

LIMIT SWITCH BOXES

OVERVIEW

» ALS-100



Aluminum with Epoxy Coating
 NBR O-ring sealed
 Single Cable Entry: 1½" BSPP
 (1½" NPT, 1-M20*1.5)
 IP67, NEMA4, 4X, NAMUR

» ALS-200



Aluminum with Epoxy Coating
 NBR O-ring sealed
 Double Cable Entry: 2½" BSPP
 (2½" NPT, 2-M20*1.5)
 CSA, IP67, NEMA 4, 4X

» ALS-300



Aluminum with Epoxy Coating
 NBR O-ring sealed
 Double Cable Entry: 2½" BSPP
 (2½" NPT, 2-M20*1.5)
 IP67, NEMA 4, 4X, NAMUR

» ALS-400



Aluminum with Epoxy Coating
 NBR O-ring sealed
 Double Cable Entry: 2½" or 3/4" BSPP
 (2½" or 3/4" NPT, 2-M20*1.5)
 ATEX Ex d IIC T6, NAMUR

» ALS-500



Aluminum with Epoxy Coating
 NBR O-ring sealed
 Double Cable Entry: 2½" or 3/4" BSPP
 (2½" or 3/4" NPT, 2-M20*1.5)
 ATEX Ex d IIB T6, NAMUR

» ALS-600



Stainless Steel 316
 NBR O-ring sealed
 Double Cable Entry: 2½" or 3/4" BSPP
 (2½" or 3/4" NPT, 2-M20*1.5)
 ATEX Ex d IIB T6, NAMUR

» ALS-200D



Two Reed Switches and Two
 Permanent Magnets in
 ABS Plastic Housing
 IP67, NEMA 4.4X, NAMUR



Dome



Flat



Cylinder

Indicators for option



Red-Yellow 90° dome
 indicator (Standard)



Red-Yellow 90° flat
 indicator (Standard)



Red-Green 90° flat
 indicator



30° flat indicator



45° flat indicator



60° flat indicator



Scale dome indicator



Scale flat indicator



Linear flat indicator



Three way "L" flat
 indicator



Three way "T" flat
 indicator



120° flat indicator

LIMIT SWITCH BOXES

EU Type

MODEL: ALS-100

» Feature

The EU Type limit switch box ALS 100 series is a rectangular parallelepiped housing with simple European-style design. There are visible position indicator and non-visible position indicators for selection; various types of limit switches can be installed in the box, and the cam group is adjustable by rotation. Company exclusive design.

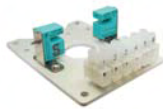
Certifications: NEMA4, 4X and IP67.



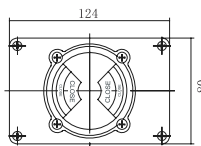
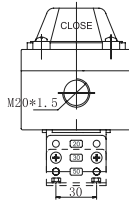
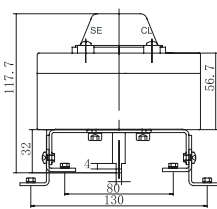
Housing without indicators



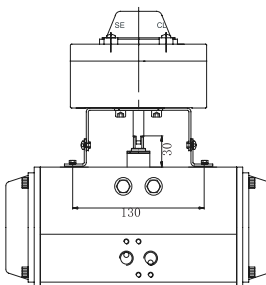
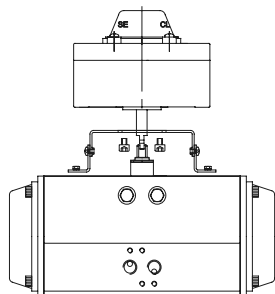
Housing without indicators



» Dimensions



ALS-100AS
P+F AS-i Communication Card



» How to Order

MODEL

ALS-100
Aluminum Limit Switch Box
IP67, NEMA4, 4X

SWITCH TYPE

CABLE ENTRY

1-M20*1.5
1-1/2" BSPP
1-1/2" NPT

ISO BRACKET (See P.11)

MB1.3: 30*80X130, H:20~50
(Carbon Steel or AISI304)

Mechanical Switches

M2: 2SPDT(HONEYWELL)

M3: 3SPDT(HONEYWELL)

M5: 2DPDT(CROUZET)

ML2: 2SPDT -40 C (CHERRY)

MG2: 2SPDT Gold Contacts(HONEYWELL)

Magnet Sensors

QA23: 2or3 wire,5 - 240VAC/DC,5300mA(ALMS)

Additional Communication Module

AS: AS-i communication card(P+F)

Proximity Inductive Sensors

PP22A: 2 wire,8.2VDC,2mA,Ex ia IIC T6(P+F NCB2-V3-NO-Y)

PP22B: 2 wire,8.2VDC,<1mA,Ex ia IIC T6(P+F NJ2-V3-N)

PP23C: 3 wire, 10-30VDC,0-100mA(P+F NBB2-V3-E2 PNP NO)

PP22D: 2 wire,5-60VDC,4-100mA(P+F NBB3-V3-Z4)

PI23: 3 wire,5-36VDC,4-200mA(IFM IS5026 PNP/NPN)

PA22: 2 wire,10-30VDC <150mA(ALPS-24-NO)

PA23: 3 wire,10-30VDC,<150mA(ALPS-24-NO PNP/NPN)

LIMIT SWITCH BOXES

Standard Type

MODEL: ALS-200

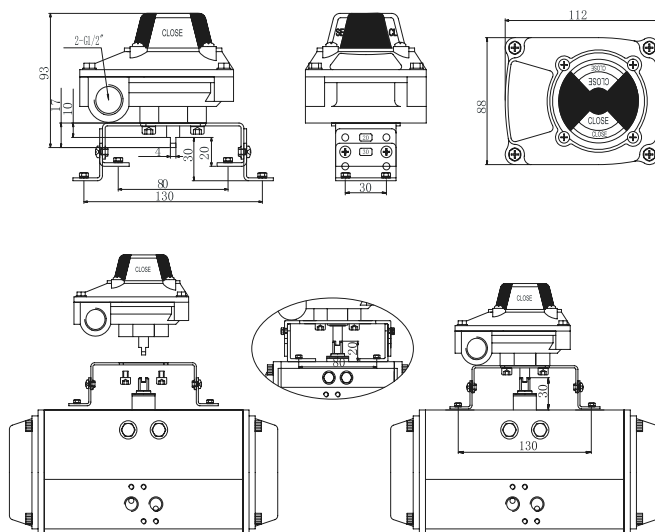
» Feature

Standard limit switch box ALS-200 series is a compact, economical and reliable product, which realizes local visual and remote indication of valve position. Different switches are allowed to be built in, and can be used in harsh environments such as high temperature and low temperature.

Certifications: CSA, NEMA4.4X and IP67.



» Dimensions

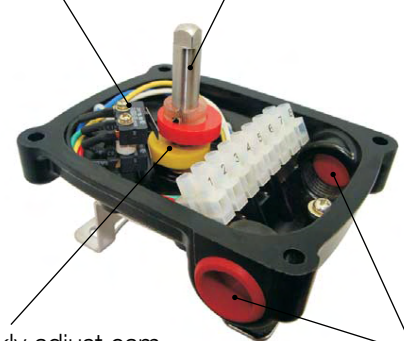


A variety of switches for installation options

Built-in 8 terminals

Quickly adjust cam sets without tools

Two cable entries



» How to Order

MODEL

ALS-200

Aluminum Limit Switch Box
IP67, NEMA4, 4X

SWITCH TYPE

Mechanical Switches

M2: 2SPDT(HONEYWELL)

ML2: 2SPDT -40 C (CHERRY)

MG2: 2SPDT Gold Contacts(HONEYWELL)

Magnet Sensors

QA23: 3 wire, 5 -240VAC/DC, <300mA(ALMS)

CABLE ENTRY

2-M20*1.5

2-1/2" BSPP

2-1/2" NPT

2-M16*1.5

ISO BRACKET (See P.11)

MB1.0: 30*80,H:20(or H:30)

MB1.1: 30*130,H:30~50

MB2.3: 30*80&130,H:20~30
(Carbon Steel or AISI304)

Proximity Inductive Sensors

PP22A: 2 wire, 8.2VDC, <1mA, Ex ia IIC T6(P+F NCB2-V3-NO-Y)

PP22B: 2 wire, 8.2VDC, <1mA, Ex ia IIC T6(P+F NJ2-V3-N)

PP23C: 3 wire, 10-30VDC, 0-100mA(P+F NBB2-V3-E2 PNP NO)

PP22D: 2 wire, 5-60VDC, 4-100mA(P+F NBB3-V3-Z4)

PI23: 3 wire, 5-36VDC, 4-200mA(IFM IS5026 PNP/NPN)

PA22: 2 wire, 10-30VDC <150mA(ALPS-24-NO)

PA23: 3 wire, 10-30VDC, <150mA(ALPS-24-NO PNP/NPN)

LIMIT SWITCH BOXES

Expandable Type

MODEL: ALS-300

» Feature

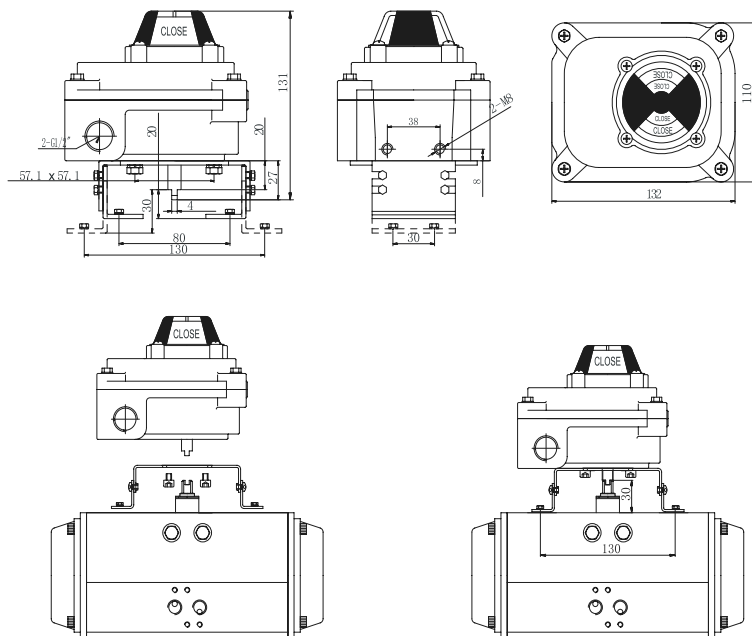
Expandable type limit switch box ALS-300 series can be used for important backside interlocking protection and remote alarm indication. It provides users with a product with sufficient space to install additional communication modules, large expandability and high cost performance.

Certifications: NEMA4, 4X and IP67.

Colors for option:



» Dimensions



ALS-300M2T



RA Position DA Position

T-4-20mA Analog Output

AS42: 4 in/2 out AS-i Module (ACHEM)

» How to Order

MODEL

ALS-300

Aluminum Limit Switch Box
IP67, NEMA4, 4X

SWITCH TYPE

CABLE ENTRY

2-M20*1.5
2-1/2" BSPP
2-1/2" NPT
2-M16*1.5

ISO BRACKET (See P.11)

MB3.0: 30*80,H:20~30
MB3.1: 30*130,H:30~50
MB3.2: 30*80,H:20
MB3.3: 30*80&130,H:20~30
(Carbon Steel or AISI304)

Mechanical Switches

M2: 2SPDT(HONEYWELL)
M3: 3SPDT(HONEYWELL)
M4: 4SPDT(HONEYWELL)
M5: 2DPDT(CROUZET)
ML2: 2SPDT -40 C (CHERRY)
MG2: 2SPDT Gold Contacts(HONEYWELL)

Additional Communication Module

AS42: 4 in/2 out AS-i Module (ACHEM)
T: 4~20mA Analog Output

Proximity Inductive Sensors

PP22A: 2 wire, 8.2VDC, 2mA, Ex ia IIC T6 (P+F NCB2-V3-NO-Y)
PP22B: 2 wire, 8.2VDC, <1mA, Ex ia IIC T6 (P+F NJ2-V3-N)
PP23C: 3 wire, 10-30VDC, 0-100mA (P+F NBB2-V3-E2 PNP NO)
PP22D: 2 wire, 5-60VDC, 4-100mA (P+F NBB3-V3-Z4)
PI23: 3 wire, 5-36VDC, 4-200mA (IFM IS5026 PNP/NPN)
PA22: 2 wire, 10-30VDC <150mA (ALPS-24-NO)
PA23: 3 wire, 10-30VDC, <150mA (ALPS-24-NO PNP/NPN)

Magnet Sensors

QA23: 3 wire, 5-240VAC/DC, <300mA (ALMS)

LIMIT SWITCH BOXES

ATEX-CT6 Type

MODEL: ALS-400

» Feature

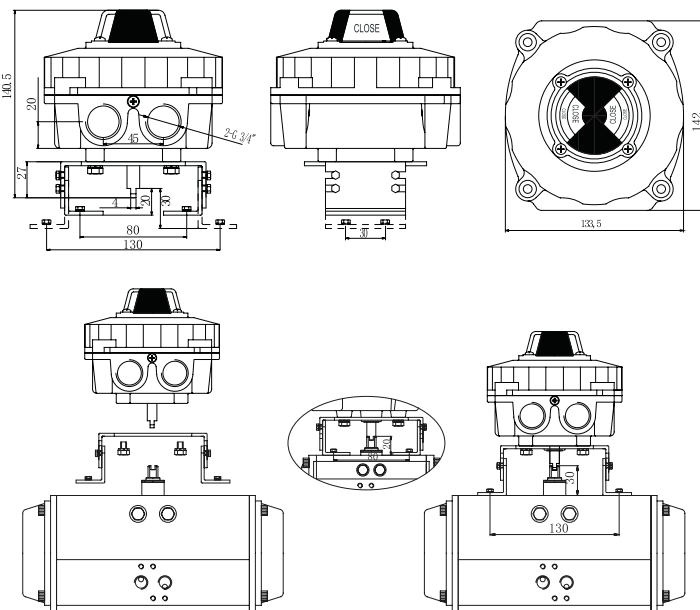
ATEX-CT6 explosion-proof limit switch box ALS-400 series provides a high-performance, high-reliability product for high-level hazardous areas. The product has passed ATEX, Exd, dust explosion-proof (DIPA20 TA, T6) certification. Magnesium-free die-cast aluminum shell makes the product more safe and reliable.

Explosion-proof level: Ex d II C T6, DIP A20 TA, T6.

Colors for option:



» Dimensions



ALS-400PP22T



T-4-20mA Analog Output



RA Position DA Position

AS42: 4 in/2 out AS-i Module (ACHEM)

» How to Order

MODEL

ALS-400

Aluminum Limit Switch Box
ATEX Ex d IIC T6, IP66

SWITCH TYPE

CABLE ENTRY

2-M20*1.5
2-1/2" BSPP
2-1/2" NPT
2-3/4" BSPP
2-3/4" NPT

ISO BRACKET (See P.11)

MB3.0: 30*80,H:20~30
MB3.1: 30*130,H:30~50
MB3.2: 30*80,H:20
MB3.3: 30*80&130,H:20~30
(Carbon Steel or AISI304)

Mechanical Switches

M2: 2SPDT(HONEYWELL)
M3: 3SPDT(HONEYWELL)
M4: 4SPDT(HONEYWELL)
M5: 2DPDT(CROUZET)
ML2: 2SPDT -40 C (CHERRY)
MG2: 2SPDT Gold Contacts(HONEYWELL)

Additional Communication Module

AS42: 4 in/2 out AS-i Module (ACHEM)
T: 4~20mA Analog Output

Proximity Inductive Sensors

PP22A: 2 wire,8.2VDC,2mA,Ex ia IIC T6(P+F NCB2-V3-NO-Y)
PP22B: 2 wire,8.2VDC,<1mA,Ex ia IIC T6(P+F NJ2-V3-N)
PP23C: 3 wire, 10-30VDC,0-100mA(P+F NBB2-V3-E2 PNP NO)
PP22D: 2 wire,5-60VDC,4-100mA(P+F NBB3-V3-Z4)
PI23: 3 wire,5-36VDC,4-200mA(IFM IS5026 PNP/NPN)
PA22: 2 wire,10-30VDC <150mA(ALPS-24-NO)
PA23: 3 wire,10-30VDC,<150mA(ALPS-24-NO PNP/NPN)

Magnet Sensors

QA23: 3 wire,5 -240VAC/DC,<300mA(ALMS)

LIMIT SWITCH BOXES

ATEX-BT6, Aluminum Housing

MODEL: ALS-500

» Feature

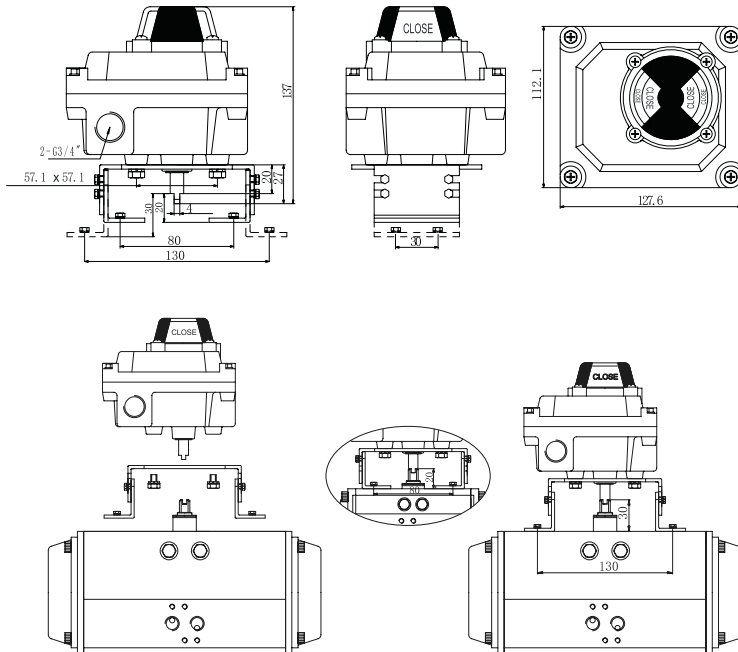
ATEX-BT6 explosion-proof limit switch box ALS-500 series provides a product of high performance, safety and compactness for hazardous area. With exquisite and pleasing appearance, durable service life, the housing complies with E Ex, IECEx, ATEX and dust explosion-proof (DIPA20 TA,T6) standards.

Explosion-proof level: Ex d II B T6, DIP A21 TA, T6.

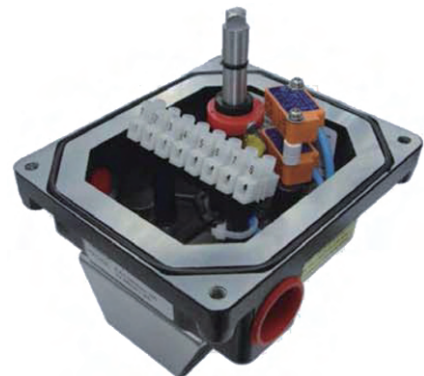
Colors for option:



» Dimensions



ALS-500PI23
(IFM IS5026)



» How to Order

MODEL
 ALS-500
 Aluminum Limit Switch Box
 ATEX/IEC Ex d IIB T6, IP66

SWITCH TYPE

CABLE ENTRY

ISO BRACKET (See P.11)

2-M20*1.5
 2-1/2" BSPP
 2-1/2" NPT
 2-3/4" BSPP
 2-3/4" NPT

MB3.0: 30*80,H:20~30
 MB3.1: 30*130,H:30~50
 MB3.2: 30*80,H:20
 MB3.3: 30*80&130,H:20~30
 (Carbon Steel or AISI304)

Mechanical Switches

M2: 2SPDT(HONEYWELL)
 M3: 3SPDT(HONEYWELL)
 M4: 4SPDT(HONEYWELL)
 M5: 2DPDT(CROUZET)

ML2: 2SPDT -40 C (CHERRY)

MG2: 2SPDT Gold Contacts(HONEYWELL)

Magnet Sensors

QA23: 3 wire,5 - 240VAC/DC <300mA(ALMS)

Proximity Inductive Sensors

PP22A: 2 wire,8.2VDC,<1mA,Ex ia IIC T6(P+F NCB2-V3-NO-Y)

PP22B: 2 wire,8.2VDC,<1mA,Ex ia IIC T6(P+F NJ2-V3-N)

PP23C: 3 wire,10-30VDC,0-100mA(P+F NBB2-V3-E2 PNP NO)

PP22D: 2 wire,5-60VDC,4-100mA(P+F NBB3-V3-Z4)

PI23: 3 wire,5-36VDC,4-200mA(IFM IS5026 PNP/NPN)

PA22: 2 wire,10-30VDC,<150mA(ALPS-24-NO)

PA23: 3 wire,10-30VDC,<150mA(ALPS-24-NO PNP/NPN)

LIMIT SWITCH BOXES

ATEX-BT6, SS 316 Housing

MODEL: ALS-600

» Feature

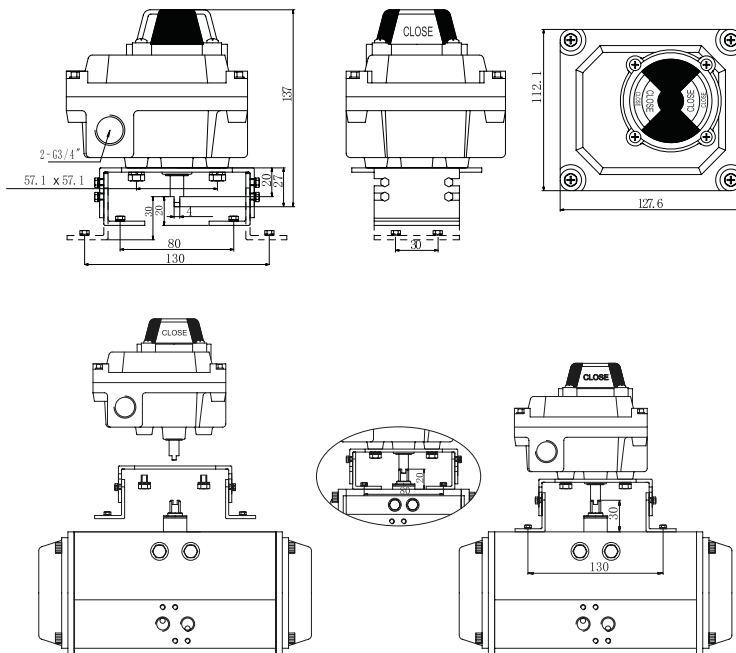
Highly corrosion-resistant type explosion-proof limit switch box ALS-600 series, with the housing made of stainless steel AISI316, provides a explosion-proof products of high performance, safety, compactness and low price. The housing complies with Ex d, IECEx, dust explosion-proof (DIPA20 TA,T6) and ATEX standards.

Explosion-proof level: Ex d IIB T6, DIP A21 TA, T6.

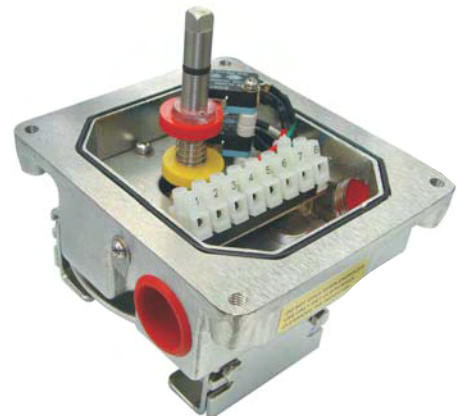
Colors for option:



» Dimensions



Stainless Steel ALS600M2



» How to Order

MODEL
 ALS-600
 SS316 Limit Switch Box
 ATEX/IEC Ex d IIB T6, IP66

SWITCH TYPE

CABLE ENTRY

2-M20*1.5
 2-1/2"BSPP
 2-1/2"NPT
 2-3/4"BSPP
 2-3/4"NPT

ISO BRACKET (See P.11)

MB3.0: 30*80,H:20~30
 MB3.1: 30*130,H:30~50
 MB3.2: 30*80,H:20
 MB3.3: 30*80&130,H:20~30
 (AISI304)

Mechanical Switches

M2: 2SPDT(HONEYWELL)
 M3: 3SPDT(HONEYWELL)
 M4: 4SPDT(HONEYWELL)
 M5: 2DPDT(CROUZET)
 ML2: 2SPDT -40 C (CHERRY)

MG2: 2SPDT Gold Contacts(HONEYWELL)

Magnet Sensors

QA23: 3 wire,5,-240VAC/DC,<300mA(ALMS)

Proximity Inductive Sensors

PP22A: 2 wire,8.2VDC,<1mA,Ex ia IIC T6(P+F NCB2-V3-NO-Y)
 PP22B: 2 wire,8.2VDC,<1mA,Ex ia IIC T6(P+F NJ2-V3-N)
 PP23C: 3 wire, 10-30VDC,0-100mA(P+F NBB2-V3-E2 PNP NO)
 PP22D: 2 wire,5-60VDC,4-100mA(P+F NBB3-V3-Z4)
 PI23: 3 wire,5-36VDC,4-200mA(IFM IS5026 PNP/NPN)
 PA22: 2 wire,10-30VDC,<150mA(ALPS-24-NO)
 PA23: 3 wire,10-30VDC,<150mA(ALPS-24-NO PNP/NPN)

LIMIT SWITCH

Horseshoe Magnet Type

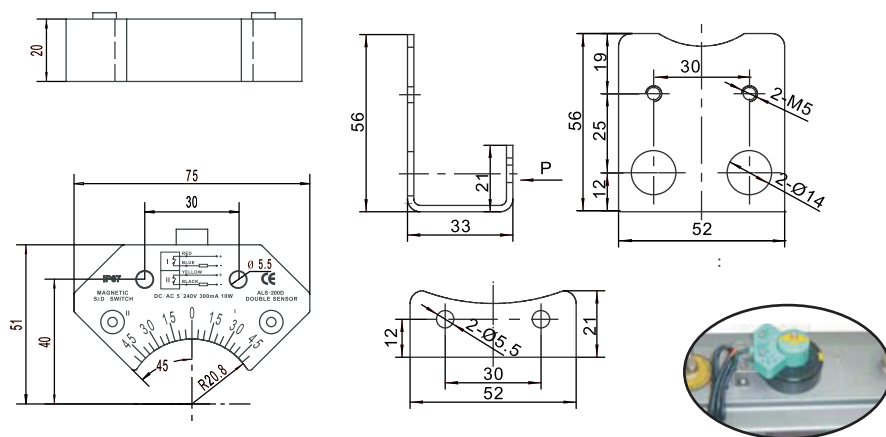
MODEL: ALS-200D

» Feature

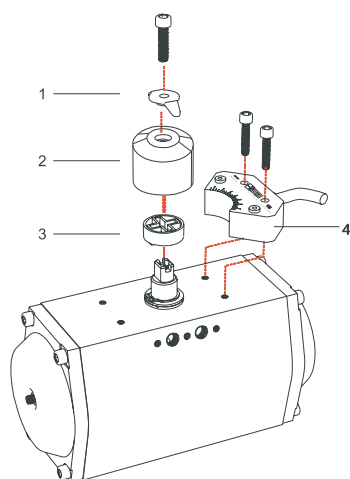
ALS-200D horseshoe type magnet sensor limit switch box can accurately detect the open/close state of valve, convert it into electric signal and feed back to host computer. With exquisite structure, it allows to be mounted on pneumatic actuators of different types due to its conformity with NAMUR.
Certifications: NEMA4.4X and IP67



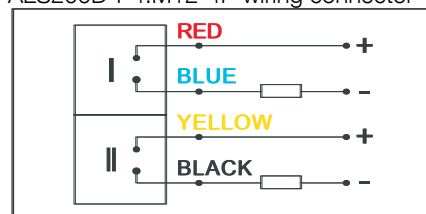
» Dimensions



ALS200D-FL: Flying lead



ALS200D-P4:M12-4P wiring connector



NO	PART NAME
1	POINTER
2	MAGNETIC INDICATOR
3	ADAPTOR Without for 30x80 H:30 One for 30x80 H:20 Three for 30x130 H:30
4	DOUBLE REED SWITCHES

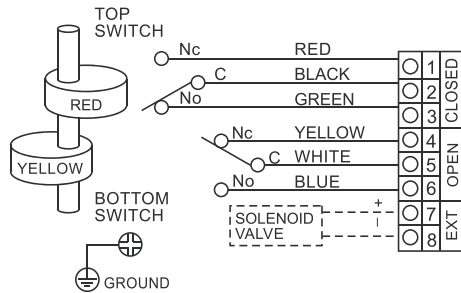
Specification

Temperature Range	-40°C ~ 85°C
Sensor Type	Magnet
Pared Operation Distance	1~6 mm
Switching Element Function	NO (NC for option)
Output Type	2-Wire
Switching Frequency	0 ~ 4.8 KHZ
Position Indicator	0 ~ 90°
Working Voltage	5 ~ 240 VAC/DC
Working Current	0 ~ 300mA
Rated Power	10W
Protection Degree	IP67

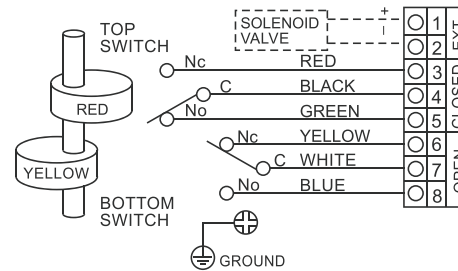
LIMIT SWITCH BOXES

WIRING DIAGRAM

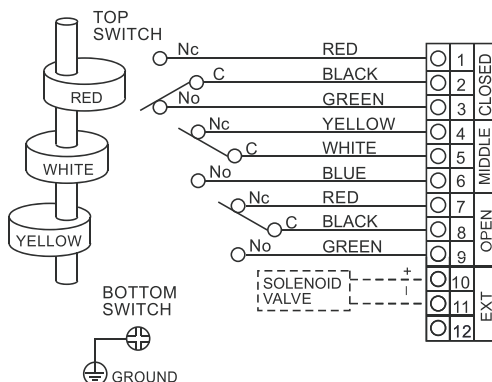
ALS200/300/400M2
2SPDT Mechanical Switches Wiring



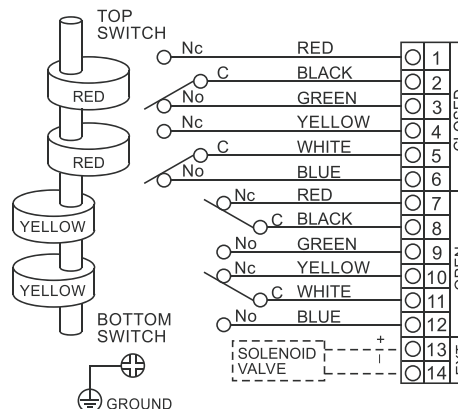
ALS500/600M2
2SPDT Mechanical Switches Wiring



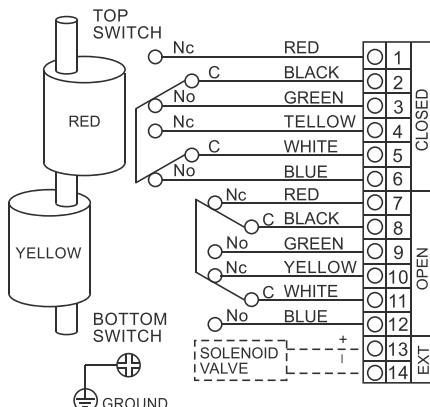
ALS300/400 /500/600M3
3SPDT Mechanical Switches Wiring



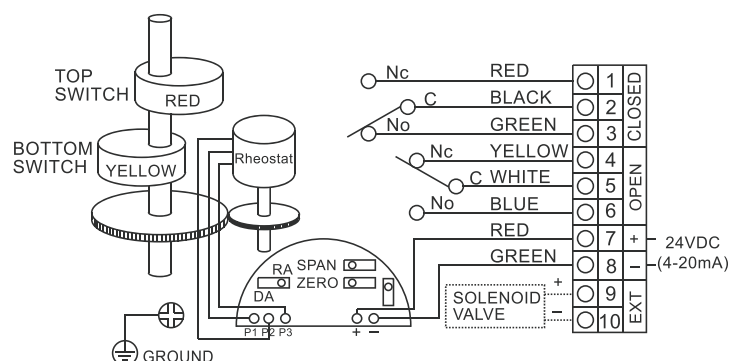
ALS300/400 /500/600M4
4SPDT Mechanical Switches Wiring



ALS300/400 /500/600M5
2DPDT Mechanical Switches Wiring



ALS300/400M2T
2SPDT Mechanical Switches Wiring

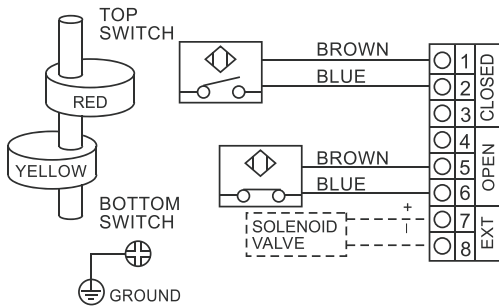


LIMIT SWITCH BOXES

WIRING DIAGRAM

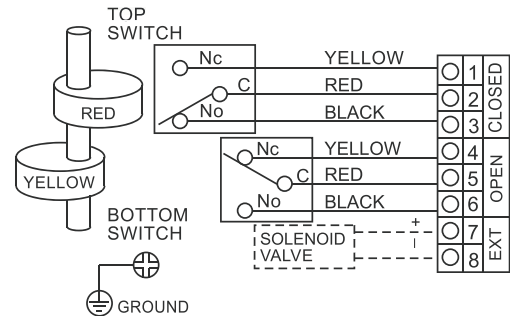
ALS200/300/400/500/600PA22

NC(2-Wire) Inductive Sensors



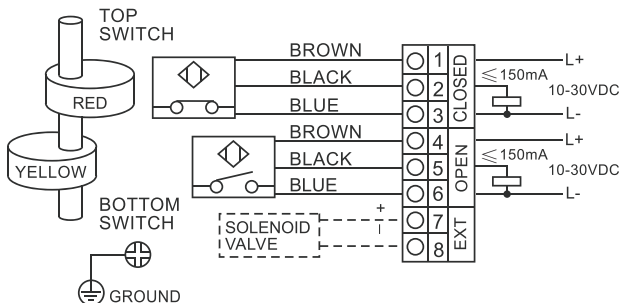
ALS200/300/400/500/600QA23

NC(3-Wire) Magnet Sensors



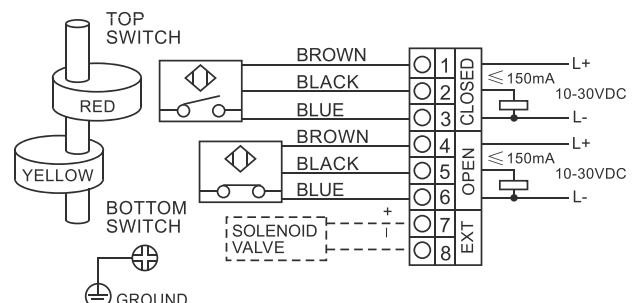
ALS200/300/400/500/600PA23

PNP NO(3-Wire) Inductive Sensors



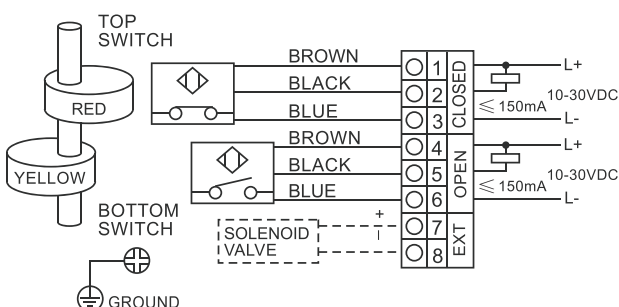
ALS200/300/400/500/600PA23

PNP NC(3-Wire) Inductive Sensors



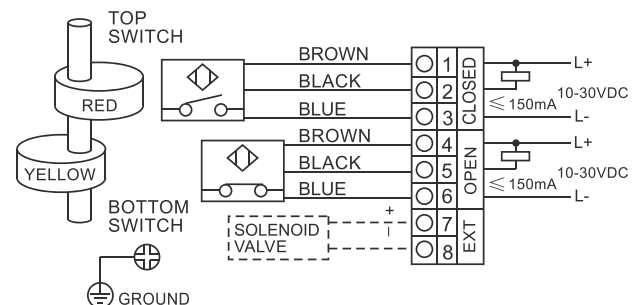
ALS200/300/400/500/600PA23

NPN NO(3-Wire) Inductive Sensors



ALS200/300/400/500/600PA23

NPN NC(3-Wire) Inductive Sensors



LIMIT SWITCH BOXES

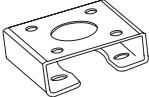
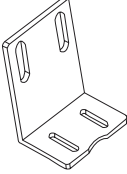
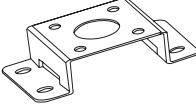
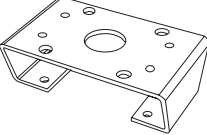
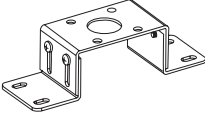
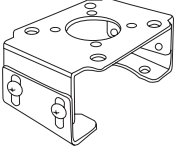
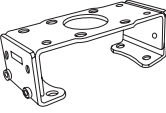
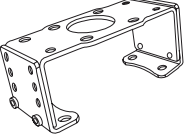
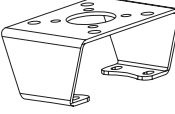
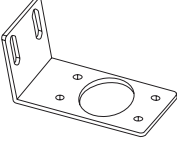
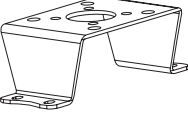
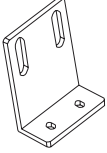
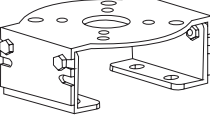
ACCESSORIES



» ISO Brackets

Materials for option:

- (1) Carbon Steel with Epoxy coated
- (2) Stainless steel 304

Model No	Photo	Application		Model No	Photo	Application	
MB0.8		25x50 H:20	ALS-200	MB4.3		30x80-130 H:20~30	ALS-300
MB1.0		30x80 H:20	ALS-200	MB3.2		30x80 H:20	ALS-300 ALS-400 ALS-500 ALS-600
		30x80 H:30	ALS-200				
MB1.1		30x130 H:30~50	ALS-200	MB3.3		30x80-130 H:20~30	ALS-300 ALS-400 ALS-500 ALS-600
MB2.3		30x80-130 H:20~30	ALS-200	MB3.4		30x80 H:20	ALS-300 ALS-400 ALS-500 ALS-600
MB1.3		30x80-130 H:20~50	ALS-100	MB3.5		30x80 H:30	ALS-300 ALS-400 ALS-500 ALS-600
MB3.0		30x80 H:20~30	ALS-300	MB3.6		30x130 H:30	ALS-300 ALS-400 ALS-500 ALS-600
MB3.1		30x130 H:30~50	ALS-300	MB3.7		30x80-130 H:20~30 H:50	ALS-300 ALS-400 ALS-500 ALS-600

