

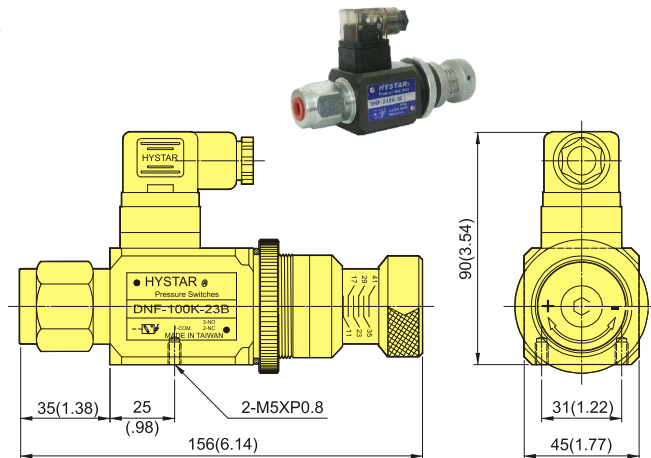
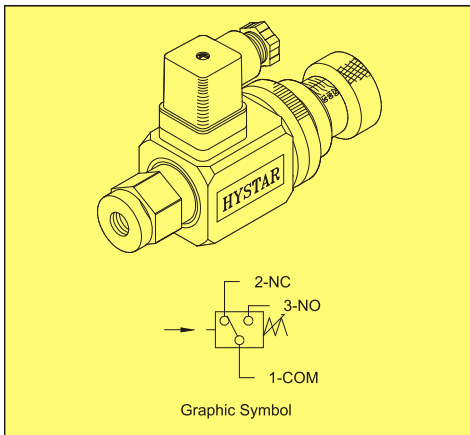


# PRESSURE SWITCH

## DIMENSIONS

## MILLIMETERS(INCHES)

### DNF Series Pressure Switches



### Ordering Code

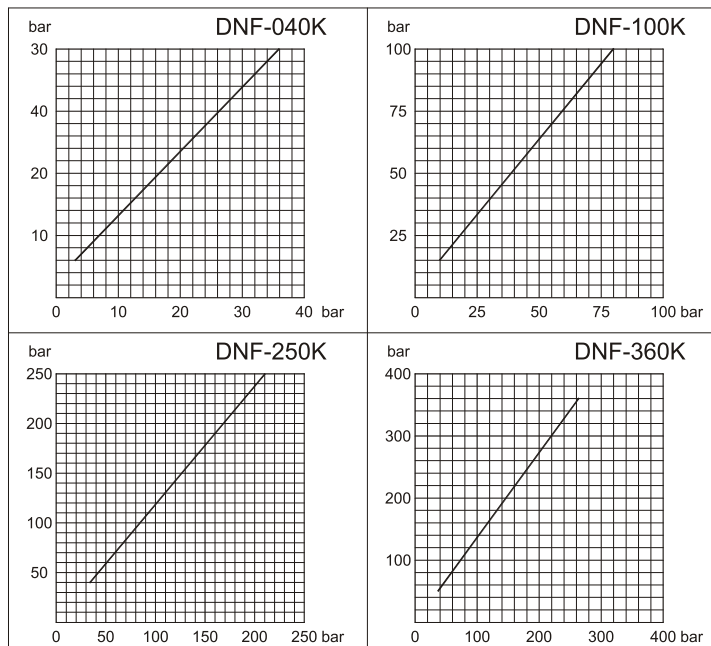
**DNF - 100K - 30B**

- ① Series DNF- Direct read-out, Panel mounting type.
- ② Pressure Adj. Range
- ③ Design Number

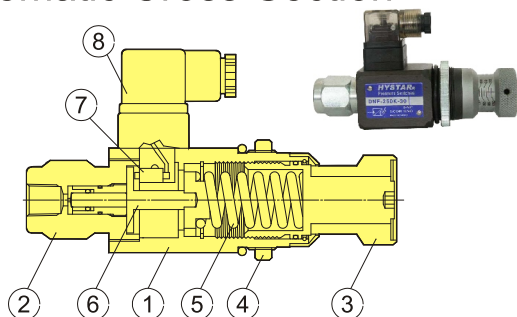
Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
040K	6~ 40	200	1.2
100K	15~100	350	1.2
250K	40~250	350	1.2
360K	50~360	400	1.2

- ③ Design Number  
30B:1/4"PT(Rc)  
30B80:1/4"PF(G)  
30B90:1/4"NPT

### Hysteresis Diagrammes



### Schematic Cross-Section



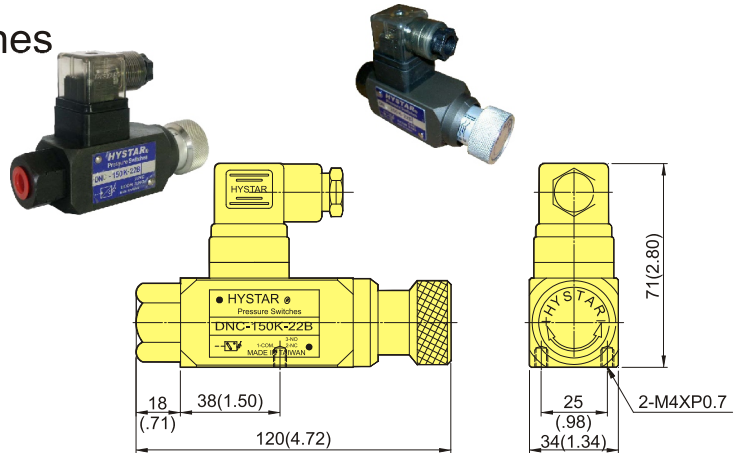
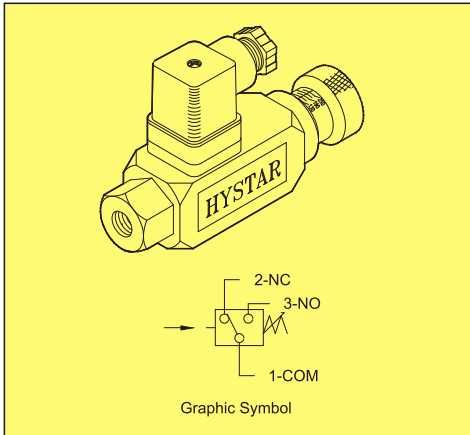
No.	Description
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Knob Set Screw
5	Spring
6	Servo-Piston
7	Micro-Switch
8	Electrical Connector



## DIMENSIONS

MILLIMETERS(INCHES)

### DNC Series Pressure Switches



### Ordering Code

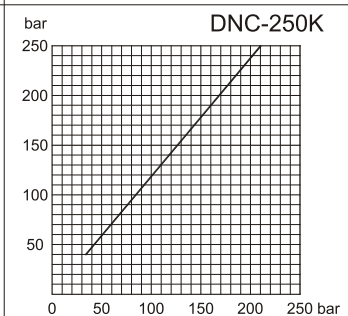
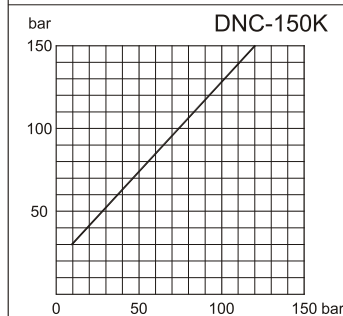
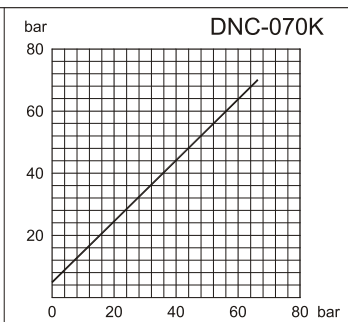
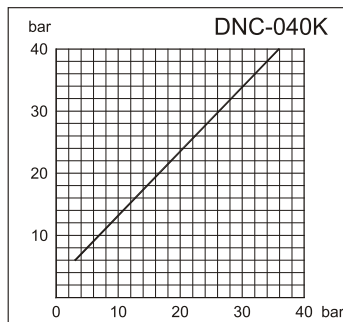
**DNC - 150K - 22B**

- ①                      ②                      ③
- ① Series  
DNC-  
General type.
- ② Pressure Adj. Range

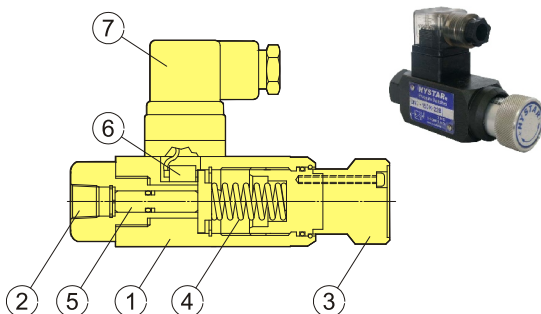
Model	Pres Adj. Range	Surge Pres.	Weight
	bar	bar	kg
040K	6~ 40	150	0.6
070K	5~ 70	200	0.6
150K	30~150	300	0.6
250K	40~250	300	0.6

- ③ Design Number  
22B:1/4"PT(Rc)  
22B80:1/4"PF(G)  
22B90:1/4"NPT

### Hysteresis Diagrammes



### Schematic Cross-Section



No.	Part Name
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Spring
5	Servo-Piston
6	Micro-Switch
7	Electrical Connector

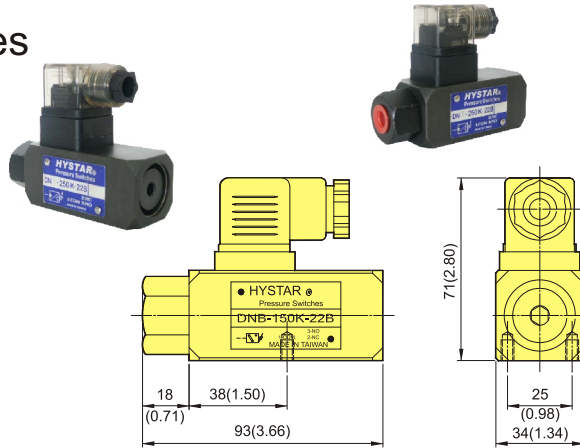
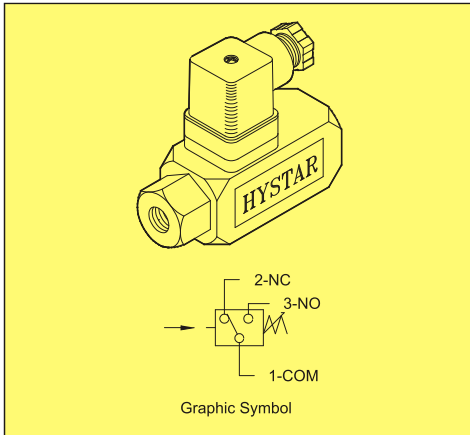


# PRESSURE SWITCH

## DIMENSIONS

## MILLIMETERS(INCHES)

### DNB Series Pressure Switches



### Ordering Code

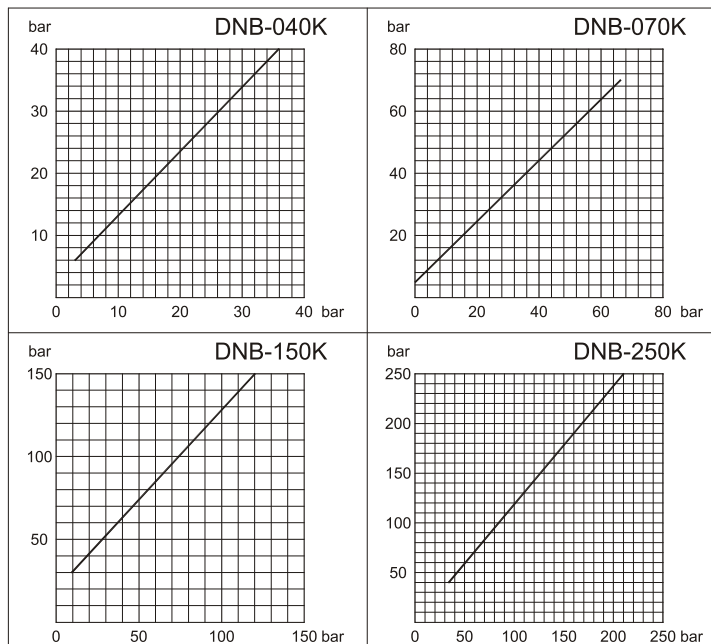
**DNB - 150K - 22B**

- ① Series DNB- General type.  
 ② Pressure Adj. Range

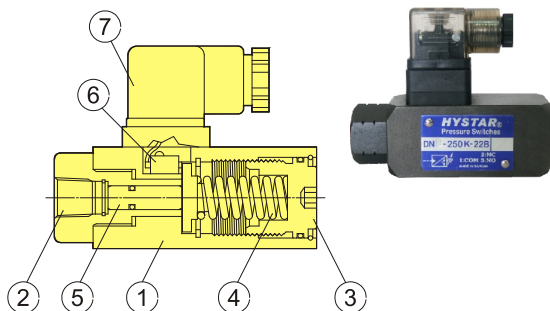
Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
040K	6~ 40	150	0.6
070K	5~ 70	200	0.6
150K	30~150	300	0.6
250K	40~250	300	0.6

- ③ Design Number  
 22B:1/4"PT(Rc)  
 22B80:1/4"PF(G)  
 22B90:1/4"NPT

### Hysteresis Diagrammes



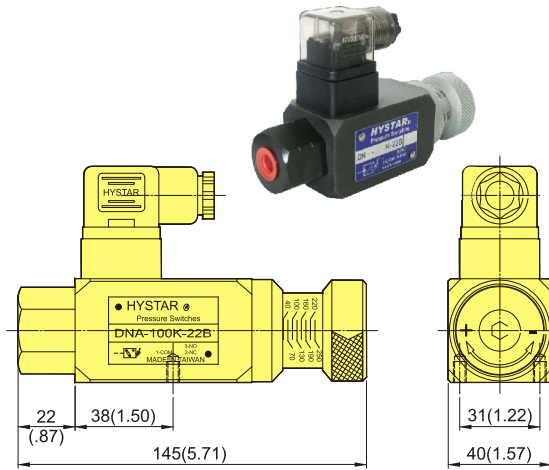
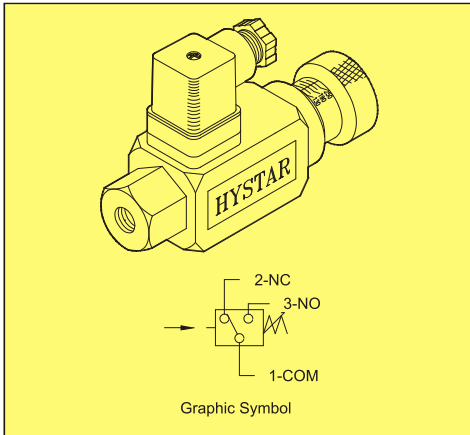
### Schematic Cross-Section



No.	Part Name
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Spring
5	Servo-Piston
6	Micro-Switch
7	Electrical Connector

G

## DNA Series Pressure Switches



## Ordering Code

**DNA - 100K - 22B**

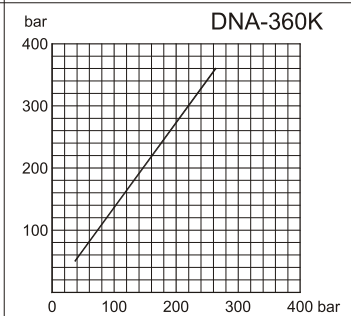
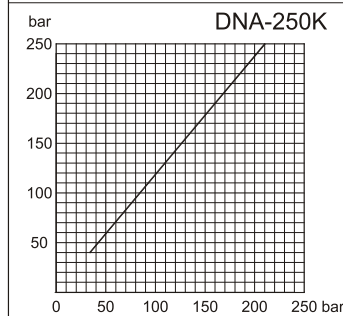
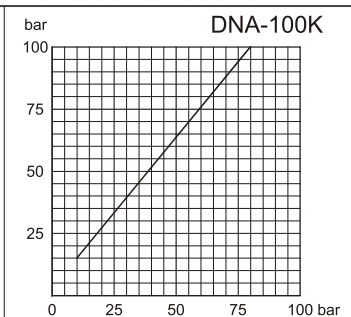
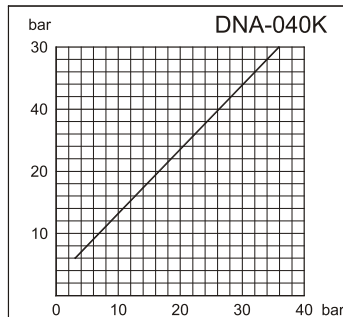
- ①                      ②                      ③

- ① Series DNA- Direct read-out, Standard type.  
 ② Pressure Adj. Range

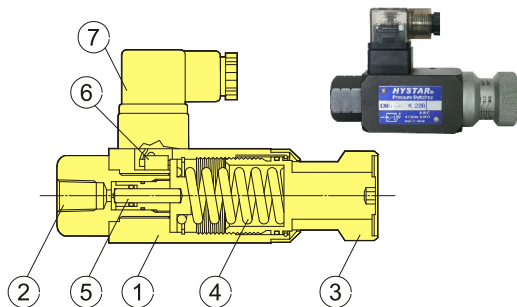
Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
040K	6~ 40	150	1.0
100K	15~100	250	1.0
250K	40~250	300	1.0
360K	50~360	400	1.0

- ③ Design Number  
 22B:1/4"PT(Rc)  
 22B80:1/4"PF(G)  
 22B90:1/4"NPT

## Hysteresis Diagrammes



## Schematic Cross-Section



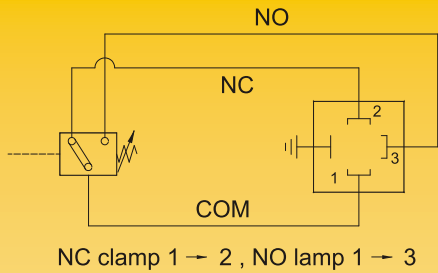
No.	Part Name
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Spring
5	Servo-Piston
6	Micro-Switch
7	Electrical Connector





## DIMENSIONS

### Graphic Symbol



### Switching capacity

Series:DNL

125VAC,5A/3A ; 250VAC,3A/2A

14VDC,5A/4A ; 30VDC,4A/3A

Series:DNA,DNB,DNC,DNF,DNK,DNM,DNS

125VAC,3A/1A ; 250VAC,3A/0.5A

14VDC,3A/1.5A ; 30VDC,2A/1A

### Pressure range

Model	040K	050K	070K	100K	150K	200K	250K	280K	360K	400K
DNA	■			■			■		■	
DNB	■		■		■		■			
DNC	■		■		■		■			
DNF	■			■			■		■	
DNK		■		■			■			
DNL		■		■		■		■		
DNM(B)	■			■			■			
DNS(B)	■			■			■		■	

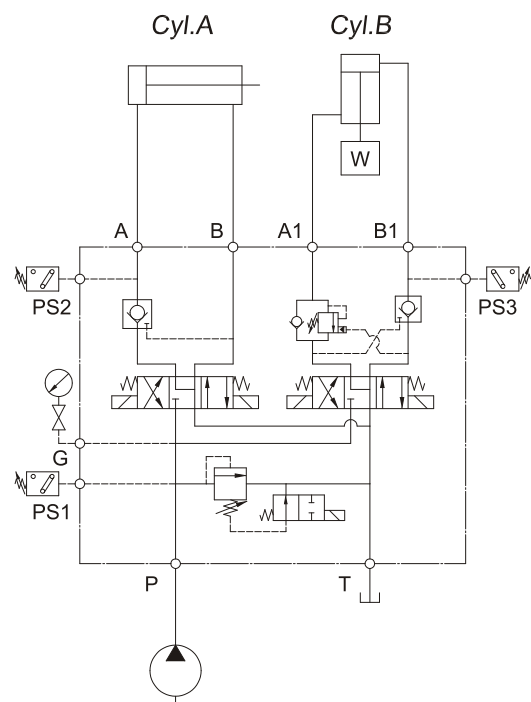
### Characteristics

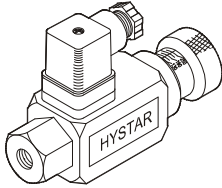
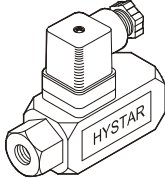
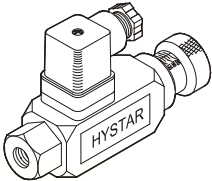
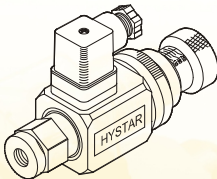
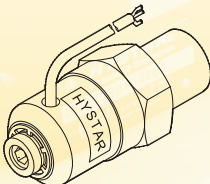
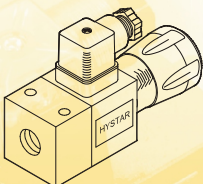
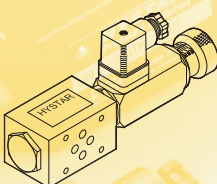
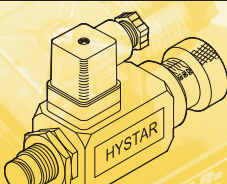
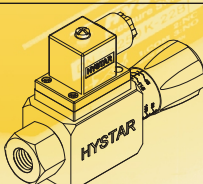
- Mounting position-unlimited.
- Material-body casting-iron,element steel.
- Construction-position type,spring loaded.
- No. drain line.
- Long service life.
- Recommended max. operations 20 per minute.
- Compact and robust with direct pres. read-out.

### HYSTAR HYDRAULIC Means:

- Improved design and quality.
- Compact structure with.  
Carefully picked material.
- Attractive.

### Pressure Switches



<p><b>DNA</b></p>		<ul style="list-style-type: none"> <li>● Direct read-out. Standard type.</li> <li>● Connection port: 1/4" PT(Rc). [PF(G). NPT] female.</li> <li>● For performance data see page 387.</li> </ul>
<p><b>DNB</b></p>		<ul style="list-style-type: none"> <li>● General type.</li> <li>● Connection port: 1/4" PT(Rc). [PF(G). NPT] female.</li> <li>● For performance data see page 388.</li> </ul>
<p><b>DNC</b></p>		<ul style="list-style-type: none"> <li>● General type.</li> <li>● Connection port: 1/4" PT(Rc). [PF(G). NPT] female.</li> <li>● For performance data see page 389.</li> </ul>
<p><b>DNF</b></p>		<ul style="list-style-type: none"> <li>● Direct read-out. Panel mounting type.</li> <li>● Connection port: 1/4" PT(Rc). [PF(G). NPT] female.</li> <li>● For performance data see page 390.</li> </ul>
<p><b>DNK</b></p>		<ul style="list-style-type: none"> <li>● General type.</li> <li>● Connection port: 1/4" PT(Rc). [PF(G). NPT] female.</li> <li>● For performance data see page 391.</li> </ul>
<p><b>DNL</b></p>		<ul style="list-style-type: none"> <li>● Direct read-out. Heavy-duty micro-switch.</li> <li>● Suitable for line mount or subplate body.</li> <li>● For performance data see page 392.</li> </ul>
<p><b>DNM(B)</b></p>		<ul style="list-style-type: none"> <li>● Direct read-out. Sandwich type.</li> <li>● Mounted directly under ISO 03, ISO 05 (CETOP 3,5)</li> <li>● Solenoid Valves. For performance data see page 393.</li> </ul>
<p><b>DNS(B)</b></p>		<ul style="list-style-type: none"> <li>● Direct read-out. Screw-in type.</li> <li>● Custom manifold designed for direct mount or direct integration. For performance data see page 395.</li> </ul>
<p><b>DNV</b></p>		<ul style="list-style-type: none"> <li>● Direct read-out.</li> <li>● No point, sensor type, high switching capacity.</li> <li>● For performance data see page 397.</li> </ul>




**DIMENSIONS**

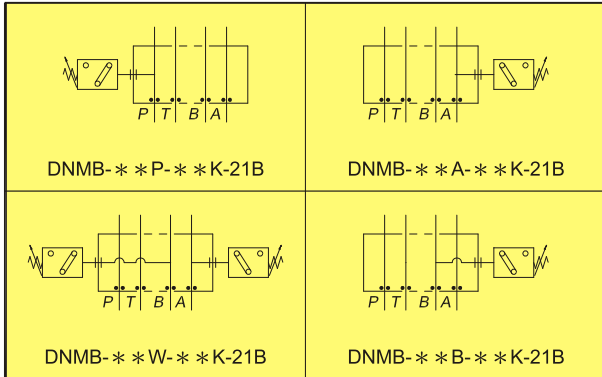
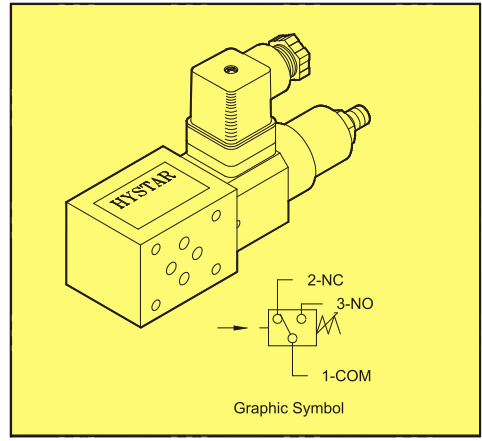
**MILLIMETERS(INCHES)**

**DNMB Series Pressure Switches**

**Ordering Code**

**DNMB - 01 P - 150K - 21B**

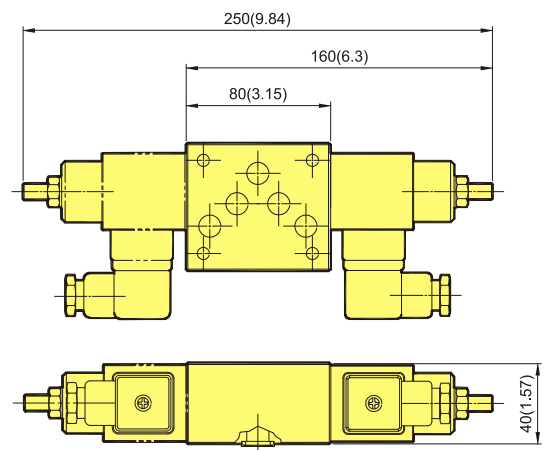
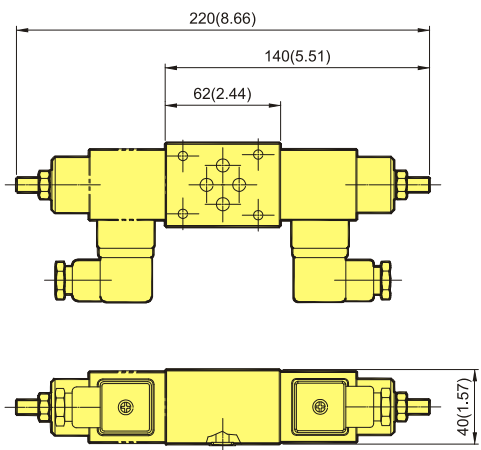
- ① Series  
DNMB-Sandwich type
  - ② For use with solenoid valves  
01-ISO 03/CETOP 3/NFPA D03.  
03-ISO 05/CETOP 5/NFPA D05.
  - ③ Pressure transforms line
- 



④ Pressure Adj. Range

Model	Pres Adj. Range bar	Surge Pres. bar
040K	6~ 40	200
070K	8~ 70	200
150K	15~150	350
250K	40~250	350

- ⑤ Design Number  
21B:With DIN 912 bolts.  
21B90:With UNC [North American] bolts.



Model	Weight
DNMB-01P(A,B)	0.55 kgs
DNMB-01W	0.8 kgs



For use with ISO 03/CETOP 3/NFPA D03 standard Solenoid Valves.

Model	Weight
DNMB-03P(A,B)	3.1 kgs
DNMB-03W	4.1 kgs

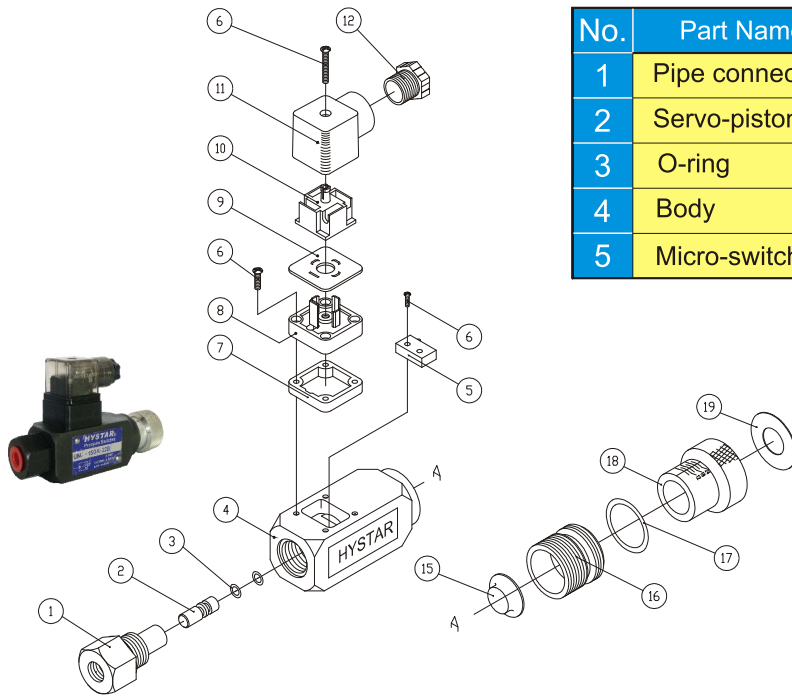


For use with ISO 05/CETOP 5/NFPA D05 standard Solenoid Valves.



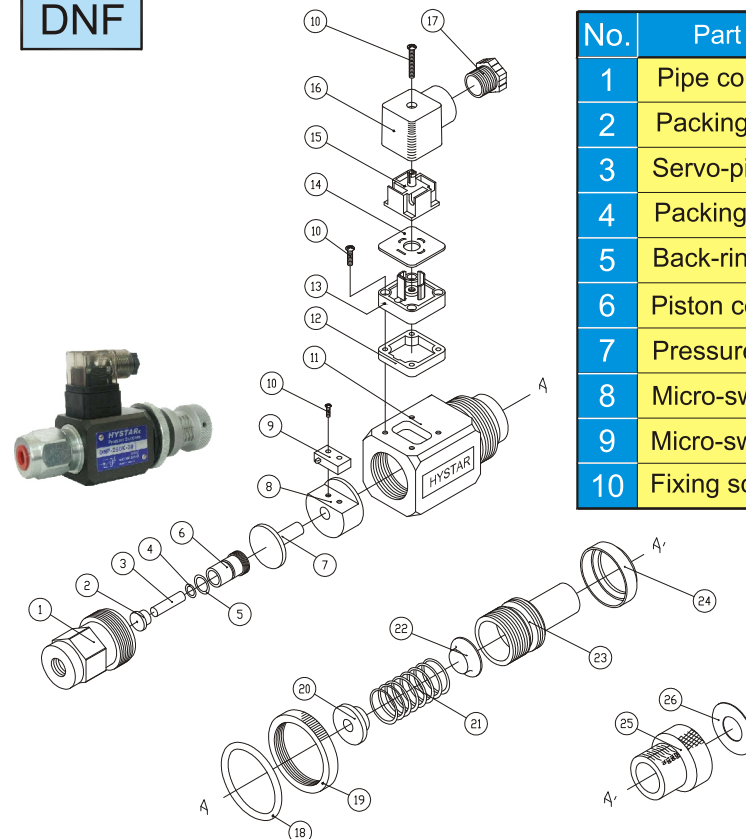
## Assembly and Parts List

### DNC



No.	Part Name	No.	Part Name
1	Pipe connector	6	Fixing screw
2	Servo-piston	7	Electric connector gasket
3	O-ring	8	Electric connector base
4	Body	9	Gasket
5	Micro-switch	10	Terminal block
		11	Housing
		12	Gland-nut
		13	Mechanical stop
		14	Spring
		15	Spring retainer
		16	Pressure adj. screw
		17	O-ring
		18	Control knob
		19	Nameplate

### DNF

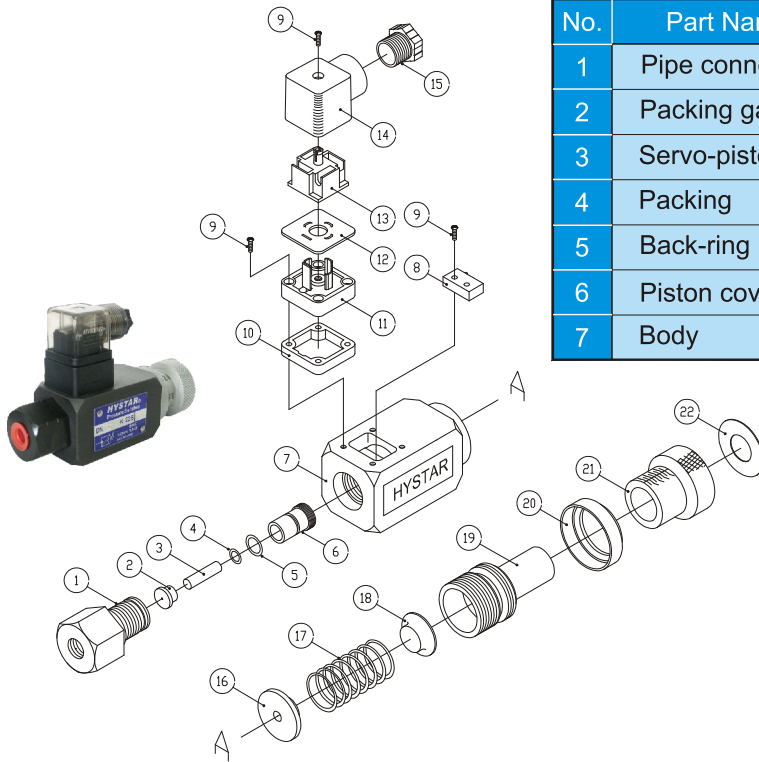


No.	Part Name	No.	Part Name
1	Pipe connector	11	Body
2	Packing gasket	12	Electric connector gasket
3	Servo-piston	13	Electric connector base
4	Packing	14	Gasket
5	Back-ring	15	Terminal block
6	Piston cover	16	Housing
7	Pressure actuator	17	Gland-nut
8	Micro-switch seat	18	O-ring
9	Micro-switch	19	Screw-nut
10	Fixing screw	20	Mechanical stop
		21	Spring
		22	Spring retainer
		23	Pressure adj. screw
		24	Control knob set screw
		25	Control knob
		26	Nameplate



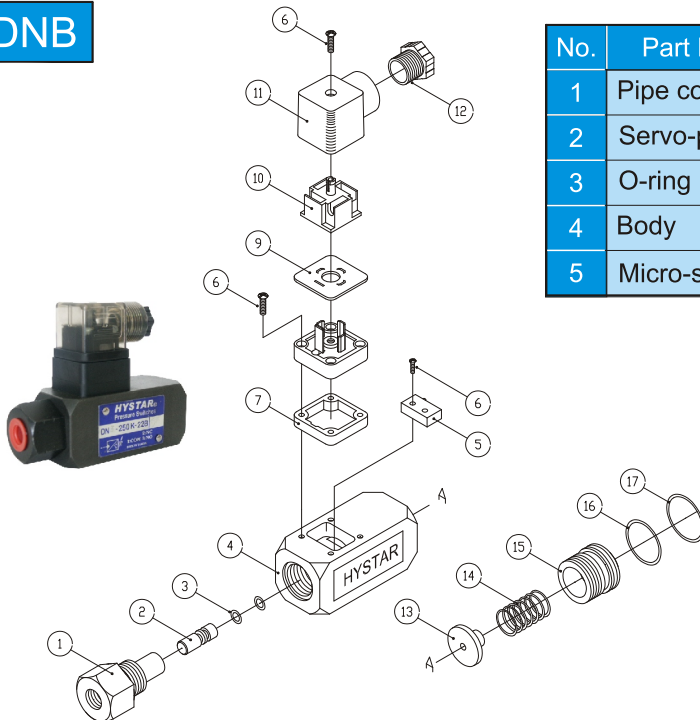
## Assembly and Parts List

### DNA



No.	Part Name	No.	Part Name
1	Pipe connector	8	Micro-switch
2	Packing gasket	9	Fixing screw
3	Servo-piston	10	Electric connector gasket
4	Packing	11	Electric connector base
5	Back-ring	12	Gasket
6	Piston cover	13	Terminal block
7	Body	14	Housing
		15	Gland-nut
		16	Mechanical stop
		17	Spring
		18	Spring retainer
		19	Pressure adj. screw
		20	Control knob set screw
		21	Control knob
		22	Nameplate

### DNB



No.	Part Name	No.	Part Name
1	Pipe connector	6	Fixing screw
2	Servo-piston	7	Electric connector gasket
3	O-ring	8	Electric connector base
4	Body	9	Gasket
5	Micro-switch	10	Terminal block
		11	Housing
		12	Gland-nut
		13	Mechanical stop
		14	Spring
		15	Pressure adj. screw
		16	O-ring
		17	O-ring



## DIMENSIONS

MILLIMETERS(INCHES)

### DNV Series Pressure Switches

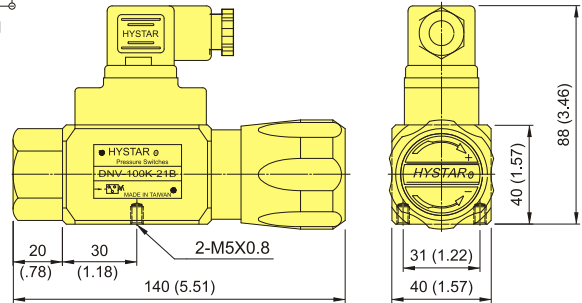
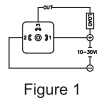
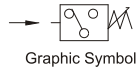
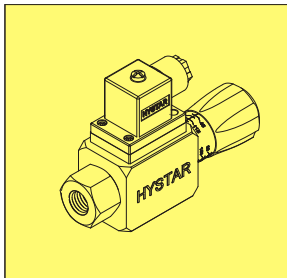
( No point, sensor pressure switches, high switching capacity )

CAUTION FOR INSTRUCTION, OPERATING CONTROLS AND CONNECTIONS

Rated operating voltage: DC12~24V

Rated operating current: < 1.1 mA ( Max 1.1 mA)

Operating controls and connections as figure 1



### Ordering Code

**DNV - 100K - N - 21B**

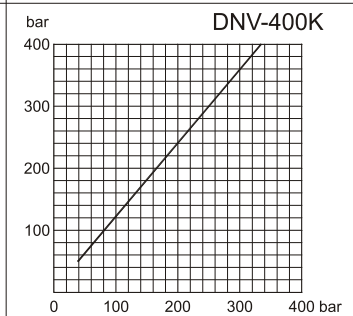
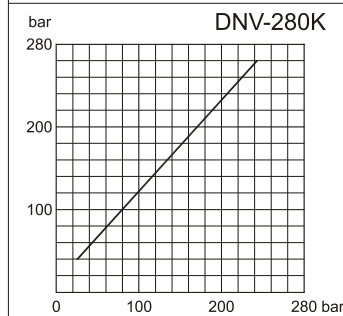
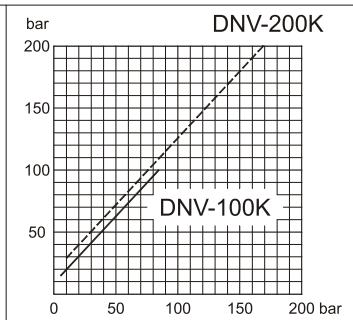
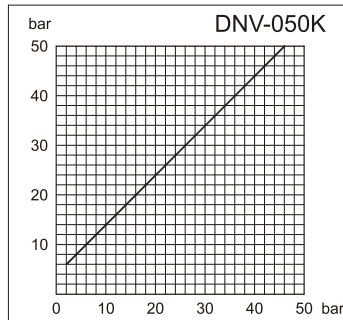
- ①                      ②                      ③                      ④

- ① Series  
DNV-Direct read-out,  
Heavy-duty sensor pressure switch.
- ② Pressure Adj. Range

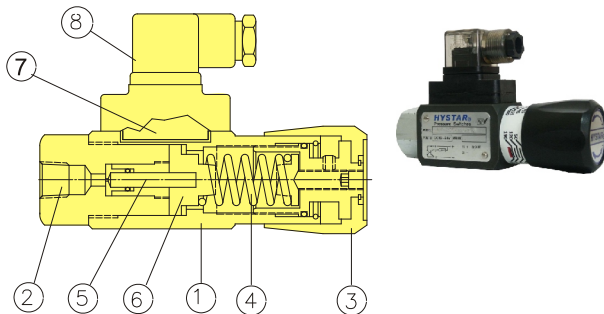
Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
050K	6~ 50	200	1.0
100K	15~100	300	1.0
200K	30~200	300	1.0
280K	40~280	350	1.0
400K	50~400	450	1.0

- ③ Method of Output  
N: NPN-(standard)  
P: PNP
- ④ Design Number  
21B:1/4"PT(Rc)  
21B80:1/4"PF(G)  
21B90:1/4"NPT

### Hysteresis Diagrammes



### Schematic Cross-Section



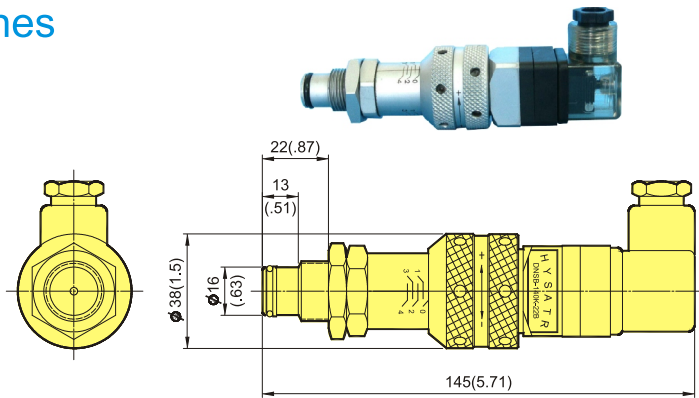
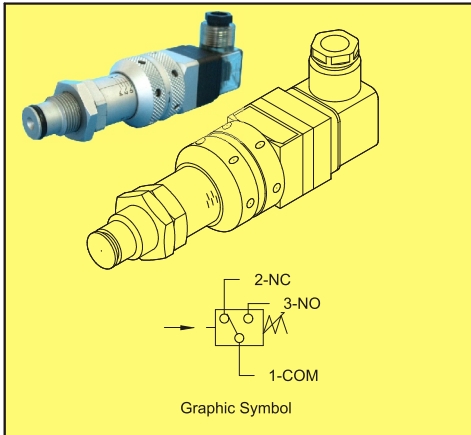
No.	Part Name
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Spring
5	Servo-Piston
6	Sensor Point
7	Sensor Switches
8	Electrical Connector



**DIMENSIONS**

MILLIMETERS(INCHES)

**DNSB Series Pressure Switches**



**Ordering Code**

**DNSB - 140K - 22B**

①                      ②                      ③

① Series  
DNSB-  
Direct read-out,  
Screw-in type.

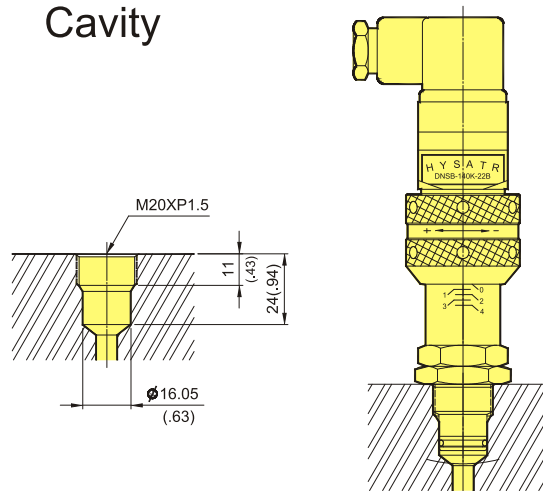
② Pressure Adj. Range

Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
050K	6-50	100	0.5
090K	15-90	180	0.5
140K	25-140	280	0.5
210K	35-210	420	0.5

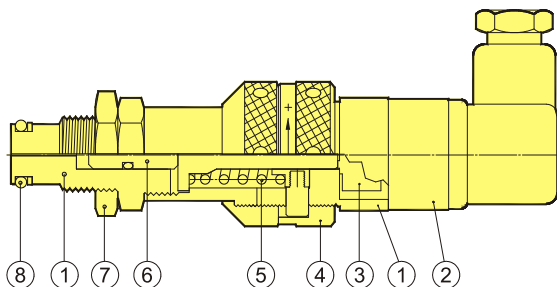
③ Design Number  
22B



**Cavity**



**Schematic Cross-Section**

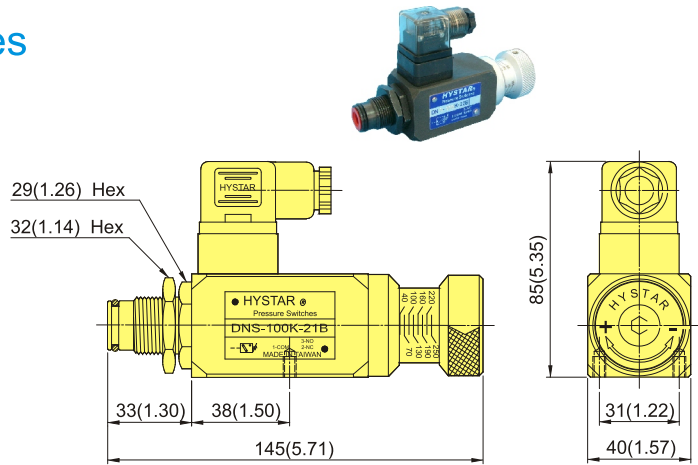
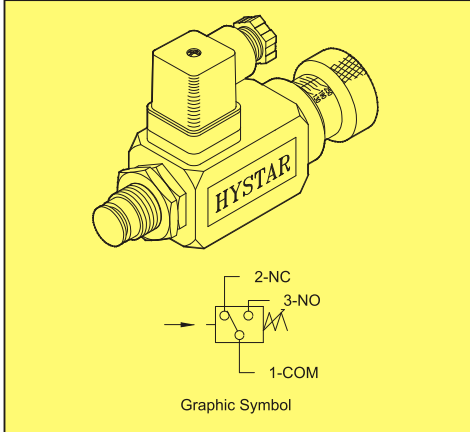


No.	Part Name
1	Body(Casting-Iron)
2	Electrical Connector
3	Micro-Switch
4	Pressure Adj. Knob
5	Spring
6	Servo-Piston
7	Nut
8	O-Ring

**G**



## DNS Series Pressure Switches



### Ordering Code

**DNS - 100K - 22B**

①                      ②                      ③

① Series  
DNS-Direct read-out,  
Screw-in type.

② Pressure Adj. Range

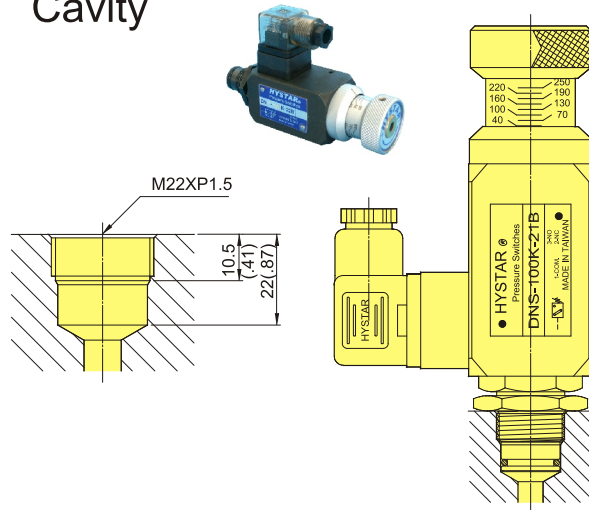
Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
040K	6~ 40	150	1.0
100K	15~100	250	1.0
250K	40~250	300	1.0
360K	50~360	400	1.0

③ Design Number  
22B:

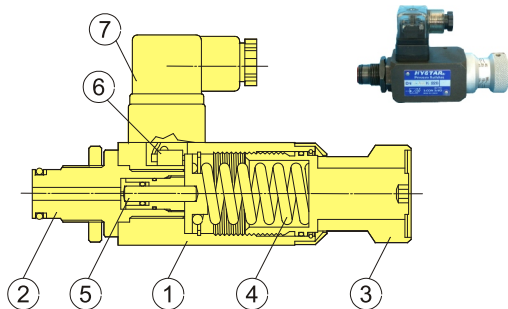
### Hysteresis Diagrammes

See table DNA series.

### Cavity



### Schematic Cross-Section



No.	Part Name
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Spring
5	Servo-Piston
6	Micro-Switch
7	Electrical Connector

### DNM Series Pressure Switches

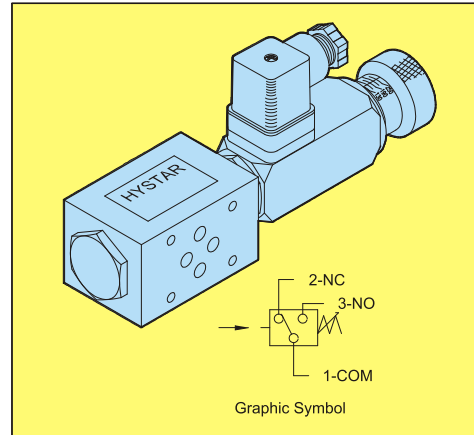
#### Ordering Code

DNM - 01 P - 100K - 21B

① Series  
DNM-  
Direct read-out,  
Sandwich type.

② For use with solenoid valves  
01-ISO 03/CETOP 3/NFPA D03.  
03-ISO 05/CETOP 5/NFPA D05.

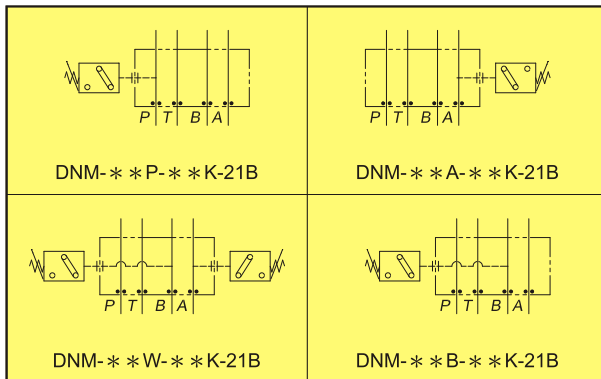
③ Pressure transforms line



④ Pressure Adj. Range

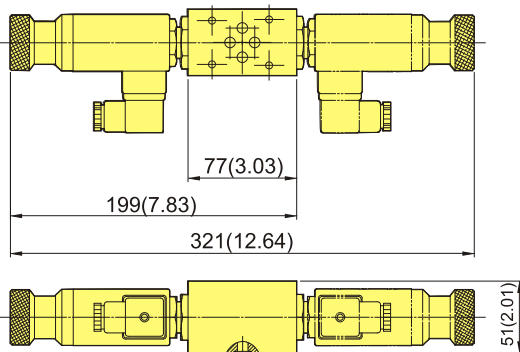
Model	Pres Adj. Range bar	Surge Pres. bar
040K	6~ 40	200
100K	15~100	350
250K	40~250	350

⑤ Design Number  
21B:With DIN 912 bolts.  
21B90:With UNC [North American] bolts.



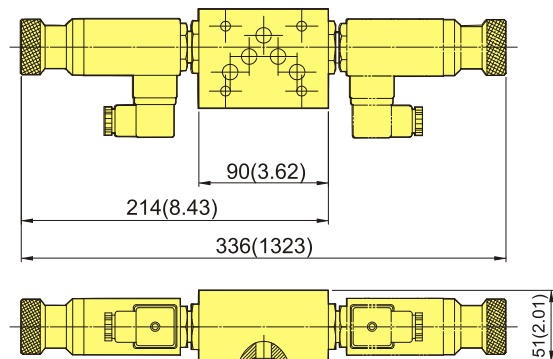
#### Hysteresis Diagrammes

See table DNA series.



Model	Weight
DNM-01P(A,B)	2.1 kgs
DNM-01W	3.1 kgs

For use with ISO 03/CETOP 3/NFPA D03 standard Solenoid Valves.



Model	Weight
DNM-03P(A,B)	3.1 kgs
DNM-03W	4.1 kgs

For use with ISO 05/CETOP 5/NFPA D05 standard Solenoid Valves.

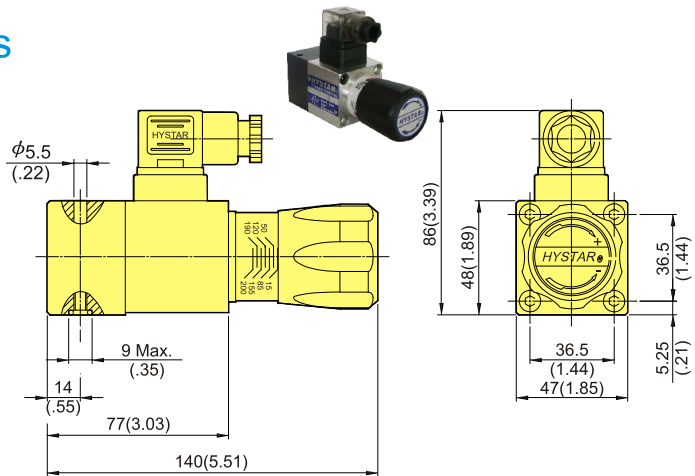
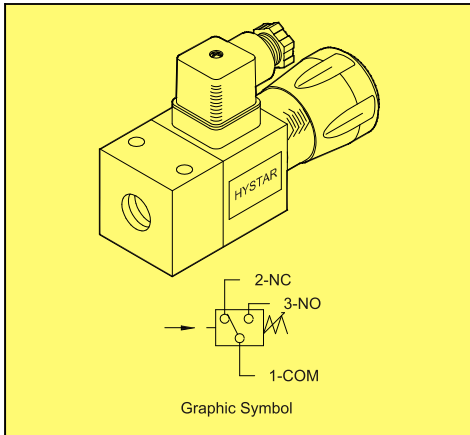


# PRESSURE SWITCH

## DIMENSIONS

## MILLIMETERS(INCHES)

### DNL Series Pressure Switches



### Ordering Code

**DNL - 100K - 21B**

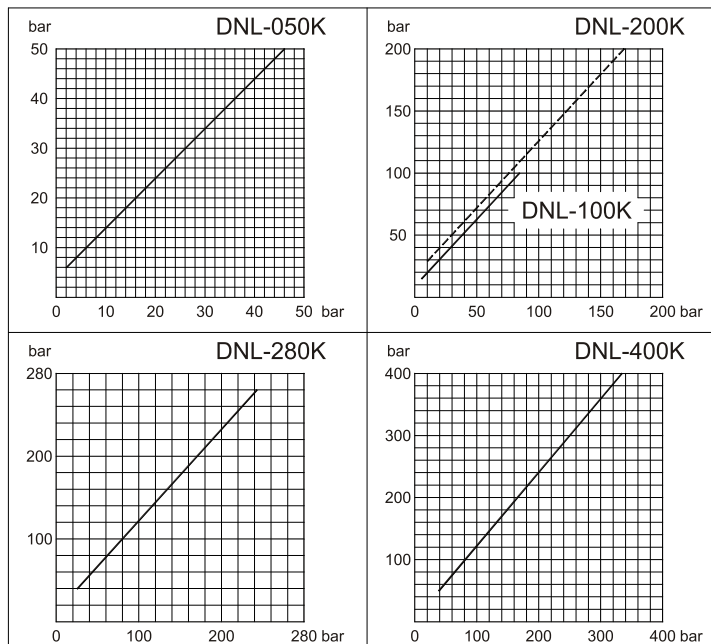
- ① Series
- ② Pressure Adj. Range
- ③ Design Number

DNL- Direct read-out, Heavy-duty micro-switch.

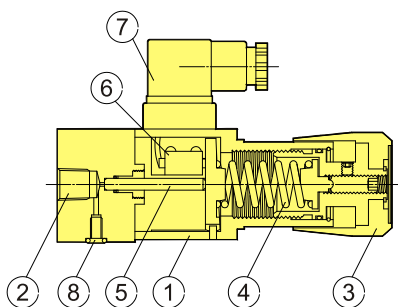
Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
050K	6~ 50	200	1.0
100K	15~100	300	1.0
200K	30~200	300	1.0
280K	40~280	350	1.0
400K	50~400	450	1.0

21B:1/4"PT(Rc)  
21B80:1/4"PF(G)  
21B90:1/4"NPT

### Hysteresis Diagrammes



### Schematic Cross-Section

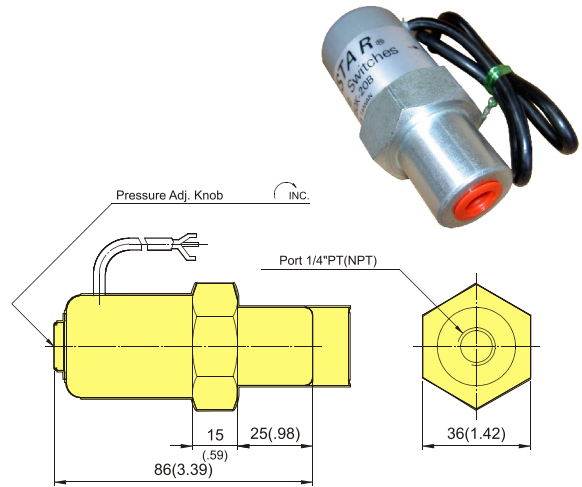
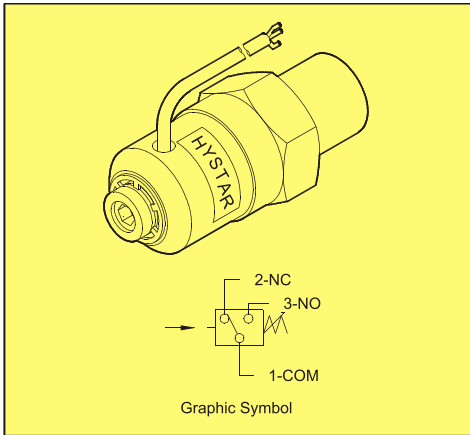


No.	Part Name
1	Body(Casting-Iron)
2	Connection Port 1/4"PT(Rc)
3	Pressure Adj. Knob
4	Spring
5	Servo-Piston
6	Micro-Switch
7	Electrical Connector
8	O-ring P6(M5XP0.8) Sub-Plate Mounting

## DIMENSIONS

MILLIMETERS(INCHES)

### DNK Series Pressure Switches



### Ordering Code

**DNK - 100K - 22B**

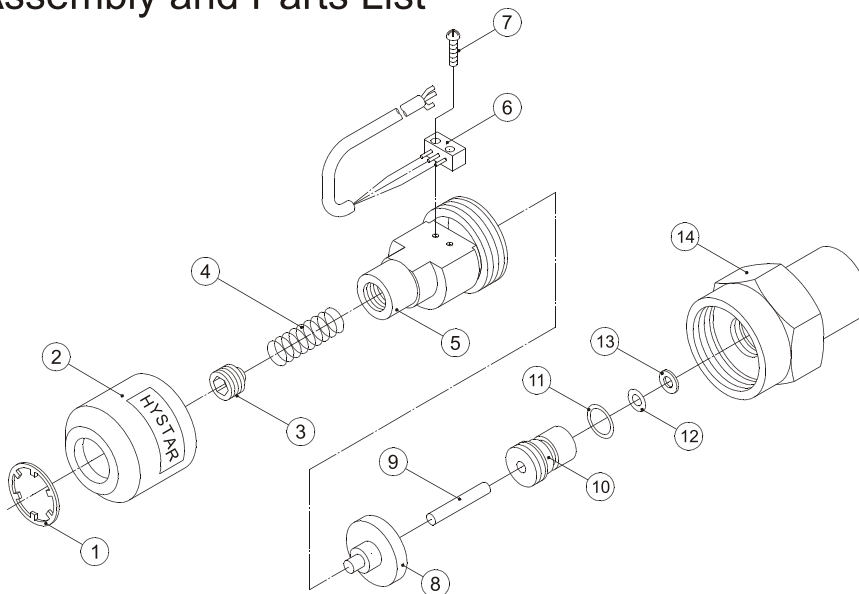
- ① Series DNK- Direct read-out, Standard type.
- ② Pressure Adj. Range
- ③ Design Number



Model	Pres Adj. Range bar	Surge Pres. bar	Weight kg
050K	15~ 50	150	1.0
100K	15~100	250	1.0
150K	30~150	300	1.0
250K	40~250	400	1.0

- ③ Design Number  
22B:1/4"PT(Rc)  
22B80:1/4"PF(G)  
22B90:1/4"NPT

### Assembly and Parts List



No.	Part Name
1	Ring
2	Cover
3	Pressure Adj. Knob
4	Spring
5	Inside Body
6	Micro-Switch
7	Fix-Screw
8	Space
9	Servo-Piston
10	Piston Body
11	O-Ring
12	O-Ring
13	Space
14	Body