

Limit Switch Box



APL Series

Features

- Solid and flexible design
Aluminium die-casting housing and powder coating.
- Bolts on visual position indicator
- Quick-set cam
Spring loaded splined cam.
No need to adjust again after initial setting.
Easy setting without tool
- Dual cable entries
- Captive cover bolts
No worry to loose bolts while cover open.
- Easy mounting bracket
NAMUR standard stainless steel shaft and bracket.



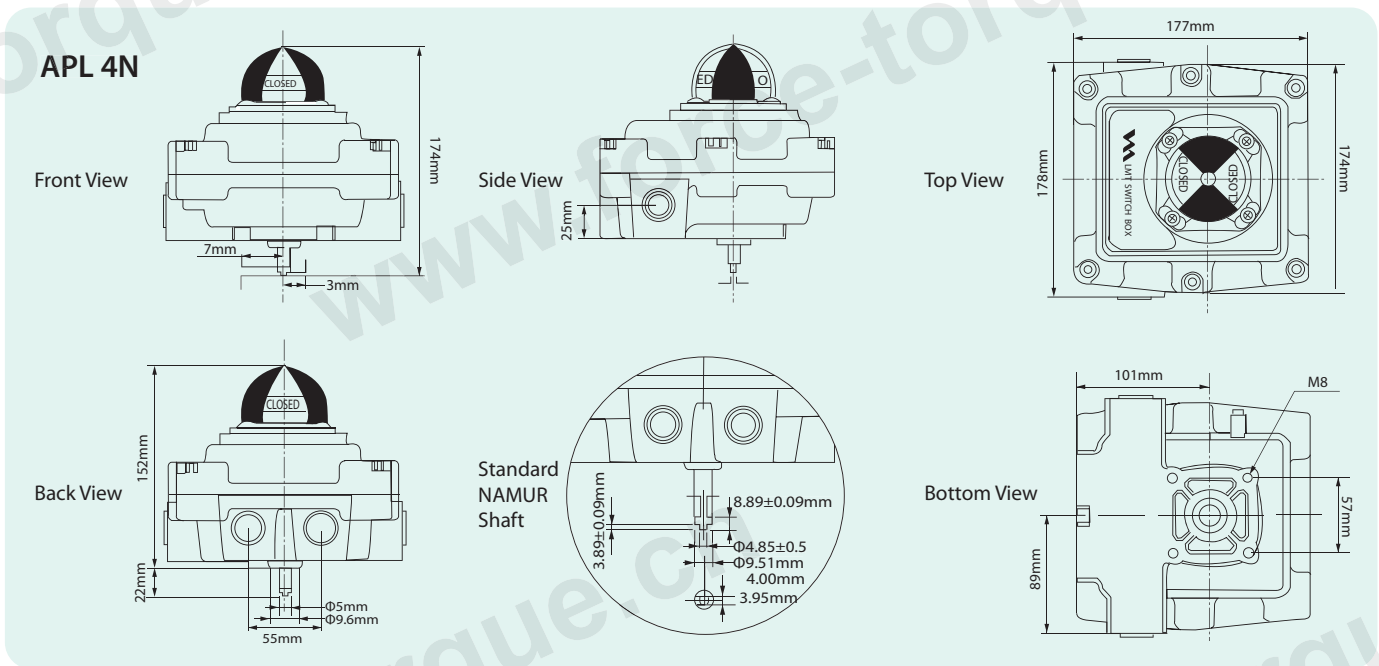
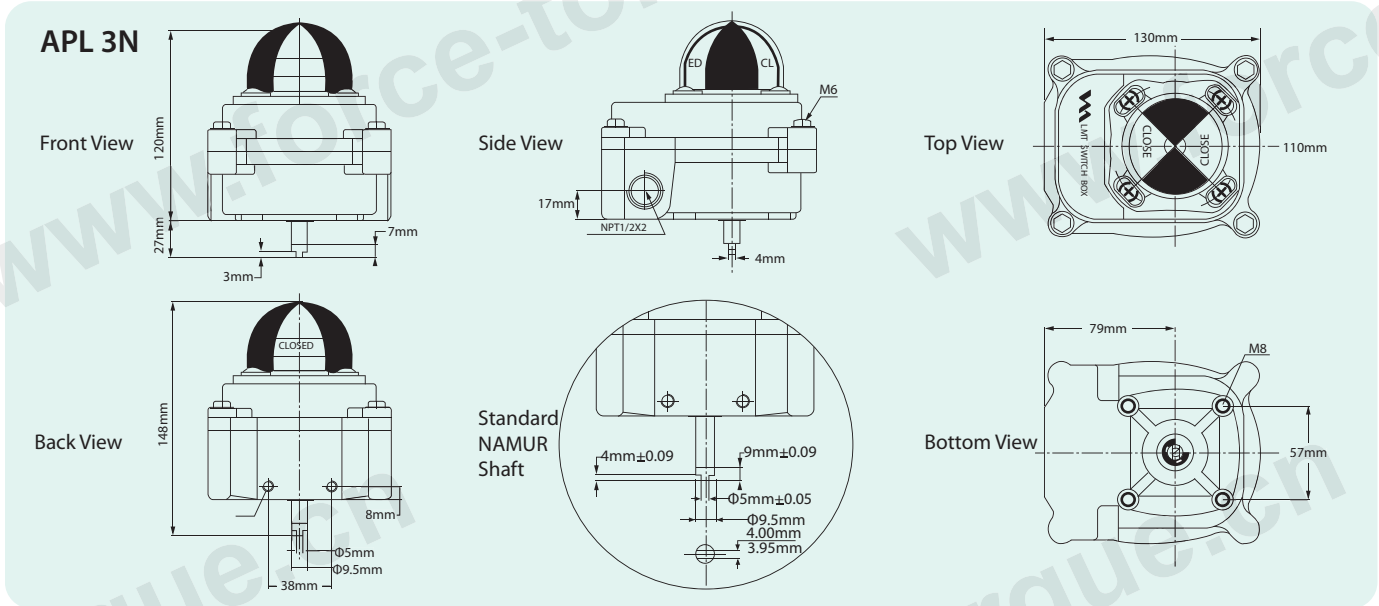
Standard specification

Specification \ Model	APL-3N Series	APL-4N Series
Enclosure	Weatherproof IP67/NEMA4&4x	Weatherproof IP67/NEMA4&4x
Cable entries	Two NPT1/2"	Two NPT3/4" Max. 4
Ambient temperature	-20°C~80°C	-20°C~80°C
Terminal strips	8 points (0.08~2.5mm ²)	8 points (0.08~2.5mm ²)
Position indicator	0~90°(90°tum free join) Close:red open,yellow	0~90°(90°tum free join) Close:red open,yellow
Switches	Mechanical switch x 2	Mechanical switch x 2
	Proximity sensor x 2	Proximity sensor x 2
Painting	Chromate Polyester Podwer coating(black)	Chromate Polyester Podwer coating(black)

Option specification

Specification \ Model	APL-3N Series	APL-4N Series
Cable entries	Two PF1/2", PT1/2"	Two PF3/4", PT3/4" Max. 4
	M20,PG13.5	M20, M25
Terminal strips	16 points (0.08~2.5mm ²)	20 points (0.08~2.5mm ²)
Position indicator	Three position	Three position
Switches	Mechanical switch x 4	Mechanical switch x 4
	Proximity sensor x 4	Proximity sensor x 4
Potentiometer	1k ohm standard	1k ohm standard
	5k ohm. 0-10ohm	5k ohm. 0-10ohm
Painting	Red, green, blue, Yellow, silver	Red, green, blue, Yellow, silver

Dimension



How to Order

UNIT	1	2	3	4	Product code
CONTENT	Series	Enclosure	Switch	Bracket	APL-310M
CODE	APL	3	10	M	
EXAMPLE	APL	Weather proof	Mechanical Switches	30 x 80 x 30	

3	Weather proof
4	Exd II BT6

10	2 x SPDT
12	4 x SPDT
14	DPDT
20	NCB4-12GM40-N0
22	NBB2-12GM50-E2

S	30 x 80 x 20
M	30 x 80 x 30
L	30 x 130 x 30

LS Series

Model LS-820

- Enclosure: weatherproof IP67
- Solid and compact design
- Bolts on visual position indicator
(Re-adjustment available upon required direction)
- Dual cable entries : 2 x 1/2" NPT(Standard)
M20,PG13.5,PF1/2", PF1/2".(Option)
- Terminal strips : 8 points (0.08~2.5mm²)
- Captive cover bolts
- Easy mounting
- NAMUR standard stainless steel shaft and bracket

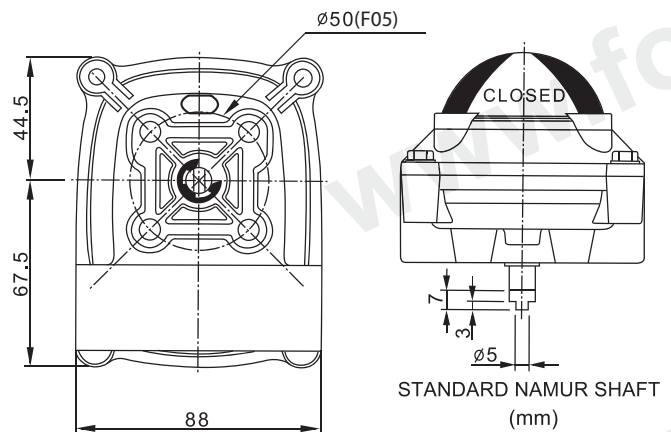
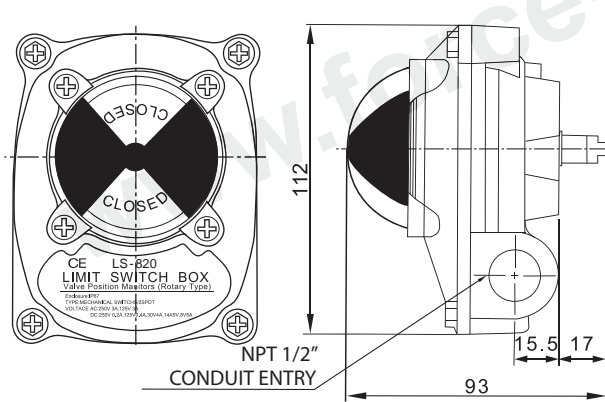


Material

Housing cover&body	Aluminium die casting
Shaft	Stainless steel
Indicator cover	Polycarbonate
Cam	Polycarbonate
Spring	Stainless steel
Housing cover bolt	Stainless steel

O-ring	NBR
Bushing	Bronze
E-ring(shaft)	Stainless steel
Earth lug	Stainless steel
Indicator	ABS/Polycarbonate
Bracket	Stainless steel

Dimension



Position Monitor



- Continuous visual position indicator
- Made of high impact, heat, chemical resistance and transparent carbonate
- Excellent corrosion protection • High visibility and reliability

How to Order

UNIT	1	2	Product code
CONTENT	Series	Bracket	LS-820M
CODE	LS	M	
EXAMPLE	LS	30 x 80 x 30	

S	30 x 80 x 20
M	30 x 80 x 30
L	30 x 130 x 30

ITS 300 Series

Features

ITS 300 series are designed suitable for monitoring and controlling on/off valves in usage in hazardous area application having compact, robust design that conforms to EN50014 and EN50018 and suitable for Zone 1, 2 applications, Ingress protection to IP67.

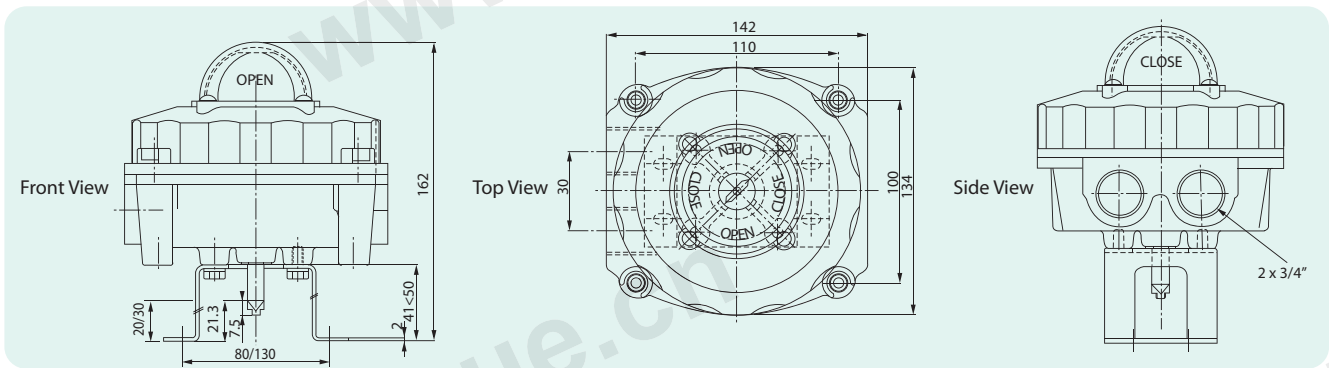
Housing Material : Die-casted aluminum



Technical Specification

Enclosure Protection	Exlosion proof (Exd II CT6)
Enclosure Protection	IP67
Coating	External powder coated, hard-anodized surface against corrosion, special coating as option
Area / Gas group classification	Zone 1,2 / Ex d II CT6
Ambient Temp	-20°C<Ta<85°C (Standard), Optional higher temp on request
Cable entry	2 x PT3/4", 2 x PF3/4", 2 - NPT3/4", 2- M20 x 1.5 on request, Max 4
Terminal	8 terminals strips (6 for switches, 2 for solenoid connection)
Position monitoring indicator	0°~90° Yellow-open / Red-close (Dome)
Switches	2 x Mechanical switches, 4 x Mechanical switches, 2 x Proximity sensors 2 x DPDT switches, Position transmitter (4 - 20 mA)
Mounting bracket	VDI/VDE3845, NAMUR

Dimension



How to Order

UNIT	1	2	3	4	Product code
CONTENT	Series	Enclosure	Switch	Bracket	ITS-300M
CODE	ITS	3	00	M	
EXAMPLE	ITS	Explosion proof	Mechanical Switches	30 x 80 x 30	

3	Flame proof	00	2 x SPDT	S	30 x 80 x 20
		12	4 x SPDT	M	30 x 80 x 30
		14	DPDT	L	30 x 130 x 30
		20	NCB4-12GM40-N0		
		22	NBB2-12GM50-E2		

ALS Series

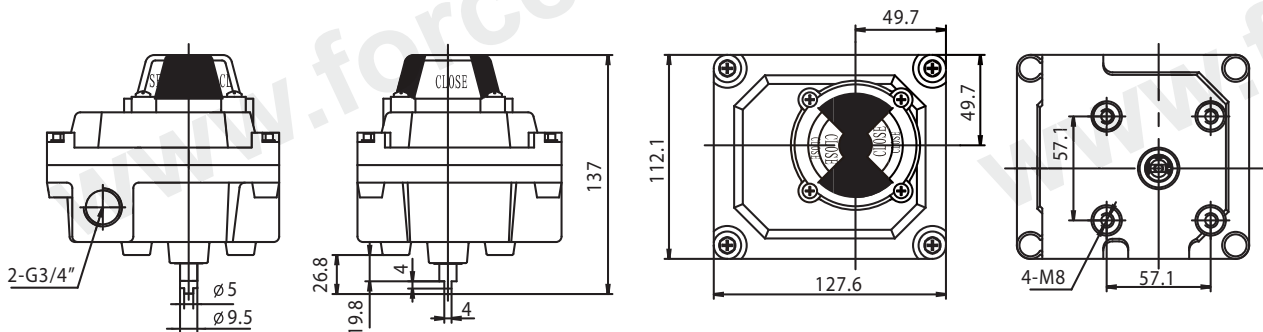
Dome position indicator constructed from high impact resistance poly-carbonate material which offers instant visual recognition of valve or actuator position up to 50 meters distance.



- Special stainless steel housing 316L provide very high protection performance against extremely corrosive environmental condition.
- Suitable for off-shore application.
- Other specification is same with APL 4N series except for enclosure & coating.

Housing	Stainless steel 316
Coating	No painting on stainless steel housing
Sealing	NBR O-rings on each interface (dome indicator, Lower/Upperhousing,shaft)
Cams	Poly-carbonate
Bushings	Bronze
Shaft	AlSI303 stainless steel
Earth Lug	Stainless steel
Bolts	All in stainless steel
Mounting bracket	Stainless steel(SS series and MT1)

Dimension



How to Order

UNIT	1	2	3	4	Product code
CONTENT	Series	Enclosure	Switch	Bracket	ALS-610M
CODE	ALS	6	10	M	
EXAMPLE	ALS	Stainless Steel	Mechanical Switches	30 x 80 x 30	

6	Stainless Steel 316
8	Stainless Steel 316L

10	2 x SPDT
12	4 x SPDT
14	DPDT
20	NCB4-12GM40-N0
22	NBB2-12GM50-E2

S	30 x 80 x 20
M	30 x 80 x 30
L	30 x 130 x 30

Inductive Sensor

NBB2-12GM50-E2



Features

- Comfort series
- 2 mm embeddable

Technical Data

Switching element function	PNP
Rated operating distance	2 mm
Working voltage	10~30V

NCB4-12GM40-N0



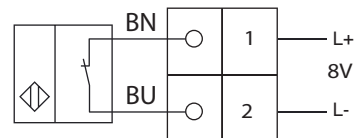
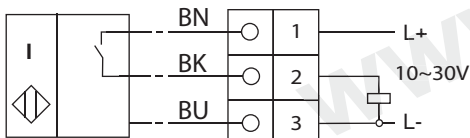
Features

- Comfort series
- 4 mm not embeddable
- Usable up to SIL acc. to IEC 61508

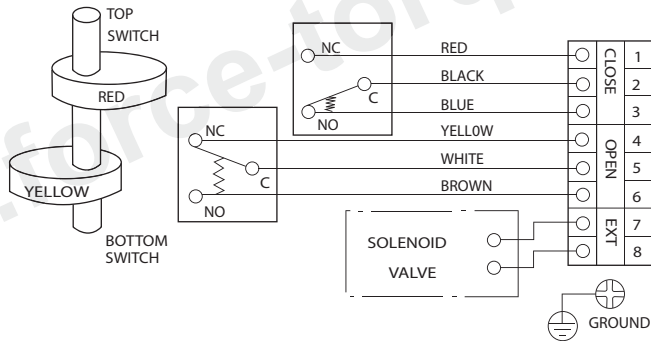
Technical Data

Switching element function	NAMUR NC
Rated operating distance	4 mm
Output polarity	Exia II CT6
Nominal voltage	8V

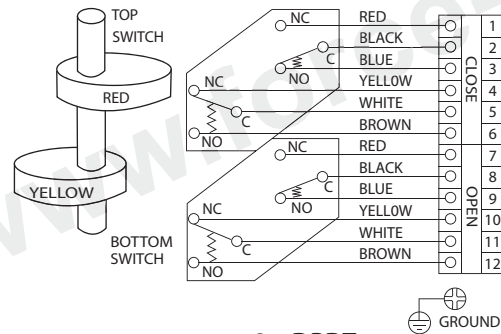
Proximity Switches



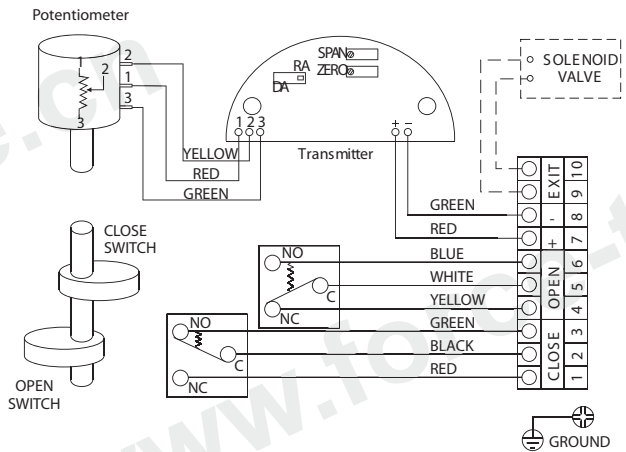
Mechanical Switches



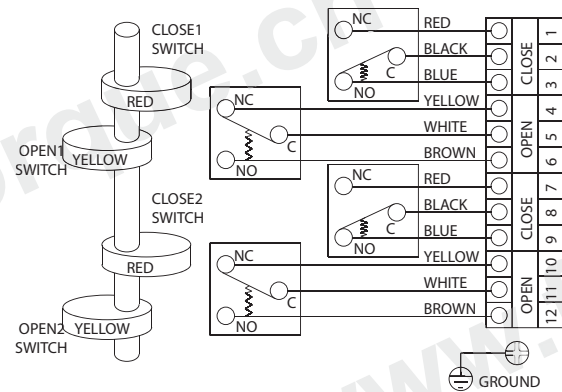
2 x SPDT



2 x DPDT

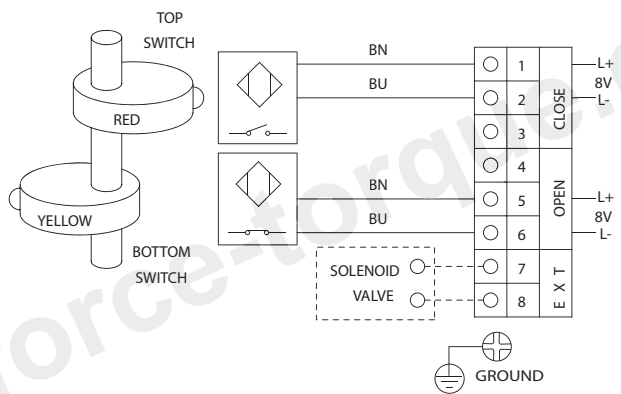
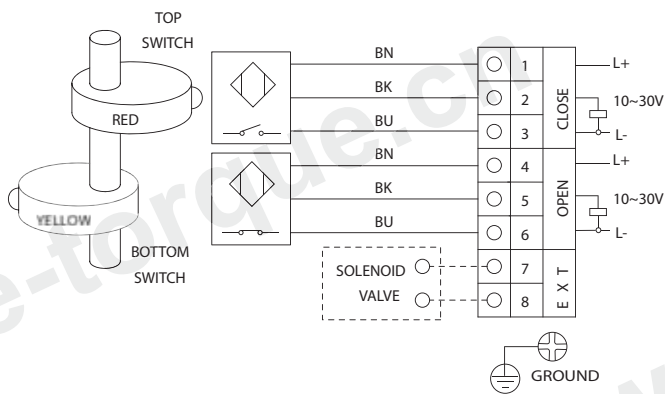


2 x SPDT+Current Feedback



4 x SPDT

Proximity Switches



Switch Specification



Standard Switches

- 2SPDT switches
- Contact arrangement
- Operating frequency:
 - 600 operating per minute max(mechanical)
- 250VAC/16A, 250VDC/0.3A
- 125VDC/0.6A, 30VDC/0A.



Option Switches

- 4SPDT switches
- Contact arrangement
- 250VAC/16A, 250VDC/0.3A
- 125VDC/0.6A, 30VDC/10A



Current Feedback

- Contact arrangement
- 2 SPDT Current Feedback
- 4~20 mA



DPDT switches

- Contact arrangement
- 20 amp 125/250VAC
- 1HP 125 VAC
- 2HP 250 VAC
- 0.5 amp 250 VDC



NBB2-12GM50-E2

- Comfort series
- 2 mm embeddable



NCB4-12GM40-N0

- Intrinsically safe
- Comfort series
- 4 mm not embeddable
- Usable up to SIL2 acc. to IEC 61508



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