



INNOBIZ



# LIMIT SWITCH BOX

Valve Position Indicator "Quick Set" Cams Compact Design

ALS 3X Series



ALS 1X Series



**AUTOMA**  
Automatic Valve & Accessories



## 1. Valve Position Indicator

Limit switch box indicator offers clear location of the current valve position by 2 mechanical switches

## 2. "Quick-Set" Cam

The operating position of the switches can be easily changed by adjusting the high resolution spline cams manually and independently without the need for additional tools(cam closed-up, cam open-down)

## 3. Easy Wiring

ALS series are equipped with 2 standard conduit entries and 1 terminal strip with 8 point

## 4. Dual Wire Conduit

ALS10 : Dual 1/2" conduit entries  
ALS30 : Dual 3/4" conduit entries

## 5. Captive Cover Bolts

Designed to be capted into the cover

## 6. Easy Mounting Bracket

Any actuator for rotary motion can be easily mounted. NAMUR bracket supplied for easy in mounting onto the actuator



**ALS 1X Series**  
WEATHERPROOF (IP68)



**ALS 3X Series**  
EXPLOSION PROOF (Exd IIC T6, IP67)

## ■ Ordering Number

Series	Area Classification	Switch Type
ALS	1: Weatherproof	0: 2 SPDT
	3: Explosion Proof	1: Proximity Sensor (PNP/NPN)
		2: 3 SPDT
		3: 4 SPDT
		4: 2 DPDT (ALS 3X Series Only)

## ■ Standard Materials of Construction

NAME	NO.	SPECIFICATION
Outer Position Indicator	1	PE
Inner Position Indicator	1	ABS
Housing	2	Die-Casting Aluminum
Shaft (stem)	1	303 Stainless Steel
Mechanical Switch	2	Used in UL CSA approved
Inserts	2	Bronze
O-Ring	4	Nitrile (Rubber)
Cam	2	ABS
Spring	1	304 Stainless Steel
Cover Screws	4	304 Stainless Steel
Terminal Strip	1	Polyethylene

## ■ Specification

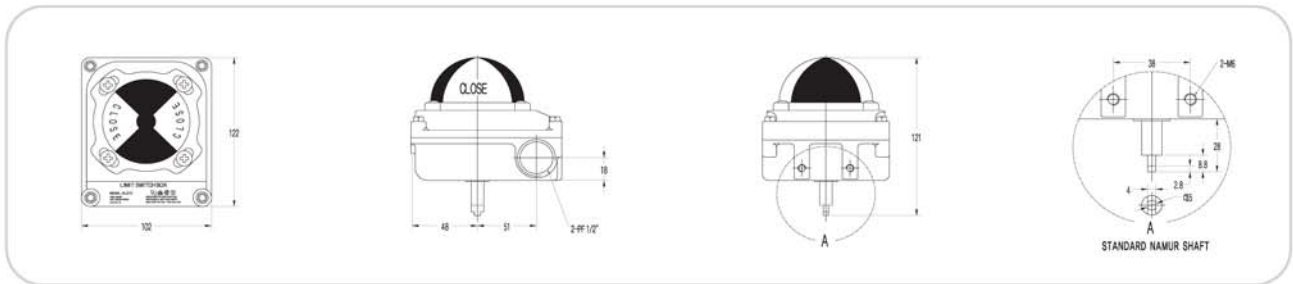
Description	Series	
Model	ALS 1X Series	ALS 3X Series
Ambient Temperature	-20°C to 85°C (-4°F to 185°F)	
Cable Entry Standard	2×1/2" PF/PT	2×3/4" PF/PT
Cable Entry Option	2×1/2" NPT/M20/PG13.5	2×3/4" NPT/M20/M25/PG13.5/PG16
Terminal Block Standard	8 Points	
Terminal Block Option	12 & 14 Points / Solenoid Valve Connection 14 Points	
Position Indicator	0° to 90° (Red for Close / Yellow for Open)	
Painting	Polyester Powder Coating with Black Color	
Bracket	Aluminium / Steel / SUS	

## ■ Certificate

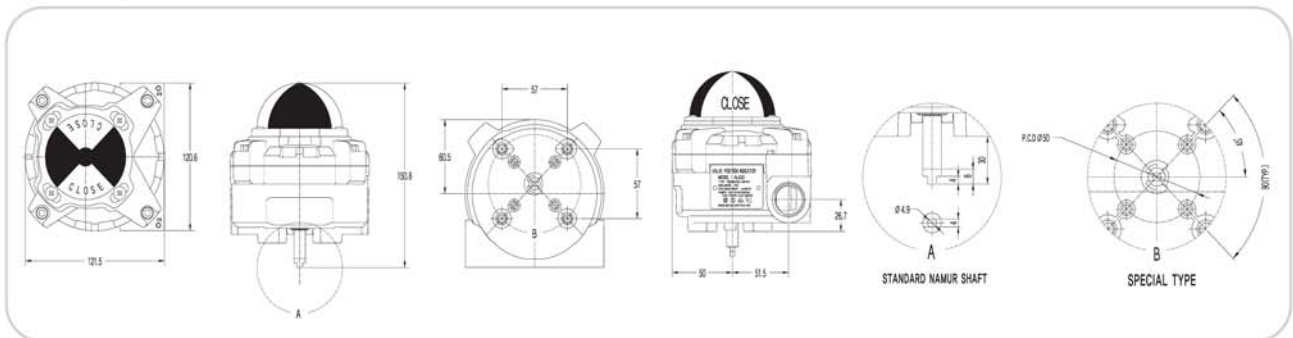
Mark	ALS 1X Series		ALS 3X Series	
	Ratings	Reg No.	Ratings	Reg No.
KCS	IP68	2011-455-739	EX d IIC T6 IP67	10-AV2BO-0247
CE (TUV NORD)	Low-Voltage Directive 2006/95/EC	K3441/L 10	Low-Voltage Directive 2006/95/EC	K3441/L 10
FM Approvals			XP/II/1/ABCD/T5Ta=+85° C;I/1/AEx d IIC/T5 Ta=+85° C; DIP/II, III/1/EFG/T5 Ta =+85° C; IP67	3041064

## ■ Dimension

### ALS10 Weatherproof









### ALS30 Explosion Proof



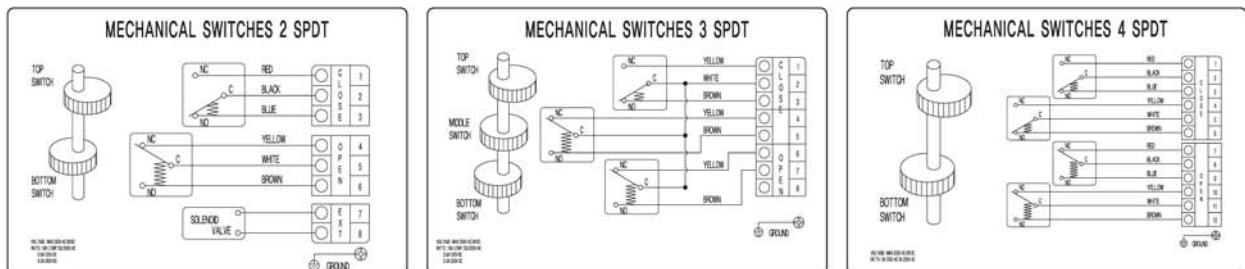
## ■ Mounting Bracket

1 NAMUR standard bracket is supplied together with 1 limit switch box as standard

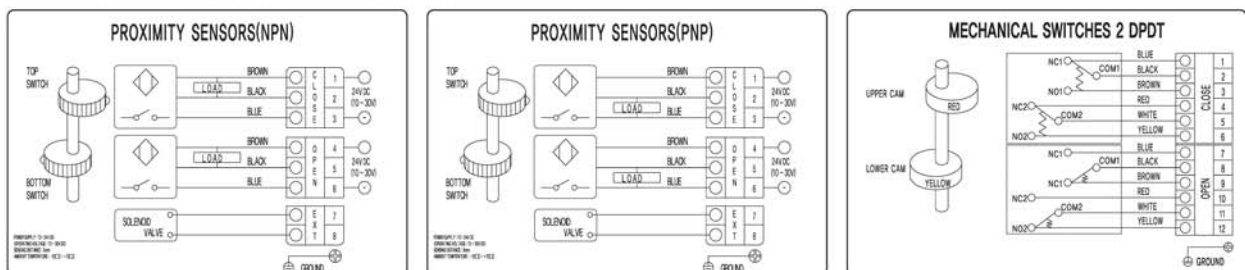
Model	Bracket	Material	Actuator Size	Model	Bracket	Material	Actuator Size
	S1 ALS 1X Series	Steel	30 X 80 H:20~30		A1 ALS 3X Series	Aluminium	30 X 80 H:20
	AB1 ALS 1X Series	SUS	30 X 80 H:20		A2 ALS 3X Series	Aluminium	30 X 80 H:30
	AB1 ALS 3X Series	SUS	30 X 80 H:20		A3 ALS 3X Series	Aluminium	30 X 130 H:30

## Wiring Diagram

Mechanical Switch Type (UL CSA VDE Approved)



Proximity Sensor Type (UL CE Approved)



### MECHANICAL SWITCHES

USED IN    APPROVED

- TYPE : MECHANICAL SWITCH
- VOLTAGE : MAX 250V AC OR DC
- CURRENT : 0.6A 125V DC OR 16A 1/2HP  
125, 250V AC



# AUTOMA

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※ The product is subject to change for technical development and quality improvement without prior notice.