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FELLBACH

VALVE POSITION MONITOR APL - SERIES

Weather proof
Explosion proof
Special options



Patent No. : 0226232, 0383130, 0827347
Design Right No. : 0236743, 0292715, 0292716, 0383546

VALVE AUTOMATION

HT-LIT 01322L 03/08

A FELLBACH Group Products.

Valve Position Monitor APL-2, 3, 4, 5N Series

FELLBACH®



(IP67,IP68)

MODEL : APL - 2N

- Enclosure : Weatherproof IP67/NEMA4&4X (Standard) IP68(Option)
- 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″, PT1/2″.(Option)
- Terminal Strips : 8 points(0.08-2. 5㎟)
- Captive cover bolts
- Easy mounting bracket
  NAMUR standard stainless steel shaft and bracket.



(IP67,IP68)

MODEL : APL - 3N

- Enclosure : Weatherproof IP67/NEMA4&4X (Standard) IP68(Option)
- Solid and Flexible design & various options ava ilable
  • 3~4 additional switches • 8~16 points Terminal Strips
- Bolts on visual position indicator
- Dual cable entries : 2 x 1/2 NPT(Standard)
  M20, PG13.5, PF1/2″, PT1/2″.(Option)
- Terminal Strips : 8 points(0.08-2. 5㎟)
- Captive cover bolts
- Easy mounting bracket
  NAMUR standard stainless steel shaft and stainless steel or steel bracket.



(E EX d IIB T 6)

MODEL : APL - 4N

- Enclosure : Weatherproof IP67/NEMA4,4X,7,9 (Standard) IP68(Option)
  Explosionproof : E EX d IIB T6
- Solid and Durable design & various options ava ilable
  • 3~4 additional switches
  • 8~20 points Terminal Strips
  • various options switches
- Bolts on visual position indicator
- Cable entries : 2 x 3/4 NPT(Standard)
  M20, M25, PF3/4″, PT3/4″ 4Cable entries(Option)
- Terminal Strips : 8 points(0.08-2. 5㎟)
- Captive cover bolts
- Easy mounting bracket
  NAMUR standard stainless steel shaft and stainless steel or steel bracket.



(E EX d IIC T 6)

- Enclosure : Weatherproof IP67/NEMA4,4X,7,9 (Standard) IP68(Option)
  Explosionproof : E EX d IIC T6, E EX ia IIC T6, E EX d IIB T6
- Solid and compact design
- Shaft holder built in the cover(Dual shaft)
  Easy to set the visual position indicator.
  Unique design to put the visual indicator on the threaded joint type cover.
- Bolts on visual position indicator
- Dual Cable entries : 2 x 3/4 PF(Standard)
  M20, M25, NPT3/4″, PT3/4″(Option)
- Terminal Strips : 8 points(0.08-2. 5㎟)
- Captive cover bolts & Spring loaded cover bolts
  No worry to loose bolts while cover open
  & Unique design to hold bolts inside cover
- Easy mounting bracket
  NAMUR standard stainless steel shaft and stainless steel or steel bracket.

Valve Position Monitor

FELLBACH®

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.
  Spring loaded cover bolts(APL-5N)
- Easy mounting bracket
  NAMUR standard stainless steel shaft and bracket.



STANDARD SPECIFICATION

Specification \ Model	APL- 2N Series	APL- 3N Series	APL- 4N Series	APL- 5N Series
Enclosure	Weatherproof IP67/NEMA4&4X	Weatherproof IP67/NEMA4&4X	Weatherproof IP67/NEMA4&4X Explosionproof E EX d IIB T6	Weatherproof IP67/NEMA4&4X Explosionproof E EX d IIC T6
Cable entries	Two NPT1/2″	Two NPT1/2″	Two NPT3/4″	Two NPT3/4″
Ambient temperature	-20℃~ 80℃	-20℃~ 80℃	-20℃~ 60℃	-20℃~ 60℃
Terminal strips	8 points (0.08-2.5㎟)	8 points (0.08-2.5㎟)	8 points (0.08-2.5㎟)	8 points (0.08-2.5㎟)
Position indicator	0 ~ 90° (90° turn free join) close:red open:yellow	0 ~ 90° (90° turn free join) close:red open:yellow	0 ~ 90° (90° turn free join) close:red open:yellow	0 ~ 90° (90° turn free join) close:red open:yellow
Switches	Mechanical switch x2 proximity sensor x2	Mechanical switch x2 proximity sensor x2	Mechanical switch x2 proximity sensor x2	Mechanical switch x2 proximity sensor x2
Painting	Chromate Polyester powder coating(black)	Chromate Polyester powder coating(black)	Chromate Polyester powder coating(black)	Chromate Polyester powder coating(black)

OPTION SPECIFICATION

Specification \ Model	APL- 2N Series	APL- 3N Series	APL- 4N Series	APL- 5N Series
Enclosure	Weatherproof IP68	Weatherproof IP68	Weatherproof IP68	Weatherproof IP68 Explosionproof E EX d IIB T6 E EX ia IIC T6
Cable entries	Two PF1/2″, PT1/2″ M20, PG13.5	Two PF1/2″, PT1/2″ M20, PG13.5	FOUR PF3/4″, PT3/4″ M20, M25	Two NPT3/4″ PT3/4″
Option temperature	-	-40℃ ~ 80℃ -20℃ ~ 150℃	-	-
Terminal strips	-	16 points (0.08-2.5㎟)	20 points (0.08-2.5mm)	-
Position indicator	three position close:red open:Green	three position close:red open:Green	three position close:red open:Green	three position close:red open:Green
Switches	-	Mechanical switch x4 proximity sensor x4	Mechanical switch x4 proximity sensor x4	Mechanical switch x4 proximity sensor x4
Potentiometer	-	1k ohm standard. 5k ohm. 0-10k ohm	1k ohm standard. 5k ohm. 0-10k ohm	1k ohm standard. 5k ohm. 0-10k ohm
Current output signal unit	-	4~20mA DC 12.5 to 37VDC (24V typical)	4~20mA DC 12.5 to 37VDC (24V typical)	4~20mA DC 12.5 to 37VDC (24V typical)
Painting	Nylon others on request red, green, blue, yellow, silver	Nylon others on request red, green, blue, yellow, silver	Nylon others on request red, green, blue, yellow, silver	Nylon others on request red, green, blue, yellow, silver

FELLBACH®

APL-2N & APL-3N Weatherproof Design

Enclosure
Solid and Compact design
aluminium die-casting
IP67



APL-210N

Visual Position Indicator
Poly-carbonated
Open-Yellow , Close-Red

Painting
Powder coating

Name Plate



Housing Body
Aluminium die-casting

Housing Cover
Aluminium die-casting

Quick-Set Cam
Easy to set, Splined cam
Open-Yellow , Close-Red

Captive Bolts
Stainless steel



APL-310N

O-rings

Terminal Strip
Standard 8 points

Earth lug

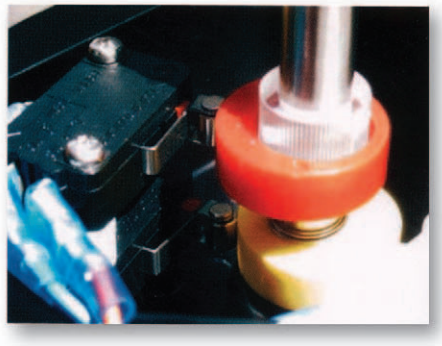
Various Switches
Mechanical
Proximity(P & F)
Reed Proximity



Shaft
Stainless steel
NAMUR

Mounting Bracket

- Mechanical switch -

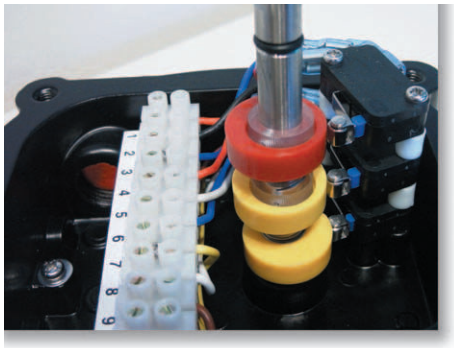


Standard switches

2SPDT switches
Contact arrangement:
250VAC/16A, 250VDC/0.3A
125VDC/0.6A, 30VDC/10A,
- Operating frequency
  600 operating per minute max (mechanical)
  60 operating per minute max (electrical)

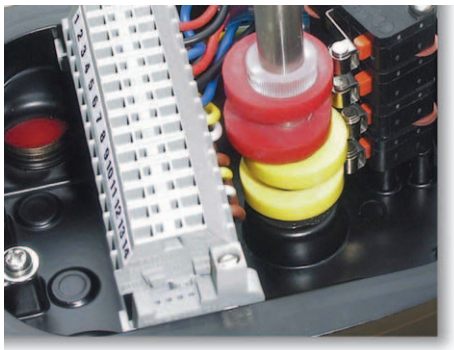
Option switches

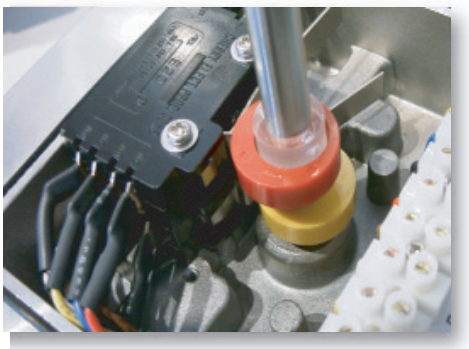
3SPDT switches
Contact arrangement:
250VAC/16A, 250VDC/0.3A
125VDC/0.6A, 30VDC/10A,
Except APL 2N series



Option switches

4SPDT switches
Contact arrangement:
250VAC/16A, 250VDC/0.3A
125VDC/0.6A, 30VDC/10A,
Except APL 2N series





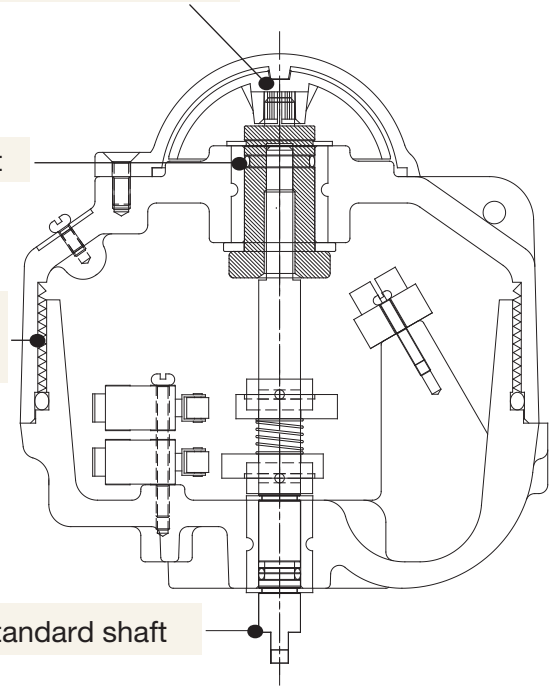
DPDT switches

Contact arrangement:
20amp 125/250VAC
1HP 125 VAC
2HP 250VAC
0.5amp 250VDC
Except APL 2N, 3N, 5N series

STRUCTURE

APL-5N Series

- Top visual position indicator
- Dual shaft
- Threaded joint design
- Namur standard shaft



Captive spring - loaded cover bolts

cover bolts are specially designed to prevent loosing it during maintenance or installation. (APL 5N Series)



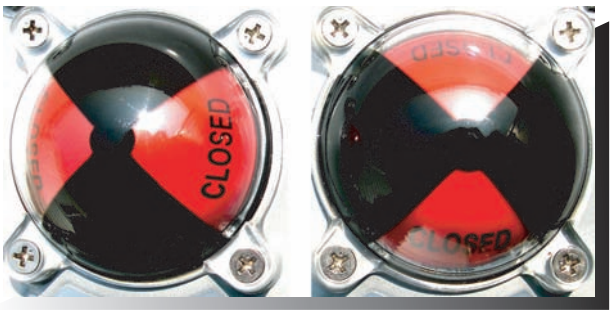
Position monitor

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



(APL3,4N SERIES)

*Re-adjustment available upon required direction
(APL2,5N SERIES)



Flow port Monitor



L port, T port 3-way valve

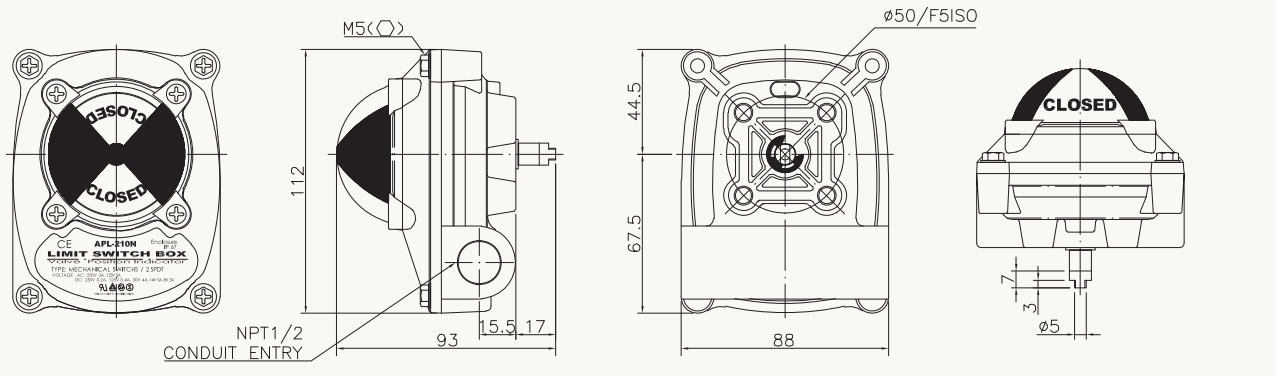
Material

Housing cover&body	Aluminium die casting	O-ring	NBR
Shaft	Stainless steel	Bushing	Bronze
Indicator cover	Polycarbonate	E-ring(shaft)	Stainless steel
Cam	Polycarbonate	Earth lug	Stainless steel
Spring	Stainless steel	Indicator	ABS/Polycarbonate
Housing cover bolt	Stainless steel	Bracket	Stainless steel

DIMENSION

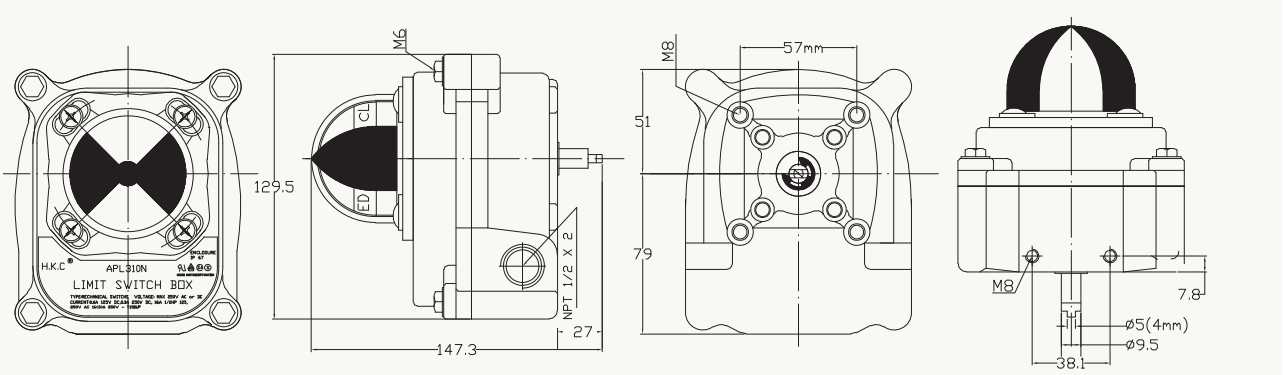
UNIT : mm

APL 2N SERIES



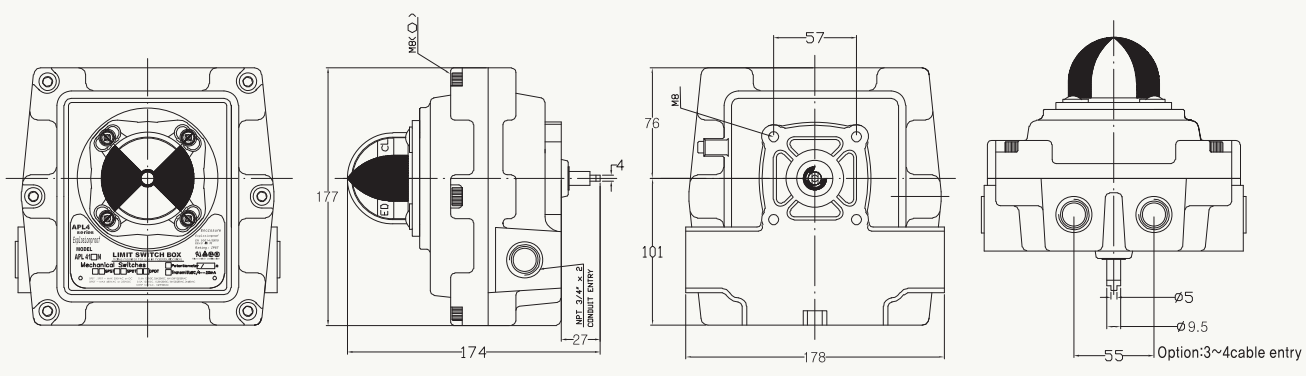
STANDARD NAMUR SHAFT

APL 3N SERIES



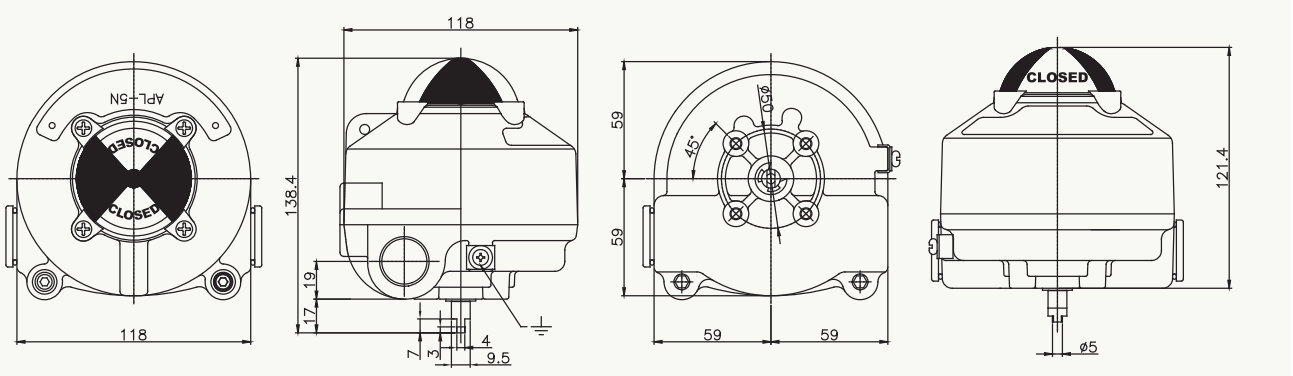
STANDARD NAMUR SHAFT

APL 4N SERIES



STANDARD NAMUR SHAFT

APL 5N SERIES



STANDARD NAMUR SHAFT

Valve Position Monitor

BRACKET NAMER STANDARD

Shape			
Size	25 × 50 H:20 30 × 80 H:20 30 × 80(130) H:30(50)	30 × 80 H:20 30 × 80 H:30	30 × 130 H:30 30 × 130 H:50
Model	MBP-50 MBP-100 MBP-200 MBP-300 MBP-400	MB-P-O-1C MB-P-O-1S MB-P-O-2C MB-P-O-2S	MB-P-O-3C MB-P-O-3S MB-P-O-4C MB-P-O-4S

- Last alphabet in model, C means plate steel, S means stainless steel

ORDERING INFORMATION

APL - 3 10 N

Enclosure

2. Enclosure
3. Weather proof
4. Explosion proof(E Exd IIB T6)
5. Explosion proof(E Exd IIC T6)

Switch type

Bolt on
Position Indicator

Mechanical switch	Proximity sensor	Reed type proximity sensor
10 2-SPDT	20 P & F NJ2-V3-N	30 General type
11 3-SPDT	21 Autonics. PS17-5DNU	
12 4-SPDT	22 P & F NJ4-12GM-N	
13 2-SPST	23 NBB2- V3	
14 2-DPDT		
15 2-SPDT + Potentiometer		
16 2-SPDT + Signal unit (4-20mA)		