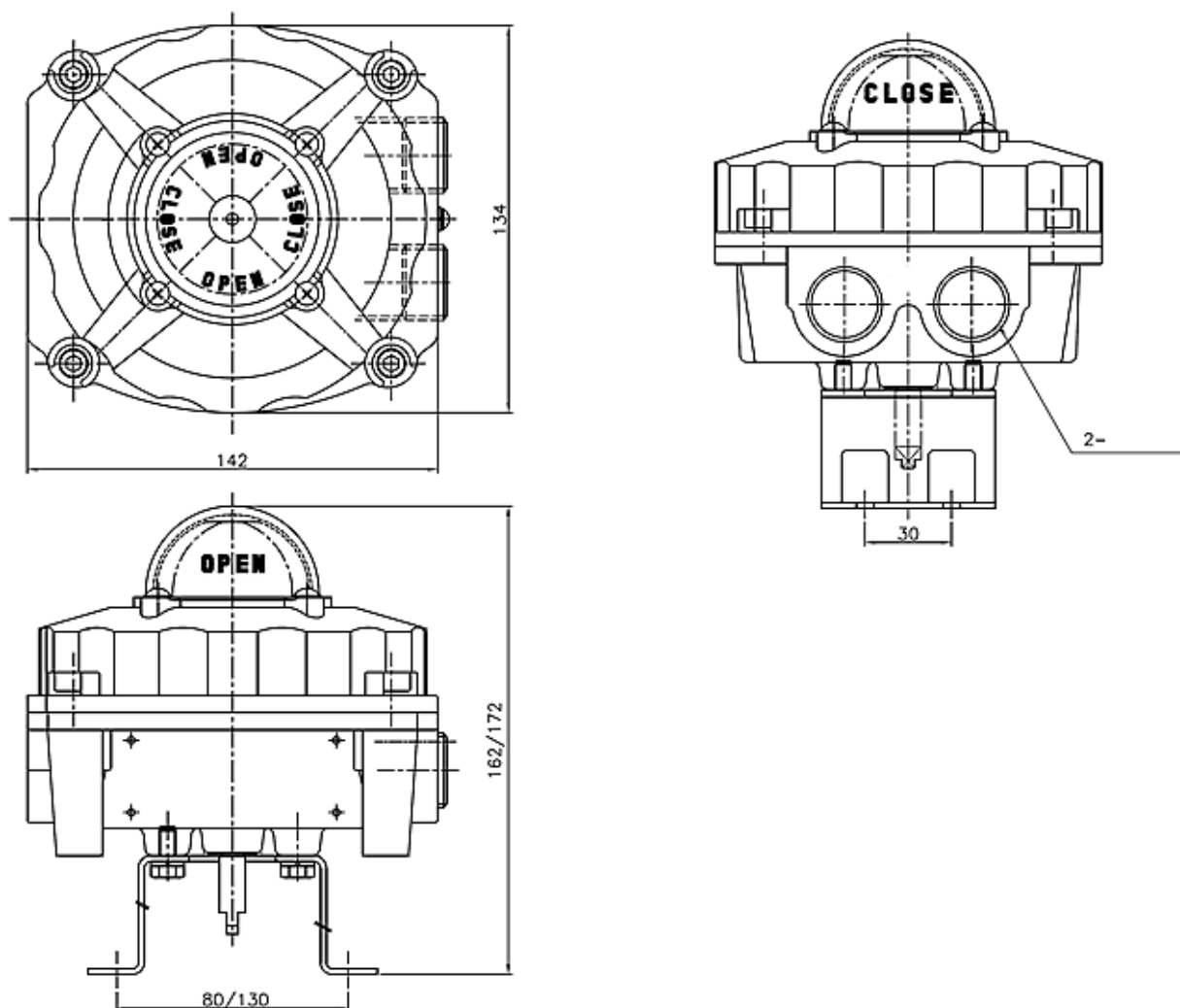
Suitable for off-shore application.

Other specification is same with ITS 300 series except for enclosure & coating.

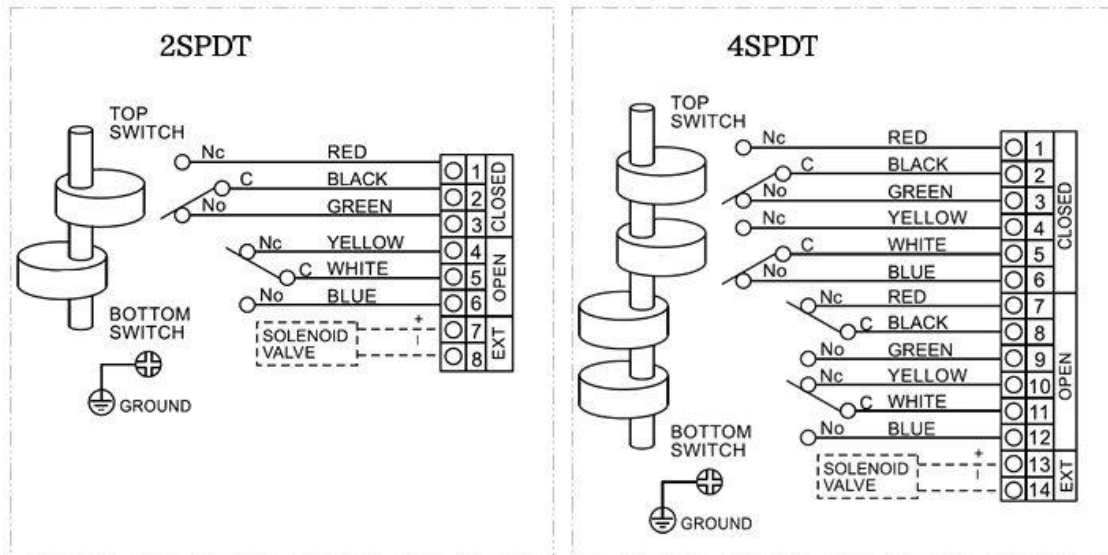
## Construction Material

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)

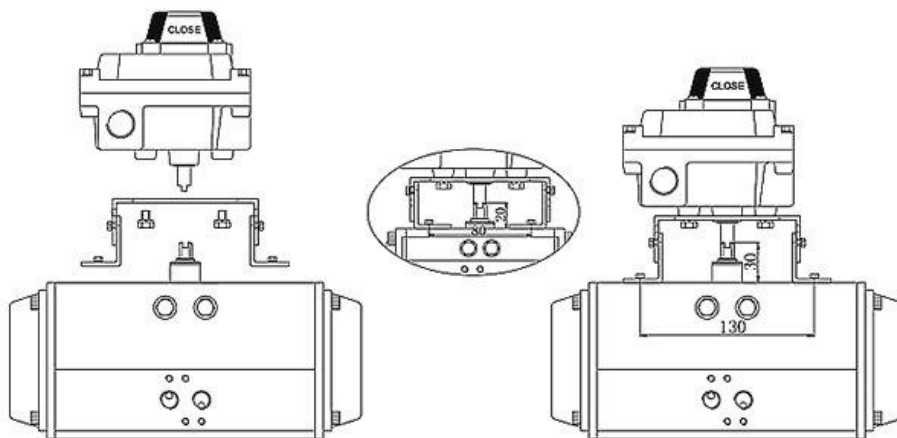
## Dimensions



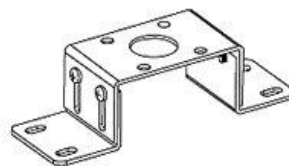
## Wiring Diagram



## Installation Diagram:



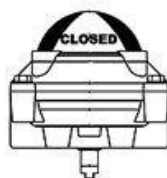
**Note:**  
The installation dimensions comply with 30-80/ 130-H20/30 industry standards.



## Packing List



Carton Package



Limit Switch Box with Bracket



Mounting Screws



Certificate of Conformity

Some models are also packaged with:



Pearl Cotton Coating  
(APL4N, APL5N, ITS300 series)



Waterproof Connector, Dust Cap  
(APL-2N, ITS100, KFF series)



## Product Pictures

