

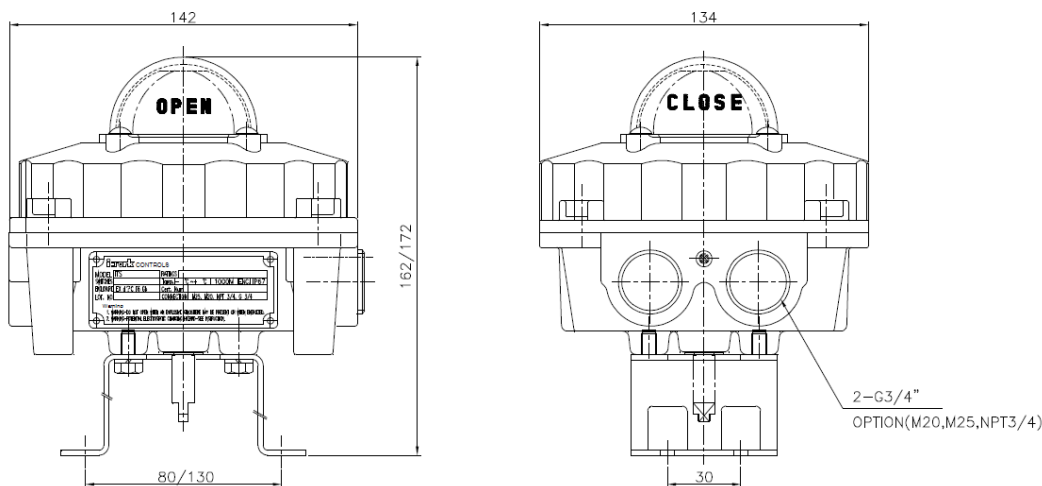
Main Features :-

ATEX certified	2 x SPDT as standard
Namur mount	Option of NPN Sensor
Conduit entry	Option of P&F NJ2 V3
Dome visual indicator	Option of SS 316 housing
Aluminium body	Robust product
Supplied with bracket	Made in Korea
Suitable for Zone 1 use	Stocked in UK



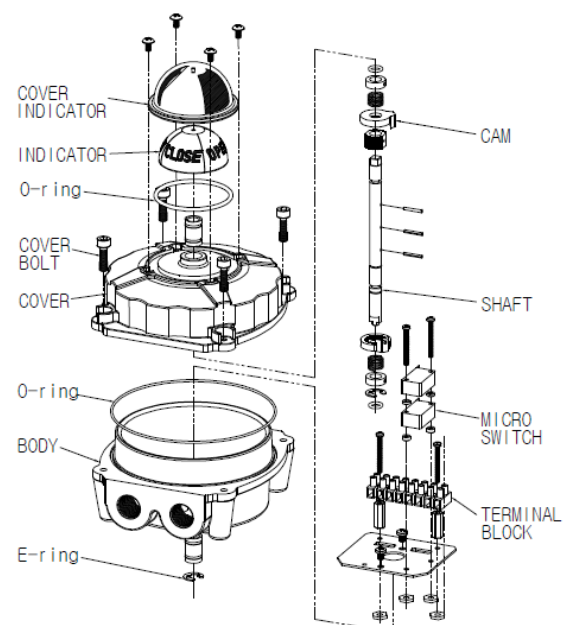
TYPE: ATEX SWITCHBOX

Dimensional Drawing:-



Additional Technical Specification:-

MODEL	ITS-1XX	ITS-3XX	ITS-5XX
SWITCH TYPE	Mechanical Switch (2-SPDT)	Mechanical Switch (2-SPDT)	Mechanical Switch (2-SPDT)
	—	Proximity Sensors (P&F, AUTONICS)	Proximity Sensors (P&F, AUTONICS)
		DPDT Switch	DPDT Switch
		Magnetic Sensors Position Transmitter	Magnetic Sensors Position Transmitter
Switch Rating	Mechanical Switch AC : 16A 1/2HP 125/250V AC DC : 125V DC, 0.3A 250V DC		
	Autonics Sensor (PST17-5DNU)– 12~24VDC (Allowable Voltage: 10~30VDC)		
	P&F Sensor (NJ-V3-N)– 8VDC		
	Mechanical DPDT Switch AC : 125/250VAC 10A 480VAC 2A 1/8HP 125VAC 0.25HP 250VAC DC : 0.5A 125VDC 0.25A 250VDC		
Terminal Block	8 Point	8~12 Point	8~12 Point
IP Class	IP 67		
Explosion Proof	Ex d IIC T6		
Ambient Temp.	-20°C ~ +60°C		
Cable Entry	1/2(NPT,PT,PF), M20	M20, M25, G3/4, NPT3/4	
Mounting Bracket	Stainless Steel acc.to VDI/VCE3845, NAMUR, SS1, SS2, as Standard		
Material	Aluminum Diecasting		SUS316L
Weight	1ka	2ka	3ka



ISO 9001:2015 Accredited Company

Tel: +44(0)1386 552369

Fax: +44(0)1386 554227

sales@allvalves.co.uk

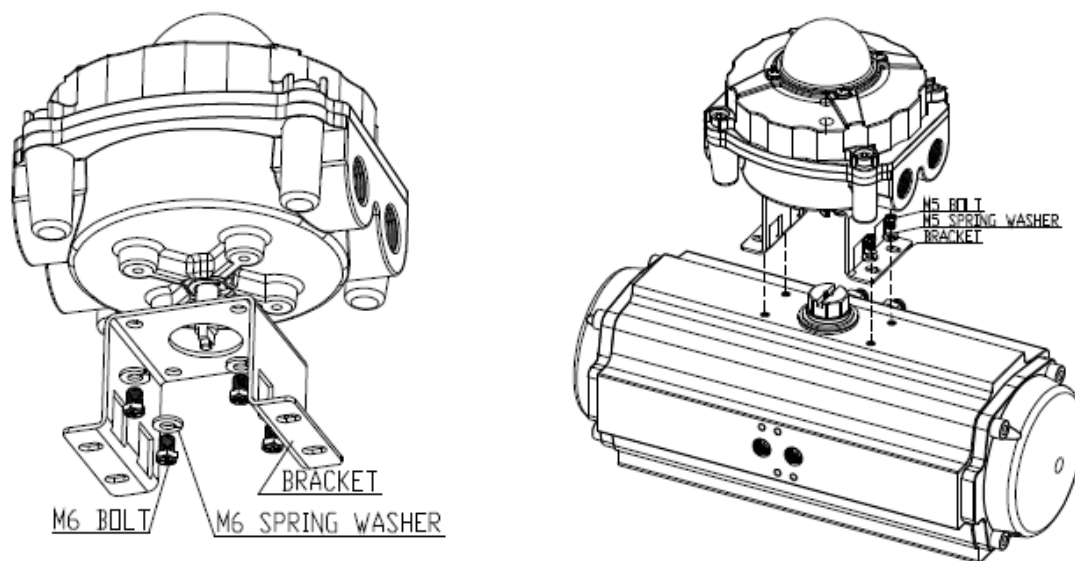
www.allvalves.co.uk

Allvalves Online Ltd, Automation House, Unit 2, Pershore, WR10 2DF UK

Dimensional Drawings and Additional Technical Specifications:-

ITS300/500 Installation

Proper size of Mounting bracket is required for mounting ITS300/500 on valve or actuator. Standard Mounting bracket is supplied together with ITS, but in case of requirement by customer for special application, please refer to the drawing inside of the body. The most important thing in mounting is to align the shaft of valve (or actuator) with ITS' shaft. ITS's shaft is done according to NAMUR standard, so that it may suitable for various applications without further modification.



Connection – Power

Safety Warning

- Please make sure there is no explosive gas or material present before the installation.
 - While the cover is open, the power should be turned off and wait for at least 30 seconds.
 - For unused power connectors, please make sure to use the blind plugs which are explosion proof certified.
 - When connecting power, please ensure the use of flameproof proven sealing fitting and/or cable glands.
 - Please make sure the polarities are correct.
 - Don't use too much force when pulling the cable, and make sure the cable doesn't peel off.
 - Electrostatic Hazard: Clean Cover indicator only with a damp cloth. Do not clean with solvents.
 - Ground Connection: Ground Connection is provided on the external surface. This Connection should be used to connect the enclosure metal work to the Equi-potential Bonding System/Earth. This is in addition to any Protective Earth Terminals provided inside the enclosure.
- It must be sized in accordance with local rules for electrical installations and not be smaller than 4mm².
- Electrical wiring must be done according to the specification of international standard or local specific regulation.

ITS300/500 provides 2 - PF3/4" (Other thread sizes are optional) conduits for the wiring and by using approved explosion proof couplings, ensures tight sealing and explosion proof function.

ISO 9001:2015 Accredited Company

Tel: +44(0)1386 552369

Fax: +44(0)1386 554227

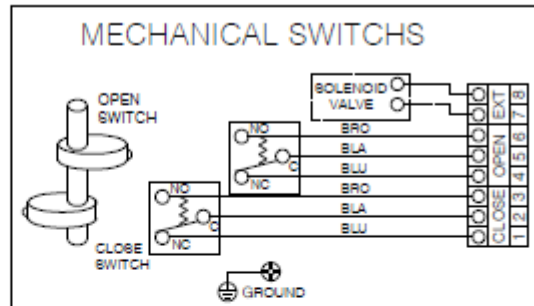
sales@allvalves.co.uk

www.allvalves.co.uk

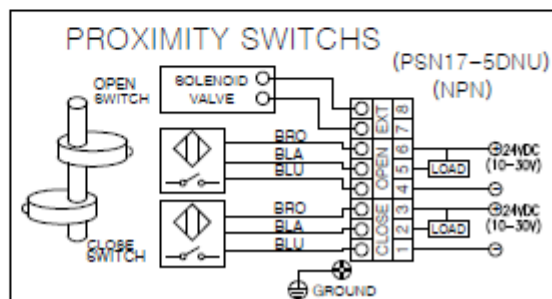
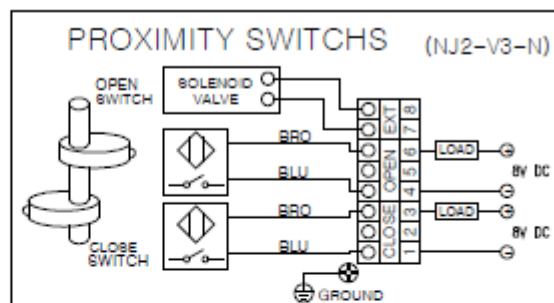
Allvalves Online Ltd, Automation House, Unit 2, Pershore, WR10 2DF UK

Dimensional Drawings and Additional Technical Specifications:-

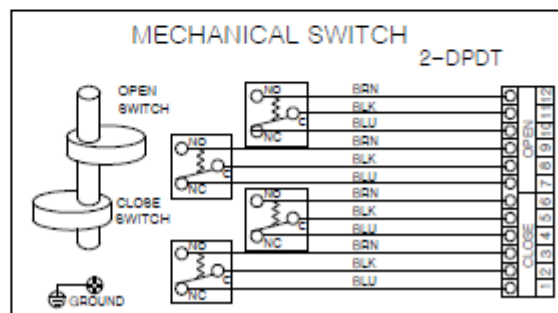
Mechanical Type(2 SPDT)



Proximity Type(NPN Sensor)

Proximity Type(P&F NJ2-V3-N)

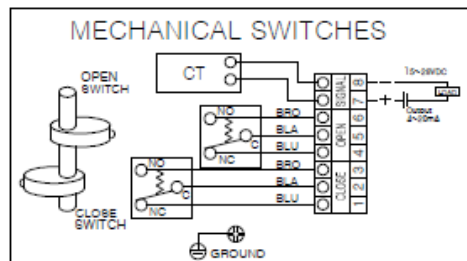
Mechanical Type(2 DPDT)



TYPE: ATEX SWITCHBOX

Dimensional Drawings and Additional Technical Specifications:-

Position Transmitter Type

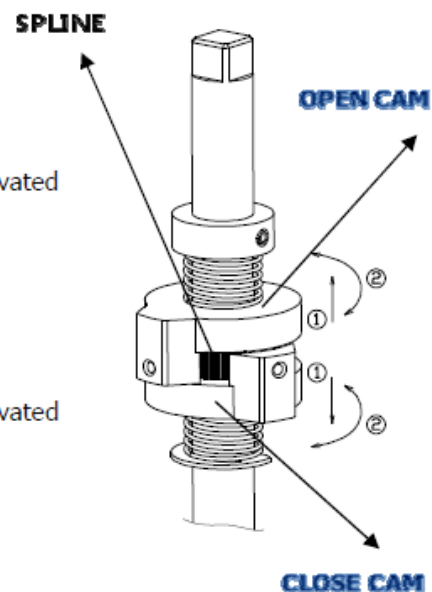


Adjustment – Upper CAM

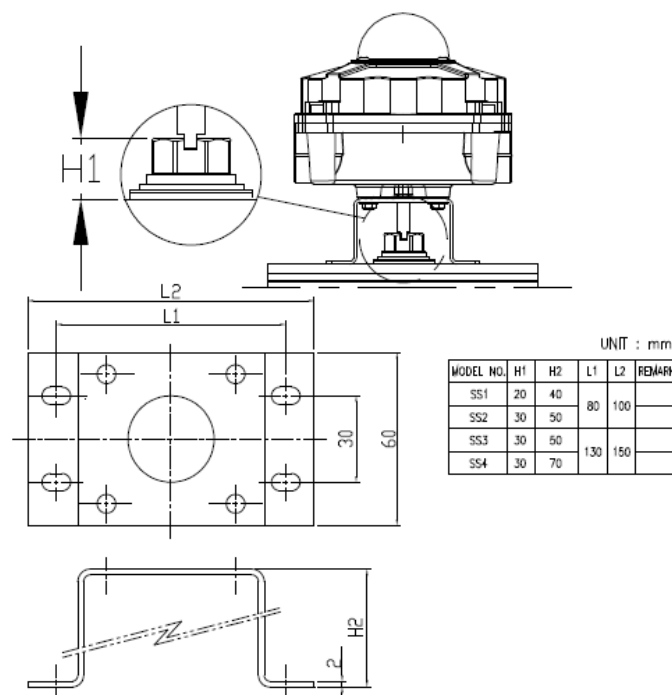
- Push down the Upper Cam (Green - Open) and turn right or left to the preferred position until the switch is activated and release the cam; Then the cam will come back to the spline on the shaft by loading the Spring.

Adjustment – Lower CAM

- Lift up the Lower Cam (Red - Open) and turn right or left to the preferred position until the switch is activated and release the cam; Then the cam will come back to the spline on the shaft by loading the Spring.



Bracket



Dimensional Drawings and Additional Technical Specifications:-

Rating Table for ITS300 & ITS500

ITS MODEL	ALLOWABLE VOLTAGE	RATED CURRENT(A)	RATED CAPACITY (W)	ITS MODEL	ALLOWABLE VOLTAGE	RATED CURRENT(A)	RATED CAPACITY (W)
ITS300 ITS500	125VAC	3	373	ITS301 ITS501	125VAC	3	373
	250VAC	1.5	373		250VAC	1.5	373
	125VDC	0.6			125VDC	0.6	
	250VDC	0.3			250VDC	0.3	
ITS302 ITS502	125VAC	3	373	ITS303 ITS503	125VAC	3	373
	250VAC	1.5	373		250VAC	1.5	373
	125VDC	0.6			125VDC	0.6	
	250VDC	0.3			250VDC	0.3	
ITS304 ITS504	125VAC	0.75	93.25	ITS305 ITS505	125VAC	3	373
	250VAC	0.75	186.5		250VAC	1.5	373
	480VAC	2			125VDC	0.6	
	125VDC	0.5			250VDC	0.3	
	250VDC	0.25		ITS31M ITS51M	24VAC	3	
ITS306 ITS506	125VAC	3	373		240VAC	0.5	
	250VAC	1.5	373		24VDC	2	
	125VDC	0.6					
	250VDC	0.3					

ITS MODEL	SENSOR NAME	ALLOWABLE VOLTAGE	CONTROL OUTPUT(mA)
ITS310 ITS510	PSN17-SDNU	12-24VDC	Less than 200
	PSN17-SDPU	12-24VDC	Less than 200
	PSN17-SDOU	24VDC	2-100
ITS311	NJ2-V3-N	8VDC	
ITS511	MBB3-V3-Z4	50-60VDC	4-100

Wire Standard

Use the wire thickness within the standard size AWG 20-18

Standard (AWG)	Cross Section (mm²)	Allowable Current A (reference)
22	0.45	10
20	0.71	13.1
	0.69	
18	1.15	17.2
	1.1	

Product Documentation and Certification

TYPE: ATEX SWITCHBOX

**INERIS**

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres
Directive 94/9/EC

(1) **EC-TYPE EXAMINATION CERTIFICATE**

- (3) Number of the EC type examination certificate: **INERIS 13ATEX0018X**

- (4) Equipment or protective system:

LIMIT SWITCH BOX TYPE A250 PSX

- (5) Manufacturer: **DORUK ENDUSTRI or trademark PROVAL**

- (6) Address: **Mermeciler San. Sit. 1 Cad. 32 Sok. No:10, Koseler Koyu
TURKEY - 41480 Dilovasi Kocaeli**

- (7) This equipment or protective system and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.

- (8) INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 1994, certifies that this equipment or protective system fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in annex II of the Directive.

The examinations and the tests are consigned in report No 027199.

- (9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 60079-0 : 2009
EN 60079-1 : 2007
EN 60079-31 : 2009

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

Only the entire document including annexes may be reprinted. IM1337AC

Sheet 1 / 4

Parc Technologique Alata BP 2 F-60550 Verneuil-en-Halatte

tél + 33(0)3 44 55 66 77 fax + 33(0)3 44 55 66 99 internet www.ineris.fr

Institut national de l'environnement industriel et des risques

Etablissement public à caractère industriel et commercial - RCS Senlis B 381 984 921 - Siret 381 984 921 00019 - APE 743B

ISO 9001:2015 Accredited Company

Tel: +44(0)1386 552369

Fax: +44(0)1386 554227

sales@allvalves.co.uk

www.allvalves.co.uk

Allvalves Online Ltd, Automation House, Unit 2, Pershore, WR10 2DF UK


Product Documentation and Certification

Examination Certificate N° INERIS 13ATEX0018X

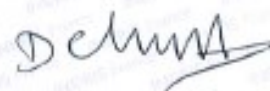
Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.

This EC type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.

The marking of the equipment or the protective system will have to contain:

 II 2 GD

Verneuil-en-Halatte, 2013.10.01



The Chief Executive Officer of INERIS,
By delegation
T. HOUEIX
Ex Certification Officer



Product Documentation and Certification

TYPE: ATEX SWITCHBOX

(13)

ANNEX

(14)

EC TYPE EXAMINATION CERTIFICATE N°INERIS 13ATEX0018X

(15)

DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

Limit switch box protected by flameproof enclosure "Ex d".

The equipment comprises an aluminum diecast body and cover fitted with plastic PC dome indicator.

A250 PSX limit switch box is used on rotary valve actuators to generate open/close signal and monitor the valve position.

PARAMETERS RELATING TO THE SAFETY

Supply voltage pilot : 250 VAC or 110 VAC / DC or 24 VDC or 8 VDC

MARKING

Marking has to be readable and indelible; it has to include the following indications:

DORUK ENDUSTRI or PROVAL

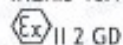
TURKEY - 41480 Dilovasi Kocaeli

A250 PSX(*)

(Serial number)

(Year of construction)

INERIS 13ATEX0018X



Ex d IIB T6 or T5 Gb

Ex tb IIIC T85°C or T100°C Db IP66

T.Amb : -20°C to +75°C or +80°C

WARNING : POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTIONS

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT

DO NOT OPEN WHEN ENERGIZED

(*) The dots are replaced by a codification according to the manufacturing variations. The different types are indicated in the descriptive documents.

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

Product Documentation and Certification

TYPE: ATEX SWITCHBOX

ROUTINE EXAMINATIONS AND TESTS

In accordance with clause 16.1 of the EN60079-1 standard, each apparatus defined above has to have successfully passed the following individual tests before delivery an overpressure test of a period comprised between 10 and 60 seconds under 11,4 bar.

(16) DESCRIPTIVE DOCUMENTS

The descriptive document quoted hereafter constitutes the technical documentation of the equipment, subject of this certificate.

- | | |
|--|--------------------------------|
| - Installation, Operation and Maintenance Manual | dated and signed on 2013.08.28 |
| - Drawing n° A250PSX.00.00 | dated and signed on 2013.05.04 |
| - Drawing n° A250PSX.00.02 | dated and signed on 2013.05.04 |
| - Drawing n° A250PSX.00.09 | dated and signed on 2013.05.04 |
| - Drawing n° A250PSX.00.10 | dated and signed on 2013.05.04 |

(17) SPECIAL CONDITIONS FOR SAFE USE

- For the risk of electrostatic discharge, the user will have to read the instructions.
- The yield stress of screws used for the assembly of the lid must be higher or equal to 450 MPa or of a A4-70 property class.
- The gap and diametrical clearance of flameproof joints are less than the values specified in the tables of the EN 60079-1 standard.
- The width of the different flameproof joints is superior to the values specified in tables of the EN 60079-1 standard.
- For an use at +75°C, cables and cable entries must be compatible with a temperature of 80°C.
- For an use at +80°C, cables and cable entries must be compatible with a temperature of 85°C.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is ensured by:

- Conformity to the standards quoted in clause (9).
- All provisions adopted by the manufacturer and defined in the descriptive documents.