



ACCESSORIES



(INSTALLATION)

01.

The operating pressure should be in the mid, third of the pressure range specified for the gauge. The maximum pressure load should not exceed 75% of full scale value at static loads, or 65% of full scale value of pulsating loads.

02.

When selecting pressure gauges the selection criteria and installation recommendations provided here must be observed. The use of pressure gauges which do not meet the requirements encountered in practice can cause great consequential damage.

03.

When using hazardous pressure media, for example, oxygen, acetylene, combustible substances, toxic substance, as well as refrigerating units, compressors etc. the application regulations must be observed. Fluid filled pressure gauges must be equipped with blow-out devices.

04.

The repair of pressure gauges should leave to skilled staff. Generally, pressure gauges will not required any maintenance. These instruments may only be repaired by the manufacturer.

05.

For sealing connections with a parallel thread, for example, flat gaskets or profile seal must be fitted or on the other hand, the corresponding sealing lens has to be provided in case of high pressure connection.

06.

The pressure gauges need to be mounted at the proper position so that it will not be subjected to vibration for an accurate dial reading.

07.

If the temperature of the pressure medium at the point where it is measured deviates from the operating temperature specified for the pressure gauge, then a sufficiently high pressure gauge, a siphon or a chemical seal with a capillary line must be mounted to the pressure gauge.

08.

For service at corrosive atmospheres or fluid elements, suitable casing and components made of corrosion resistant materials must be provided. Also special material may help to protect the outside of pressure gauge. For example SS316, PP, or teflon. Because of the restricted choice of material for the electric elements, diaphragm pressure gauges with protective lining will possibly have to be used, or chemical seals made of pressure media resistant materials needed to be mounted to a Bourdon tube pressure gauge.

09.

Before installation, the tapered threads (PT & NPT Threads) are to be sealed off with additional sealants like PTFE tape, for example. As for PF & PS threads, it is recommended to use suitable flat gasket in the material of brass or teflon to be fitted.

10.

The pressure gauges need to be mounted at the proper position so that it will not be subjected to vibration for an accurate dial reading.

11.

During the installation or removal of the lower back or center back mounting pressure gauge. do the same steps as in point 10, in the case of the flange joints or mounting bracket, the flanges are joined using suitable bolts to tighten the joints, do the same with the mounting bracket until it is leaktight.

12.

During the installation or removal, never apply any force to the case of the pressure gauges, as it might affect the accuracy of the pressure gauges.

13.

Do not touch the diaphragm as it might cause consequential damage to the pressure gauge.

14.

For the pressure gauges with pressure relief vent at the top of the case, it's recommended for pressure ranges lower than or equal 6 bar(6kg) to cut off the nipple at the filling plug so that the gauge can be vented in order to compensate the internal pressure



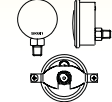

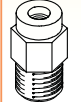
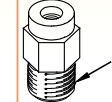
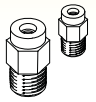



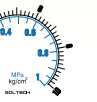
15.

When the installation is completed, start the device for measuring point slowly in order to avoid sudden pressure spikes during start up and cause damage to the gauge.

16.

Precision inspection is recommended once every year for Bourdon tubes, capsule & diaphragm type of gauges.

(HOW TO ORDER)

| 3 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | (1) | 1000 | P/B |
|---|---|---|---|---|---|---|--|---|---|---|
| Nominal size | Basic Applicaiton | Type of Case | Material of Case | Material of Connector | Type of Connector | Size of Connector | Type of Liquid | Type of Electric Contacts | Pres. Range | Scale Unit |
|  |  |  |  |  |  |  |  |  |  |  |
| 0 Special | 0 Special | 0 Special | 0 Special | 0 Special | 0 Special | 0 Special | 0 Special | 0 Special | 0 Special | 0 Special |
| 1 40mm | 1 General | 1 Bottom Mount without Flange | 1 Steel | 1 Brass | 1 PF | 1 1/8" | 1 Dry | 1 Single Contact Points on | Pressur Range -1~1000 Bar | |
| 2 50mm | 2 Crimped on Bezel | 2 Bottom Mount with Black Flange | 2 Stainless Steel | 2 Brass Plated | 2 Rc'PT | 2 1/4" | 2 Glycerin | 2 Double Contact Points on/off | Scale Unit P/B: Psi/Bar/KPa B/P: Bar/Psi | |
| 3 63mm | 3 Push Twist Removable Bezel | 3 Lower Back Mount without Flange | 3 Brass | 3 Stainless Steel | 3 NPT | 3 3/8" | 3 Silicone | 3 Double Contact Points on/on | K/P: KPa/Psi P/K: Psi/ KPa M/K: MPa/Kg | |
| 4 100mm | 4 Push Twist Removable Bezel Zero Adj. Pointer | 4 Center Back Mount without Flange | 4 Steel Bezel Plated | 4 P.P Inner Thread | 4 UNF | 4 1/2" | 4 Silicone 100Ø | 4 Single Contact Points off | M/B: MPa/Bar P/P: Psi/Psi B: Bar | |
| 5 150mm | 5 Electric Contact Point on/off | 5 Lower Back Mount with Front Flange | 5 Steel Wholly Plated | 5 Teflon Inner Thread | 5 | 5 7/16" | 5 | 5 | M: MPa K: Kg P: Psi | |
| 6 75mm | 6 | 6 Center Back Mount with Front Flange | 6 P.P | 6 | 6 | 6 | 6 | 6 | | |
| 7 | 7 | 7 Lower Back Mount without Flange with L Bracket | 7 Teflon Diaphragm | 7 | 7 | 7 | 7 | 7 | | |
| 8 | 8 | 8 Center Back Mount without Flange with U Bracket | 8 Aluminum Alloy | 8 | 8 | 8 | 8 | 8 Red Pointer | | |
| 9 | 9 | 9 Center Back Mount without Flange with U Bracket | 9 P.P Case | 9 | 9 | 9 | 9 | 9 Magnetic Mark Pointer | | |

► The item with "()" may be omitted.

※EQUIVALENT TABLE OF PRESSURE GAUGES

| Psi | Atms | Ft. Hd. H ₂ O at 20°C | in H ₂ O | Kg/cm ² | Meters H ₂ O | in. Hg. at 20°C | mm. Hg. | cm. Hg. | Bar | Millibar (mbar) | KPa |
|--------|--------|----------------------------------|---------------------|--------------------|-------------------------|-----------------|---------|---------|--------|-----------------|---------|
| 1 | 0.0680 | 2.310 | 27.720 | 0.0700 | 0.704 | 2.043 | 51.884 | 5.188 | 0.0690 | 68.947 | 6.895 |
| 14.696 | 1 | 22.659 | 407.513 | 1.0330 | 10.351 | 30.019 | 762.480 | 76.284 | 1.0130 | 1013.0 | 101.325 |
| 0.433 | 0.0290 | 1 | 12.000 | 0.0300 | 0.305 | 0.884 | 22.452 | 2.245 | 0.0300 | 29.837 | 2.984 |
| 0.036 | 0.0025 | 0.833 | 1 | 0.0025 | 0.025 | 0.074 | 1.871 | 0.187 | 0.0025 | 2.486 | 0.249 |
| 14.233 | 0.9680 | 32.867 | 394.480 | 1 | 10.018 | 29.054 | 737.959 | 73.796 | 0.9810 | 980.662 | 98.066 |
| 1.422 | 0.0970 | 3.287 | 39.370 | 0.0990 | 1 | 2.905 | 73.796 | 7.379 | 0.0980 | 98.066 | 9.807 |
| 0.489 | 0.0330 | 1.131 | 13.575 | 0.0340 | 0.345 | 1 | 25.400 | 2.540 | 0.0340 | 33.753 | 3.375 |
| 0.019 | 0.0013 | 0.045 | 0.534 | 0.0014 | 0.0136 | 0.039 | 1 | 0.100 | 0.0010 | 1.329 | 0.133 |
| 0.193 | 0.0131 | 0.445 | 5.340 | 0.0140 | 0.1360 | 0.393 | 10.000 | 1 | 0.133 | 13.290 | 1.328 |
| 14.503 | 0.9870 | 33.514 | 402.164 | 1.0200 | 10.2110 | 29.625 | 752.470 | 75.247 | 1 | 1000.0 | 100.00 |
| 0.014 | 0.0009 | 0.033 | 4.02 | 0.0010 | 0.0102 | 0.029 | 0.752 | 0.075 | 0.001 | 1 | 0.100 |
| 0.145 | 0.0098 | 0.335 | 4.021 | 0.0100 | 0.1020 | 0.296 | 7.525 | 0.752 | 0.010 | 10.000 | 1 |

[LBM/CBM]

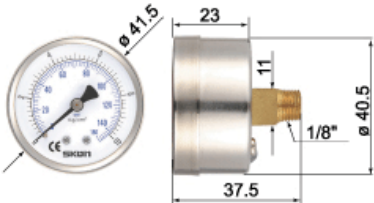
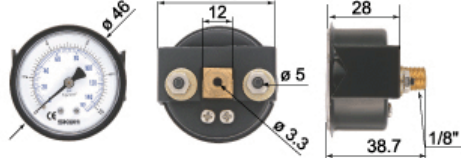
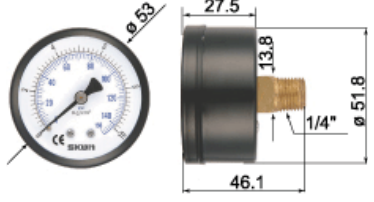
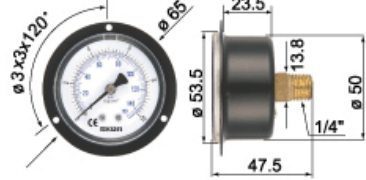
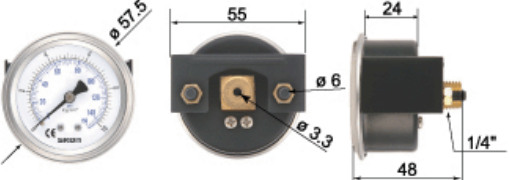
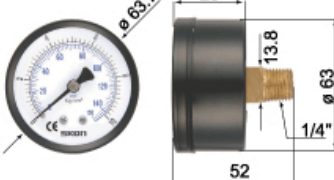
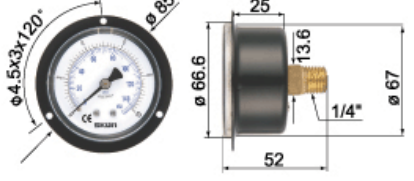
※SPECIFICATION

| NORMAL SIZE | ACCURACY | PRESSURE RANGES kg/cm ² (bar) | OPERATING TEMPERATURE | CONNECTION | SENSING ELEMENT | MOVEMENT |
|--|-----------------------|--|---|---|---|-------------|
| 23mm, 40mm 50mm, 63mm | class ±2% | -1/0 to -1/20 0/1 to 0/250 | Working temperature: 60°C Max. Ambient: -25°C~ 60°C | Material Copper Alloy Lower Mounting (LM) 40mm thread:11mm 50mm, 63mm thread:14mm 1/4", 1/8", PT, NPT, PF, BSP 75, 100mm thread:17mm 3/8", 1/2", PT, NPT, PF, BSP | bourdon tube, brass alloy <70kg/cm ² (bar) Coil ≥70kg/cm ² (bar) Helicoil | Brass Alloy |
| DIAL | POINTER | CASE | UPPER RING | WINDOW | ORDER OPTIONS | |
| Aluminium in white, lettering in black | Aluminium in black | Black-painted steel with black-painted steel | Bayonet or bezel ring Black-painted steel | Normal glass or Acrylic | 1. Stainless steel black-painted front or rear flang 2. External adjustable red mark pointer (Max. or Set Pointer) 3. U-shape clamp 4. L-shape clamp | |



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※DIMENSIONS

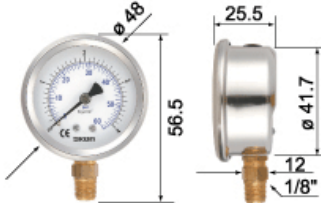
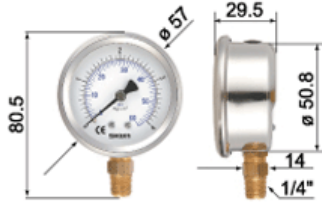
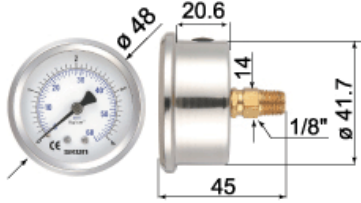
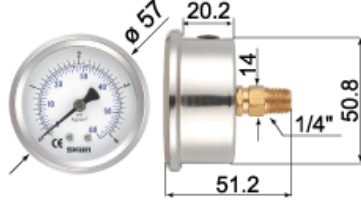
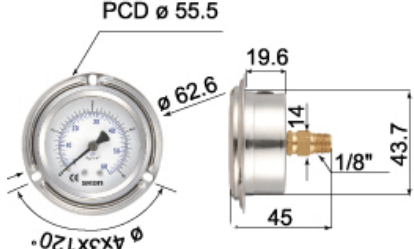
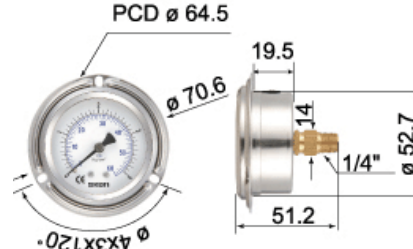
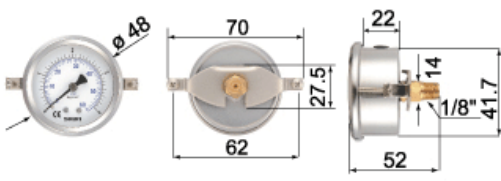
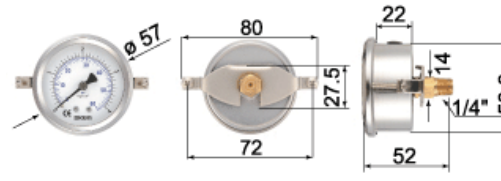
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| 114.51 | 118.11 |
|  |  |
| 214.11 | 216.11 |
|  |  |
| 228.11 | 314.11 |
|  |  |
| 316.11 | |
|  | |

※SPECIFICATION

| DIMENSION | ACCURACY | PRESSURE RANGES kg/cm ² (bar) | OPERATING TEMPERATURE | CONNECTION | SENSING ELEMENT | MOVEMENT |
|---|-----------------------|---|---|---|---|--|
| 40mm, 50mm | class ±2% | 0/1 to 0/500 kg/cm ² (bar) | Working temperature: 60°C Max. Ambient: -25°C~ 60°C | Brass Alloy, LM/ LBM/CBM 40mm thread 12mm 1/8" , PT, NPT, PF, BSP 50mm thread: 14mm 1/4", PT, NPT, PF, BSP | bourdon tube, brass alloy <70kg/cm ² (bar) Coil ≥70kg/cm ² (bar) Helicoil | Brass Alloy |
| DIAL | POINTER | CASE | UPPER RING | FILLING | WINDOW | ORDER OPTIONS |
| Aluminium in white and lettering in black | Aluminium in black | AISI 304 | AISI 304 | Glycerin (99.5%) | Laminated safety glass or Acrylic | <ol style="list-style-type: none"> 1. Filling fluid optional 2. Flange option 3. Red mark pointer 4. Clamp fixations |



※DIMENSIONS

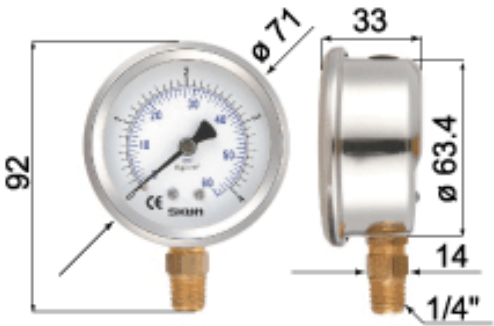
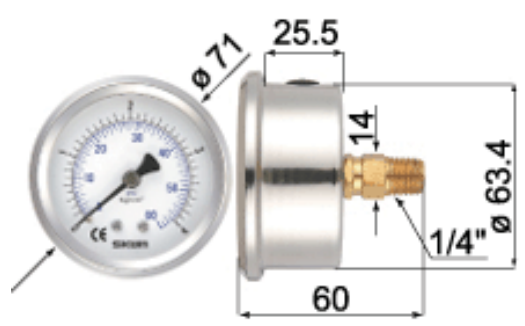
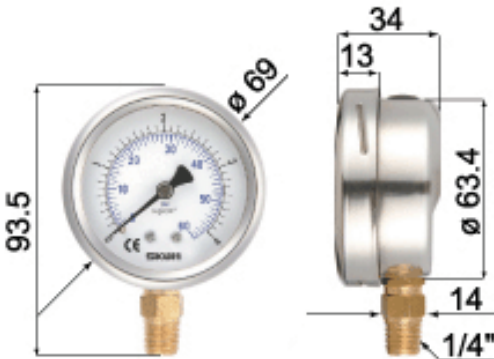
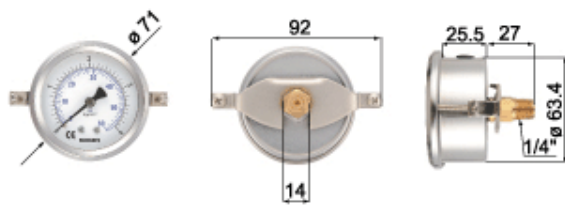
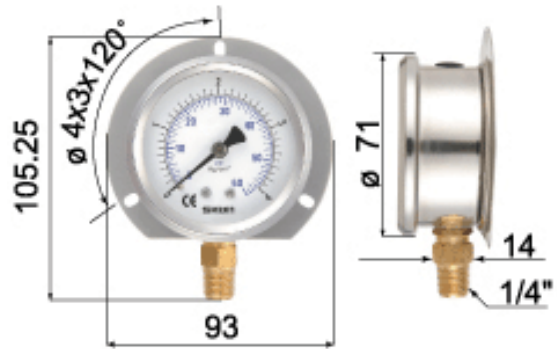
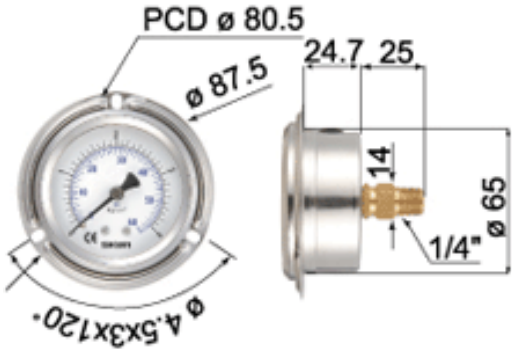
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| 121.21 | 221.21 |
|  |  |
| 124.21 | 224.21 |
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| 126.21 | 226.21 |
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| 128.21 | 228.21 |
|  |  |

※SPECIFICATION

| DIMENSION | ACCURACY | PRESSURE RANGES kg/cm ² (bar) | OPERATING TEMPERATURE | CONNECTION | SENSING ELEMENT | MOVEMENT |
|---|--------------------|---|--|---|---|-----------------------------------|
| 40mm, 50mm | class ±2% | 0/1 to 0/500 kg/cm ² (bar) | Working temperature: 60°C Max. Ambient: -25°C~ 60°C | Brass Alloy, LM/ LBM/CBM 40mm thread 12mm 1/8", PT, NPT, PF, BSP 50mm thread: 14mm 1/4", PT, NPT, PF, BSP | bourdon tube, brass alloy <70kg/cm ² (bar) Coil ≥70kg/cm ² (bar) Helicoil | Brass Alloy |
| DIAL | POINTER | CASE | UPPER RING | FILLING | ORDER OPTIONS | WINDOW |
| Aluminium in white and lettering in black | Aluminium in black | AISI 304 | AISI 304 | Glycerin (99.5%) | 1. Filling fluid optional 2. Flange option 3. Red mark pointer 4. Clamp fixations | Laminated safety glass or Acrylic |



※DIMENSIONS

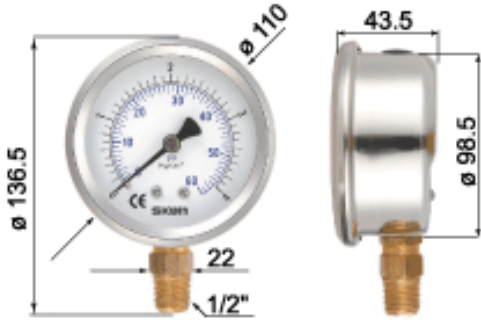
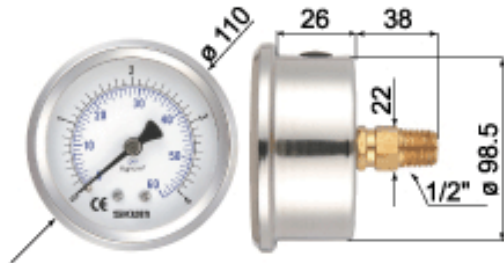
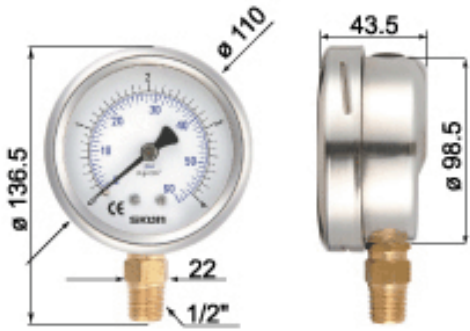
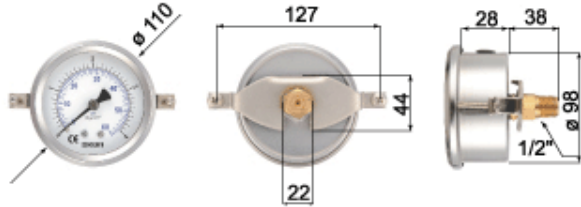
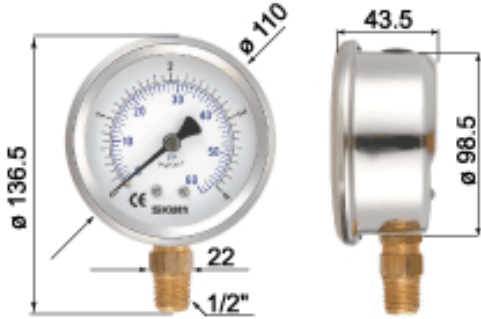
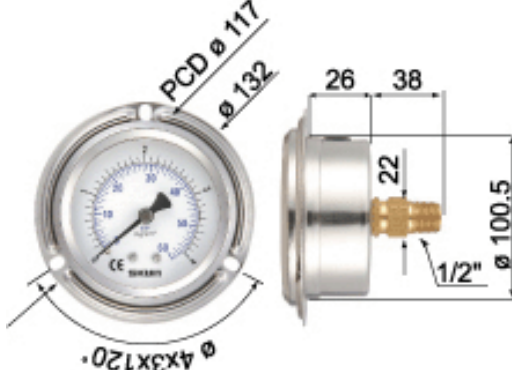
| | |
|---|--|
| 321.21 | 324.21 |
|  |  |
| 331.21 | 328.21 |
|  |  |
| 322.21 | 326.21 |
|  |  |

※SPECIFICATION

| DIMENSION | ACCURACY | PRESSURE RANGES kg/cm ² (bar) | OPERATING TEMPERATURE | CONNECTION | SENSING ELEMENT | MOVEMENT |
|--|-----------------------|---|---|---|---|---|
| 100mm | class ±2% | -1/0 to -1/+20 0/1 to 0/1000 | Working temperature: 60°C Max. Ambient: -25°C~ 60°C | Brass Alloy, LM/ LBM/CBM Thread connector:22mm 3/8", PT, NPT, PF, BSP 1/2", PT, NPT, PF, BSP | bourdon tube, brass alloy <70kg/cm ² (bar) Coil ≥70kg/cm ² (bar) Helicoil | Brass Alloy |
| DIAL | POINTER | CASE | UPPER RING | FILLING | WINDOW | ORDER OPTIONS |
| Aluminium with white back ground & black lettering | Aluminium in black | AISI 304 | AISI 304 | Glycerin (99.5%) | -Normal glass -Acrylic -Laminated safety glass | Silicon filling Flange Red mark pointer U-shape clamp L-shape clamp |



※DIMENSIONS

| 421.21 | 424.21 |
|---|--|
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| 422.21 | 426.21 |
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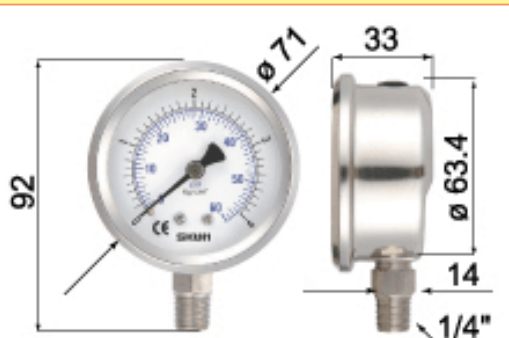
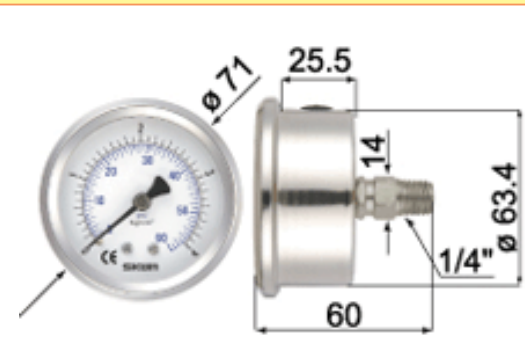

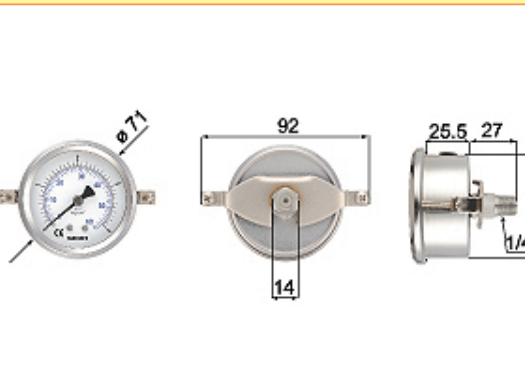
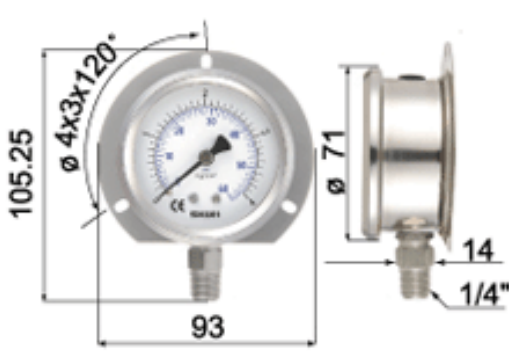
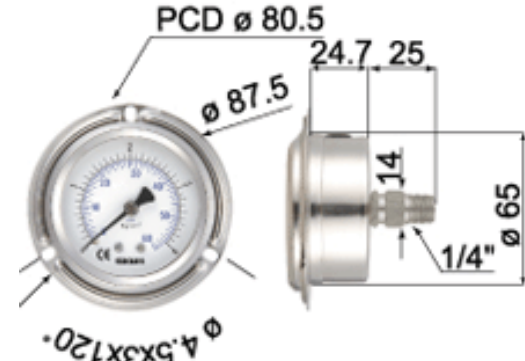
(STAINLESS STEEL)

※SPECIFICATION

| DIMENSION | ACCURACY | PRESSURE RANGES kg/cm ² (bar) | OPERATING TEMPERATURE | CONNECTION | SENSING ELEMENT | MOVEMENT |
|--|-----------------------------------|---|---|---|---|------------------|
| 63mm | class ±1.5% | -1/0 to -1/+20 0/1 to 0/1000 | Working temperature: 60°C Max. Ambient: -25°C~ 60°C | AISI 316, LM/LBM/ CBM Connector size:14mm 1/4", PT, NPT, PF, BSP | Bourdon Tube, AISI 316 DIN 50049(AISI 316 Ti) <70kg/cm ² (bar) C ≥ 70kg/cm ² (bar) H | AISI 316 |
| DIAL | POINTER | CASE | UPPER RING | FILLING | WINDOW | ORDER OPTIONS |
| Aluminium alloy, black figures and line on white background | Aluminium alloy, black painted | AISI 304 | AISI 304 | Glycerin (99.5%) | Normal glass Laminated safety glass Acrylic | ORDER OPTIONS |



※DIMENSIONS

| | |
|---|--|
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|  |  |
| 331.23 | 328.23 |
|  |  |
| 322.23 | 326.23 |
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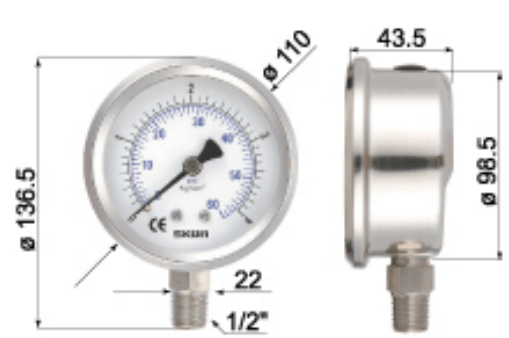
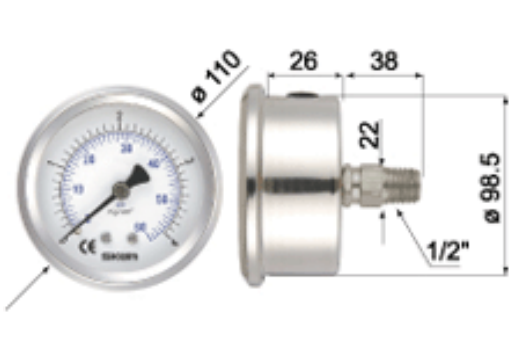

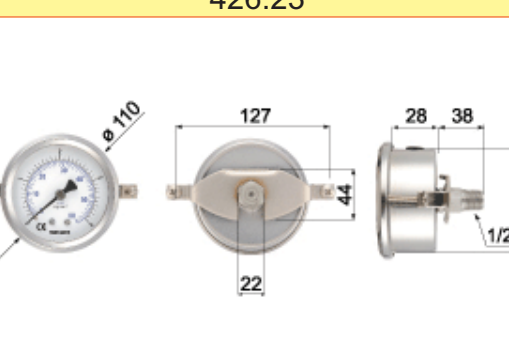
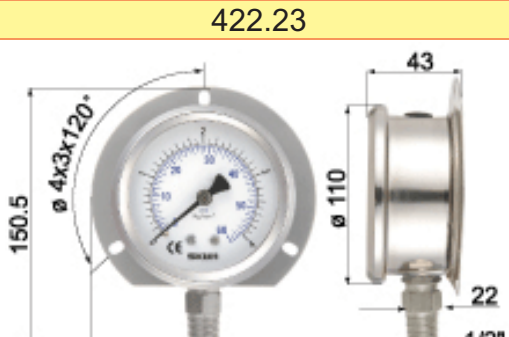
(STAINLESS STEEL)

※SPECIFICATION

| DIMENSION | ACCURACY | PRESSURE RANGES kg/cm ² (bar) | OPERATING TEMPERATURE | CONNECTION | SENSING ELEMENT | MOVEMENT |
|--|-----------------------------------|---|---|--|--|---|
| 100mm | class ±1.0% | -1/0 to -1/+20 0/1 to 0/1500 | Working temperature: 60°C Max. Ambient: -25°C~ 60°C | AISI 316, LM/LBM/ CBM Connector size:22mm 3/8", PT, NPT, PF, BSP 1/2", PT, NPT, PF, BSP | Bourdon Tube, AISI 316 DIN 50049 (AISI 316 Ti) <70kg/cm ² (bar) C ≥ 70kg/cm ² (bar) H | AISI 316 |
| DIAL | POINTER | CASE | UPPER RING | FILLING | WINDOW | ORDER OPTIONS |
| Aluminium alloy, black figures and line on white background | Aluminium alloy, black painted | AISI 304 | AISI 304 | Glycerin (99.5%) | Normal glass Laminated safety glass Acrylic | -Filling fluids type optional -Flange(Rear or front) -Red mark pointer-U shape & L shape clamps |



※DIMENSIONS

| 421.23 | 424.23 |
|---|--|
|  |  |
| 431.23 | 426.23 |
|  |  |
| 422.23 | |
|  | |

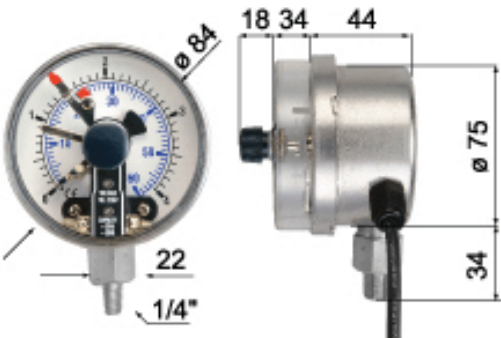
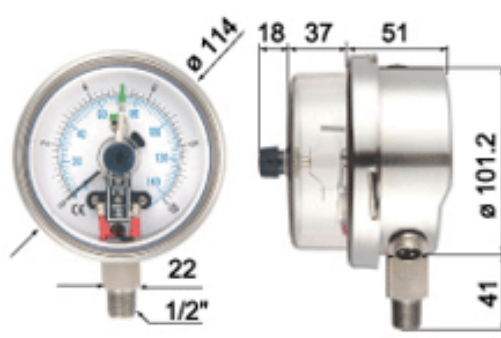
(STAINLESS STEEL)

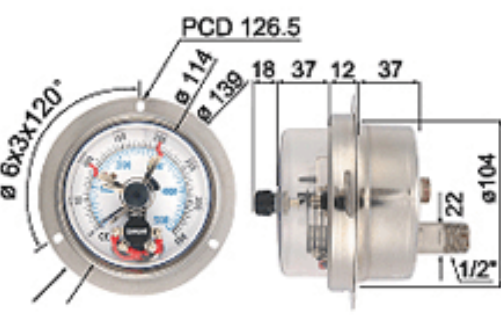
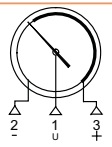
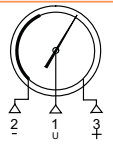

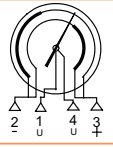
※SPECIFICATION

| NOTE | PLATE DIAMETER | ACCURACY | RANGES kg/cm ² (bar) | CONNECTION TYPE | TEMPERATURE | RADIAL CONNECTION DIAMETER | |
|---|--------------------------|--|------------------------------------|-----------------------|---|---|----------------------|
| Select suitable pressure gauge specifications, unit measures, applications including indicator contact, detector, pressure gauge and micro contact. | 75mm, 100mm | class ±1.0% | -1/0 0/1000 | Fast magnetic contact | Measured medium: 100°C Ambient: T _{min} = -2.50°C T _{max} = +60°C | AISI 316, Direct connect or built-in 75mm: Diameter: 22mm 100mm: Diameter: 22mm 1/4", 3/8", 1/2", PT, NPT, PF, BSP | |
| BOURDON TUBE | MAIN COMPONENTS MATERIAL | PLATE MATERIAL | POINTER | HOUSING | BAYONET RING | WINDOW MATERIAL | OPTIONAL |
| Bourdon tube, AISI 316 DIN 50049(AISI 316 T1) ≤ 70kg/cm ² (bar) C > 70kg/cm ² (bar) H | AISI 316 | Aluminium, White graduation Black figures | Aluminium, Black | AISI 304 | AISI 304 | Acrylic | Rear mounting flange |



※DIMENSIONS

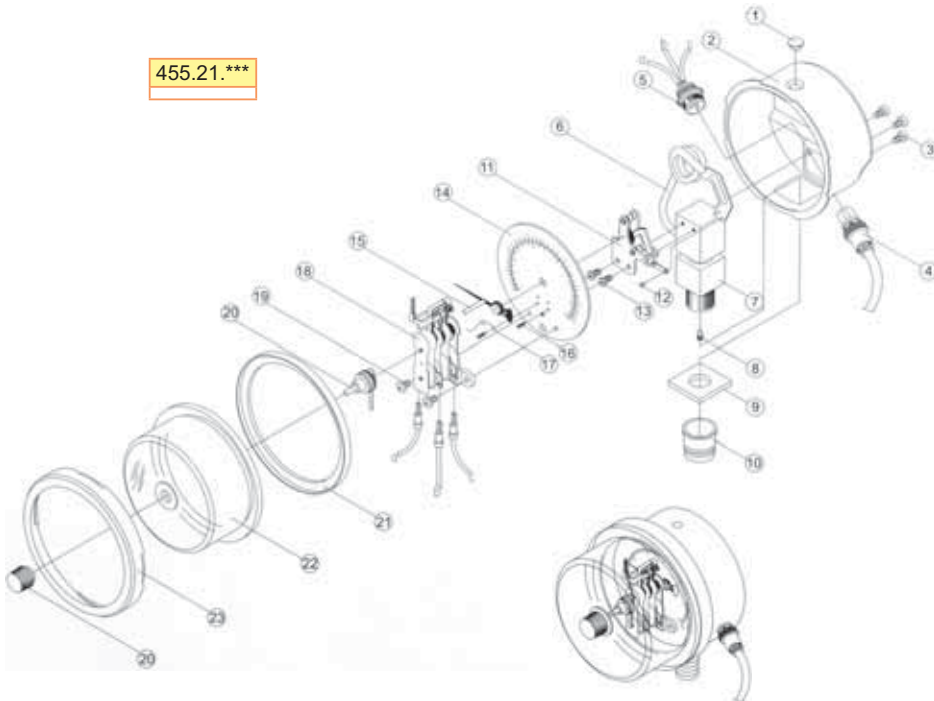
| 651.23 | 451.23 |
|--|---|
|  |  |

| 455.23 | Single/Double Contact Points | | | |
|---|---|-----------------------|--|--|
|  | Contact Diagram | Contact Type | When pointer reach mark point | When pointer below the mark point |
| |  | Single Contact On | Switch On | Switch Off |
| |  | Single Contact Off | Switch Off | Switch On |
| |  | Double Contact On/On | Switch On Point 1 & Point 2 | Switch Off Point 1 & Point 2 |
| |  | Double Contact On/Off | Switch Off Point 1 & Switch On Point 2 | Switch On Point 1 & Switch Off Point 2 |

| Electric Current | | | |
|-----------------------------|--------|--------|---------------|
| Voltage | DC | AC | Electric Load |
| 230V | 100 mA | 120 mA | 65 mA |
| 110V | 200 mA | 240 mA | 130 mA |
| 50V | 300 mA | 450 mA | 200 mA |
| 24V | 400 mA | 600 mA | 250 mA |
| Current: 30W/~50VA T/C 0.7A | | | |

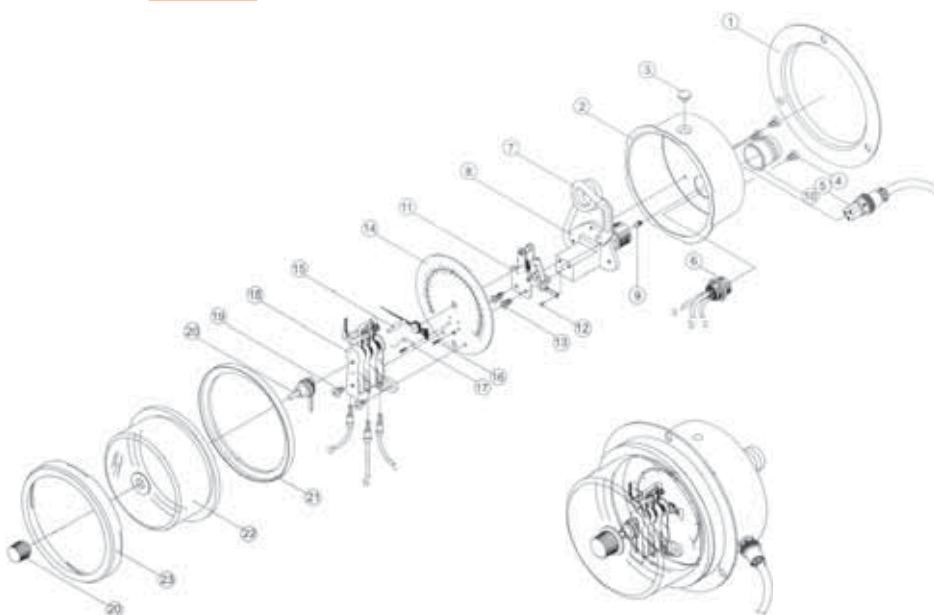
[ASSEMBLY]

455.21.***



- | |
|--------------------------------|
| 1. Safty Device |
| 2. Case |
| 3. Set Screw |
| 4. External Connection Kit |
| 5. Internal Connection Kit |
| 6. Bourdon Tube |
| 7. Brass Socket |
| 8. Shock Reducer |
| 9. Oil Valve |
| 10. Connector Protective Cover |
| 11. Movement |
| 12. Internal Screw |
| 13. Hexagon Screw |
| 14. Dial |
| 15. Adjustable Pointer |
| 16. Dial Screw |
| 17. Spring Stop Pointer |
| 18. Electric Connector Set |
| 19. Set Screw |
| 20. Dual Twisting Bolt |
| 21. Oil Valve(Oil Seal) |
| 22. Window |
| 23. Upper Cap |

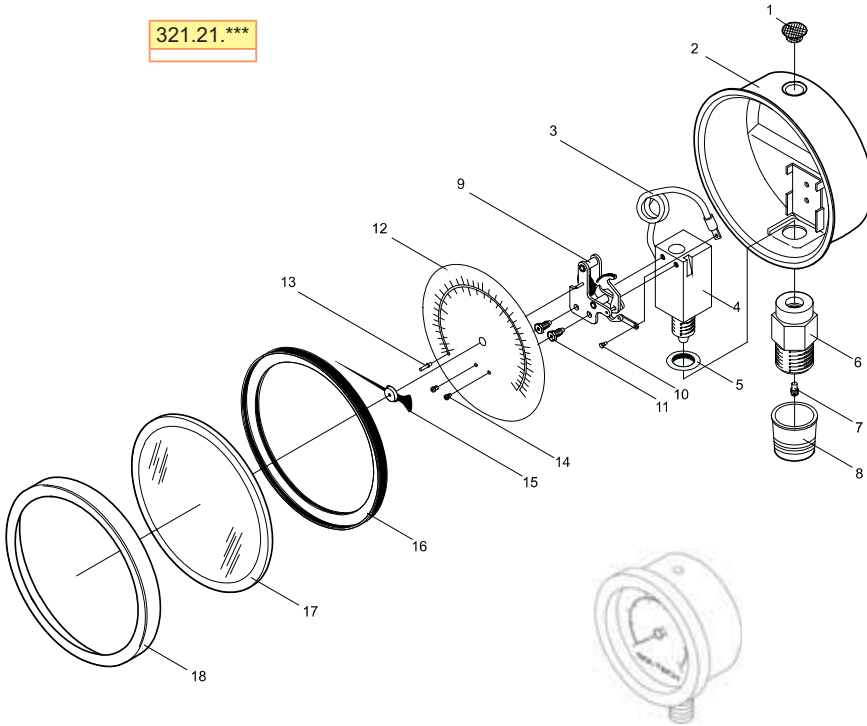
455.21.***



- | |
|--------------------------------|
| 1. Flange |
| 2. Case |
| 3. Safty Device |
| 4. Set Screw |
| 5. External Connection Kit |
| 6. Internal Connection Kit |
| 7. Bourdon Tube |
| 8. Brass Socket |
| 9. Shock Reducer |
| 10. Connector Protective Cover |
| 11. Movement |
| 12. Internal Screw |
| 13. Hexagon Screw |
| 14. Dial |
| 15. Adjustable Pointer |
| 16. Dial Screw |
| 17. Spring Stop Pointer |
| 18. Electric Connector Set |
| 19. Set Screw |
| 20. Dual Twisting Bolt |
| 21. Oil Valve(Oil Seal) |
| 22. Window |
| 23. Upper Cap |

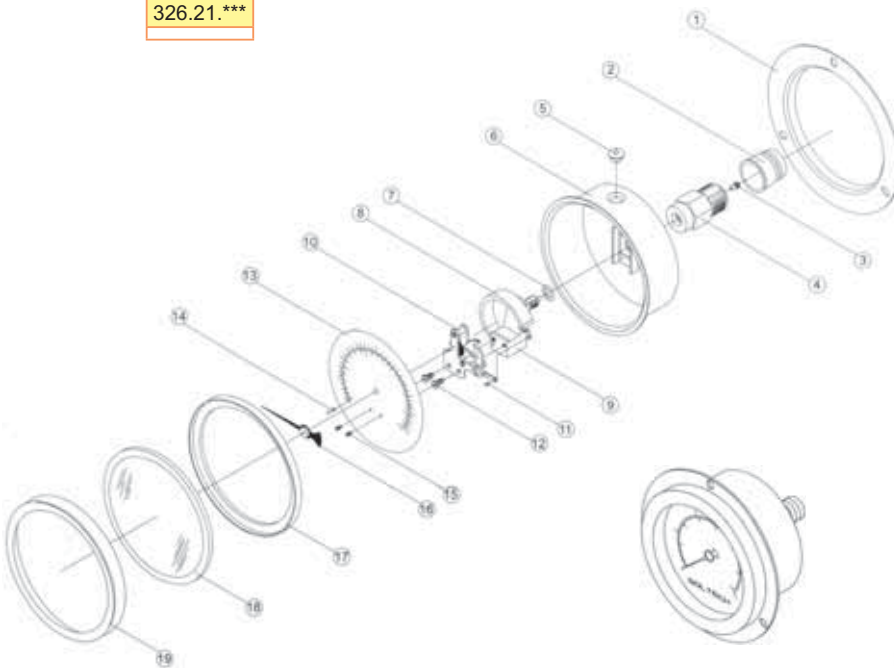
[ASSEMBLY]

321.21.***



- | |
|-------------------------------|
| 1. Safty Device |
| 2. Case |
| 3. Bourdon Tube |
| 4. Brass Socket |
| 5. Oil Valve(Oil Seal) |
| 6. Connective Parts |
| 7. Shock Reducer |
| 8. Connector Protective Cover |
| 9. Movement |
| 10. Internal Screw |
| 11. Hexagon Screw |
| 12. Dial |
| 13. Stop Pointer |
| 14. Dial Screw |
| 15. Pointer |
| 16. Oil Valve(Oil Seal) |
| 17. Window |
| 18. Upper Cap |

326.21.***



- | |
|-------------------------------|
| 1. Flange |
| 2. Connector Protective Cover |
| 3. Shock Reducer |
| 4. Connector Part |
| 5. Safty Device |
| 6. Case |
| 7. Oil Valve(Oil Seal) |
| 8. Bourdon Tube |
| 9. Brass Socket |
| 10. Movement |
| 11. Internal Screw |
| 12. Hexagon Screw |
| 13. Dial |
| 14. Stop Pointer |
| 15. Dial Screw |
| 16. Pointer |
| 17. Oil Valve(Oil Seal) |
| 18. Window |
| 19. Upper Cap |

H

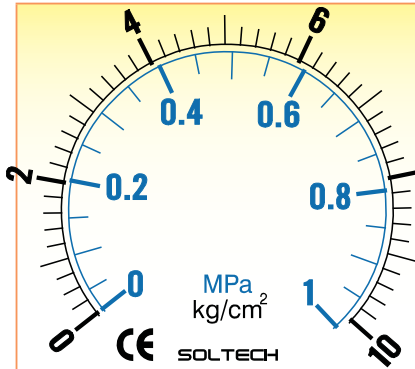


SOLTECH

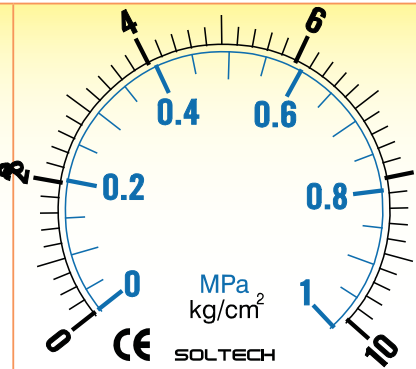
ACCESSORIES

GAGUES

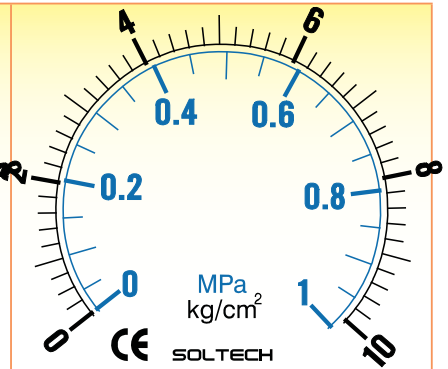
【STANDARD DIAL】



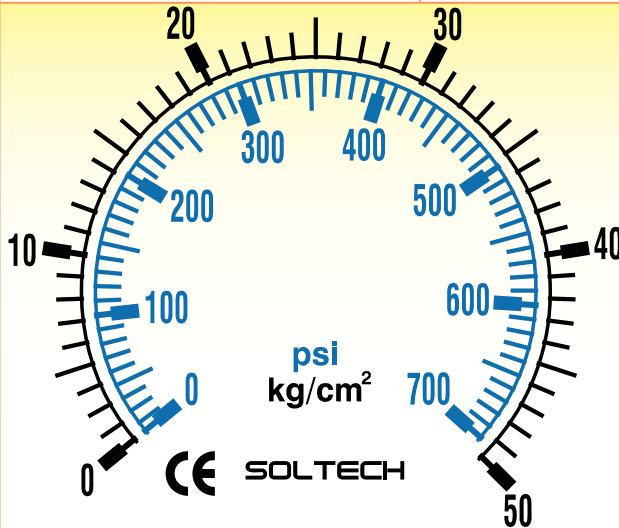
MPa and Kg/cm²
Size: 40mm acc.±2.0%



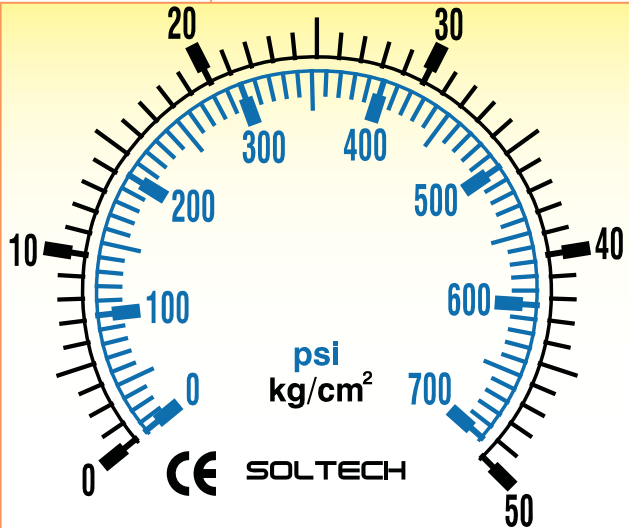
Bar and MPa
Size: 50mm acc.±2.0%



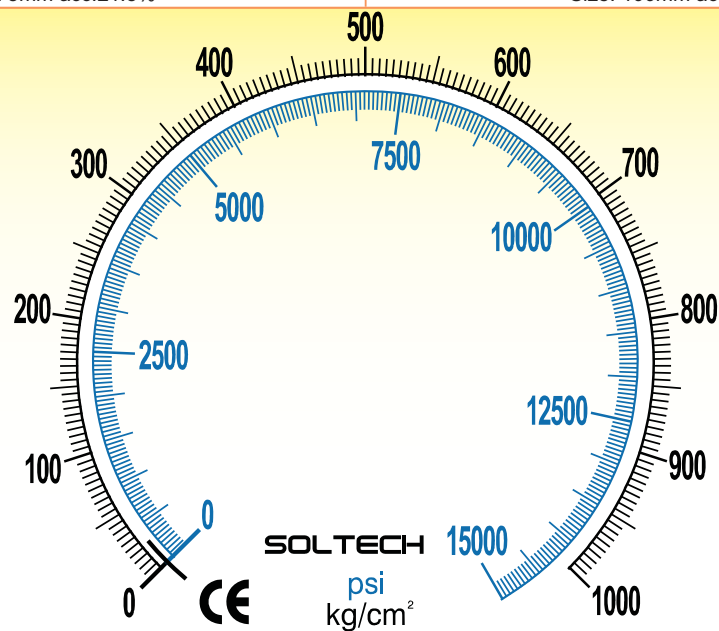
Psi and Kg/cm²
Size: 63mm acc.±1.5%



Psi and Kg/cm²
Size: 75mm acc.±1.5%



Bar and MPa
Size: 100mm acc.±1.0%

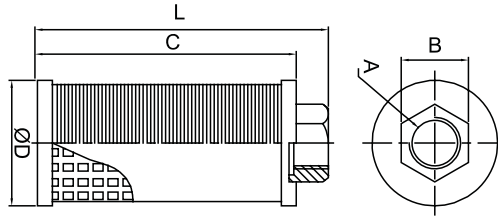
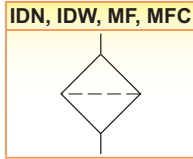


Psi and Kg/cm²
Size: 150mm acc.±0.2%

H

[IDN, IDW, MF, MFC]

※GRAPHIC SYMBOL



"IDN" TYPE
150 MESH

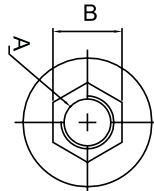
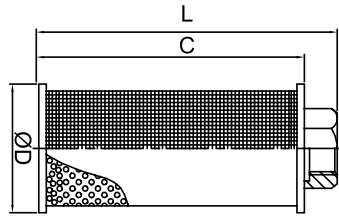
※SPECIFICATION

| MODEL | A PT/Rc Or NPT | B | C | D | L | FLOW ℓ/min(GPM) | FILTRATION (mesh) | WEIGHT (kg) |
|-------|-------------------|--------|-----------|------------|-----------|--------------------|----------------------|----------------|
| IDN | 04 | 1/2" | 28(1.10) | 156(6.14) | 61(2.40) | 167(6.57) | 35(9.2) | 0.24 |
| | 06 | 3/8" | 34(1.34) | 156(6.14) | 61(2.40) | 171(6.73) | 46(12.2) | 0.26 |
| | 08 | 1" | 46(1.81) | 193(7.60) | 82(3.23) | 208(8.19) | 90(23.8) | 0.45 |
| | 10 | 1-1/4" | 52(2.05) | 213(8.39) | 102(4.02) | 227(8.94) | 150(39.6) | 0.73 |
| | 12 | 1-1/2" | 61(2.40) | 232(9.13) | 120(4.72) | 246(9.69) | 205(54.2) | 0.97 |
| | 16 | 2" | 72(2.83) | 314(12.36) | 120(4.72) | 331(13.03) | 320(85.4) | 1.24 |
| | 20 | 2-1/2" | 87(3.43) | 417(16.42) | 146(5.75) | 439(17.28) | 550(145.3) | 2.50 |
| | 24 | 3" | 105(4.13) | 417(16.42) | 146(5.75) | 439(17.28) | 600(158.5) | 2.55 |

| MODEL | A PT/Rc Or NPT | B | C | D | L | FLOW ℓ/min(GPM) | FILTRATION (mesh) | WEIGHT (kg) |
|-------|-------------------|--------|-----------|-----------------------------|----------------------------|------------------------------|-------------------------|----------------|
| IDW | 02 | 1/4" | 22(0.87) | 47(1.85)/97(3.82)/100(3.97) | 38(1.50)/38(1.50)/55(2.17) | 59(2.32)/109(4.29)/112(4.41) | 12(3.2)/14(3.7)/20(5.3) | 0.05/0.07/0.10 |
| | 03 | 3/8" | 22(0.87) | 47(1.85)/97(3.82)/100(3.97) | 38(1.50)/38(1.50)/55(2.17) | 59(2.32)/109(4.29)/112(4.41) | 15(4.0)/17(4.5)/25(6.6) | 0.05/0.07/0.10 |
| | 04 | 1/2" | 28(1.10) | 100(3.97)/144(5.67) | 55(2.17)/65(2.56) | 112(4.41)/160(6.30) | 30(7.9)/33(8.7) | 0.12/0.18 |
| | 06 | 3/8" | 34(1.34) | 144(5.67) | 65(2.56) | 160(6.30) | 50(13.2) | 0.19 |
| | 08 | 1" | 46(1.81) | 188(7.40) | 84(3.31) | 207(8.15) | 100(26.4) | 0.33 |
| | 10 | 1-1/4" | 52(2.05) | 205(8.07) | 103(4.06) | 225(8.86) | 180(47.6) | 0.46 |
| | 12 | 1-1/2" | 61(2.40) | 228(8.98) | 126(4.96) | 248(9.76) | 246(65.0) | 0.73 |
| | 16 | 2" | 72(2.83) | 305(12.01) | 126(4.96) | 328(12.91) | 384(101.4) | 0.88 |
| | 20 | 2-1/2" | 87(3.43) | 342(13.46) | 158(6.22) | 365(14.37) | 700(184.9) | 1.19 |
| | 24 | 3" | 105(4.13) | 433(17.05) | 158(6.22) | 453(17.83) | 800(211.3) | 1.40 |



"IDW" TYPE
120 MESH



"MF" TYPE
100 MESH



"MFS" TYPE
SUS 304

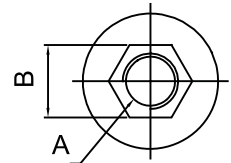


"MFC" TYPE
HIGH FLOW

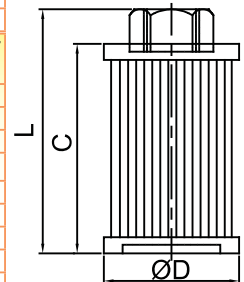


"MFCS" TYPE
SUS 304

| MODEL | A PT/Rc Or NPT | B | C | D | L | FLOW ℓ/min(GPM) | FILTRATION (mesh) | WEIGHT (kg) |
|-----------|-------------------|--------|-----------|---------------------|-------------------|---------------------|----------------------|----------------|
| MF MFS | 02 | 1/4" | 22(0.87) | 65(2.56)/50(1.69) | 45(1.77)/56(2.20) | 76(2.99)/61(2.40) | 15(4.0) | 0.08/0.09 |
| | 03 | 3/8" | 22(0.87) | 65(2.56)/50(1.69) | 45(1.77)/56(2.20) | 76(2.99)/61(2.40) | 17(4.5) | 0.08/0.09 |
| | 04 | 1/2" | 28(1.10) | 46(1.81)/90(3.54) | 56(2.20) | 61(2.40)/98(3.86) | 20(5.3)/33(8.7) | 0.09/0.12 |
| | 06 | 3/8" | 34(1.34) | 127(5.00) | 56(2.20) | 139(5.47) | 55(14.5) | 0.14 |
| | 08 | 1" | 46(1.81) | 153(6.02)/132(5.20) | 56(2.20)/70(2.76) | 169(6.65)/149(5.87) | 110(29.0) | 0.19/0.28 |
| | 10 | 1-1/4" | 52(2.05) | 171(6.73) | 70(2.76) | 184(7.24) | 210(55.5) | 0.29 |
| | 12 | 1-1/2" | 61(2.40) | 180(7.09) | 84(3.31) | 193(7.60) | 285(75.3) | 0.40 |
| | 16 | 2" | 72(2.83) | 199(7.83) | 102(4.02) | 215(8.46) | 395(104.4) | 0.57 |
| | 20 | 2-1/2" | 87(3.43) | 326(12.83) | 159(6.26) | 353(13.90) | 750(198.2) | 1.14 |
| | 24 | 3" | 105(4.13) | 326(12.83) | 159(6.26) | 353(13.90) | 800(211.4) | 1.18 |



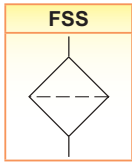
| MODEL | A PT/Rc Or NPT | B | C | D | L | FLOW ℓ/min(GPM) | FILTRATION (mesh) | WEIGHT (kg) |
|-------------|-------------------|-----------|------------|-----------------------|---------------------|-----------------------|-------------------------|----------------|
| MFC MFCS | 02 | 1/4" | 22(0.87) | 61(2.40) | 62(2.44) | 72(2.83) | 20(5.3) | 0.2 |
| | 03 | 3/8" | 22(0.87) | 61(2.40) | 62(2.44) | 72(2.83) | 20(5.3) | 0.2 |
| | 04 | 1/2" | 28(1.10) | 88(3.46) | 62(2.44) | 100(3.97) | 35(9.3) | 0.3 |
| | 06 | 3/8" | 34(1.34) | 118(4.65) | 70(2.76) | 130(5.12) | 60(15.9) | 0.4 |
| | 08 | 1" | 46(1.81) | 135(5.31) | 84(3.31) | 150(5.91) | 130(34.4) | 0.5 |
| | 10 | 1-1/4" | 52(2.05) | 165(6.50) | 102(4.02) | 180(7.09) | 250(66.1) | 0.8 |
| | 12 | 1-1/2" | 61(2.40) | 198(7.80) | 120(4.72) | 210(8.27) | 300(79.3) | 1.0 |
| | 16 | 2" | 72(2.83) | 215(8.46) | 120(4.72) | 230(9.06)/213(8.39) | 450(118.9) | 1.2 |
| | 20 | 2-1/2" | 87(3.43) | 198(7.80) | 140(5.51)/147(5.79) | 260(10.24)/330(12.99) | 700(185)/750(198.2) | 1.5/1.7 |
| | 24 | 3" | 105(4.13) | 242(9.53)/282(11.10) | 140(5.51) | 260(10.24)/300(11.81) | 700(185)/750(198.2) | 1.4/1.5 |
| | 24 | 3" | 105(4.13) | 312(12.28) | 140(5.51) | 330(12.99) | 800(211.4) | 1.6 |
| | 32 | 4" | 146(5.75) | 317(12.48)/367(14.45) | 208(8.19)/228(8.98) | 350(13.78)/400(15.75) | 1000(264.3)/1200(317.1) | 4.0/4.7 |
| 32 | 4" | 146(5.75) | 467(18.39) | 248(9.79) | 500(19.69) | 1600(422.9) | 5.7 | |



UNIT: M.M.(INCHES)

(FSS)

※GRAPHIC SYMBOL

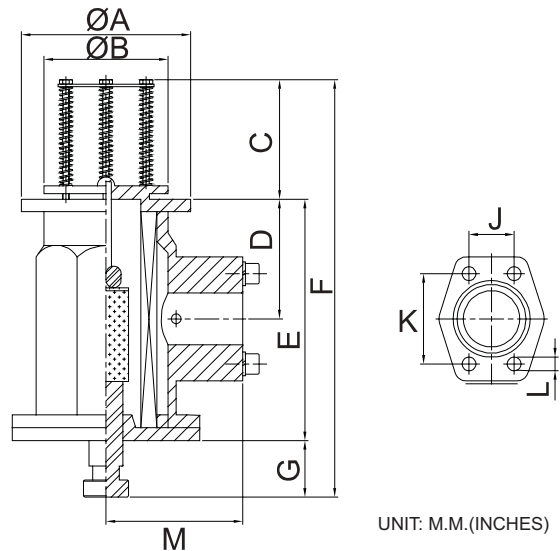
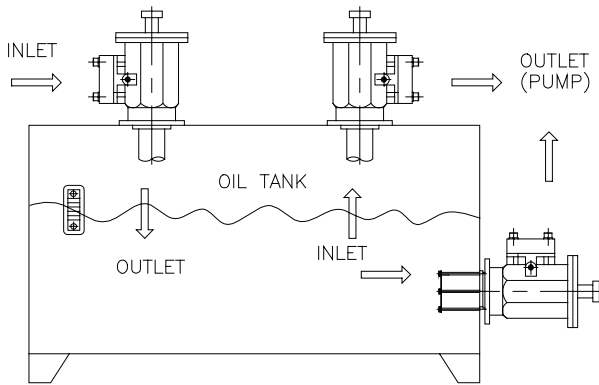
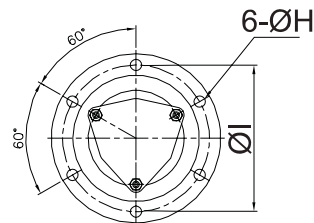


※MODEL NUMBER DISIGNATION

| FSS | 10 | (B) | M100 |
|------------|------------|------------------------------------|-------------------|
| SERIES NO. | PORT SIZE | TYPE OMIT: SUCTION B: RETURN | FILTER MEDIA |
| | 10: 1-1/4" | | WIRE MESH: |
| | 12: 1-1/2" | | M100, M120, M150, |
| | 1602: 2" | | M200, M400, M600, |
| | 16: 2" | | M800 |
| | 20: 2-1/2" | | FIBER MICRON: |
| | 24: 3" | | FC3, FC10, FC25 |
| 28: 3-1/2" | | | |
| 32: 4" | | | |



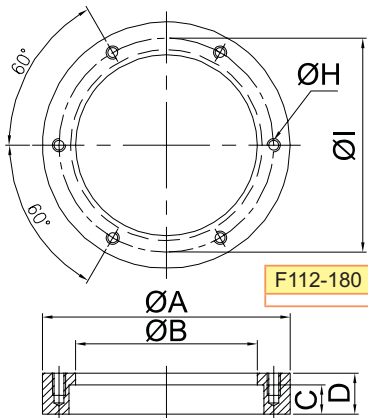
FSS



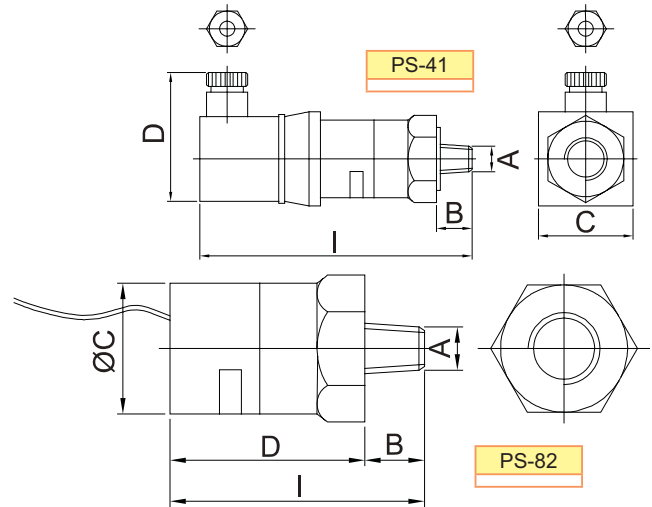
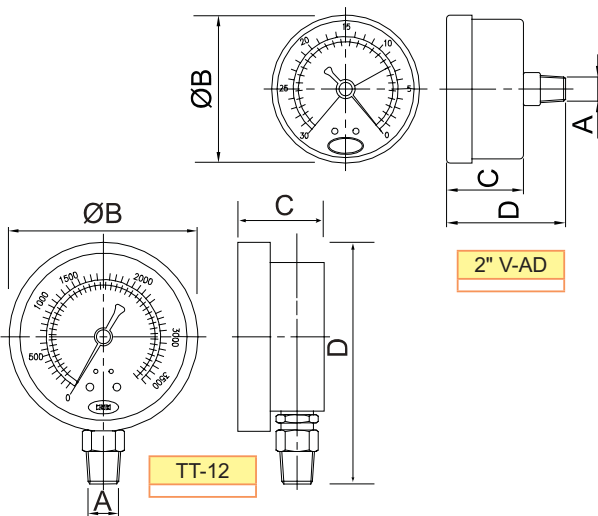
UNIT: M.M.(INCHES)

※SPECIFICATION

| Model | Flange | Flow ℓ/min(GPM) | A | B | C | D | E | F | G | H | I | J | K | L | M | Bolts | Weight (Kg) | Usage |
|-----------|--------|--------------------|---------------|---------------|---------------|---------------|----------------|----------------|--------------|--------------|---------------|--------------|---------------|--------------|---------------|------------------|----------------|---------|
| FSS-10 | 1-1/4" | 250(66.0) | | | | | | | | | | | | | | M8 × 25 × 6 pcs | 6.5 | Suction |
| FSS-12 | 1-1/2" | 300(79.3) | 166 (6.54) | 112 (4.41) | 120 (4.72) | 110 (4.33) | 215 (8.46) | 335 (13.19) | 45 (1.77) | 10 (0.39) | 130 (5.12) | 43 (1.69) | 78 (3.07) | 13 (0.51) | 87 (3.43) | | 6.4 | |
| FSS-1602 | 2" | 320(84.5) | | | | | | | | | | | | | | | 6.3 | |
| FSS-16 | 2" | 400(105.7) | | | | | | | | | | | | | | | 10.6 | |
| FSS-20 | 2-1/2" | 550(145.3) | 220 (8.66) | 120 (4.72) | 120 (4.72) | 120 (4.72) | 235 (9.25) | 335 (13.19) | 45 (1.77) | 13 (0.51) | 180 (7.09) | 62 (2.44) | 106 (4.17) | 18 (0.71) | 112 (4.41) | M10 × 35 × 6 pcs | 10.2 | |
| FSS-24 | 3" | 700(184.9) | | | | | | | | | | | | | | | 9.6 | |
| FSS-28 | 3-1/2" | 760(200.8) | 242 (9.53) | 180 (7.09) | 120 (4.72) | 120 (4.72) | 262 (10.31) | 382 (15.04) | 45 (1.77) | 15 (0.59) | 210 (8.27) | 78 (3.07) | 130 (5.12) | 18 (0.71) | 125 (4.92) | M12 × 35 × 6 pcs | 13.8 | |
| FSS-32 | 4" | 820(216.6) | | | | | | | | | | | | | | | 13 | |
| Model | Flange | Flow ℓ/min(GPM) | A | B | C | D | E | F | G | H | I | J | K | L | M | Bolts | Weight (Kg) | Usage |
| FSS-10B | 1-1/4" | 160(42.2) | | | | | | | | | | | | | | M8 × 25 × 6 pcs | 6.5 | Return |
| FSS-12B | 1-1/2" | 210(55.5) | 166 (6.54) | 112 (4.41) | 120 (4.72) | 110 (4.33) | 215 (8.46) | 335 (13.19) | 45 (1.77) | 10 (0.39) | 130 (5.12) | 43 (1.69) | 78 (3.07) | 13 (0.51) | 87 (3.43) | | 6.4 | |
| FSS-1602B | 2" | 250(66.0) | | | | | | | | | | | | | | | 6.3 | |
| FSS-16B | 2" | 300(79.3) | | | | | | | | | | | | | | | 10.6 | |
| FSS-20B | 2-1/2" | 400(105.7) | 220 (8.66) | 120 (4.72) | 120 (4.72) | 120 (4.72) | 235 (9.25) | 335 (13.19) | 45 (1.77) | 13 (0.51) | 180 (7.09) | 62 (2.44) | 106 (4.17) | 18 (0.71) | 112 (4.41) | M10 × 35 × 6 pcs | 10.2 | |
| FSS-24B | 3" | 520(137.4) | | | | | | | | | | | | | | | 9.6 | |
| FSS-28B | 3-1/2" | 570(150.6) | 242 (9.53) | 180 (7.09) | 120 (4.72) | 120 (4.72) | 262 (10.31) | 382 (15.04) | 45 (1.77) | 15 (0.59) | 210 (8.27) | 78 (3.07) | 130 (5.12) | 18 (0.71) | 125 (4.92) | M12 × 35 × 6 pcs | 13.8 | |
| FSS-32B | 4" | 630(166.4) | | | | | | | | | | | | | | | 13 | |



[F 1 2, P S, V-AD]



UNIT: M.M.(INCHES)

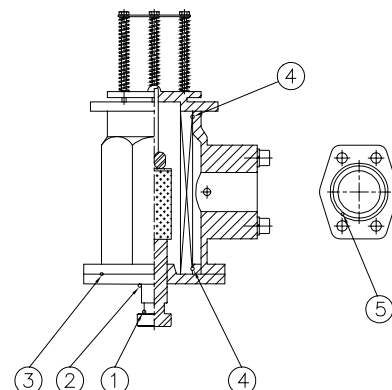
※SPECIFICATION

| Model | Description | A | B | C | D | H Screw Thd. | I Type of Fixing P.C.D. | Usage | Weight (kg) |
|---------|--------------------------|--------------|-----------|----------|----------|-----------------|----------------------------|--------------------|----------------|
| F-112 | Fix Flange (Six Port) | 150(5.91) | 112(4.41) | 15(0.59) | 20(0.79) | M8 | 6Hole×Ø130 | FSS-10(B)~1602(B) | 1.1 |
| F-150 | | 210(8.27) | 150(5.91) | 22(0.87) | 28(1.10) | M10 | 6Hole×Ø180 | FSS-16(B)~24(B) | 3.48 |
| F-180 | | 242(9.53) | 180(7.09) | 22(0.87) | 28(1.10) | M12 | 6Hole×Ø210 | FSS-28(B)~32(B) | 4.22 |
| 2" V-AD | Vacuum Gauge | 1/4" (Rc/PT) | 53(2.09) | 28(1.10) | 44(1.73) | --- | --- | FSS-10~32 Suction | 0.1 |
| PS-82 | Vacuum Switch | 1/4" (Rc/PT) | 14(0.55) | 28(1.10) | 38(1.50) | --- | 52 | FSS-10~32 Suction | 0.08 |
| TT-12 | Pressure Gauge | 1/8" (Rc/PT) | 42(1.65) | 23(0.91) | 60(2.36) | --- | --- | FSS-10B~32B Return | 0.06 |
| PS-41 | Pressure Switch | 1/8" (Rc/PT) | 13(0.51) | 31(1.22) | 48(1.89) | --- | 88 | FSS-10B~32B Return | 0.1 |

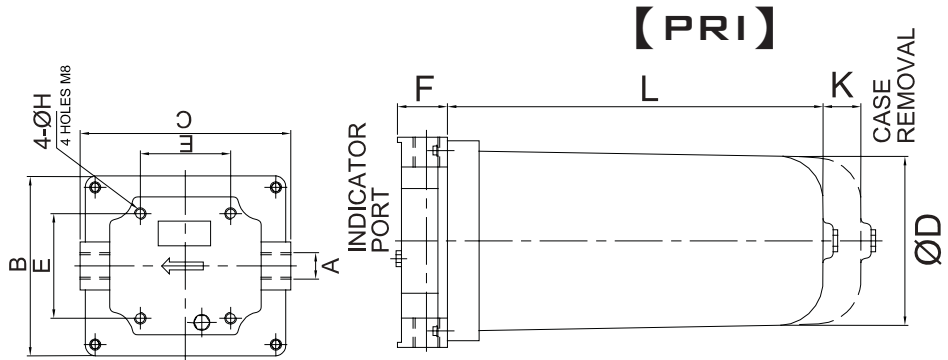
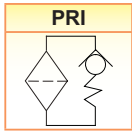
O-RING FOR "FSS" FILTERS

※SPECIFICATION

| Model | Filter Area CM ² | | O-RING | | | | | Element |
|----------|--------------------------------|--------|------------|------|------------|------------|-------|-----------|
| | Suction | Return | 1 | 2 | 3 | 4 | 5 | |
| FSS-10 | 2,320 | 2,910 | AS 568-121 | P-38 | G-120 | G-90 | G-65 | Ø90×199L |
| FSS-12 | | | AS 568-121 | P-38 | G-120 | G-90 | G-65 | |
| FSS-1602 | | | AS 568-121 | P-38 | G-120 | G-90 | G-65 | |
| FSS-16 | 3,498 | 4,134 | AS 568-121 | P-38 | AS 568-261 | AS 568-250 | G-85 | Ø127×217L |
| FSS-20 | | | AS 568-121 | P-38 | AS 568-261 | AS 568-250 | G-85 | |
| FSS-24 | | | AS 568-121 | P-38 | AS 568-261 | AS 568-250 | G-85 | |
| FSS-32 | 4,302 | 5,019 | AS 568-121 | P-38 | G-190 | AS 568-254 | G-115 | Ø140×244L |



※GRAPHIC SYMBOL



※MODEL NUMBER DISIGNATION

| | | | |
|------------|---------------------------------------|---------------------------------|--|
| PRI | 10 | Y | M100 |
| SERIES NO. | PORT SIZE 10: 1-1/4" 12: 1-1/2" | TYPE N: SUCTION Y: RETURN | FILTER MEDIA WIRE(MESH): M100, M120, M150, M200, M400, M600, M800 FIBER(MICRON): FC3, FC10, FC25 SEPARATION(MICRON): FP1 |

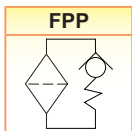


※SPECIFICATION

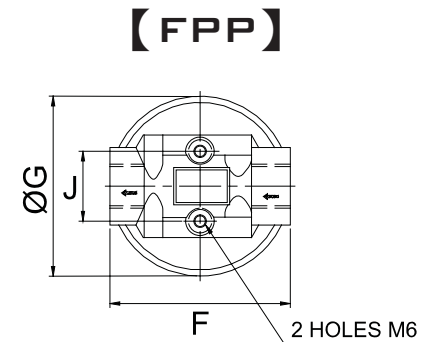
UNIT: M.M.(INCHES)

| Model | ØA (Rc/PT) | B | C | D | E | F | K | L | Flow ℓ/min(GPM) | Max. Pres. MPa(Psi) | Weight (kg) |
|--------|------------|--------|--------|--------|--------|--------|--------|--------|--------------------|------------------------|----------------|
| PRI-06 | 3/4" | 114 | 131 | 100 | 45x80 | 48 | 25 | 166 | 110 | 7 (1015) | 2.8 |
| PRI-08 | 1" | 114 | 131 | 100 | 45x80 | 48 | 25 | 166 | 110 | | 2.8 |
| PRI-10 | 1-1/4" | 134 | 140 | 112 | 68 | 67 | 25 | 236 | 320(84.5) | 4.5 | |
| PRI-12 | 1-1/2" | (5.28) | (5.51) | (4.41) | (2.68) | (2.64) | (0.98) | (9.29) | 350(92.5) | | |

※GRAPHIC SYMBOL

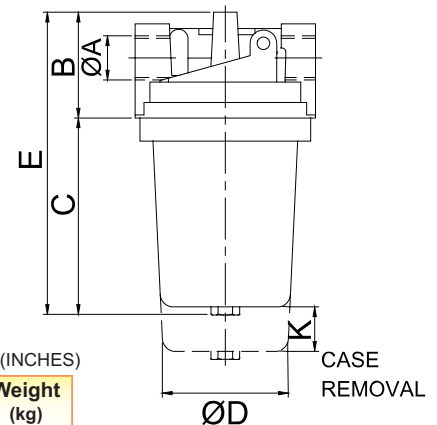


FPP



※MODEL NUMBER DISIGNATION

| | | | |
|------------|--------------------------------|---------------------------------|--|
| FPP | 06 | Y | M100 |
| SERIES NO. | PORT SIZE 06 3/4" 08: 1" | TYPE N: SUCTION Y: RETURN | FILTER MEDIA WIRE(MESH): M100, M120, M150, M200, M400, M600, M800 FIBER(MICRON): FC3, FC10, FC25 SEPARATION(MICRON): FP1 |



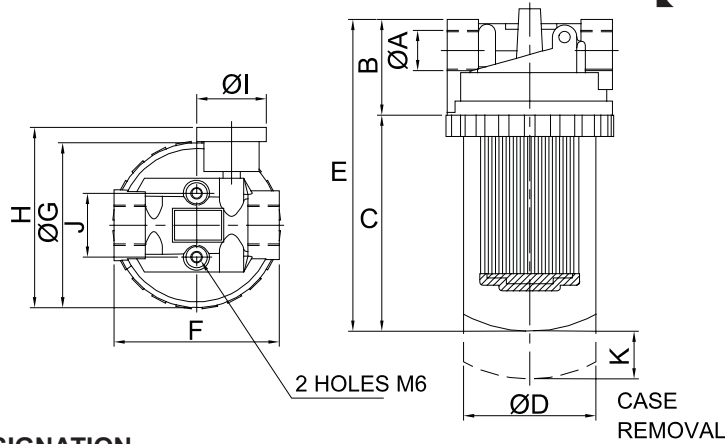
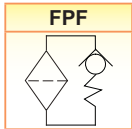
※SPECIFICATION

UNIT: M.M.(INCHES)

| Model | ØA (Rc/PT) | B | C | ØD | E | F | ØG | J | K | Flow ℓ/min(GPM) | Max. Pres. MPa(Psi) | Weight (kg) |
|--------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|------------------------|----------------|
| FPP-06 | 3/4" | 70 | 163 | 95 | 233 | 114 | 115 | 44 | 25 | 110(29.1) | 3(435) | 2.0 |
| FPP-08 | 1" | (2.76) | (6.42) | (3.74) | (9.17) | (4.49) | (4.53) | (1.73) | (0.98) | 120(31.7) | | |

[FPF]

※GRAPHIC SYMBOL



FPF

※MODEL NUMBER DISIGNATION

| FPF | 06 | Y | M100 |
|------------|--------------------------------|---------------------------------|--|
| SERIES NO. | PORT SIZE 06 3/4" 08: 1" | TYPE N: SUCTION Y: RETURN | FILTER MEDIA WIRE(MESH): M100, M120, M150, M200, M400, M600, M800 FIBER(MICRON): FC3, FC10, FC25 SEPARATION(MICRON): FP1 |

UNIT: M.M.(INCHES)

※SPECIFICATION

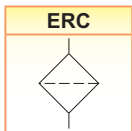
| Model | ØA (Rc/PT) | B | C | ØD | E | F | ØG | H | I | J | K | Flow ℓ/min(GPM) | Max. Pres. MPa(Psi) | Weight (kg) |
|--------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|------------------------|----------------|
| FPF-06 | 3/4" | 65 | 153 | 93 | 218 | 114 | 116 | 127 | 42 | 44 | 25 | 70(18.5) | 1(145) | 1.34 |
| FPF-08 | 1" | (2.56) | (6.02) | (3.66) | (8.58) | (4.49) | (4.57) | (5.00) | (1.65) | (1.73) | (0.98) | 90(23.8) | | |

TANK TYPE [ERC]

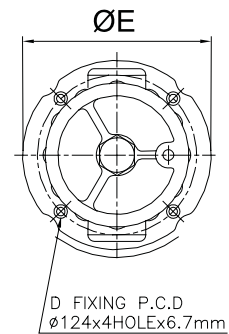
※SPECIFICATION

| Model | ØA (Rc/PT) | B | C | ØD | E | Filtration (Micron) | Flow ℓ/min(GPM) | Max. Pres. MPa(Psi) | Weight (kg) |
|--------|------------|--------|--------|--------|--------|---------------------|--------------------|------------------------|----------------|
| FPF-01 | 1/8" | 24 | 85 | 46 | 73 | 10 | 2.3(0.6) | 1(145) | 0.14 |
| FPF-02 | 1/4" | (0.94) | (3.35) | (1.81) | (2.87) | | | | |

※GRAPHIC SYMBOL

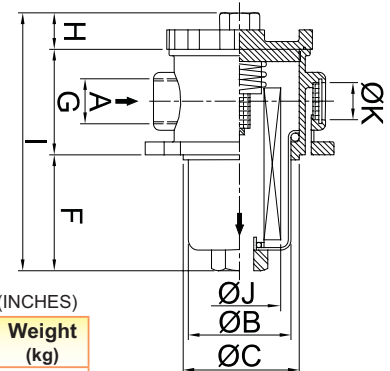


ERC



※MODEL NUMBER DISIGNATION

| ERC | 06 | M100 |
|------------|--------------------------------|--|
| SERIES NO. | PORT SIZE 06 3/4" 08: 1" | FILTER MEDIA WIRE(MESH): M100, M120, M150, M200, M400, M600, M800 FIBER(MICRON): FC3, FC10, FC25 |



※SPECIFICATION

UNIT: M.M.(INCHES)

| Model | ØA (PT) | ØB | ØC | D | ØE | F | G | H | I | J | ØK | Flow ℓ/min(GPM) | Max. Pres. MPa(Psi) | Weight (kg) |
|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|------------------------|----------------|
| ERC-06 | 3/4" | 80 | 88 | 124 | 147 | 90 | 82 | 24 | 196 | 70 | 36 | 70(18.5) | 2(290) | 1.8 |
| ERC-08 | 1" | (3.15) | (3.46) | (4.88) | (5.79) | (3.54) | (3.23) | (0.94) | (7.72) | (2.76) | (1.42) | 90(23.8) | | |

SPIN-ON FILTER ELEMENT [WIX]



WIX-06



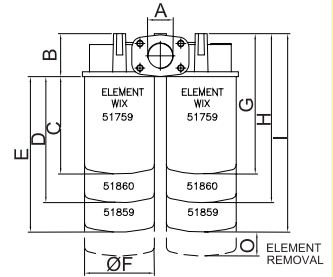
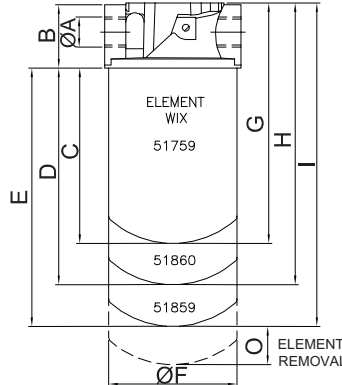
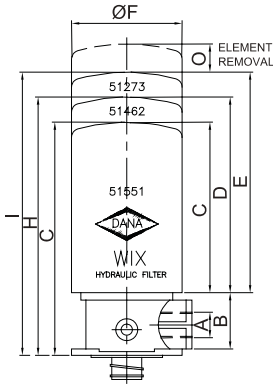
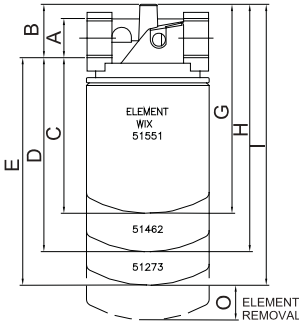
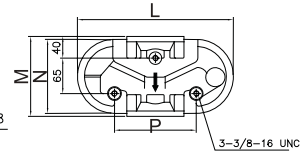
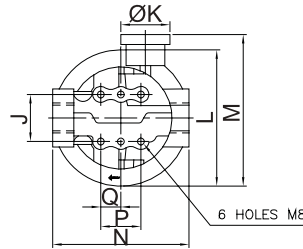
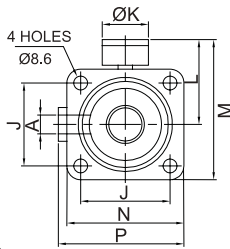
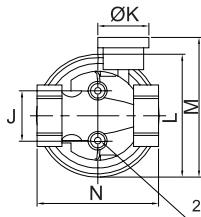
WIX-06F



WIX-10



WIX-12AT



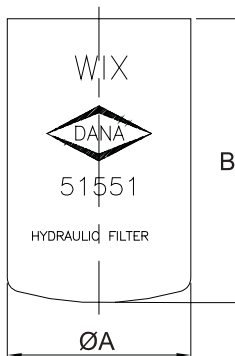
※SPECIFICATION

UNIT: M.M.(INCHES)

| Model | A (Rc/PT) | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|----------|--------------|--------------|---------------|---------------|----------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|---------------|---------------|--------------|---------------|----------------|
| WIX-06 | 3/4" | 53 (2.09) | 135 (5.31) | 178 (7.00) | 215 (8.46) | 93 (3.66) | 188 (7.40) | 231 (9.09) | 268 (10.55) | 38 (1.496) | 38 (1.496) | 80 (3.15) | 105 (4.13) | 93 (3.66) | 25 (0.98) | --- | --- |
| WIX-08 | 1" | 53 (2.09) | 135 (5.31) | 178 (7.00) | 215 (8.46) | 93 (3.66) | 188 (7.40) | 231 (9.09) | 268 (10.55) | 38 (1.496) | 38 (1.496) | 80 (3.15) | 105 (4.13) | 93 (3.66) | 25 (0.98) | --- | --- |
| WIX-10 | 1-1/4" | 65 (2.56) | 167 (6.57) | 230 (9.06) | 286 (11.26) | 127 (5.00) | 232 (9.13) | 295 (11.61) | 351 (13.82) | 47 (1.85) | 38 (1.496) | 136 (5.35) | 150 (5.91) | 136 (5.35) | 45 (1.77) | 37 (1.46) | 18.5 (0.73) |
| WIX-06F | 3/4" | 49 (1.93) | 135 (5.31) | 178 (7.00) | 215 (8.46) | 93 (3.66) | 184 (7.24) | 227 (8.94) | 264 (10.39) | 71 (2.80) | 38 (1.496) | 92 (3.62) | 135 (5.31) | 89 (3.50) | --- | 95 (3.74) | --- |
| WIX-12AT | 1-1/2" | 77 (3.03) | 167 (6.57) | 230 (9.06) | 286 (11.26) | 127 (5.00) | 244 (0.61) | 307 (12.09) | 363 (14.29) | 61 (2.40) | 38 (1.496) | 284 (11.18) | 165 (6.50) | 146 (5.75) | --- | 171 (6.73) | --- |

※SPECIFICATION

| Model | Port Size (Rc/PT) | ØA | B | Filtration Micron | Flow ℓ/min(GPM) |
|-----------|----------------------|---------------|-----------|----------------------|--------------------|
| WIX-51551 | 06: 3/4" | 93 (3.66) | 135(5.31) | 10 | 60(15.9) |
| WIX-51553 | 08: 1" | | 135(5.31) | 33 | 70(18.5) |
| WIX-51426 | | | 178(7.01) | 25 | 90(23.8) |
| WIX-51746 | | | 174(6.85) | 5 | 130(34.3) |
| WIX-51758 | | 127 (5.00) | 174(6.85) | 25 | 160(42.3) |
| WIX-51759 | 10: 1-1/4" | | 174(6.85) | 10 | 144(38.0) |
| WIX-51860 | 12: 1-1/2" | | 230(9.06) | 10 | 172(45.4) |
| WIX-51861 | | | 230(9.06) | 25 | 185(48.9) |



H

FILLER BREATHER FILTERS [HY]



HY-(*)-MJ
WITH MAGNETS



HY-08



HY-08S



HY-24



HY-06(T)



HY-12



HY-12B



HY-10

※GRAPHIC SYMBOL

HY-SERIES



※SPECIFICATION

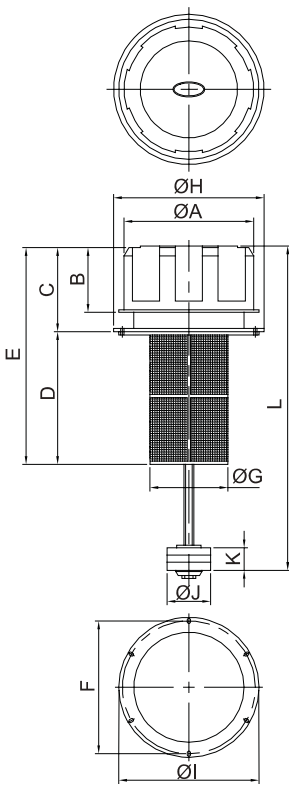
| MODEL | ØA | B | C | D | E | ØF TYPE OF P.C.D | ØG | ØH | ØI | ØJ | K | L | MATERIAL OF FILTER | WEIGHT (kg) |
|--------------------|----------|----------|----------|-----------|-----------|-------------------------------|----------|----------|----------|----------|----------|------------|-----------------------|----------------|
| HY-08-MJ | 80(3.15) | 39(1.54) | 52(2.05) | 83(3.27) | 135(5.31) | Ø71(2.79) 6 Hole×3/16(5mm) | 49(1.93) | 89(3.50) | 85(3.35) | 32(1.26) | 26(1.02) | 265(10.43) | PLASTIC PE MESH 40 | 0.28 |
| HY-08S-MJ | 80(3.15) | 39(1.54) | 52(2.05) | 83(3.27) | 135(5.31) | Ø71(2.79) 6 Hole×3/16(5mm) | 48(0.89) | 89(3.50) | 85(3.35) | 32(1.26) | 26(1.02) | 205(8.07) | SUS 304 MESH 40 | 0.28 |
| HY-12-MJ | 85(3.35) | 35(1.38) | 42(0.16) | 80(31.5) | 157(6.18) | WELDING | 48(0.89) | --- | --- | 32(1.26) | 26(1.02) | 228(8.98) | SUS 304 MESH 40 | 0.50 |
| HY-12B-MJ (45°) | 85(3.35) | 35(1.38) | 57(2.24) | 116(4.57) | 138(5.43) | WELDING | 48(0.89) | --- | --- | 32(1.26) | 26(1.02) | 208(8.19) | SUS 304 MESH 40 | 0.54 |

| MODEL | ØA | B | C | D | E | ØF TYPE OF P.C.D | ØG | ØH | ØI | FILTRATION MICRON | | FLOW RATE | | MATERIAL OF FILTER | WEIGHT (kg) |
|-----------------|-----------|----------|----------|-----------|------------|------------------------------------|----------|----------|----------|----------------------|-----|-----------------|-------------------|-----------------------|----------------|
| | | | | | | | | | | AIR | OIL | AIR (m³/min) | OIL ℓ/min(GPM) | | |
| HY-06 | 53(2.09) | 29(1.14) | 34(1.34) | 74(2.91) | 108(4.25) | Ø42(1.65) 3 Hole× 3/16(5mm) | 31(1.22) | 51(2.00) | 51(2.00) | 40 | 40 | 0.1 | 52(13.7) | SUS304 | 0.1 |
| HY-06T | 53(2.09) | 29(1.14) | 34(1.34) | 74(2.91) | 108(4.25) | Ø46(1.81) 3 Hole× 3/16(5mm) | 31(1.22) | 51(2.00) | 51(2.00) | | | 0.1 | 52(13.7) | SUS304 | 0.1 |
| HY-08 | 80(3.15) | 39(1.54) | 52(2.05) | 83(3.27) | 135(5.31) | Ø71(2.79) 6 Hole× 3/16(5mm) | 49(1.93) | 89(3.50) | 85(3.35) | | | 0.4 | 100(26.4) | PLASTIC PE | 0.24 |
| HY-08S | 80(3.15) | 39(1.54) | 52(2.05) | 83(3.27) | 135(5.31) | Ø71(2.79) 6 Hole× 3/16(5mm) | 48(0.89) | 89(3.50) | 85(3.35) | | | 0.4 | 100(26.4) | SUS304 | 0.24 |
| HY-10 | 80(3.15) | 39(1.54) | 50(1.97) | 139(5.47) | 189(3.50) | Ø78(3.07) 4 Hole× 3/16(5mm) | 48(0.89) | 89(3.50) | 88(3.46) | 40 | 500 | 0.4 | 170(44.9) | SECC | 0.36 |
| HY-12 | 85(3.35) | 35(1.38) | 42(1.65) | 80(3.15) | 157(6.18) | WELDING | 48(0.89) | 89(3.50) | 88(3.46) | | | 0.4 | 100(26.4) | SUS304 | 0.46 |
| HY-12B (45°) | 85(3.35) | 35(1.38) | 57(2.24) | 116(4.57) | 138(5.43) | | 48(0.89) | --- | --- | | | 0.4 | 100(26.4) | SUS304 | 0.55 |
| HY-24 | 137(5.39) | 35(1.38) | 60(2.36) | 209(8.23) | 269(10.59) | Ø120(4.72) 4 Hole× 5/16(8mm) | 48(0.89) | --- | --- | | | 0.4 | 100(26.4) | SECC | 1.34 |

UNIT: M.M.(INCHES)

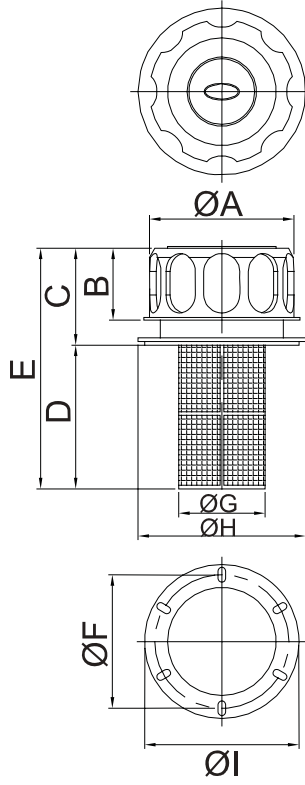
H

※DIMENSIONS



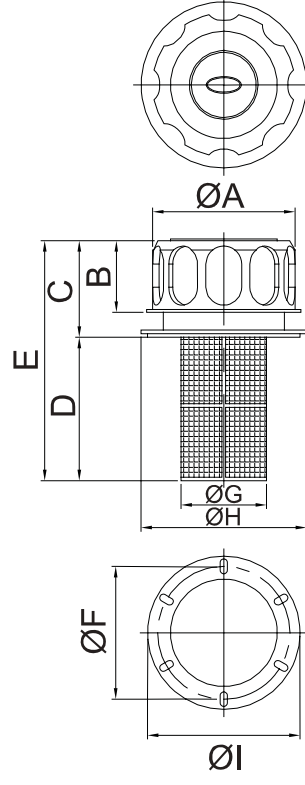
HY-(*)-MJ
WITH MAGNETS

HY-06(T)



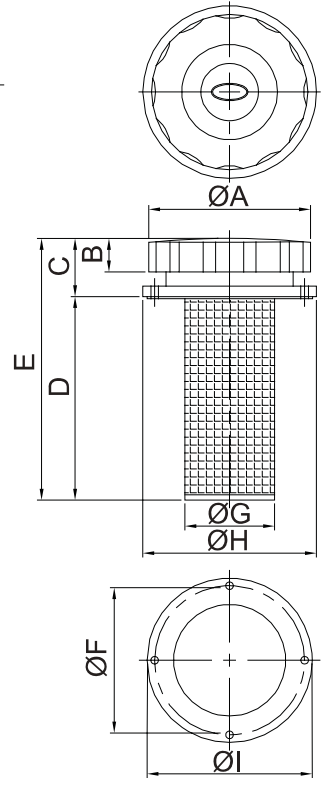
HY-08

HY-12



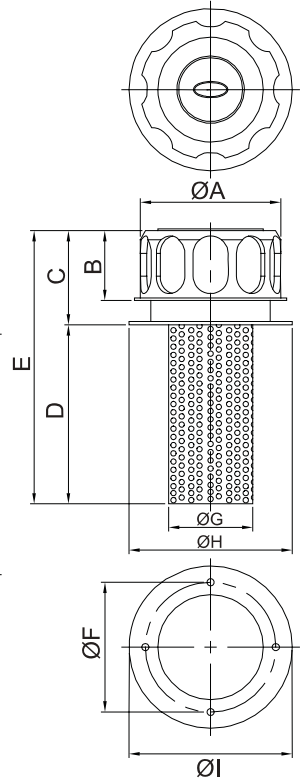
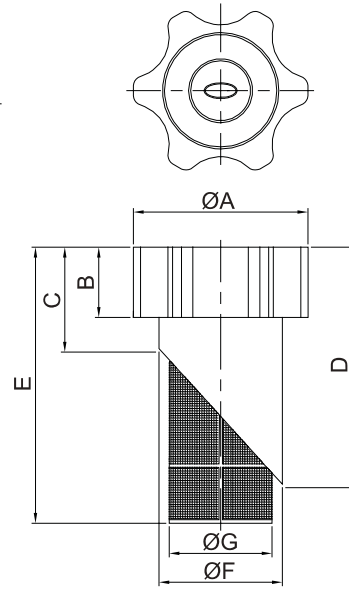
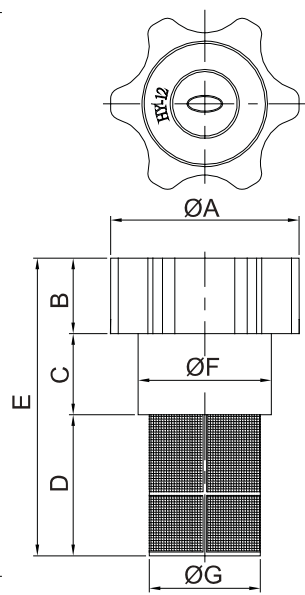
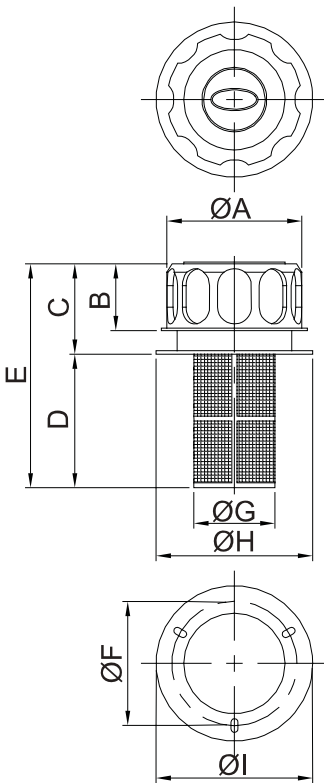
HY-08S

HY-12B

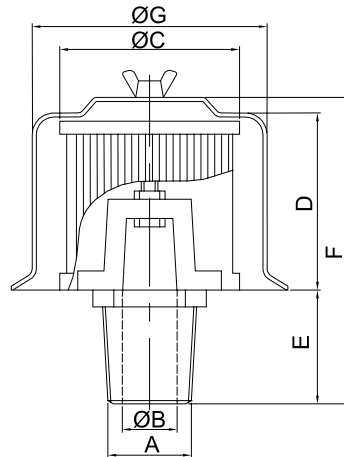
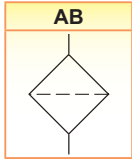


HY-24

HY-10



※GRAPHIC SYMBOL



AIR FILTERS [AB]



AB

UNIT: M.M.(INCHES)

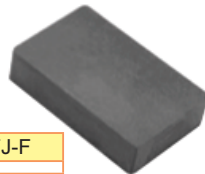
※SPECIFICATION

| MODEL | d | d1 | D | D1 | H1 | H2 | H | FILTRATION (mesh) | WEIGHT (kg) |
|-------|--------|-----------|-----------|-----------|-----------|----------|-----------|-------------------|-------------|
| AB-02 | 1/2" | 8(0.31) | 52(2.05) | 41(1.61) | 36(1.42) | 22(0.87) | 60(2.36) | 40 | 0.09 |
| AB-03 | 3/8" | 8(0.31) | 52(2.05) | 41(1.61) | 36(1.42) | 22(0.87) | 64(2.52) | | 0.11 |
| AB-04 | 1" | 19(0.75) | 80(3.15) | 51(2.01) | 49(1.93) | 27(1.06) | 81(3.19) | | 0.20 |
| AB-06 | 3/4" | 19(0.75) | 80(3.15) | 51(2.01) | 49(1.93) | 27(1.06) | 81(3.19) | | 0.20 |
| AB-08 | 1-1/4" | 25(0.98) | 100(3.94) | 60(2.36) | 64(2.52) | 36(1.42) | 98(3.86) | | 0.28 |
| AB-12 | 1-1/2" | 48(1.89) | 130(5.12) | 92(3.62) | 90(3.54) | 37(1.46) | 130(5.12) | | 0.60 |
| AB-16 | 2" | 48(1.89) | 130(5.12) | 92(3.62) | 90(3.54) | 37(1.46) | 130(5.12) | | 0.64 |
| AB-20 | 2-1/2" | 61(2.40) | 187(7.36) | 150(5.91) | 115(4.53) | 59(2.32) | 174(6.85) | | 1.52 |
| AB-24 | 3" | 61(2.40) | 187(7.36) | 150(5.91) | 115(4.53) | 59(2.32) | 174(6.85) | | 1.41 |
| AB-32 | 4" | 113(4.45) | 210(8.27) | 165(6.50) | 140(5.51) | 50(1.97) | 193(7.60) | | 1.76 |

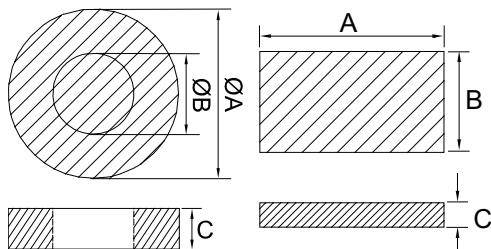
MAGNETS [FJ]



FJ-T



FJ-F



※SPECIFICATION

UNIT: M.M.(INCHES)

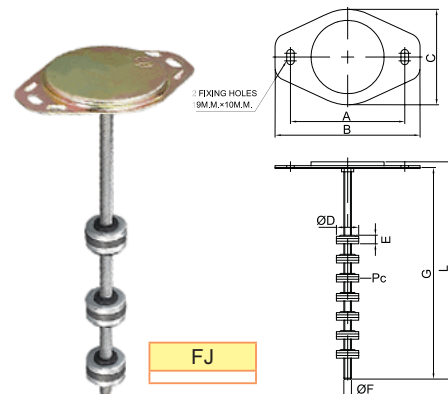
| MODEL | A | B | C | WEIGHT (kg) | |
|----------|---------|-----------|----------|-------------|------|
| CIRCULAR | FJ-32T | 32(1.26) | 18(0.71) | 6(0.24) | 0.02 |
| | FJ-45T | 45(1.77) | 22(0.87) | 8(0.31) | 0.05 |
| | FJ-60T | 60(2.36) | 32(1.26) | 10(0.39) | 0.1 |
| | FJ-70T | 70(2.76) | 32(1.26) | 10(0.39) | 0.15 |
| | FJ-80T | 80(3.15) | 40(1.57) | 12(0.47) | 0.23 |
| | FJ-100T | 100(3.94) | 60(2.36) | 15(0.59) | 0.36 |
| SQUARE | FJ-40F | 40(1.57) | 25(0.98) | 10(0.39) | 0.05 |

RESERVOIR MAGNET TANK FLANGE [FJ]

※SPECIFICATION

UNIT: M.M.(INCHES)

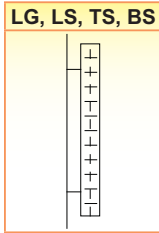
| MODEL | A | B | C | ØD | E | ØF | G | L | MAGNETS (Pcs) |
|-------------|--------|--------|--------|--------|--------|--------|-------------|-------------|---------------|
| FJ-200-2P | | | | | | | 200(7.87) | 209(8.23) | 2 |
| FJ-300-3P | | | | | | | 300(11.81) | 309(12.17) | 3 |
| FJ-400-5P | | | | | | | 400(15.75) | 409(16.10) | 5 |
| FJ-500-6P | 120 | 142 | 102 | 32 | 26 | 8 | 500(19.69) | 509(20.04) | 6 |
| FJ-600-7P | (4.72) | (5.59) | (4.72) | (1.26) | (1.02) | (0.04) | 600(23.62) | 609(23.98) | 7 |
| FJ-700-8P | | | | | | | 700(27.56) | 709(27.91) | 8 |
| FJ-800-10P | | | | | | | 800(31.50) | 809(31.85) | 10 |
| FJ-1000-13P | | | | | | | 1000(39.37) | 1009(39.72) | 13 |



FJ

(LS, LG, BS, TS)

※GRAPHIC SYMBOL



LG



LS



TS

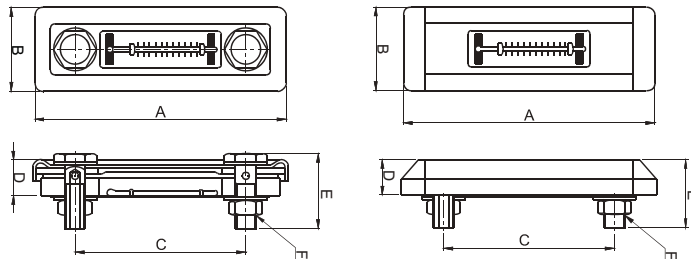


BS

※SPECIFICATION

| MODEL | A | B | C | D | E | F | WEIGHT (kg) |
|--------|------------|----------|------------|----------|----------|-----------|-------------|
| LS-3" | 118(4.65) | 42(1.65) | 79(3.11) | 18(0.71) | 41(1.61) | M10XP1.5 | 0.19 |
| LS-5" | 182(7.17) | 51(2.01) | 127(5.00) | 20(0.79) | 45(1.77) | M12XP1.75 | 0.33 |
| TS-3" | 101(3.98) | 36(1.42) | 76.2(3.00) | 19(0.75) | 38(1.50) | M10XP1.5 | 0.09 |
| TS-5" | 151(5.94) | 36(1.42) | 127(5.00) | 19(0.75) | 38(1.50) | M10XP1.5 | 0.12 |
| BS-3" | 104(4.09) | 36(1.42) | 76.2(3.00) | 20(0.79) | 38(1.50) | M10XP1.5 | 0.10 |
| BS-5" | 155(6.10) | 36(1.42) | 127(5.00) | 20(0.79) | 38(1.50) | M10XP1.5 | 0.14 |
| LG-3" | 106(4.17) | 25(0.98) | 75(2.95) | 13(0.51) | 46(1.81) | M10XP1.5 | 0.12 |
| LG-4" | 130(5.12) | 25(0.98) | 100(3.97) | 13(0.51) | 46(1.81) | M10XP1.5 | 0.13 |
| LG-5" | 156(6.14) | 25(0.98) | 127(5.00) | 13(0.51) | 46(1.81) | M10XP1.5 | 0.14 |
| LG-200 | 230(9.06) | 28(1.10) | 200(7.87) | 25(0.98) | 58(2.28) | M12XP1.75 | 0.31 |
| LG-300 | 330(12.99) | 28(1.10) | 300(11.81) | 25(0.98) | 58(2.28) | M12XP1.75 | 0.39 |
| LG-400 | 430(16.93) | 28(1.10) | 400(15.75) | 25(0.98) | 68(2.68) | M12XP1.75 | 0.46 |
| LG-500 | 530(20.87) | 28(1.10) | 500(19.69) | 25(0.98) | 68(2.68) | M12XP1.75 | 0.55 |

※DIMENSIONS

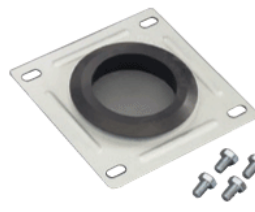
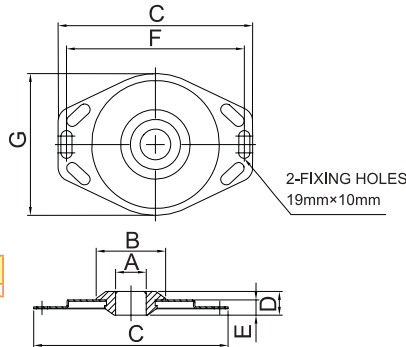


UNIT: M.M.(INCHES)

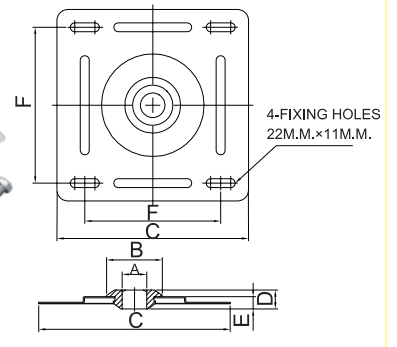
TANK FLANGES FOR SUCTION FILTER (NTT, NTF)



NTT



NTF



UNIT: M.M.(INCHES)

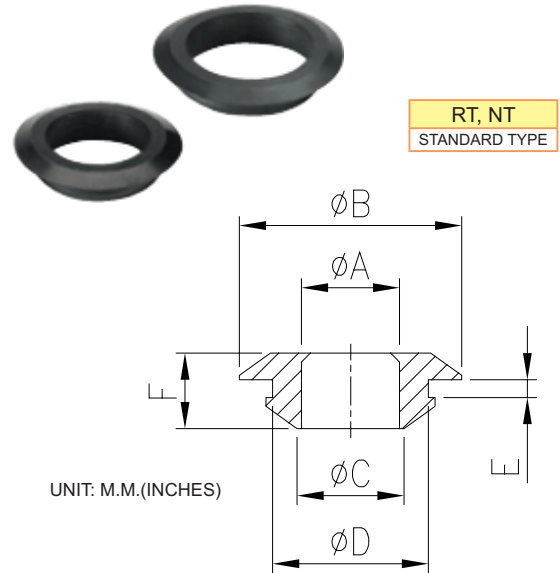
※SPECIFICATION

| MODEL | ØA (inch) | ØB (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | Max. Tank Cut Out (mm) | WEIGHT (kg) |
|--------|-----------|---------|--------|--------|--------|--------|--------|------------------------|-------------|
| NTT-03 | 3/8" | 34 | 142 | 17 | 14 | 120 | 102 | 92 | 0.14 |
| NTT-04 | 1/2" | 40 | | | | | | | |
| NTT-06 | 3/4" | 49 | | | | | | | |
| NTT-08 | 1" | 60 | | | | | | | |
| NTT-10 | 1-1/4" | 70 | | | | | | | |
| NTT-12 | 1-1/2" | 80 | | | | | | | |
| NTF-08 | 1" | 60 | 185 | 17 | 12 | 150 | --- | 170 | 0.64 |
| NTF-10 | 1-1/4" | 70 | | | | | | | |
| NTF-12 | 1-1/2" | 80 | | | | | | | |
| NTF-16 | 2" | 90 | | | | | | | |
| NTF-20 | 2-1/2" | 116 | | | | | | | |
| NTF-24 | 3" | 130 | | | | | | | |
| NTF-32 | 4" | 160 | 260 | 32 | 19 | 220 | 230 | 1.18 | |

DUST SEAL FOR PIPING [NT, NE]

※SPECIFICATION

| MODEL | ØA INCH | B | C | D | E | F | USAGE |
|-------|------------|-----------|-----------|-----------|----------|----------|---------------|
| RT-03 | 3/8" | 26(1.02) | 15(0.59) | 17(0.67) | 7(0.28) | 18(0.71) | BRASS TUBE |
| RT-04 | 1/2" | 32(1.26) | 18(0.71) | 20(0.79) | | | |
| NT-03 | 3/8" | 34(1.34) | 24(0.84) | 28(1.10) | 6(0.24) | 17(0.67) | ZINCE PIPE |
| NT-04 | 1/2" | 40(1.57) | 28(1.10) | 32(1.26) | | | |
| NT-06 | 3/4" | 50(1.97) | 34(1.34) | 38(1.50) | | | |
| NT-08 | 1" | 60(2.36) | 42(1.65) | 46(1.81) | | | |
| NT-10 | 1-1/4" | 70(2.76) | 50(1.97) | 54(2.13) | | | |
| NT-12 | 1-1/2" | 80(3.15) | 55(2.17) | 59(2.32) | | | |
| NT-16 | 2" | 96(3.78) | 69(2.72) | 72(2.83) | 17(0.67) | 28(1.10) | |
| NT-20 | 2-1/2" | 116(4.57) | 85(3.35) | 88(3.46) | | | |
| NT-24 | 3" | 130(5.12) | 99(3.90) | 102(4.01) | | | |
| NT-32 | 4" | 160(6.30) | 118(4.65) | 124(4.88) | 19(0.75) | 32(1.26) | |

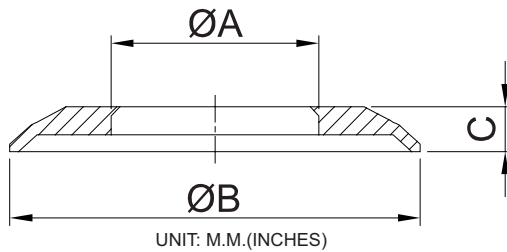


H

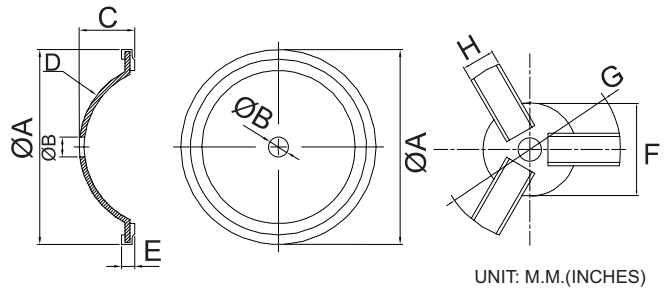


※SPECIFICATION

| MODEL | A INCH | B | C | USAGE |
|-------|-----------|-----------|---------|---------------|
| RE-02 | 1/4" | 17(0.67) | 5(0.20) | BRASS TUBE |
| RE-03 | 3/8" | 25(0.98) | | |
| NE-03 | 3/8" | 41(1.61) | 7(0.28) | ZINCE PIPE |
| NE-04 | 1/2" | 45(1.77) | | |
| NE-06 | 3/4" | 56(2.20) | | |
| NE-08 | 1" | 64(2.52) | | |
| NE-10 | 1-1/4" | 72(2.83) | | |
| NE-12 | 1-1/2" | 82(3.23) | | |
| NE-16 | 2" | 100(3.94) | 2-1/2" | 116(4.57) |
| NE-20 | 2-1/2" | 116(4.57) | | |



TANK SIDE COVERS [THY]

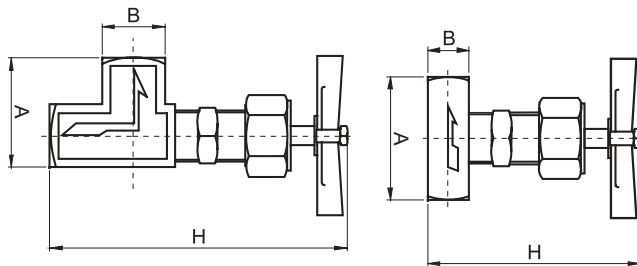
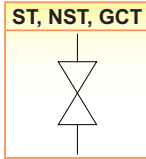


※SPECIFICATION

| MODEL | ØA INCH | B | C | D | E | F | G | H | Cutting | Weight (kg) |
|--------|------------|----------|----------|-----------|----------|------------|------------|------------|-----------|----------------|
| THY-08 | 210(8") | 16(0.63) | 40(1.57) | 4.5(0.18) | 17(0.67) | 115(4.53) | 182(7.17) | 26.5(1.04) | 160(6.03) | 2.88 |
| THY-10 | 260(10") | | 41(1.61) | | | | 248(9.76) | | 210(8.27) | 3.70 |
| THY-12 | 310(12") | | 47(1.85) | | | 316(12.44) | 250(0.84) | | 5.12 | |
| THY-14 | 367(14") | | 47(1.85) | | | 368(14.49) | 300(11.81) | | 6.28 | |
| THY-18 | 465(18") | | 68(2.68) | | | 452(17.79) | 400(15.74) | | 9.12 | |

NEEDLE VALVES [ST, NST, GCT]

※GRAPHIC SYMBOL

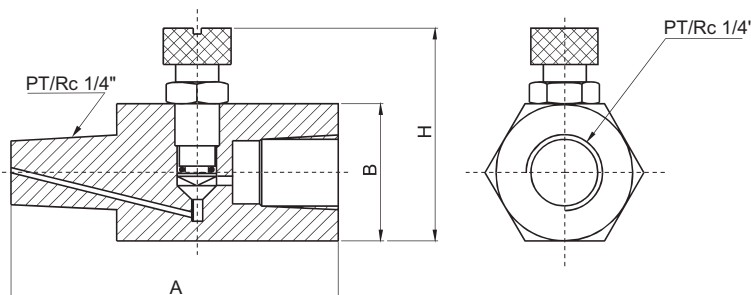


※SPECIFICATION

UNIT: M.M.(INCHES)

| MODEL | (Rc/PT) | A | B | H | FLOW | MAX. PRES. | WEIGHT |
|-----------|---------|----------|----------|------------|------------|------------|--------|
| | | | | FULLY OPEN | ℓ/min(GPM) | MPa(Pa) | (kg) |
| ST-02 | 1/4" | 49(1.93) | 25(0.98) | 96(3.78) | 2(0.5) | 21(3045) | 0.3 |
| ST-03 | 3/8" | 49(1.93) | 25(0.98) | 96(3.78) | 21(5.5) | | 0.3 |
| ST-04 | 1/2" | 64(2.52) | 32(1.26) | 118(4.65) | 30(7.9) | | 0.64 |
| ST-02-90 | 1/4" | 42(1.65) | 24(0.94) | 111(4.37) | 2(0.5) | | 0.34 |
| ST-03-90 | 3/8" | 42(1.65) | 24(0.94) | 111(4.37) | 21(5.5) | | 0.34 |
| NST-02 | 1/4" | 51(2.01) | 22(0.87) | 94(3.70) | 2(0.5) | 25(3603) | 0.28 |
| NST-03 | 3/8" | 51(2.01) | 22(0.87) | 94(3.70) | 21(5.5) | | 0.28 |
| NST-02-90 | 1/4" | 37(1.46) | 22(0.87) | 110(4.33) | 2(0.5) | | 0.32 |
| NST-03-90 | 3/8" | 37(1.46) | 22(0.87) | 110(4.33) | 21(5.5) | | 0.32 |
| GCT-02 | 1/4" | 51(2.01) | 22(0.87) | 100(3.94) | 2(0.5) | 35(5075) | 0.28 |
| GCT-03 | 3/8" | 51(2.01) | 22(0.87) | 100(3.94) | 21(5.5) | | 0.28 |
| GCT-04 | 1/2" | 65(2.56) | 32(1.26) | 125(4.92) | 30(7.9) | | 0.7 |
| GCT-06 | 3/4" | 80(3.15) | 38(1.50) | 151(5.94) | 100(26.4) | | 1.10 |
| GCT-08 | 1" | 95(3.74) | 51(2.01) | 164(6.46) | 300(79.2) | | 2.30 |
| GCT-02-90 | 1/4" | 37(1.46) | 22(0.87) | 122(4.80) | 2(0.5) | | 0.32 |
| GCT-03-90 | 3/8" | 37(1.46) | 22(0.87) | 122(4.80) | 21(5.5) | | |

GAUGE DAMPERS [NU]



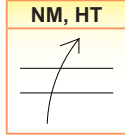
※SPECIFICATION

UNIT: M.M.(INCHES)

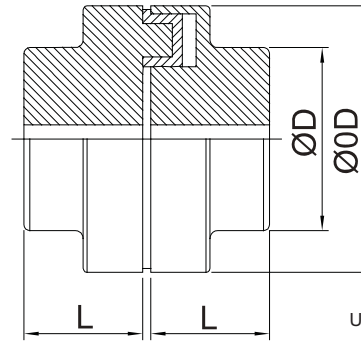
| MODEL | (Rc/PT) | A | B | H | FLOW | MAX. PRES. | WEIGHT |
|-------|---------|----------|----------|----------|------------|------------|--------|
| | | | | | ℓ/min(GPM) | MPa(Pa) | (kg) |
| NU-02 | 1/4" | 44(1.73) | 21(0.83) | 32(1.26) | 0.5(0.13) | 21(3045) | 0.11 |
| NU-03 | 3/8" | 45(1.77) | 23(0.91) | 30(1.18) | 1(0.26) | | 0.16 |
| NU-04 | 1/2" | 50(1.97) | 27(1.06) | 35(1.38) | 2(0.53) | | 0.2 |

DRIVE COUPLING [NM]

※GRAPHIC SYMBOL



NM



UNIT: M.M.(INCHES)

※SPECIFICATION

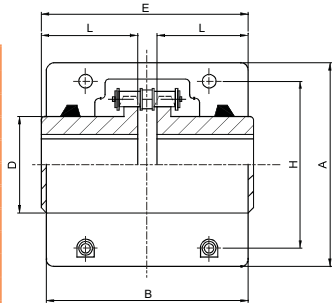
| Model | Torque | | Max. Speed rpm | Bore Dia. | | Boss Dia. "D" | Outside Dia. "OD" | Distance Through Boss "L" | Spare & Perm. tolerance | Weight (kg) |
|--------|-------------|-----------|----------------|-----------|----------|---------------|-------------------|---------------------------|-------------------------|-------------|
| | Normal Kg-m | Max. Kg-m | | Min. | Max. | | | | | |
| NM-50 | 1.3 | 2.3 | 13,500 | 7(0.28) | 19(0.74) | 33(1.30) | 50(1.97) | 25(0.98) | 2.5±0.5(0.1±0.02) | 0.48 |
| NM-67 | 2.2 | 4.0 | 10,000 | 9(0.35) | 28(1.10) | 46(1.81) | 67(2.64) | 30(1.18) | 2.5±0.5(0.1±0.02) | 1.02 |
| NM-82 | 5.0 | 9.0 | 8,000 | 10(0.39) | 32(1.26) | 53(2.09) | 82(3.23) | 40(1.57) | 3.0±1.0(0.12±0.04) | 1.88 |
| NM-97 | 10.5 | 19.0 | 7,000 | 12(0.47) | 42(1.65) | 69(2.71) | 97(3.82) | 50(1.97) | 3.0±1.0(0.12±0.04) | 3.54 |
| NM-112 | 16.7 | 30.0 | 6,000 | 14(0.55) | 48(1.89) | 79(3.11) | 112(4.41) | 60(2.36) | 3.5±1.0(0.14±0.04) | 5.40 |
| NM-128 | 26.7 | 48.0 | 5,000 | 18(0.71) | 55(2.17) | 90(3.54) | 128(5.04) | 70(2.76) | 3.5±1.0(0.14±0.04) | 8.10 |
| NM-148 | 41.7 | 75.0 | 4,500 | 22(0.87) | 65(2.56) | 107(4.21) | 148(5.83) | 80(3.15) | 3.5±1.0(0.14±0.04) | 13.50 |
| NM-168 | 69.5 | 125.0 | 4,000 | 28(1.10) | 75(2.95) | 126(4.96) | 170(6.69) | 90(3.54) | 3.5±1.0(0.14±0.04) | 19.30 |
| NM-194 | 112.0 | 200.0 | 3,500 | 32(1.26) | 85(3.35) | 140(5.51) | 194(7.64) | 100(3.94) | 3.5±1.0(0.14±0.04) | 26.30 |
| NM-214 | 167.0 | 300.0 | 3,000 | 45(1.77) | 95(3.74) | 157(6.18) | 214(8.43) | 110(4.33) | 4.0±2.0(0.16±0.08) | 35.70 |



HT

※SPECIFICATION

| Model | Bore Dia. | | E | L | ØD | H | Weight (kg) | Casing No. | A | B | Weight (kg) |
|----------|-----------|-----------|------------|-----------|-----------|------------|-------------|------------|------------|-----------|-------------|
| | Min. | Max. | | | | | | | | | |
| HT-4012 | 11(0.43) | 22(0.87) | 80(3.15) | 36(1.42) | 35(1.38) | 61(2.40) | 0.8 | HT-4012 | 75(2.95) | 75(2.95) | 0.3 |
| HT-4016 | 15(0.59) | 30(1.18) | 90(3.54) | 36(1.42) | 50(1.97) | 77(3.03) | 1.4 | HT-4016 | 92(3.62) | 75(2.95) | 0.4 |
| HT-5016 | 15(0.59) | 40(1.57) | 100(3.94) | 45(1.77) | 60(2.36) | 96(3.78) | 2.6 | HT-5016 | 111(4.37) | 85(3.35) | 0.6 |
| HT-5018 | 19(0.74) | 45(1.77) | 100(3.94) | 45(1.77) | 70(2.76) | 106(4.17) | 3.5 | HT-5018 | 122(4.80) | 85(3.35) | 0.7 |
| HT-6018 | 22(0.87) | 55(2.17) | 120(4.72) | 54(2.12) | 85(3.35) | 128(5.04) | 6.2 | HT-6018 | 142(5.59) | 106(4.17) | 1.0 |
| HT-6022 | 25(0.98) | 75(2.95) | 120(4.72) | 54(2.12) | 110(4.33) | 152(5.98) | 9.8 | HT-6022 | 167(6.57) | 106(4.17) | 1.2 |
| HT-8018 | 30(1.18) | 78(3.07) | 150(5.91) | 67(2.63) | 115(4.53) | 170(6.69) | 13.9 | HT-8018 | 186(7.32) | 130(5.12) | 2.3 |
| HT-8022 | 35(1.38) | 95(3.74) | 150(5.91) | 67(2.63) | 140(5.51) | 202(7.95) | 20.2 | HT-8022 | 220(8.66) | 130(5.12) | 2.4 |
| HT-10020 | 35(1.38) | 110(4.33) | 201(7.91) | 91(3.58) | 160(6.30) | 228(8.98) | 34 | HT-10020 | 248(9.76) | 152(5.98) | 3.2 |
| HT-12018 | 48(1.89) | 120(4.72) | 261(10.28) | 119(4.68) | 170(6.69) | 252(9.92) | 51 | HT-12018 | 305(12.00) | 190(7.48) | 6.6 |
| HT-12022 | 58(2.28) | 150(5.91) | 261(10.28) | 150(5.91) | 210(8.27) | 300(11.81) | 66 | HT-12022 | 355(13.98) | 190(7.48) | 7.1 |

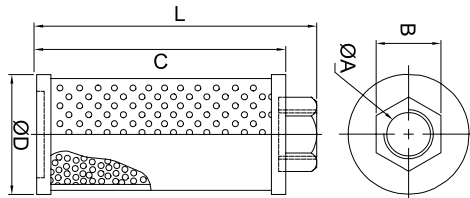


UNIT: M.M.(INCHES)

DIFFUSERS [DC]



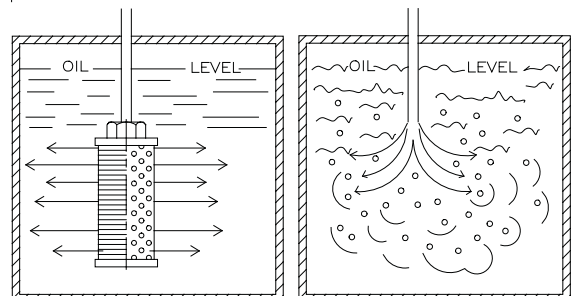
DC



※SPECIFICATION

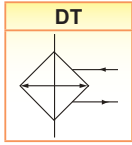
UNIT: M.M.(INCHES)

| Model | ØA (Rc/PT) | B | C | D | L | Flow ℓ/min(GPM) | Weight (Kg) |
|-------|------------|-----------|------------|-----------|------------|-----------------|-------------|
| DC-06 | 3/4" | 34(1.34) | 120(4.72) | 83(3.27) | 130(5.12) | 65(17.2) | 0.3 |
| DC-08 | 1" | 46(1.81) | 155(6.10) | 83(3.27) | 170(6.69) | 140(37.0) | 0.4 |
| DC-10 | 1-1/4" | 52(2.05) | 125(4.92) | 121(4.76) | 140(5.51) | 250(66.0) | 0.8 |
| DC-12 | 1-1/2" | 61(2.40) | 155(6.10) | 121(4.76) | 170(6.69) | 320(84.5) | 0.9 |
| DC-16 | 2" | 72(2.83) | 165(6.50) | 147(5.79) | 180(7.09) | 550(145.3) | 1.2 |
| DC-20 | 2-1/2" | 87(3.43) | 248(9.76) | 147(5.79) | 270(10.63) | 900(237.8) | 1.5 |
| DC-24 | 3" | 105(4.13) | 298(11.73) | 147(5.79) | 320(12.60) | 1100(290.6) | 1.9 |
| DC-32 | 4" | 146(5.75) | 316(12.44) | 208(8.19) | 330(12.99) | 1500(396.3) | .32 |

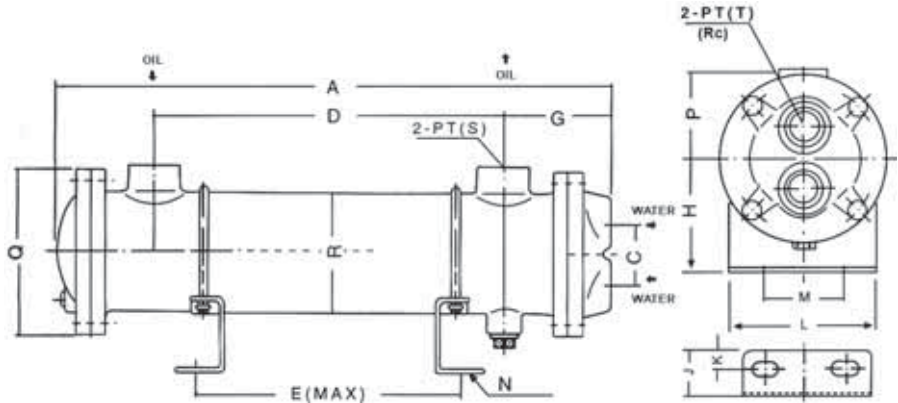


THREAD ROLLING TYPE [DT]

※GRAPHIC SYMBOL



DT

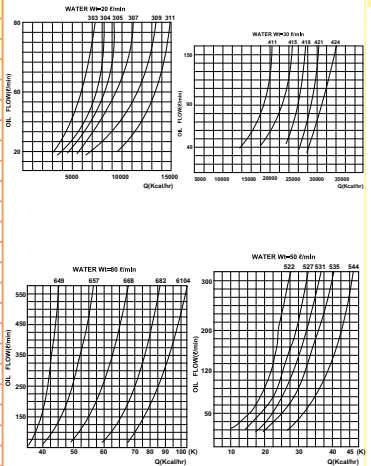


※SPECIFICATION

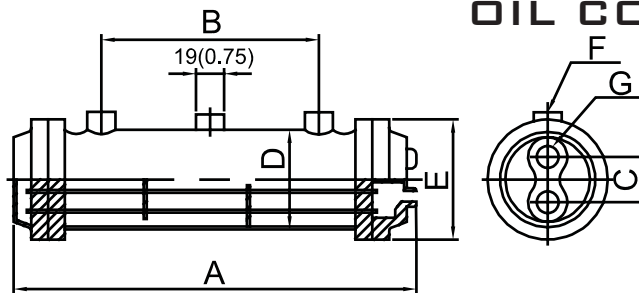
UNIT: M.M.(INCHES)

| MODEL | A | C | D | E | G | H | J | K | L | M | N | P | Q | R | S (Rc) | T (Rc) | Max. Flow ℓ/min(GPM) | Cooling Area (m ²) | Weight (Kg) |
|----------|-------------|--------|-------------|-------------|--------|--------|--------|--------|--------|--------|-------------|--------|---------|---------|--------|--------------------------|-------------------------|-----------------------------------|----------------|
| DT-303 | 299(11.77) | | 147(5.79) | 117(4.61) | | | | | | | | | | | | | | 0.3 | 8 |
| DT-304 | 370(14.57) | | 219(8.62) | 189(7.44) | | | | | | | | | | | | | | 0.4 | 9 |
| DT-305 | 468(18.43) | 48 | 291(11.46) | 261(10.28) | 95 | 79 | 35 | 15 | 128 | 75 | 11×20 | 75 | 120 | 89 | 1" | 3/4" | 100 | 0.5 | 10 |
| DT-307 | 608(23.94) | (1.89) | 435(17.13) | 465(18.31) | (3.74) | (3.11) | (1.38) | (0.59) | (5.04) | (2.95) | (0.43×0.79) | (2.95) | (4.72) | (3.50) | | | (26.4) | 0.7 | 12 |
| DT-309 | 758(29.84) | | 578(22.76) | 548(21.57) | | | | | | | | | | | | | | 0.9 | 13 |
| DT-311 | 898(35.35) | | 722(28.43) | 692(27.24) | | | | | | | | | | | | | | 1.1 | 14 |
| DT-411 | 620(24.41) | | 425(16.73) | 384(15.12) | | | | | | | | | | | | | | 1.1 | 16 |
| DT-415 | 770(30.31) | | 568(22.36) | 528(20.79) | | | | | | | | | | | | | | 1.5 | 18 |
| DT-418 | 910(35.83) | 70 | 712(28.03) | 672(26.46) | 100 | 88 | 35 | 15 | 150 | 105 | 11×20 | 93 | 140 | 114 | 1-1/4" | 3/4" | 200 | 1.8 | 20 |
| DT-421 | 1055(41.54) | (2.76) | 856(33.70) | 816(32.13) | (3.94) | (3.46) | (1.38) | (0.59) | (5.91) | (4.13) | (0.43×0.79) | (3.66) | (5.51) | (4.49) | | | (52.8) | 2.1 | 25 |
| DT-424 | 1220(48.03) | | 1020(40.16) | 980(38.58) | | | | | | | | | | | | | | 2.4 | 30 |
| DT-522 | 785(30.91) | | 558(21.97) | 528(20.79) | | | | | | | | | | | | | | 2.2 | 27 |
| DT-527 | 925(36.42) | | 702(27.64) | 672(26.46) | | | | | | | | | | | | | | 2.7 | 32 |
| DT-531 | 1070(42.13) | 85 | 846(33.31) | 816(32.13) | 115 | 95 | 45 | 20 | 175 | 122 | 14×22 | 108 | 170 | 139 | 1-1/2" | 3/4" | 300 | 3.1 | 37 |
| DT-535 | 1235(48.62) | (3.35) | 1010(39.76) | 980(38.58) | (4.53) | (3.74) | (1.77) | (0.79) | (6.69) | (4.80) | (0.55×0.87) | (4.25) | (6.69) | (5.47) | | | (79.3) | 3.5 | 47 |
| DT-544 | 1455(57.28) | | 1228(48.35) | 1196(47.09) | | | | | | | | | | | | | | 4.4 | 55 |
| DT-649 | 1078(42.44) | | 836(32.91) | 796(29.76) | | | | | | | | | | | | | | 4.9 | 40 |
| DT-657 | 1242(49.90) | 85 | 1000(39.37) | 920(36.22) | 125 | 105 | 45 | 20 | 204 | 149 | 14×22 | 121 | 196 | 165 | 2" | 1" | 400 | 5.7 | 46 |
| DT-668 | 1462(57.56) | (3.35) | 1218(47.95) | 1138(44.80) | (4.92) | (4.13) | (1.77) | (0.79) | (8.03) | (5.87) | (0.55×0.87) | (4.76) | (7.72) | (6.50) | | | (105.6) | 6.8 | 55 |
| DT-682 | 1742(68.58) | | 1500(59.06) | 1420(55.91) | | | | | | | | | | | | | | 8.2 | 60 |
| DT-8107 | 1140(44.88) | | 825(32.48) | 760(29.92) | | | | | | | | | | | | | | 10.7 | 8 |
| DT-8125 | 1305(51.38) | 110 | 990(38.98) | 1025(40.35) | 130 | 215 | 40 | 20 | 200 | 155 | 14 | 145 | 270 | 216 | 2" | 1-1/4" | 600 | 12.5 | 12 |
| DT-8149 | 1520(59.84) | (4.33) | 1210(47.64) | 1130(44.49) | (5.12) | (8.46) | (1.57) | (0.79) | (7.87) | (6.10) | (0.55) | (5.71) | (10.62) | (8.50) | | | (158.5) | 14.9 | 15 |
| DT-8080 | 1805(71.06) | | 1490(58.66) | 1420(55.91) | | | | | | | | | | | | | | 18.0 | 22 |
| DT-10169 | 1100(43.41) | | 800(31.50) | 725(28.54) | | | | | | | | | | | | | | 16.9 | 30 |
| DT-10185 | 1210(47.64) | | 910(35.83) | 835(32.87) | | | | | | | | | | | | | | 18.5 | 35 |
| DT-10197 | 1300(51.18) | 173 | 980(38.58) | 905(35.63) | 150 | 222 | 38 | 15 | 210 | 152 | 14 | 223 | 293 | 267 | 2" | 10KV 2-1/2" Flange | 800 | 19.7 | 50 |
| DT-10235 | 1500(59.01) | (6.81) | 1200(47.24) | 1125(44.29) | (5.91) | (8.74) | (1.50) | (0.59) | (8.27) | (5.98) | (0.55) | (8.78) | (11.54) | (10.51) | | | (211.3) | 23.5 | 60 |
| DT-10285 | 1775(69.88) | | 1500(59.01) | 1425(56.10) | | | | | | | | | | | | | | 28.5 | 70 |

※PERFORMANCE CURVE



OIL COOLERS [HS]



※SPECIFICATION

UNIT: M.M.(INCHES)

| Model | A | B | C | D | E | F PT/Rc | G PT/Rc | Cooling Tube | Cooling Area (m ²) | Tank Capacity ℓ(GPM) | Weight (Kg) | Pump Flow ℓ/min(GPM) | Water Flow ℓ/min(GPM) |
|---------|-------------|-------------|----------|-------------|-----------|------------|------------|--------------|--------------------------------|----------------------|-------------|----------------------|-----------------------|
| HS-0905 | 465(18.30) | 295(11.61) | 40(1.57) | 89.1(3.51) | 120(4.72) | 3/4" | 3/4" | 22 | 0.24 | 60 | 8 | 100(26.4) | 60(15.9) |
| HS-0908 | 540(21.26) | 370(14.47) | 55(2.17) | 114.3(4.50) | 140(5.51) | 3/4" | 3/4" | 26 | 0.35 | 100 | 12 | 200(52.8) | 100(26.4) |
| HS-1405 | 580(22.83) | 375(14.76) | 65(2.56) | 139.8(5.50) | 170(6.69) | 1-1/4" | 3/4" | 42 | 0.6 | 150 | 15 | 300(79.3) | 150(39.6) |
| HS-1408 | 800(31.50) | 600(23.62) | 65(2.56) | 139.8(5.50) | 170(6.69) | 1-1/4" | 3/4" | 58 | 1.2 | 250 | 22 | 300(79.3) | 150(39.6) |
| HS-1412 | 1205(47.44) | 1000(39.37) | 65(2.56) | 139.8(5.50) | 170(6.69) | 1-1/4" | 3/4" | 58 | 1.9 | 350 | 30 | 300(79.3) | 150(39.6) |
| HS-1712 | 1225(48.23) | 970(38.19) | 85(3.35) | 165.2(6.50) | 196(7.72) | 2" | 1-1/2" | 58 | 1.9 | 600 | 40 | 400(105.7) | 200(52.8) |
| HS-1716 | 1725(67.91) | 1470(57.87) | 85(3.35) | 165.2(6.50) | 196(7.72) | 2" | 1-1/2" | 58 | 2.8 | 800 | 50 | 400(105.7) | 200(52.8) |
| HS-1720 | 2140(84.25) | 1890(74.41) | 85(3.35) | 165.2(6.50) | 196(7.72) | 2" | 1-1/2" | 58 | 3.5 | 1000 | 60 | 400(105.7) | 200(52.8) |
| HS-1724 | 2520(99.21) | 2270(89.37) | 85(3.35) | 165.2(6.50) | 196(7.72) | 2" | 1-1/2" | 58 | 4.2 | 1200 | 70 | 400(105.7) | 200(52.8) |

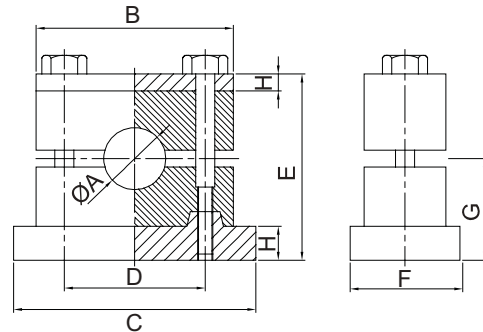
PIPE CLAMP [HTH]

※SPECIFICATION

| Model | Dia (INCH) | ØA | B | C | D | E | F | G | H |
|--------|------------|-------------|--------|---------|--------|--------|--------|--------|--------|
| HTH-01 | 1/8" | | | | | | | | |
| HTH-02 | 1/4" | 6~18 | 55 | 73 | 33 | 48 | 30 | 24 | 8 |
| HTH-03 | 3/8" | (0.24~0.71) | (2.17) | (2.87) | (1.30) | (1.89) | (1.18) | (0.94) | (0.31) |
| HTH-04 | 1/2" | 20~30 | 70 | 85 | 45 | 64 | 30 | 32 | 8 |
| HTH-06 | 3/4" | (0.79~1.18) | (2.76) | (3.35) | (1.77) | (2.52) | (1.18) | (1.26) | (0.31) |
| HTH-08 | 1" | 30~42 | 85 | 100 | 60 | 76 | 30 | 38 | 8 |
| HTH-10 | 1-1/4" | (1.18~1.65) | (3.35) | (3.94) | (2.36) | (2.99) | (1.18) | (1.50) | (0.31) |
| HTH-12 | 1-1/2" | 38~70 | 115 | 150 | 110 | 110 | 45 | 55 | 10 |
| HTH-16 | 2" | (1.50~2.76) | (4.53) | (5.91) | (4.33) | (4.33) | (1.77) | (2.17) | (0.39) |
| HTH-20 | 2-1/2" | 65~90 | 152 | 180 | 140 | 140 | 60 | 70 | 10 |
| HTH-24 | 3" | (2.56~3.54) | (5.98) | (7.09) | (5.51) | (5.51) | (2.36) | (2.76) | (0.39) |
| HTH-28 | 3-1/2" | 90~135 | 205 | 225 | 200 | 200 | 80 | 100 | 15 |
| HTH-32 | 4" | (2.56~5.31) | (8.07) | (8.86) | (7.87) | (7.87) | (3.15) | (3.94) | (0.59) |
| HTH-40 | 5" | 136~168 | 252 | 270 | 230 | 230 | 90 | 115 | 15 |
| HTH-48 | 6" | (5.35~6.61) | (9.92) | (10.63) | (9.06) | (9.06) | (3.54) | (4.52) | (0.59) |

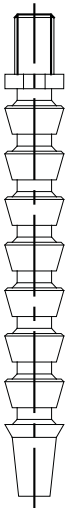


HTH



UNIT: M.M.(INCHES)

ULTIMATE COOLING HOSE [CH]



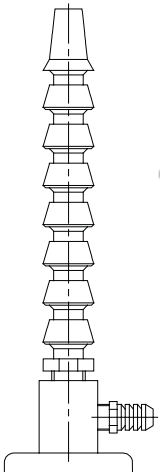
CH

UNIT: M.M.(INCHES)

※SPECIFICATION

| Model | (Rc/PT) | Port Size mm(inch) | | | Length mm(inch) |
|-----------|--------------------------|------------------------------|--------|--------|-----------------|
| CH-02 | 1/4" Tube × 1/4" | 1.5 | 3 | 6 | 300(11.8) |
| CH-02(01) | 1/4" Tube × 1/8" | (0.05) | (0.11) | (0.23) | |
| CH-02(01) | 1/4" Tube × 1/8" or 1/4" | Panel 1 × 22 | | | |
| CH-03 | 3/8" Tube × 3/8" | 6 | 9 | 12 | |
| CH-03(04) | 3/8" Tube × 1/2" | (0.23) | (0.35) | (0.47) | |
| CH-03(04) | 3/8" Tube × 3/8" or 1/2" | Panel 2 × 30 Panel 2 × 60 | | | |
| CH-04 | 1/2" Tube × 1/2" | 9 | 12 | | |
| CH-04(03) | 1/2" Tube × 3/8" | (0.35) | (0.47) | | |
| CH-04(03) | 1/2" Tube × 1/2" or 3/8" | Panel 4 × 30 Panel 4 × 60 | | | |

MAGNETIC BASE AND HOSE [M]



M

UNIT: M.M.(INCHES)

※SPECIFICATION

| Model | Qty | (Rc/PT) | Port Size mm(inch) | | |
|-------|-----|---|--------------------|-------------|-------------|
| M-01 | 1 | 1/4" Tube × 1/8" or 1/4" | 1.5 (0.05) | 3 (0.11) | 6 (0.23) |
| M-02 | 2 | | | | |
| M-03 | 3 | | | | |
| M-04 | 1 | 1/4" Tube × 1/8" or 1/4" (With Needle Valve) | | | |
| M-05 | 2 | | | | |
| M-06 | 3 | | | | |

AH-SERIES

| MODEL | THERAD | FAN DIA. | FLOW | CAPACITY | HYDRAULIC SYSTEM | DIMENSION | WEIGHT | PHASE | SAFETY REF. | PAGE |
|----------------|----------|-------------|-------------------|-----------|-------------------|--------------|--------|--------|-------------|------|
| | RC/PT | m.m./Inch | ℓ/Min./U.S.GAL. | ΔT = 30°C | HP/kW | LxHxW | Kg | | | |
| AH0608T-CA* | 3/4" | 150/6" | 3~60/0.8~15.9 | 1,200 | 1~2/0.74~1.5 | 305x200x115 | 4.2 | SINGLE | CE | 335 |
| AH0608LT-CA* | 3/4" | 150x2/6"x2 | 3~60/0.8~15.9 | 2,400 | 2~3/1.5~2.2 | 405x200x115 | 6.0 | SINGLE | CE | 335 |
| AH1012-CA* | 1" | 250/10" | 20~100/5.3~26.4 | 5,000 | 3~5/2.2~3.7 | 417x360x200 | 10.0 | SINGLE | CE | 335 |
| AH-1012-3P-CA* | 1" | 250/10" | 20~100/5.3~26.4 | 5,500 | 3~5/2.2~3.7 | 417x360x200 | 10.0 | 3 | CE | 335 |
| AH1215-CA* | 1" | 300/12" | 20~100/5.3~26.4 | 7,000 | 5~7.5/3.7~5.6 | 510x390x210 | 15.0 | 3 | CE | 336 |
| AH1417-A* | 1" | 350/14" | 30~100/7.9~26.4 | 9,000 | 7.5~10/5.6~7.5 | 570x411x200 | 11.0 | SINGLE | | 336 |
| AH1418-CA* | 1" | 350/14" | 30~200/7.9~52.8 | 10,000 | 7.5~10/5.6~7.5 | 570x420x200 | 17.0 | 3 | CE | 336 |
| AH1428-CA* | 1-1/4" | 350/14" | 30~200/7.9~52.8 | 13,000 | 15~20/11.2~14.9 | 570x420x230 | 21.0 | 3 | CE | 337 |
| AH1470-A* | 1-1/4" | 350/14" | 30~100/7.9~26.4 | 11,000 | 10~15/7.5~11.2 | 570x407x225 | 13.0 | SINGLE | | 337 |
| AH1470-CA* | 1-1/4" | 350/14" | 30~200/7.9~52.8 | 13,000 | 15~20/11.2~14.9 | 520x475x320 | 25.0 | 3 | | 337 |
| AH1490-CA* | 1-1/2" | 350/14" | 30~200/7.9~52.8 | 16,000 | 20~25/14.9~18.6 | 520x640x300 | 30.0 | 3 | CE | 338 |
| AH1680-CA* | 1-1/2" | 400/16" | 30~250/7.9~66.0 | 21,000 | 25~40/18.6~29.8 | 520x640x320 | 35.0 | 3 | CE | 338 |
| AH1890-CA* | 1-1/2" | 450/18" | 30~250/7.9~66.0 | 25,000 | 30~50/22.4~37.3 | 650x800x380 | 52.0 | 3 | CE | 338 |
| AH2342-CA* | 1-1/2" | 560/23" | 50~250/13.2~66.0 | 37,000 | 50~75/37.3~55.9 | 605x935x543 | 80.0 | 3 | CE | 339 |
| AH2583-CA* | RP1-1/2" | 630/25" | 100~350/26.4~92.5 | 50,000 | 75~100/55.9~74.5 | 645x950x630 | 100.0 | 3 | CE | 339 |
| AH2890-CA* | 1-1/2" | 560/23" | 100~350/26.4~92.5 | 60,000 | 100~125/74.5~93.1 | 875x1000x900 | 150.0 | 3 | CE | 340 |
| AH3-2583-CA* | 1-1/2" | 630x3/25"x3 | 100~350/26.4~92.5 | 140,000 | 300/223.5 | 875x2400x700 | 300.0 | 3 | CE | 340 |

AW-SERIES

| MODEL | THERAD | FLOW | Max. Pressure | CAPACITY | DIMENSION | WEIGHT | PHASE | SAFETY REF. | PAGE |
|-------------|--------|-----------------|---------------|-----------|-------------|--------|--------|-------------|------|
| | RC/PT | ℓ/Min./U.S.GAL. | Bar/psi | ΔT = 30°C | LxHxW | Kg | | | |
| AW0607-CA* | 1/2" | 20/5.3 | 15/217.5 | 700 | 250x200x108 | 3.3 | SINGLE | CE | 341 |
| AW0608-CA* | 1/2" | 20/5.3 | 15/217.5 | 900 | 310x200x108 | 3.7 | SINGLE | CE | 341 |
| AW0608L-CA* | 1" | 20/5.3 | 15/217.5 | 1500 | 410x200x108 | 5.2 | SINGLE | CE | 341 |

AL-SERIES

| MODEL | THERAD | FLOW | Max. Pressure | CAPACITY | DIMENSION | WEIGHT | PHASE | SAFETY REF. | PAGE |
|-----------|--------|-----------------|---------------|-----------|-------------|--------|--------|-------------|------|
| | RC/PT | ℓ/Min./U.S.GAL. | Bar/psi | ΔT = 30°C | LxHxW | Kg | | | |
| AL404 | 1/2" | 10/2.64 | 10/145 | | 250x203x67 | 1.0 | | | 342 |
| AL404-A* | 1/2" | 10/2.64 | 10/145 | 1100 | 250x203x120 | 2.25 | SINGLE | | 342 |
| AL404-CA* | 1/2" | 10/2.64 | 10/145 | 1200 | 250x203x120 | 2.85 | SINGLE | CE | 342 |
| AL404-4A* | 1/2" | 10/2.64 | 10/145 | 800 | 250x203x98 | 1.75 | SINGLE | | 342 |
| AL608 | 3/8" | 10/2.64 | 10/145 | | 250x203x57 | 0.75 | | | 342 |
| AL608-A* | 3/8" | 10/2.64 | 10/145 | 800 | 250x203x110 | 2.0 | SINGLE | | 342 |
| AL608-CA* | 3/8" | 10/2.64 | 10/145 | 900 | 250x203x110 | 2.6 | SINGLE | CE | 342 |
| AL608-4A* | 3/8" | 10/2.64 | 10/145 | 600 | 250x203x88 | 1.5 | SINGLE | | 343 |
| AL190 | 3/8" | 10/2.64 | 10/145 | | 220x167x56 | 0.5 | | | 342 |
| AL609 | 1/2" | 10/2.64 | 10/145 | | 250x203x57 | 0.75 | | | 342 |

(INTRODUCTION)

Nowadays, more and more air cooling system were applied in oil cooling system because water cooling cost is too high and same areas are not easy to secure water. Even more water treatment and discharge is also very difficult and expensive. Air-Oil plate-fin heat exchanger has the characteristics of water-free, clean, compact, light weight and very easy for piping, please take the following information for reference.

| | ENVIRONMENT PROTECT | CONSUME OF ENERGY | DEMAND OF WATER | COST OF INSTALLATION | | MAINTAIN | COOLING CAPACITY | INFLUENCE OF BREAKDOWN | INSTALLATION |
|-----------|---------------------|-------------------|-----------------|----------------------|----------|----------|------------------|------------------------|--------------|
| | | | | FACTORY | END USER | | | | |
| AIR-OIL | SUPERIOR | LESS | X | LARGE | NONE | LESS | NO LIMIT | LESS | EASY |
| WATER-OIL | INFERIOR | MEDIUM | O | LESS | HUGE | HUGE | GOOD | WATER MIX WITH OIL | HARD |
| FREEZE | INFERIOR | LARGE | X | HUGE | NONE | MEDIUM | LIMIT | LESS | EASY |

SOLTECH provides 3 different series Air-Oil plate-fin heat exchanger. There heat exchanger could be applied in drain system or return line systems with high quality and perfect cooling efficiency.

AL series: For low pressure variable pump(under 70 Bar), drain circuit only.

Max. working pressure: 10 Bar, Flow Rate: 3-60 L/Min

AW series: For low pressure variable pump drain circuit, or separated cooling systems.

Max. working pressure: 15 Bar, Flow Rate: 3-60 L/Min

AH series: For return line circuit/drain circuit, or separated cooling systems.

Max. dynamic/static working pressure: 20/30 Bar, Flow Rate: 3-350 L/Min

INSTALLATION

1. Air-Oil heat exchanger should be mounted in a position that could avoid vibration and impact, and make sure that air can be flow freely. Prevents to mount it close to other heat source. Please refers to figure no. 1.
2. When use the heat exchanger, "A BY-PASS CIRCUIT" was strongly recommend. Especially when use our AH series as return line cooling system. Please refers to figure no. 2. This by-pass circuit could protects heat exchanger when surge pressure happen.
3. When fastening the adaptor of in/out ports, please use an adjustable wrenches to hold-on the ports. Because both ports also made by aluminum, and could be damaged when without a tool to hold-on when twist.
4. For keeping the heat exchanger in high efficiency, please clean the radiator once a week if possible. It can be done by compressed air. Please be sure the jet runs in usual direction and the electric motor must be dicconnect to the power and in good protection.

FIGURE NO. 1

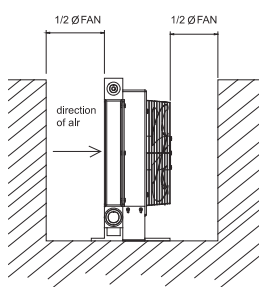


FIGURE NO. 2

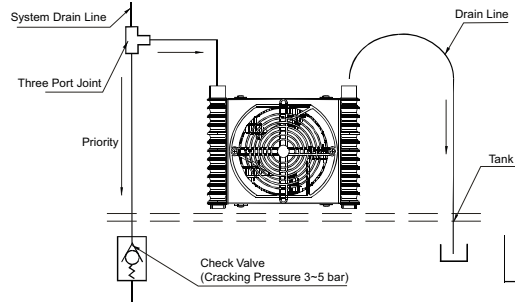


FIGURE NO. 3: VARIABLE PUMP

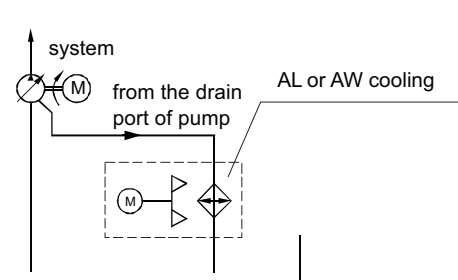


FIGURE NO. 4:
FIX DIS. PUMP

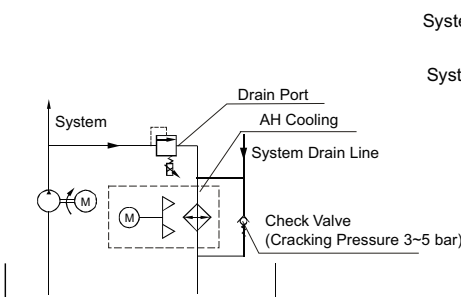


FIGURE NO. 5
By-Pass Circuit

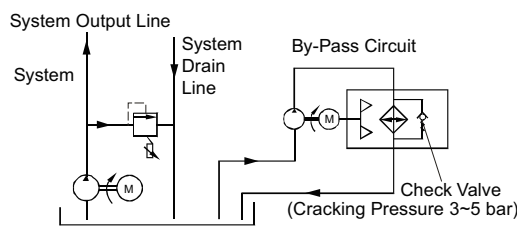
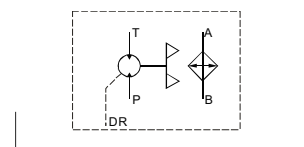


FIGURE NO. 6
HYDRAULIC MOTOR



HOW TO CHOOSE YOUR HEAT EXCHANGER

The overall efficiency of most hydraulic system is app..70~85%, it means that 15 ~ 30% of power convert to heat and must be dissipated by the heat exchanger. When choosing a heat exchanger, an over estimate of 15~20% is necessary. When dust cover the fin, the cooling efficiency will be lower.

FORMULA

N = installed power in the system (kW)
 Q = heat to be dissipated (kcal/h)
 To = maximum allowed oil temperature (°C)
 Tamb = ambient temperature (°C)
 Kr : means the required specific performance of heat-exchanger.
 $Kr = Q / \Delta T$, dove ΔT is the difference between oil inlet temperature and summer ambient temperature, while Q is the quantity of heat to be dissipated which can be easily calcaulted considering 20~30% of installed power.

EXAMPLE

N = 20 kW, To = 50°C, Tamb = 35°C,
 Q = 70% x 20kW = 14 kW = 12040 kcal/h
 $\Delta T = 50 - 35 = 15^\circ C$
 $Kr = 12040 / 15 = 803 \text{ kcal/h}^\circ C = 0.93 \text{ kW}^\circ C$
 The choice of the correct cooler is made using the diagrams you will find in our technical catalogues.

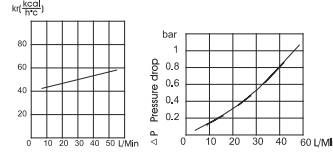
EQUIVALENTS AMONG MAIN UNITS

1 HP = 635 kcal/h, 1kW = 860 kcal/h
 1 BTU = 0.35 kcal/h 1 cST = 1 mm²/sec

※SPECIFICATION

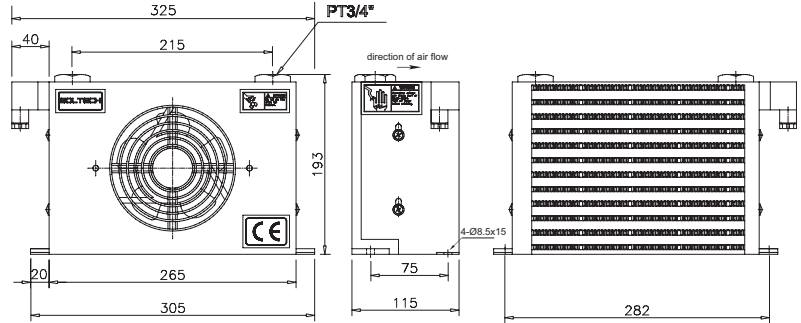
| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AH0608T-CA*】



※MODEL NUMBER DESIGNATION

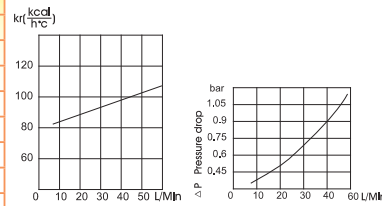
| AH | 06 | 08T | C | A1 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |



※SPECIFICATION

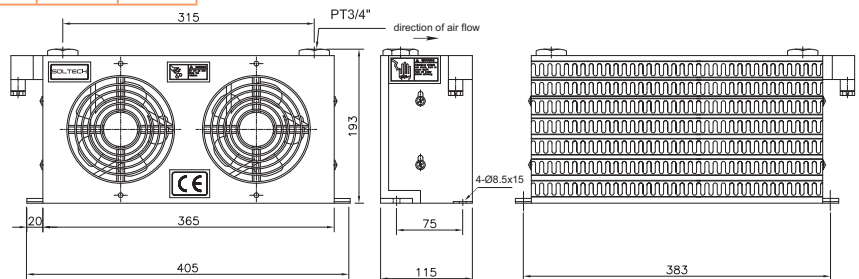
| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AH0608LT-CA*】



※MODEL NUMBER DESIGNATION

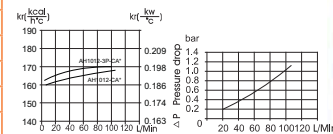
| AH | 06 | 08LT | C | A1 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |



※SPECIFICATION

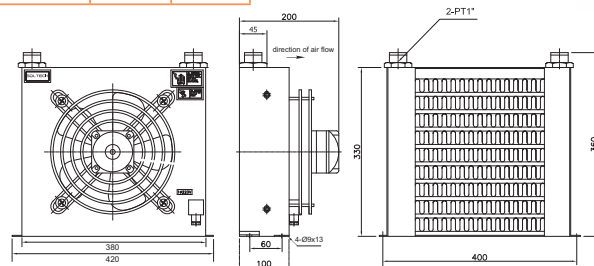
| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 400V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|-----------|-----------|--------|
| PHASE | | SINGLE | SINGLE | THREE | THREE | --- |
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | 50/60 | --- |
| POWER | W | 16 | 16 | --- | --- | --- |
| CURRENT | A | 0.8/0.74 | 0.42/0.36 | 0.28/0.23 | 0.16/0.13 | 5.5 |
| SPEED | R.P.M. | 1300/1550 | 1300/1550 | 1430/1670 | 1430/1670 | 2000 |
| AIR-FLOW | m ³ /h | 840/1000 | 840/1000 | 1000/1200 | 1000/1200 | --- |
| PROTECTION | | IP42 | IP42 | IP54 | IP54 | --- |
| NOISE | dB(A) | --- | --- | 55 | 55 | --- |
| SAFETY REF. | | CE | CE | CE | CE | --- |

【AH1012-CA*】



※MODEL NUMBER DESIGNATION

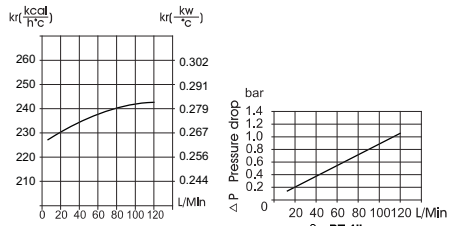
| AH | 10 | 12 | (3P) | C | A1 |
|------------|----------|--------------------|-----------------------------------|----------|--|
| Series No. | Fan Size | Radiator Model No. | Omit: Single Phase 3P: 3 Phase | Fan Case | Voltage A1: AC 115V A2: AC 230V D1: DC 12V D2: DC24V A2: AC 230V A4: AC 400V |



※SPECIFICATION

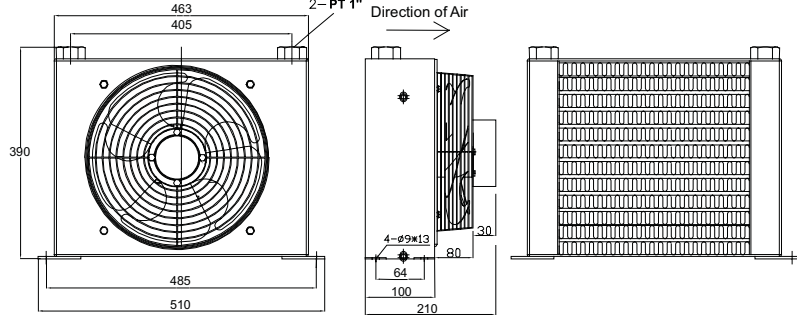
| DESCRIPTION | UNIT | AC 230V | AC 400V |
|-------------|-------------------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 |
| POWER | W | --- | --- |
| CURRENT | A | 0.45/0.50 | 0.26/0.29 |
| SPEED | R.P.M. | 2420/2510 | 2420/2510 |
| AIR-FLOW | m ³ /h | 1800/1900 | 1800/1900 |
| PROTECTION | | IP54 | IP54 |
| NOISE | dB(A) | 60 | 60 |
| SAFETY REF. | | CE | CE |

【AH1215-CA*】



※MODEL NUMBER DESIGNATION

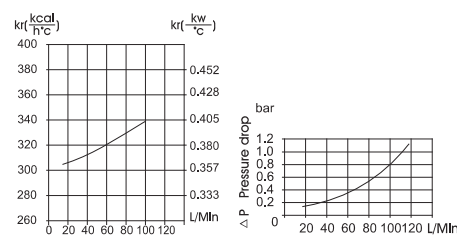
| AH | 12 | 15 | C | A2 |
|------------|----------|--------------------|----------|---------------------------------------|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 400V |



※SPECIFICATION

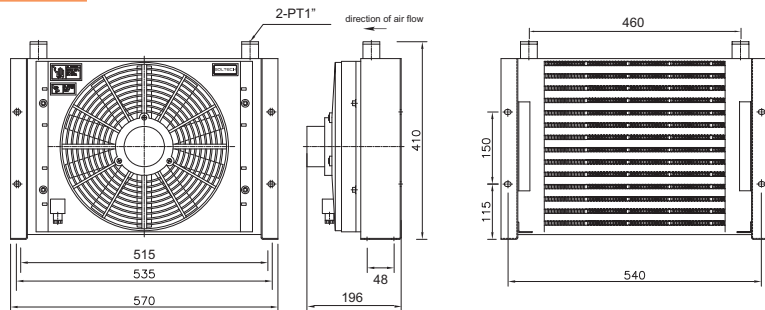
| DESCRIPTION | UNIT | AC 115V | AC 230V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | --- | --- |
| POWER | W | 40/50 | 40/50 | --- | --- |
| CURRENT | A | --- | --- | 7.5 | 4.5 |
| SPEED | R.P.M. | 1450/1650 | 1450/1650 | 2000 | 2200 |
| AIR-FLOW | m ³ /h | 2300/2760 | 2300/2760 | --- | --- |
| PROTECTION | | --- | --- | --- | --- |
| NOISE | dB(A) | --- | --- | --- | --- |
| SAFETY REF. | | --- | --- | --- | --- |

【AH1417-A*】



※MODEL NUMBER DESIGNATION

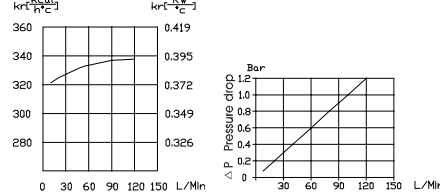
| AH | 14 | 17 | A1 |
|------------|----------|--------------------|---|
| Series No. | Fan Size | Radiator Model No. | Voltage A1: AC 115V A2: AC 230V D1: DC 12V D2: DC 24V |



※SPECIFICATION

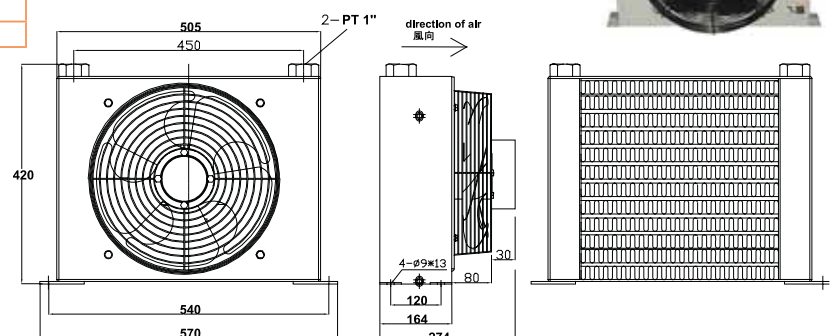
| DESCRIPTION | UNIT | AC 230V | AC 400V | AC 440V |
|-------------|-------------------|-----------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 |
| POWER | W | 150/180 | 150/180 | 200/260 |
| CURRENT | A | 0.80/0.70 | 0.40/0.36 | 0.40/0.43 |
| SPEED | R.P.M. | 1380/1550 | 1380/1550 | 1380/1560 |
| AIR-FLOW | m ³ /h | 3200/3800 | 3200/3800 | 3200/3800 |
| PROTECTION | | IP54 | IP54 | IP54 |
| NOISE | dB(A) | 62 | 62 | 62 |
| SAFETY REF. | | CE | CE | CE |

【AH1418-CA*】



※MODEL NUMBER DESIGNATION

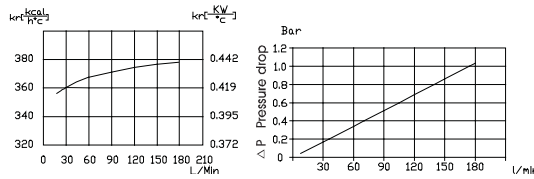
| AH | 14 | 18 | C | A2 |
|------------|----------|--------------------|----------|---------------------------------------|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A4: AC 400V |



※SPECIFICATION

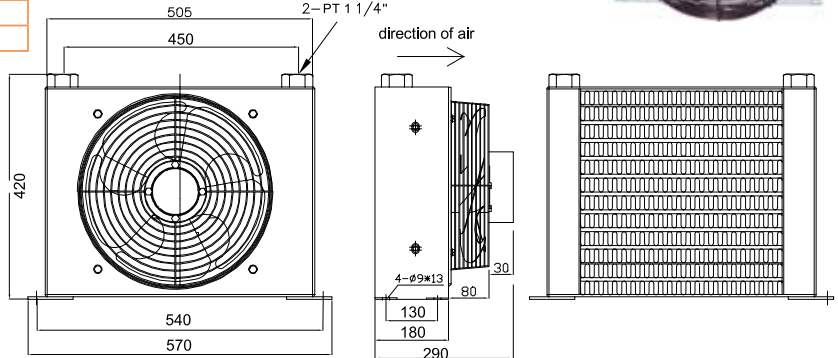
| DESCRIPTION | UNIT | AC 230V | AC 400V | AC 440V |
|-------------|-------------------|-----------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 |
| POWER | W | 150/180 | 150/180 | 200/260 |
| CURRENT | A | 0.80/0.70 | 0.40/0.36 | 0.40/0.43 |
| SPEED | R.P.M. | 1380/1550 | 1380/1550 | 1380/1560 |
| AIR-FLOW | m ³ /h | 3200/3800 | 3200/3800 | 3200/3800 |
| PROTECTION | | IP54 | IP54 | IP54 |
| NOISE | dB(A) | 62 | 62 | 62 |
| SAFETY REF. | | CE | CE | CE |

【AH1428-CA*】



※MODEL NUMBER DESIGNATION

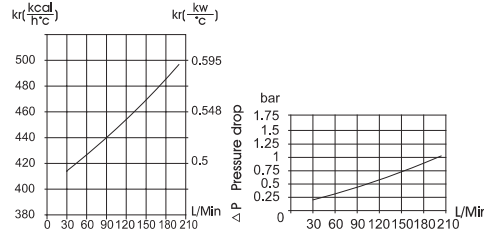
| AH | 14 | 28 | C | A2 |
|------------|----------|--------------------|----------|---------------------------------------|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A4: AC 440V |



※SPECIFICATION

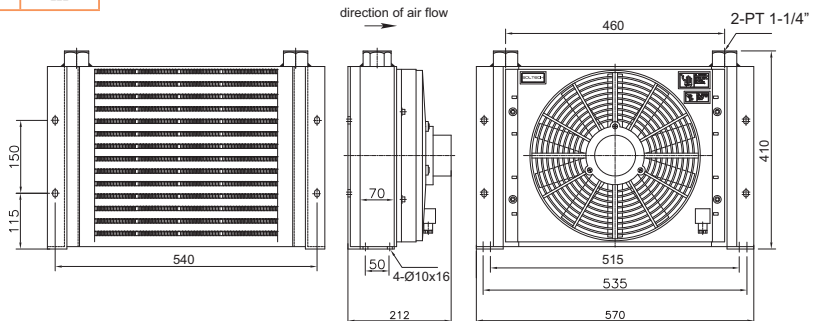
| DESCRIPTION | UNIT | AC 115V | AC 230V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | --- | --- |
| POWER | W | 40/50 | 40/50 | --- | --- |
| CURRENT | A | --- | --- | 7.5 | 4.5 |
| SPEED | R.P.M. | 1450/1650 | 1450/1650 | 2000 | 2200 |
| AIR-FLOW | m ³ /h | 2300/2760 | 2300/2760 | --- | --- |
| PROTECTION | | --- | --- | --- | --- |
| NOISE | dB(A) | --- | --- | --- | --- |
| SAFETY REF. | | --- | --- | --- | --- |

【AH1470-A*】



※MODEL NUMBER DESIGNATION

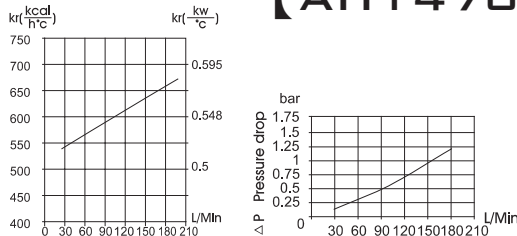
| AH | 14 | 70 | A1 |
|------------|----------|--------------------|--|
| Series No. | Fan Size | Radiator Model No. | Voltage A1: AC 115V A2: AC 230V D1: DC 12V D2: DC24V |



※SPECIFICATION

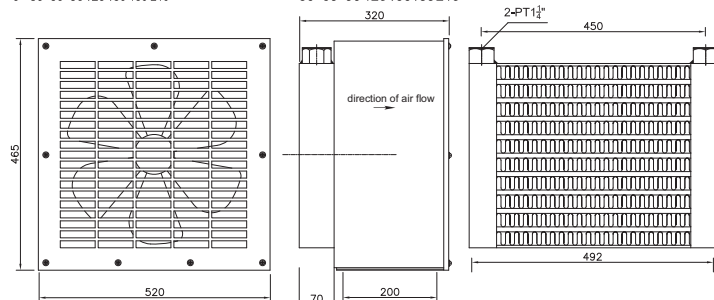
| DESCRIPTION | UNIT | AC 230V | AC 380V |
|-------------|-------------------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 |
| POWER | Hp | 1/2 | 1/2 |
| CURRENT | A | --- | --- |
| SPEED | R.P.M. | 1380/1550 | 1380/1550 |
| AIR-FLOW | m ³ /h | 2400/2880 | 2400/2880 |
| PROTECTION | | --- | --- |
| NOISE | dB(A) | --- | --- |
| SAFETY REF. | | --- | --- |

【AH1470-CA*】



※MODEL NUMBER DESIGNATION

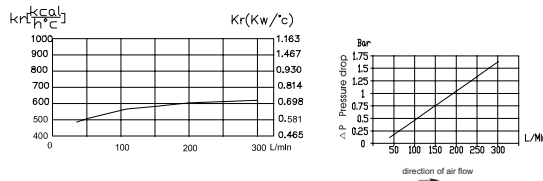
| AH | 14 | 70 | C | A2 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 380V AC 400/ 415/ 440/ 480 is also available |



※SPECIFICATION

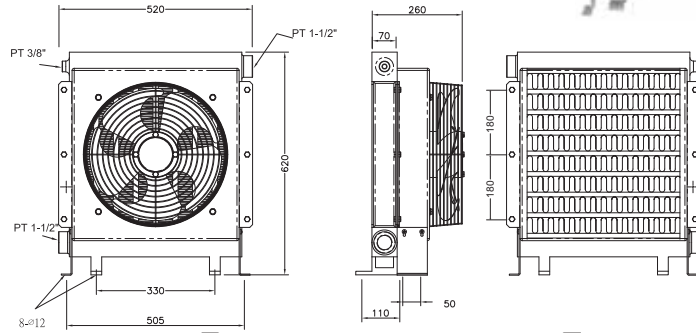
| DESCRIPTION | UNIT | AC 230V | AC 400V | AC 440V |
|-------------|-------------------|-----------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 |
| POWER | W | 150/180 | 150/180 | 200/260 |
| CURRENT | A | 0.80/0.70 | 0.40/0.36 | 0.40/0.43 |
| SPEED | R.P.M. | 1380/1550 | 1380/1550 | 1380/1560 |
| AIR-FLOW | m ³ /h | 3200/3800 | 3200/3800 | 3200/3800 |
| PROTECTION | | IP54 | IP54 | IP54 |
| NOISE | dB(A) | 62 | 62 | 62 |
| SAFETY REF. | | CE | CE | CE |

【AH1490-CA*】



※MODEL NUMBER DESIGNATION

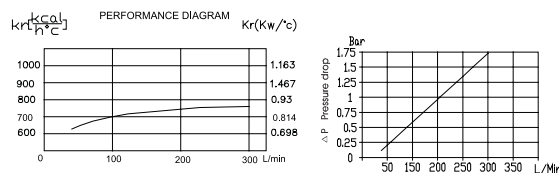
| AH | 14 | 90 | C | A2 |
|------------|----------|--------------------|----------|-------------|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage |
| | | | | A2: AC 230V |
| | | | | A4: AC 400V |



※SPECIFICATION

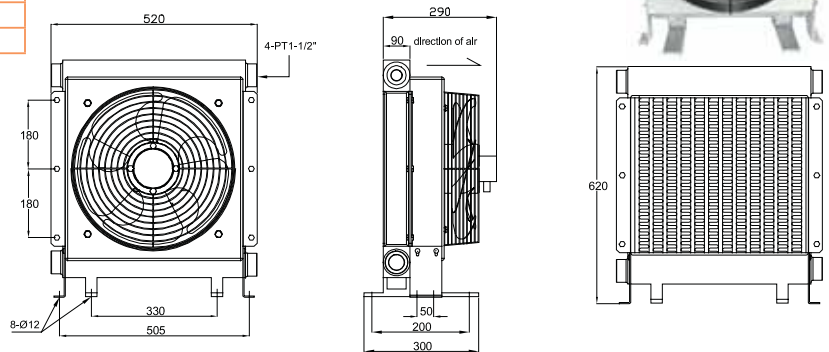
| DESCRIPTION | UNIT | AC 230V | AC 400V | AC 440V |
|-------------|-------------------|-----------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 |
| POWER | W | 145/250 | 145/250 | 135/175 |
| CURRENT | A | 0.90/1.00 | 0.50/0.52 | 0.28/0.30 |
| SPEED | R.P.M. | 1380/1550 | 1380/1550 | 1380/1570 |
| AIR-FLOW | m ³ /h | 4000/4800 | 4000/4800 | 4000/4800 |
| PROTECTION | | IP54 | IP54 | IP54 |
| NOISE | dB(A) | 68 | 68 | 68 |
| SAFETY REF. | | CE | CE | CE |

【AH1680-CA*】



※MODEL NUMBER DESIGNATION

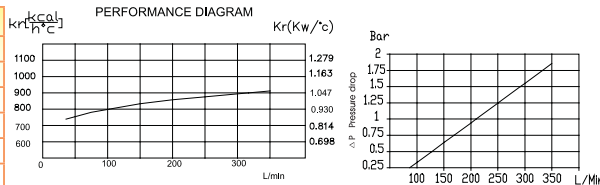
| AH | 16 | 80 | C | A2 |
|------------|----------|--------------------|----------|-------------|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage |
| | | | | A2: AC 230V |
| | | | | A4: AC 400V |



※SPECIFICATION

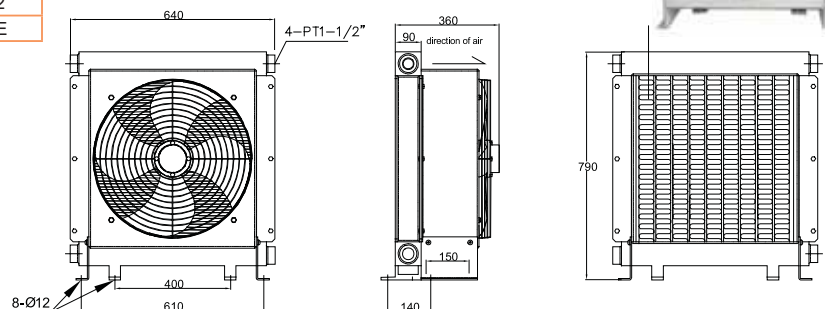
| DESCRIPTION | UNIT | AC 230V | AC 400V | AC 440V |
|-------------|-------------------|-----------|-----------|-----------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 |
| POWER | W | 250/350 | 250/350 | 210/300 |
| CURRENT | A | 1.1/1.2 | 0.65/0.70 | 0.45/0.51 |
| SPEED | R.P.M. | 1350/1500 | 1350/1500 | 1380/1560 |
| AIR-FLOW | m ³ /h | 5200/6200 | 5200/6200 | 5200/6200 |
| PROTECTION | | IP54 | IP54 | IP54 |
| NOISE | dB(A) | 72 | 72 | 72 |
| SAFETY REF. | | CE | CE | CE |

【AH1890-CA*】



※MODEL NUMBER DESIGNATION

| AH | 18 | 90 | C | A2 |
|------------|----------|--------------------|----------|-------------|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage |
| | | | | A2: AC 230V |
| | | | | A4: AC 400V |



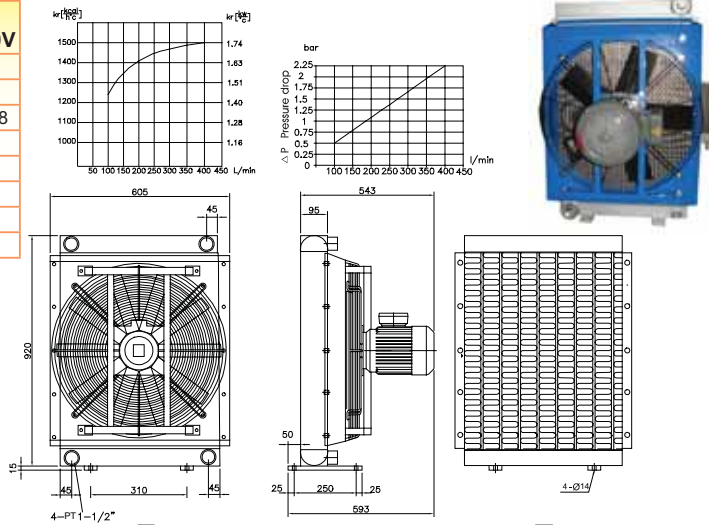
※SPECIFICATION

| DESCRIPTION | UNIT | AC | |
|-------------|-------------------|---------------------|---------------------|
| | | 210~230/360~400V | 240~270/420~460V |
| FREQUENCY | Hz | 50 | 60 |
| POWER | W | 1.5kW, 2Hp | 1.72kW, 2Hp |
| CURRENT | A | 6.15~6.25/2.56~3.78 | 6.15~6.25/2.56~3.78 |
| SPEED | R.P.M. | 1400 | 1680 |
| AIR-FLOW | m ³ /h | 7600 | 9120 |
| PROTECTION | | IP55 | IP55 |
| NOISE | dB(A) | --- | --- |
| SAFETY REF. | | CE | CE |

※MODEL NUMBER DESIGNATION

| AH | 23 | 42 | C | A2 |
|------------|----------|--------------------|----------|--|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 380V AC 400/ 415/ 440 is also available |

【AH2342-CA*】

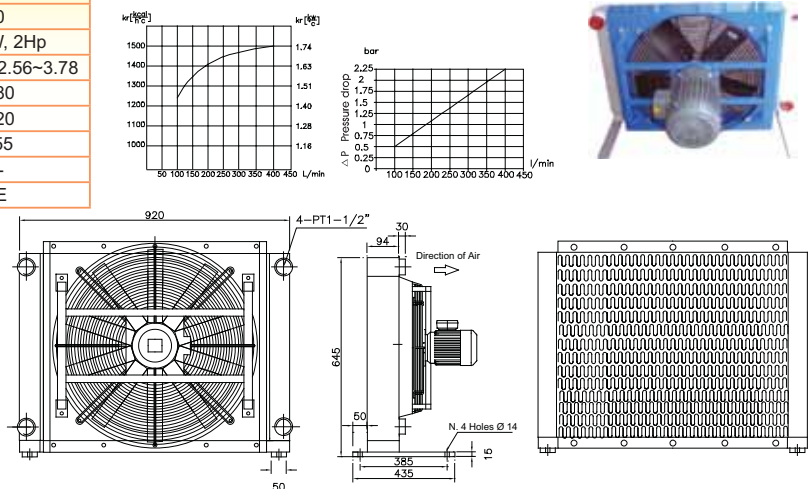


※SPECIFICATION

| DESCRIPTION | UNIT | AC | |
|-------------|-------------------|---------------------|---------------------|
| | | 210~230/360~400V | 240~270/420~460V |
| FREQUENCY | Hz | 50 | 60 |
| POWER | W | 1.5kW, 2Hp | 1.72kW, 2Hp |
| CURRENT | A | 6.15~6.25/2.56~3.78 | 6.15~6.25/2.56~3.78 |
| SPEED | R.P.M. | 1400 | 1680 |
| AIR-FLOW | m ³ /h | 7600 | 9120 |
| PROTECTION | | IP55 | IP55 |
| NOISE | dB(A) | --- | --- |
| SAFETY REF. | | CE | CE |

※MODEL NUMBER DESIGNATION

| AH | 23 | 42A | C | A2 |
|------------|----------|--------------------|----------|--|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 380V AC 400/ 415/ 440 is also available |

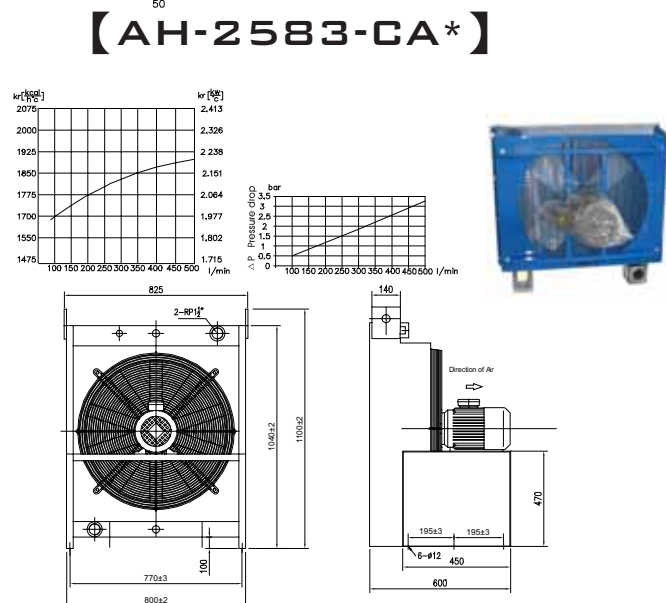


※SPECIFICATION

| DESCRIPTION | UNIT | AC | |
|-------------|-------------------|--------------------|---------------------|
| | | 210~230/360~400V | 240~270/420~460V |
| FREQUENCY | Hz | 50 | 60 |
| POWER | W | 2.2kW, 3Hp, 4Poles | 2.53kW, 3Hp, 4Poles |
| CURRENT | A | 8.6~9.15/5~5.29 | 8.6~9.15/5~5.29 |
| SPEED | R.P.M. | 1400 | 1680 |
| AIR-FLOW | m ³ /h | 10,000 | 12,000 |
| PROTECTION | | IP55 | IP55 |
| NOISE | dB(A) | --- | --- |
| SAFETY REF. | | CE | CE |

※MODEL NUMBER DESIGNATION

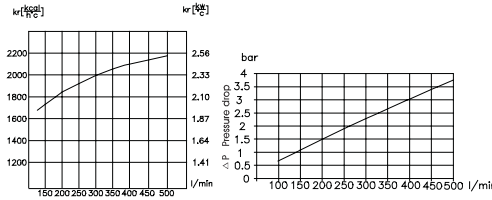
| AH | 25 | 83 | C | A2 |
|------------|----------|--------------------|----------|--|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 380V AC 400/ 415/ 440 is also available |



※SPECIFICATION

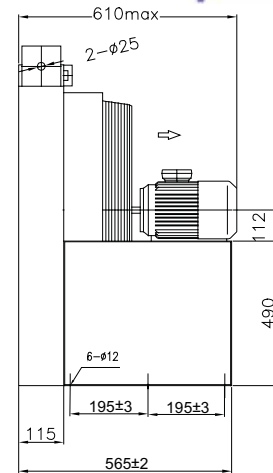
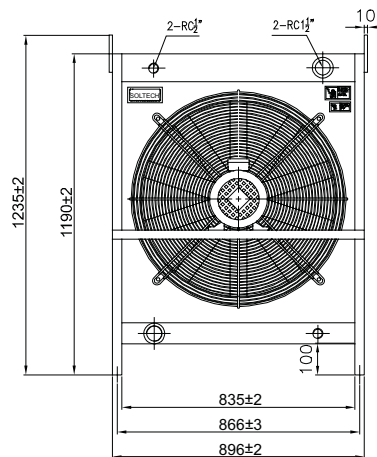
| DESCRIPTION | UNIT | AC | |
|-------------|-------------------|---------------------|---------------------|
| | | 210~230/360~400V | 240~270/420~460V |
| FREQUENCY | Hz | 50 | 60 |
| POWER | W | 2.2kW, 3Hp, 6Poles | 2.6kW, 3Hp, 6Poles |
| CURRENT | A | 9.89~9.51/5.71~5.49 | 9.89~9.51/5.71~5.49 |
| SPEED | R.P.M. | 955 | 1150 |
| AIR-FLOW | m ³ /h | 16,500 | 19,800 |
| PROTECTION | | IP55 | IP55 |
| NOISE | dB(A) | --- | --- |
| SAFETY REF. | | CE | CE |

【AH2890-CA*】



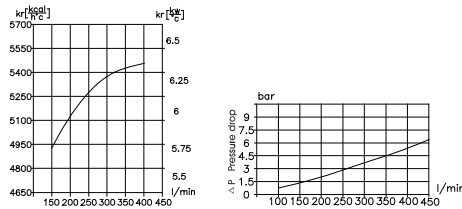
※MODEL NUMBER DESIGNATION

| AH | 28 | 90 | C | A2 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 380V AC 400/ 415/ 440 is also available |



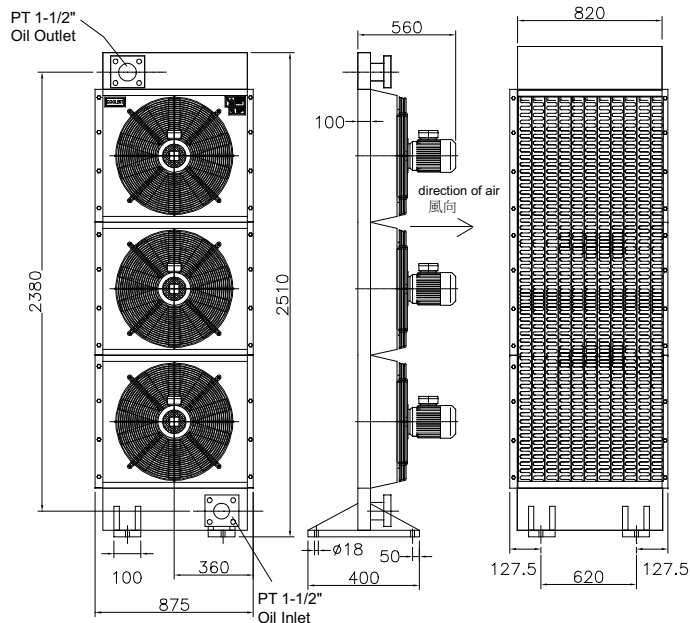
※SPECIFICATION

| DESCRIPTION | UNIT | AC | |
|-------------|-------------------|--------------------|---------------------|
| | | 210~230/360~400V | 240~270/420~460V |
| FREQUENCY | Hz | 50 | 60 |
| POWER | W | 2.2kW, 3Hp, 4Poles | 2.53kW, 3Hp, 4Poles |
| CURRENT | A | 8.6~9.15/5~5.29 | 8.6~9.15/5~5.29 |
| SPEED | R.P.M. | 1400 | 1680 |
| AIR-FLOW | m ³ /h | 10,000 | 12,000 |
| PROTECTION | | IP55 | IP55 |
| NOISE | dB(A) | --- | --- |
| SAFETY REF. | | CE | CE |



※MODEL NUMBER DESIGNATION

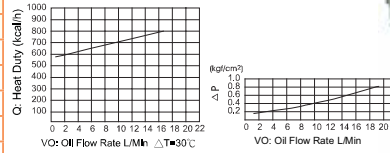
| AH3 | 25 | 83 | C | A2 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A2: AC 230V A3: AC 380V AC 400/ 415/ 440 is also available |



※SPECIFICATION

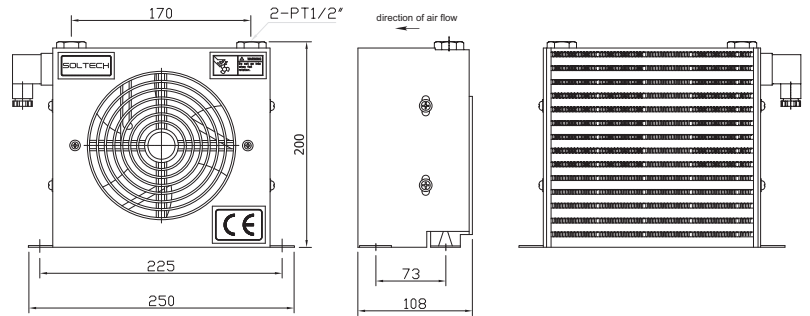
| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AW0607-CA*】



※MODEL NUMBER DESIGNATION

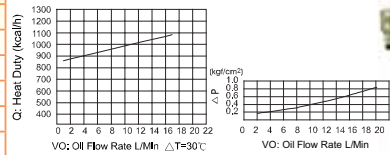
| AW | 06 | 07 | C | A1 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |



※SPECIFICATION

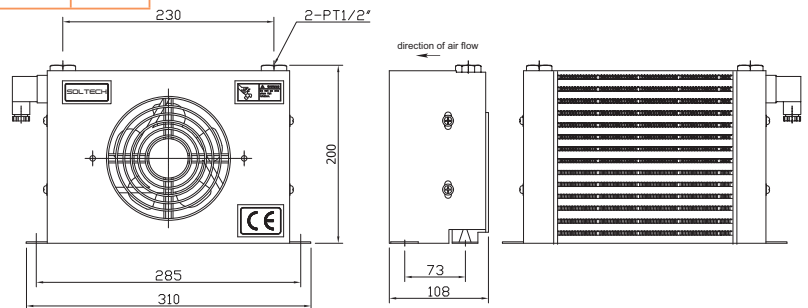
| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AW0608-CA*】



※MODEL NUMBER DESIGNATION

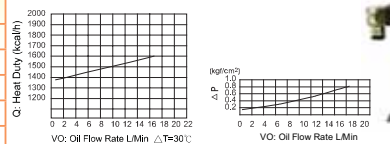
| AW | 06 | 08 | C | A1 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |



※SPECIFICATION

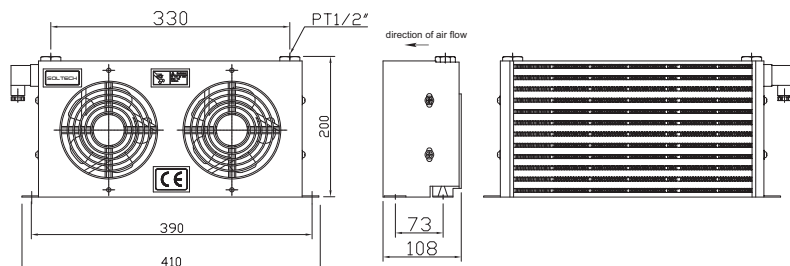
| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AW0608L-CA*】



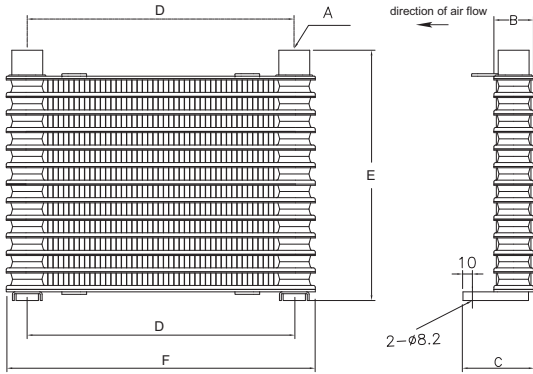
※MODEL NUMBER DESIGNATION

| AW | 06 | 08L | C | A1 |
|------------|----------|--------------------|----------|---|
| Series No. | Fan Size | Radiator Model No. | Fan Case | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |



※MODEL NUMBER DESIGNATION

| | |
|------------|--|
| AL | 190 |
| Series No. | Radiator Model 190: PT/Rc 1/2" 404: PT/Rc 1/2" 608: PT/Rc 3/8" 609: PT/Rc 1/2" |



【AL-***】



AL404

AL608

AL190

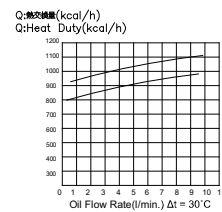
| | A (Rc/PT) | B | C | D | E | F | WEIGHT |
|-------|-----------|----------|----------|-----------|-----------|-----------|--------|
| AL190 | 1/2" | 32(1.26) | 56(2.20) | 190(7.48) | 167(6.57) | 220(8.66) | 0.5 |
| AL404 | 1/2" | 42(1.65) | 66(2.60) | 217(8.54) | 203(7.99) | 250(9.84) | 1 |
| AL608 | 3/8" | 32(1.26) | 56(2.20) | 217(8.54) | 203(7.99) | 250(9.84) | 0.75 |
| AL609 | 1/2" | 32(1.26) | 56(2.20) | 217(8.54) | 203(7.99) | 250(9.84) | 0.75 |

UNIT: M.M./INCH

※SPECIFICATION

| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AL-***-A*】

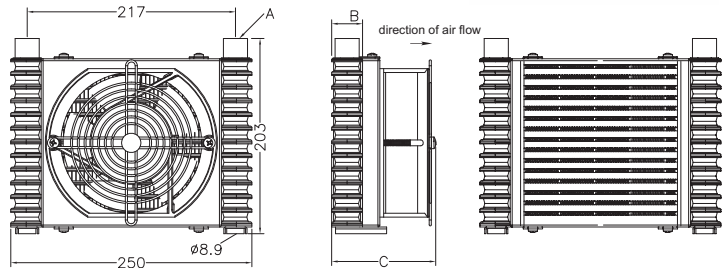


※MODEL NUMBER DESIGNATION

| | | |
|------------|---|---|
| AL | 404 | A1 |
| Series No. | Radiator Model 404: PT/Rc 1/2" 608: PT/Rc 3/8" 609: PT/Rc 1/2" | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |

| | A (Rc/PT) | B | C | WEIGHT |
|----------|-----------|----------|-----------|--------|
| AL-404-A | 1/2" | 42(1.65) | 110(4.33) | 2.25 |
| AL-608-A | 3/8" | 32(1.26) | 120(4.72) | 2.0 |
| AL-609-A | 1/2" | 32(1.26) | 120(4.72) | 2.0 |

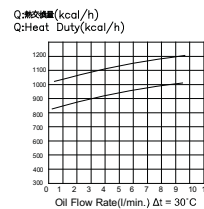
UNIT: M.M./INCH



※SPECIFICATION

| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

【AL***-CA*】

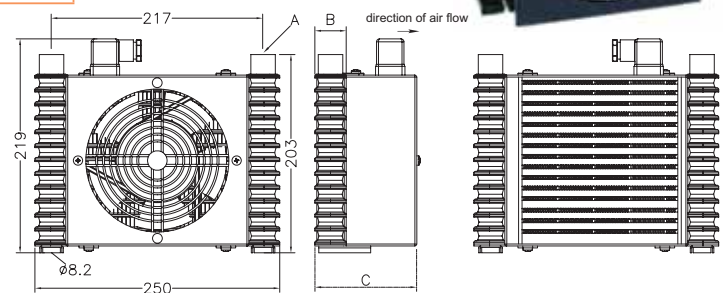


※MODEL NUMBER DESIGNATION

| | | |
|------------|---|---|
| AL | 608 | A1 |
| Series No. | Radiator Model 404: PT/Rc 1/2" 608: PT/Rc 3/8" 609: PT/Rc 1/2" | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |

| | A (Rc/PT) | B | C | WEIGHT |
|-----------|-----------|----------|-----------|--------|
| AL-404-CA | 1/2" | 42(1.65) | 110(4.33) | 2.25 |
| AL-608-CA | 3/8" | 32(1.26) | 120(4.72) | 2.6 |
| AL-609-CA | 1/2" | 32(1.26) | 120(4.72) | 2.6 |

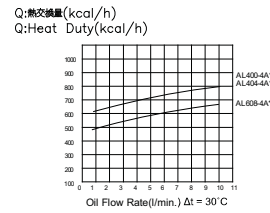
UNIT: M.M./INCH



※SPECIFICATION

| DESCRIPTION | UNIT | AC 115V | AC 230V | AC 380V | DC 12V | DC 24V |
|-------------|-------------------|-----------|-----------|---------|--------|--------|
| FREQUENCY | Hz | 50/60 | 50/60 | 50/60 | --- | --- |
| POWER | W | 45/37 | 45/37 | 30/25 | --- | --- |
| CURRENT | A | 0.5/0.6 | 0.27/0.23 | --- | 2.5 | 0.58 |
| SPEED | R.P.M. | 2850/3450 | 2850/3450 | --- | 3350 | 3350 |
| AIR-FLOW | m ³ /h | 457/553 | 457/553 | --- | 500 | 420 |
| PROTECTION | | IP54 | IP54 | --- | --- | --- |
| NOISE | dB(A) | 42/48 | 42/48 | --- | 51 | 51 |
| SAFETY REF. | | CE | CE | --- | --- | --- |

{AL-***-4A*}

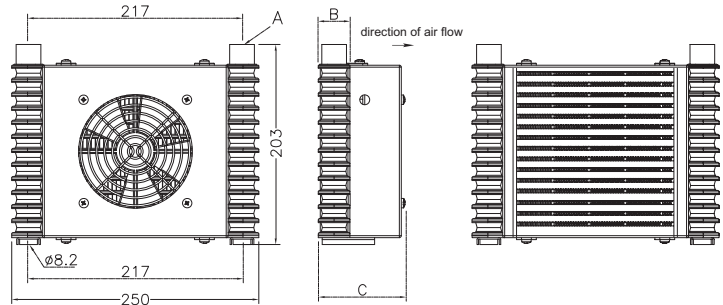


※MODEL NUMBER DESIGNATION

| AL | 404 | 4 | A1 |
|------------|---|---------------------|---|
| Series No. | Radiator Model 404: PT/Rc 1/2" 608: PT/Rc 3/8" 609: PT/Rc 1/2" | Fan Size 4" inch | Voltage A1: AC 115V A2: AC 230V A3: AC 380V D1: DC 12V D2: DC24V |

| | A (Rc/PT) | B | C | WEIGHT |
|-----------|-----------|----------|----------|--------|
| AL-404-4A | 1/2" | 42(1.65) | 98(3.86) | 1.75 |
| AL-608-4A | 3/8" | 32(1.26) | 88(3.46) | 1.5 |
| AL-609-4A | 1/2" | 42(1.65) | 88(3.46) | 1.5 |

UNIT: M.M./INCH

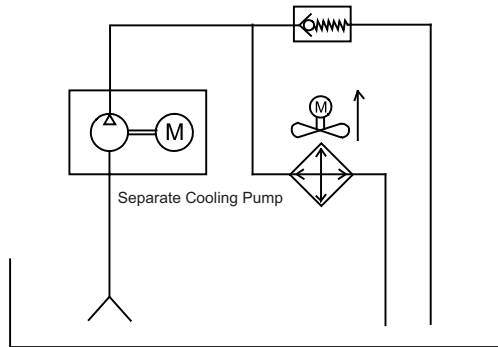


H

※MODEL NUMBER DESIGNATION

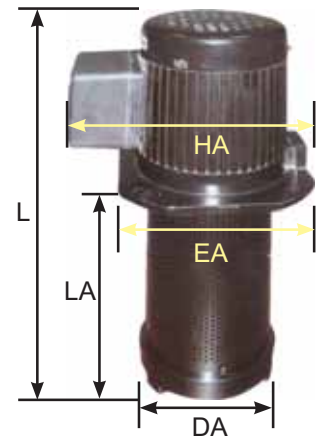
| TC | 6 | 130 |
|-----------|-----------|------------------|
| Model No. | Power | Pump Size (M.M.) |
| | | 180: 180 |
| | | 240: 240 |
| | 1: 1 Hp | 380: 380 |
| | | 180: 180 |
| | | 290: 290 |
| | 2: 1/2 Hp | 155: 155 |
| | | 220: 220 |
| | | 350: 350 |
| | 4: 1/4 Hp | 130: 130 |
| 180: 180 | | |

A By-Pass Valve to Avoid Surge Back-Pressure When Started With Cold Oil.



Separate Cooling Method

{TC-6130}



※SPECIFICATION

| Model | Power (Hp) | Flow (l/min) | L (M.M.(INCH)) | LA (M.M.(INCH)) | DA (M.M.(INCH)) | HA (M.M.(INCH)) | EA (M.M.(INCH)) | Outlet Port Rc/PT |
|---------|------------|--------------|----------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| TC-6130 | 1/6 | 20 | 275(10.8) | 130(5.1) | 90(3.5) | 160(6.3) | 128(5.0) | 1/2" |
| TC-6180 | 1/6 | 20 | 325(12.8) | 180(7.1) | 90(3.5) | 160(6.3) | 128(5.0) | 1/2" |
| TC-4155 | 1/4 | 50 | 341(13.4) | 155(6.1) | 126(5.0) | 191(7.5) | 158(6.2) | 3/4" |
| TC4220 | 1/4 | 50 | 406(16.0) | 220(8.7) | 126(5.0) | 191(7.5) | 158(6.2) | 3/4" |
| TC-4350 | 1/4 | 50 | 536(21.1) | 350(13.8) | 126(5.0) | 191(7.5) | 158(6.2) | 3/4" |
| TC-2180 | 1/2 | 80 | 385(15.2) | 180(7.1) | 126(5.0) | 196(7.7) | 171(6.7) | 1" |
| TC-2290 | 1/2 | 80 | 495(19.5) | 290(11.4) | 126(5.0) | 196(7.7) | 171(6.7) | 1" |
| TC-1180 | 1 | 120 | 400(15.7) | 180(7.1) | 151(5.94) | 191(7.5) | 185(7.28) | 1" |
| TC-1240 | 1 | 120 | 460(18.1) | 240(9.4) | 151(5.94) | 196(7.7) | 185(7.28) | 1" |
| TC-1380 | 1 | 120 | 600(23.6) | 380(15.0) | 151(5.94) | 196(7.7) | 185(7.28) | 1" |

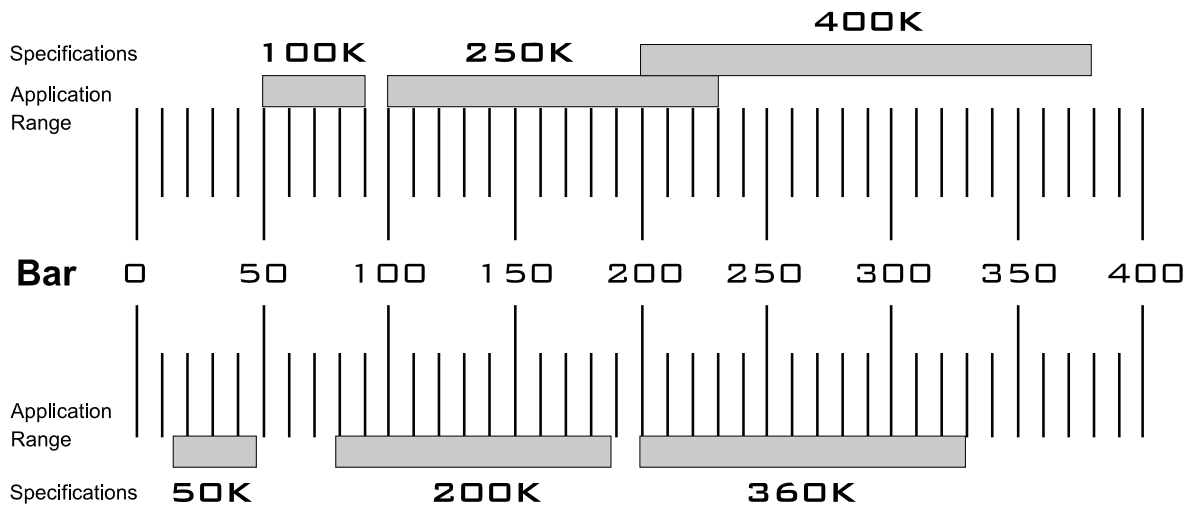
UNIT: M.M./INCH

※PRESSURE RANGE

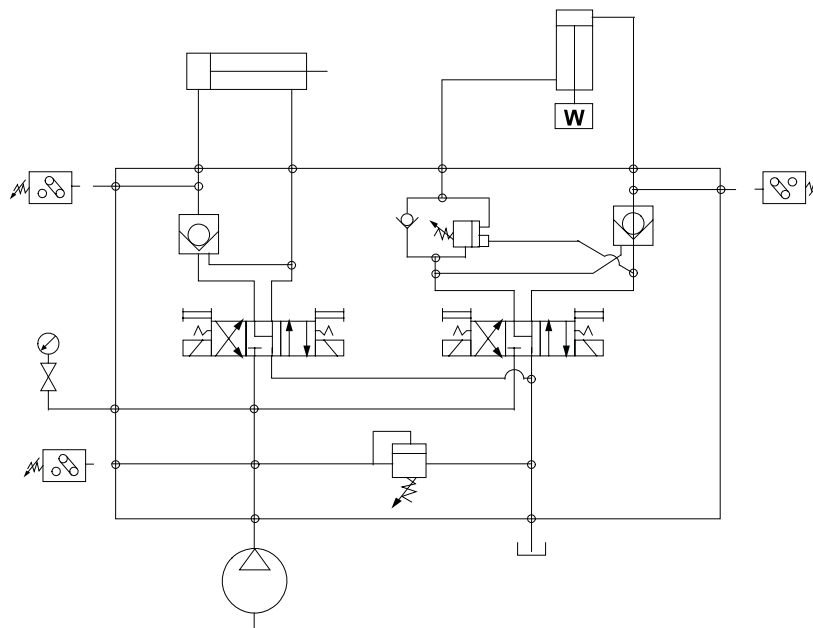
| MODEL | 02K | 08K | 20K | 40K | 50K | 70K | 100K | 150K | 200K | 210K | 250K | 280K | 360K | 400K |
|-------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| PSA | | | | | ● | | ● | | ● | | | ● | | ● |
| PAB | | | | ● | | ● | | ● | | | ● | | | |
| PSL | | | | | ● | | ● | | ● | | | ● | | ● |
| PYC | | | | | | | | | | ● | | | | |
| DNP | ● | ● | ● | | | | | | | | | | | |
| DNMB | | | | ● | | ● | | ● | | | ● | | | |
| DNA | | | | ● | | | ● | | | | ● | | ● | |
| DNB | | | | ● | | ● | | ● | | | ● | | | |
| DNC | | | | ● | | | ● | | | | ● | | ● | |
| DNL | | | | | ● | | ● | | ● | | | ● | | ● |
| DNF | | | | ● | | | ● | | | | ● | | ● | |
| DNM | | | | ● | | | ● | | | | ● | | | |

H

※APPLICATION RANGE AND SPECIFICATIONS SELECTION TABLES



※PRESSURE SWITCH APPLICATION CIRCUIT(FOR REFERENCE ONLY)



【PSA】

※SPECIFICATION

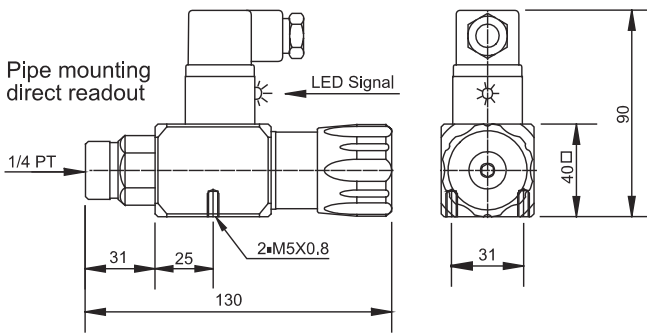
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| PSA-50K | 6~50 | 200 | 0.8 |
| PSA-100K | 15~100 | 300 | |
| PSA-200K | 30~200 | 300 | |
| PSA-280K | 40~28 | 350 | |
| PSA-400K | 50~400 | 450 | |



※MODEL NUMBER DESIGNATION

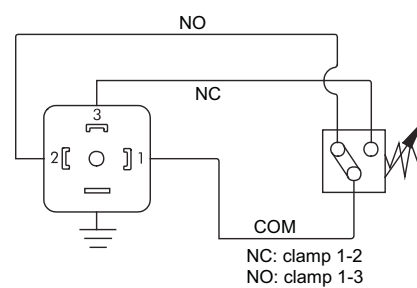
| PSA | 280K | 21B |
|--|---|--|
| Series No. Direct read-out, DC 24V Transistor Sensing Switch | Pres. Adj. Range (Bar) 50K: 6~50 100K: 15~100 200K: 30~200 280K: 40~280 400K: 50~400 | Design No: 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |

※DIMENSION



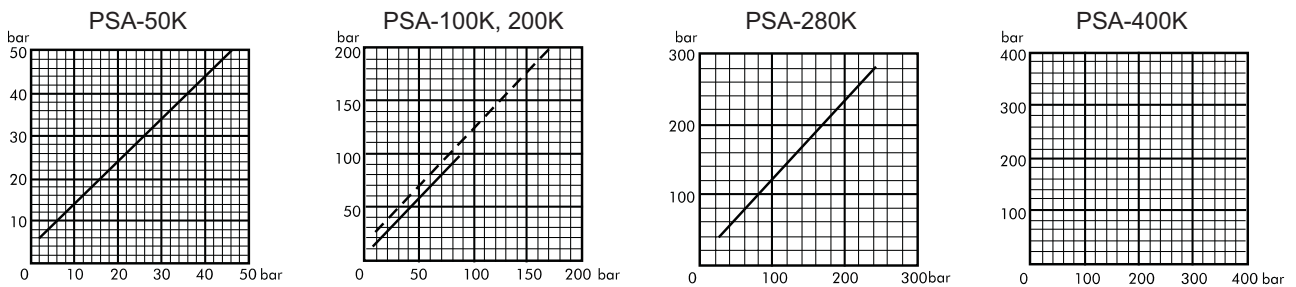
UNIT: M.M.

※WIRING DIAGRAM

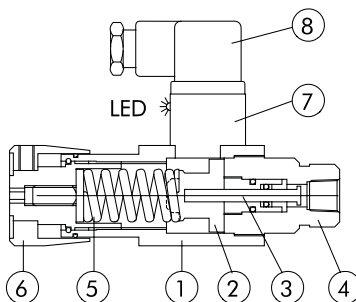


| Breaking Capacity | Voltage Up To | Resistance Load |
|--------------------------------|---------------|-----------------|
| D.C. | 24V | <100 mA |
| Electrically: 80,000,000 Times | | |

※PERFORMANCE CURVE



※SCHEMATIC CROSS-SECTION



| | | | |
|---|----------------------|---|--------------------|
| 1 | Body(Aluminum Alloy) | 5 | Spring |
| 2 | Switch Sensing Seat | 6 | Pressure Adj. Knob |
| 3 | Servo Piston | 7 | Induction-Switch |
| 4 | Connection Part | 8 | Wiring Connector |



SOLTECH

ACCESSORIES

PRESSURE SWITCHES-NPN

[PSB]

※SPECIFICATION

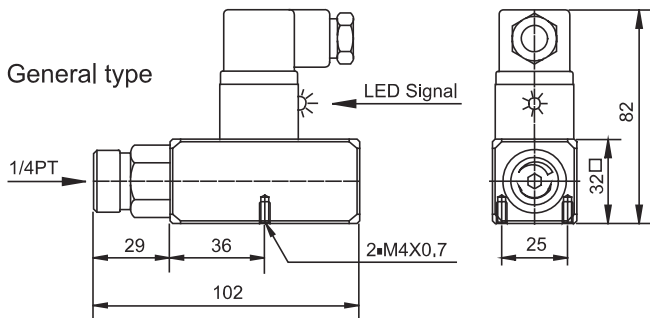
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| PSB-40K | 5~40 | 150 | 0.4 |
| PSB-70K | 6~70 | 200 | |
| PSB-150K | 30~150 | 300 | |
| PSB-250K | 40~250 | 300 | |

※MODEL NUMBER DESIGNATION

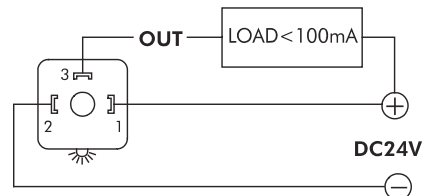
| PSB | 250K | 21B |
|---------------------------|------------------------|-------------------|
| Series No. | Pres. Adj. Range (Bar) | Design No: |
| General Type | 40K: 5~40 | 21B: 1/4" PT |
| Direct read-out, DC 24V | 70K: 6~70 | 21B80: 1/4" PF(G) |
| Transistor Sensing Switch | 150K: 30~150 | 21B90: 1/4" NPT |
| | 250K: 40~250 | |



※DIMENSION



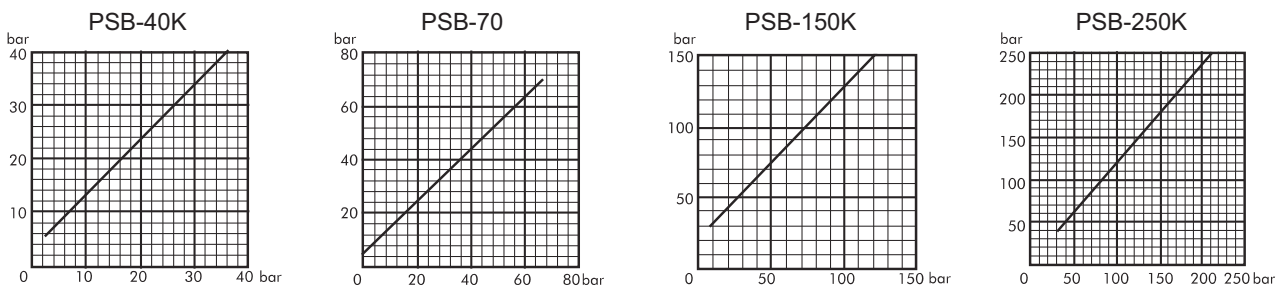
※WIRING DIAGRAM



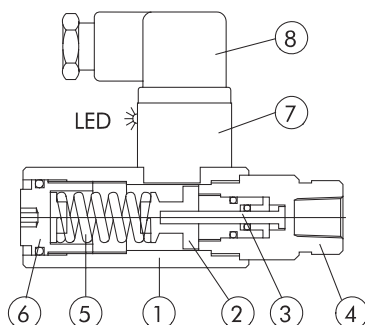
| Breaking Capacity | Voltage Up To | Resistance Load |
|--------------------------------|---------------|-----------------|
| D.C. | 24V | <100 mA |
| Electrically: 80,000,000 Times | | |

UNIT: M.M.

※PERFORMANCE CURVE



※SCHEMATIC CROSS-SECTION

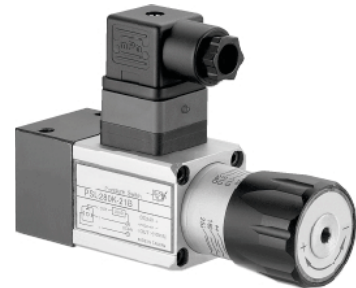


| | | | |
|---|----------------------|---|--------------------|
| 1 | Body(Aluminum Alloy) | 5 | Spring |
| 2 | Switch Sensing Seat | 6 | Pressure Adj. Knob |
| 3 | Servo Piston | 7 | Induction-Switch |
| 4 | Connection Part | 8 | Wiring Connector |

【 PSL 】

※SPECIFICATION

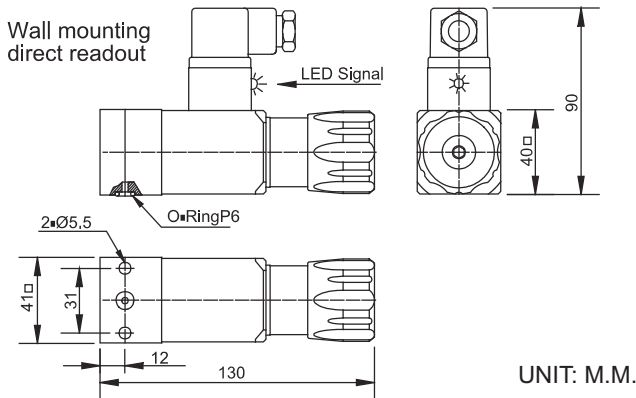
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| PSL-50K | 6~50 | 200 | 0.8 |
| PSL-100K | 15~100 | 300 | |
| PSL-200K | 30~200 | 300 | |
| PSL-280K | 40~280 | 350 | |
| PSL-400K | 50~400 | 450 | |



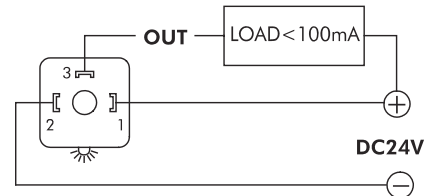
※MODEL NUMBER DESIGNATION

| PSL | 280K | 21B |
|--|---|--|
| Series No. Subplate Mounting, DC 24V Transistor Sensing Switch | Pres. Adj. Range (Bar) 50K: 6~50 100K: 15~100 200K: 30~200 280K: 40~280 400K: 50~400 | Design No: 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |

※DIMENSION

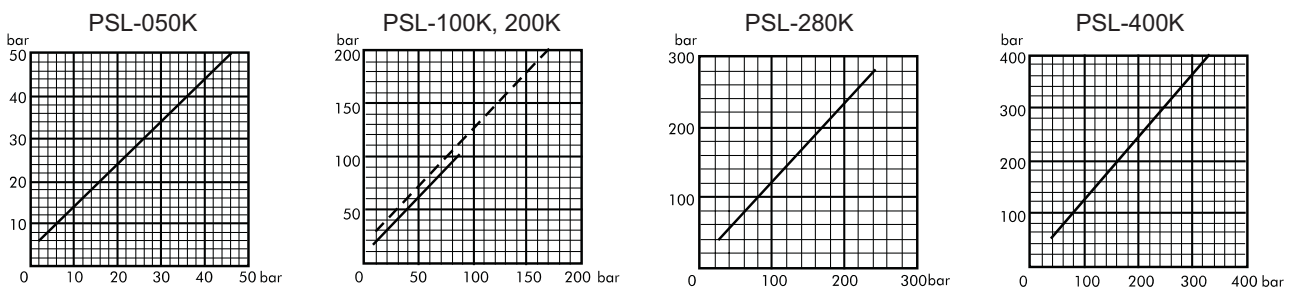


※WIRING DIAGRAM

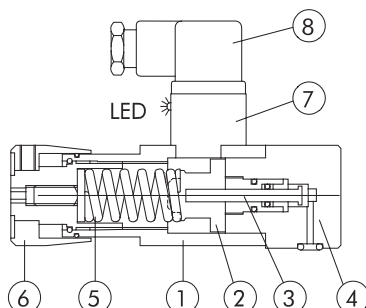


| Breaking Capacity | Voltage Up To | Resistance Load |
|--------------------------------|---------------|-----------------|
| D.C. | 24V | <100 mA |
| Electrically: 80,000,000 Times | | |

※PERFORMANCE CURVE



※SCHEMATIC CROSS-SECTION



| | | | |
|---|----------------------|---|--------------------|
| 1 | Body(Aluminum Alloy) | 5 | Spring |
| 2 | Switch Sensing Seat | 6 | Pressure Adj, Knob |
| 3 | Servo Piston | 7 | Induction-Switch |
| 4 | Connection Part | 8 | Wiring Connector |

[PYC]

※SPECIFICATION

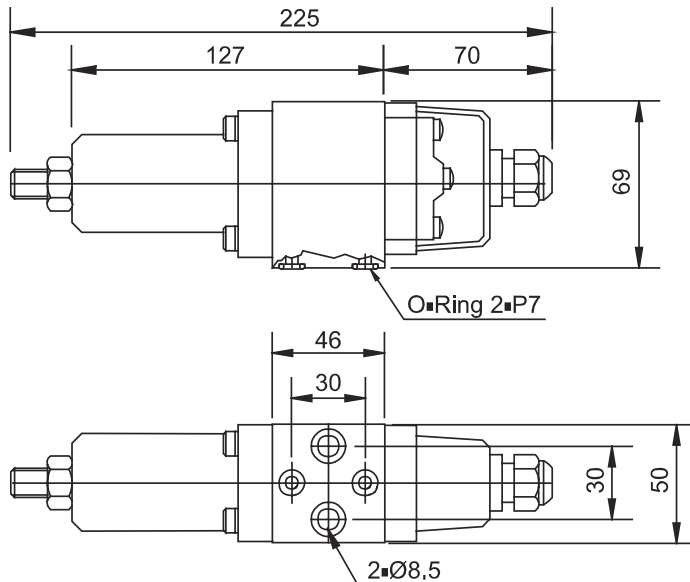
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|---------------------------|----------------------|----------------|
| PYC-210K | 10~210 | 280 | 1.8 |

※MODEL NUMBER DESIGNATION

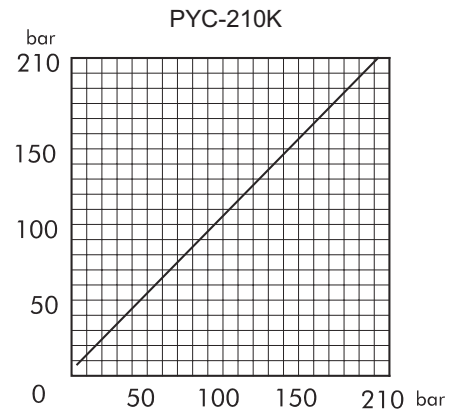
| PYC | 210K | 21B |
|--|---|--|
| Series No. Pilot Pressure Relief Type Switch | Pres. Adj. Range (Bar) 210K: 10~210 | Design No: 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |



※DIMENSION



※PERFORMANCE CURVE

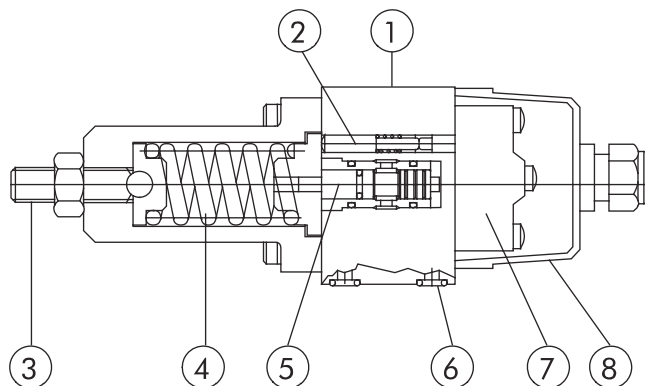


| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250/480 | 15 A |
| D.C. | 125 | 0.5A |
| | 250 | 0.25A |

Life Time: 200,000 Times

UNIT: M.M.

※SCHEMATIC CROSS-SECTION



| | | | |
|---|----------------------|---|--------------|
| 1 | Body(Aluminum Alloy) | 5 | Servo Piston |
| 2 | Micro Switch Guide | 6 | O-Ring-P7 |
| 3 | Pressure Adj. Screw | 7 | Micro-Switch |
| 4 | Spring | 8 | Cover |

[DNP]

※SPECIFICATION

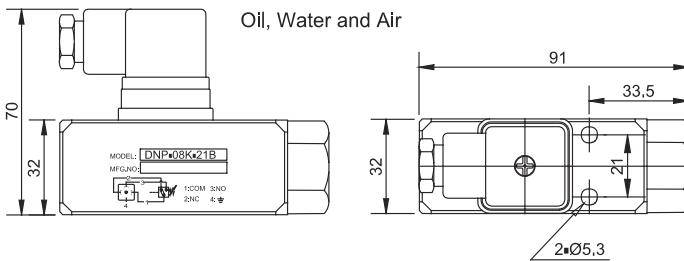
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|---------|------------------------|-------------------|-------------|
| DNP-02K | 0.3~2 | 80 | 0.2 |
| DNP-08K | 0.6~8 | | |
| DNP-20K | 1.5~20 | | |



※MODEL NUMBER DESIGNATION

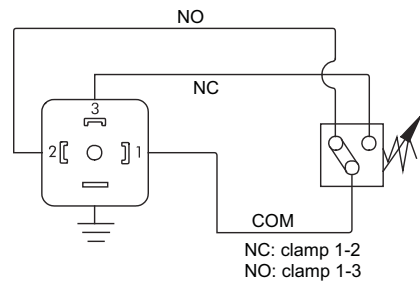
| DNP | 02K | 21B |
|--|---|--|
| Series No. Low Pressure Diaphragm Type | Pres. Adj. Range (Bar) 02K: 0.3~2 08K: 0.6~8 20K: 1.5~20 | Design No: 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |

※DIMENSION



UNIT: M.M.

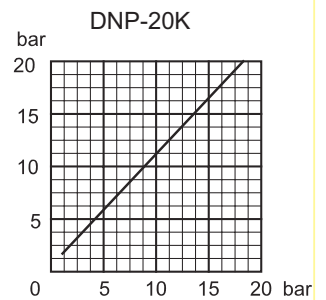
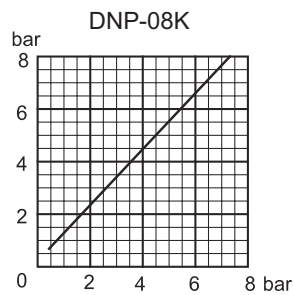
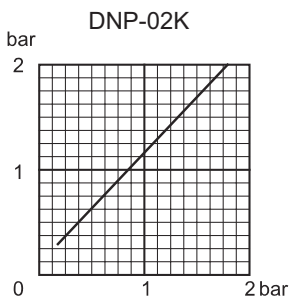
※GRAPHIC SYMBOL



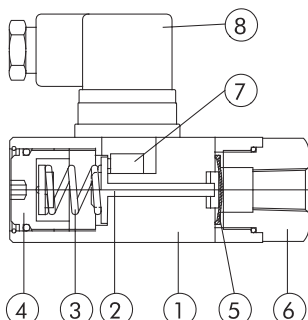
| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

Life Time: 100,000 Times

※PERFORMANCE CURVE



※SCHEMATIC CROSS-SECTION



| | | | |
|---|----------------------|---|------------------|
| 1 | Body(Aluminum Alloy) | 5 | Diaphragm |
| 2 | Servo Piston | 6 | Connection Port |
| 3 | Spring | 7 | Micro-Switch |
| 4 | Pressure Adj. Knob | 8 | Wiring Connector |

[DNMB]

※SPECIFICATION

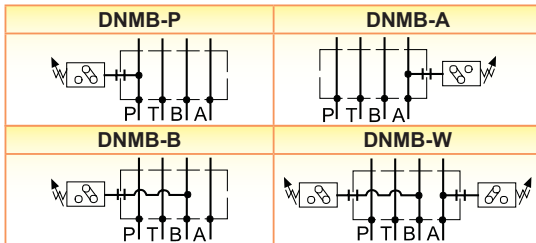
| MODEL | SURGE PRESSURE(Bar) | | | | WEIGHT (Kg) |
|---------------|---------------------|------|------|------|-------------|
| | 40K | 070K | 150K | 250K | |
| DNMB-02-A/B/P | 200 | 200 | 350 | 350 | 5.5 |
| DNMB-02-W | | | | | 0.8 |
| DNMB-03-A/B/P | | | | | 0.75 |
| DNMB-03-W | | | | | 1.0 |



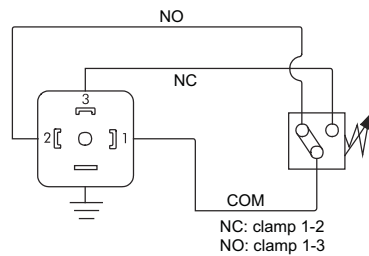
※MODEL NUMBER DESIGNATION

| DNMB | 02 | P | 150K | 21B |
|--------------------------------------|---|---|---|--|
| Series No. Modular(Stack) Type | Valve Size 02: 1/4"(NG6) 03: 3/8"(NG10) | Function Port P: "P" Port A: "A" Port B: "B" Port W: "A"&"B" Port | Pres. Adj. Range (Bar) 40K: 5~40 70K: 6~70 150K: 30~150 250K: 40~250 | Design No: 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |

※SYMBOL



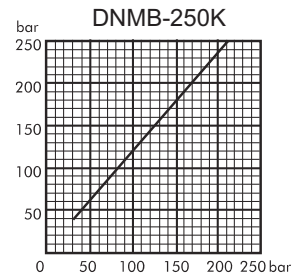
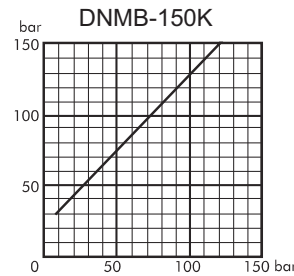
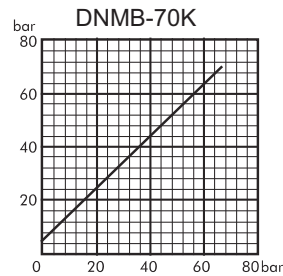
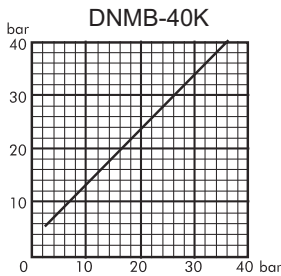
※GRAPHIC SYMBOL



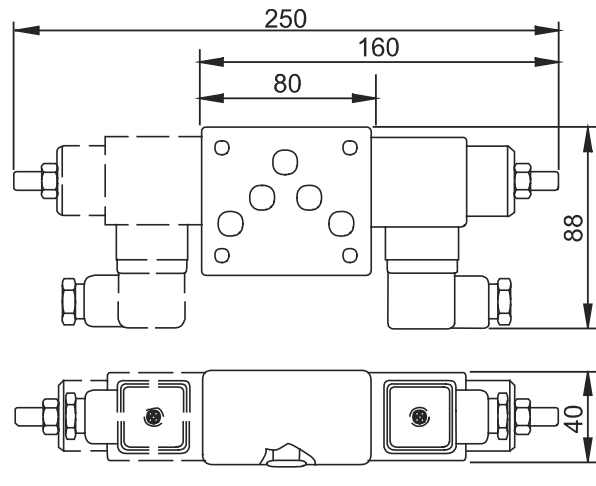
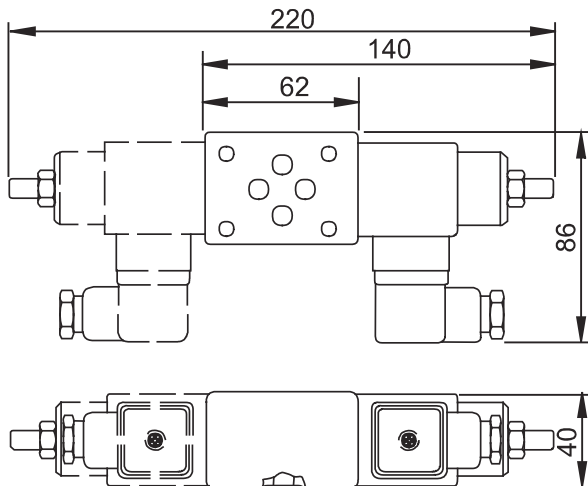
| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

Life Time: 100,000 Times

※PERFORMANCE CURVE



※DIMENSIONS



UNIT: M.M.

[DNA]

※SPECIFICATION

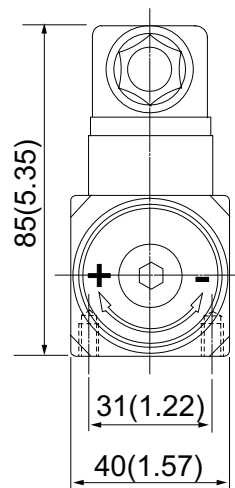
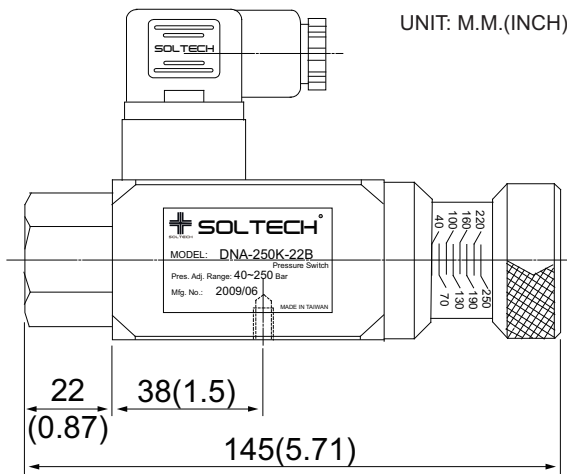
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| DNA-40KK | 6~40 | 150 | 1.0 |
| DNA-100K | 15~100 | 250 | |
| DNA-250K | 40~250 | 300 | |
| DNA-360K | 50~360 | 400 | |



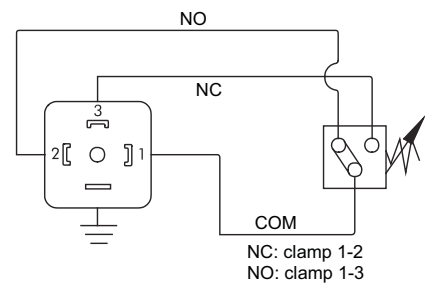
※MODEL NUMBER DESIGNATION

| DNA | 40K | 22B |
|--|---|--|
| Series No. Direct Read-Out, Standard Type | Pres. Adj. Range (Bar) 40K: 6~40 100K: 15~100 250K: 40~250 360K: 50~360 | Design No: 22B: 1/4" PT 22B80: 1/4" PF(G) 22B90: 1/4" NPT |

※DIMENSION



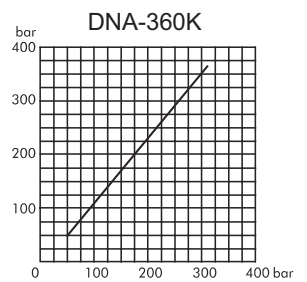
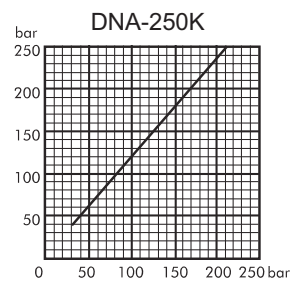
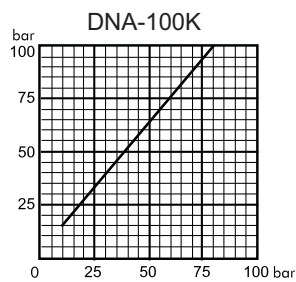
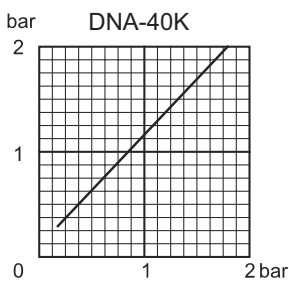
※GRAPHIC SYMBOL



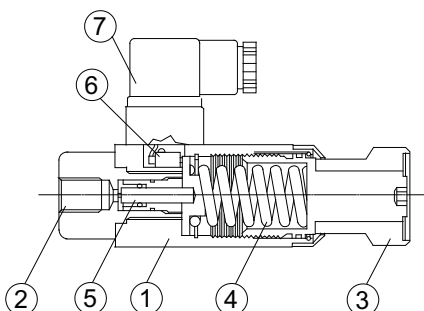
| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

Life Time: 100,000 Times

※PERFORMANCE CURVE



※SCHEMATIC CROSS-SECTION



| | | | |
|---|--------------------|---|------------------|
| 1 | Body(Casting Iron) | 5 | Servo Piston |
| 2 | Connecting Port | 6 | Micro-Switch |
| 3 | Pressure Adj, Knob | 7 | Wiring Connector |
| 4 | Spring | | |

[DNB]

※SPECIFICATION

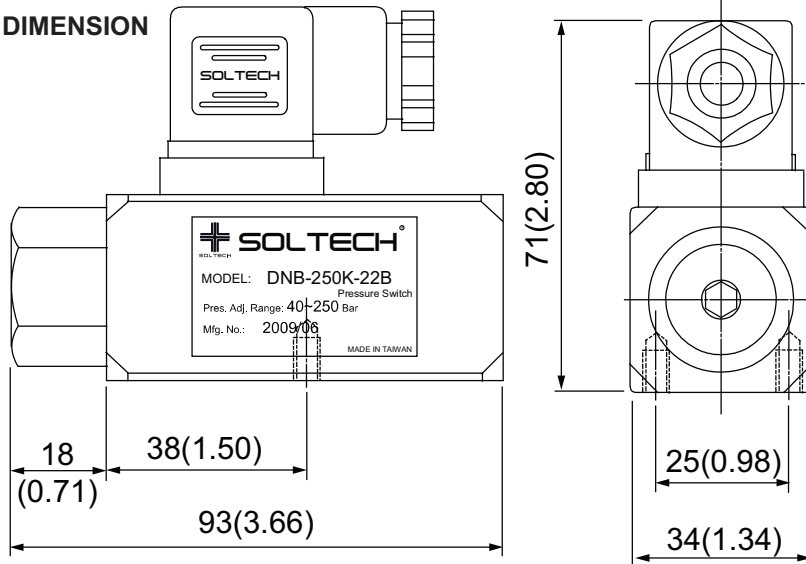
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| DNB-40K | 5~40 | 150 | 0.6 |
| DNB-70K | 6~70 | 200 | |
| DNB-150K | 30~150 | 300 | |
| DNB-250K | 40~250 | 400 | |



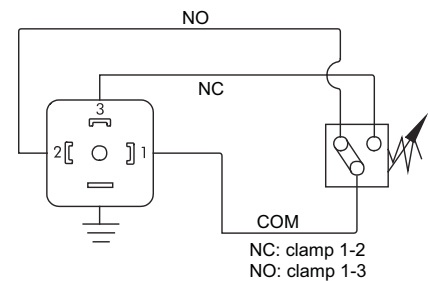
※MODEL NUMBER DESIGNATION

| DNB | 40K | 22B |
|--------------|--|--|
| Series No. | Pres. Adj. Range (Bar) | Design No: |
| General Type | 40K: 5~40 70K: 6~70 150K: 30~150 250K: 40~250 | 22B: 1/4" PT 22B80: 1/4" PF(G) 22B90: 1/4" NPT |

※DIMENSION



※GRAPHIC SYMBOL

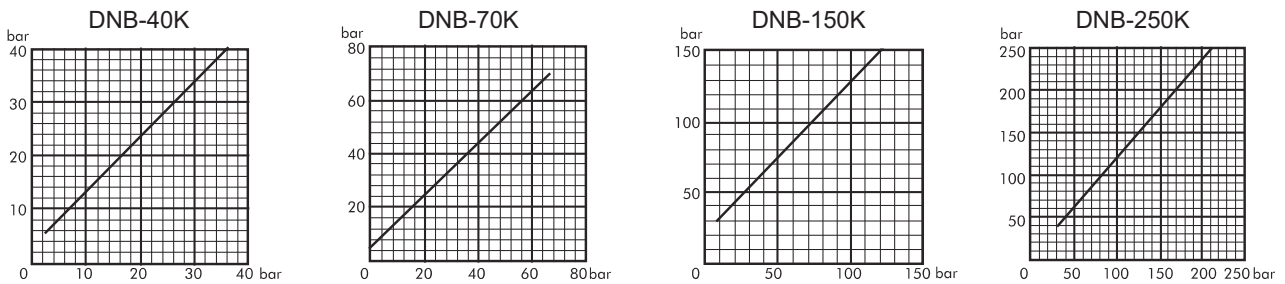


| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

Life Time: 100,000 Times

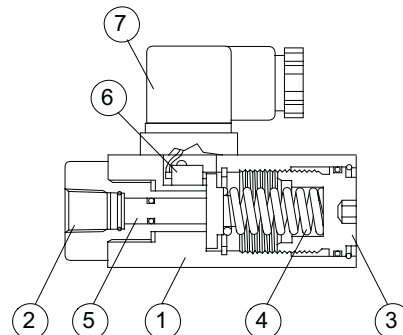
UNIT: M.M.(INCH)

※PERFORMANCE CURVE



※SCHEMATIC CROSS-SECTION

| | | | |
|---|--------------------|---|------------------|
| 1 | Body(Casting Iron) | 5 | Servo Piston |
| 2 | Connecting Port | 6 | Micro-Switch |
| 3 | Pressure Adj. Knob | 7 | Wiring Connector |
| 4 | Spring | | |



[DNC]

※SPECIFICATION

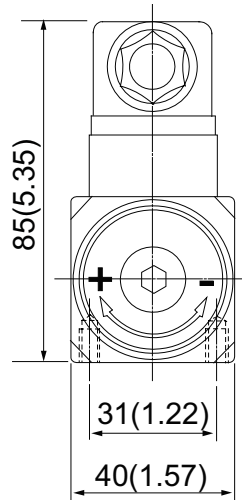
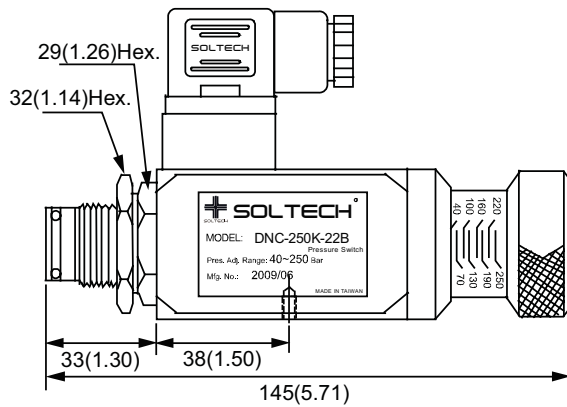
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| DNC-40K | 6~40 | 150 | 1.0 |
| DNC-100K | 15~100 | 250 | |
| DNC-250K | 40~250 | 300 | |
| DNC-360K | 50~360 | 400 | |

※MODEL NUMBER DESIGNATION

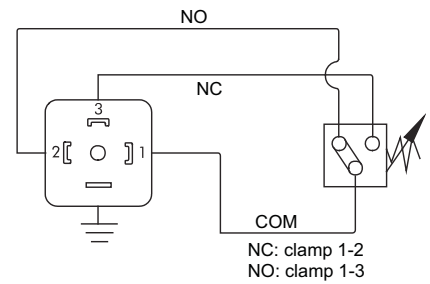
| DNC | 40K | 22B |
|--|---|-----------------------------|
| Series No. Cartridge Mounting Direct Read-Out Type | Pres. Adj. Range (Bar) 40K: 6~40 100K: 15~100 250K: 40~250 360K: 50~360 | Design No: 22B: M22xP1.5 |



※DIMENSION



※GRAPHIC SYMBOL

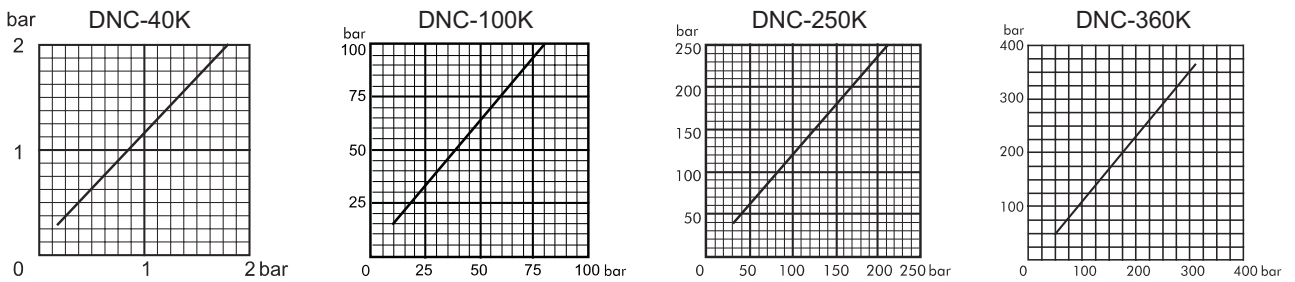


| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

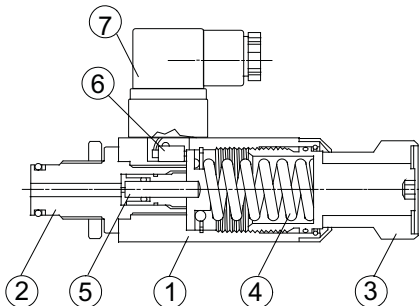
Life Time: 100,000 Times

※PERFORMANCE CURVE

UNIT: M.M.(INCH)

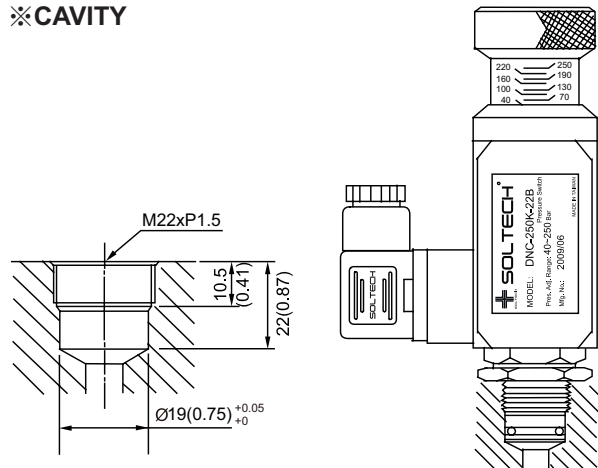


※SCHEMATIC CROSS-SECTION



| | | | |
|---|--------------------|---|------------------|
| 1 | Body(Casting Iron) | 5 | Servo Piston |
| 2 | Connecting Port | 6 | Micro-Switch |
| 3 | Pressure Adj. Knob | 7 | Wiring Connector |
| 4 | Spring | | |

※CAVITY



[DNF]

※SPECIFICATION

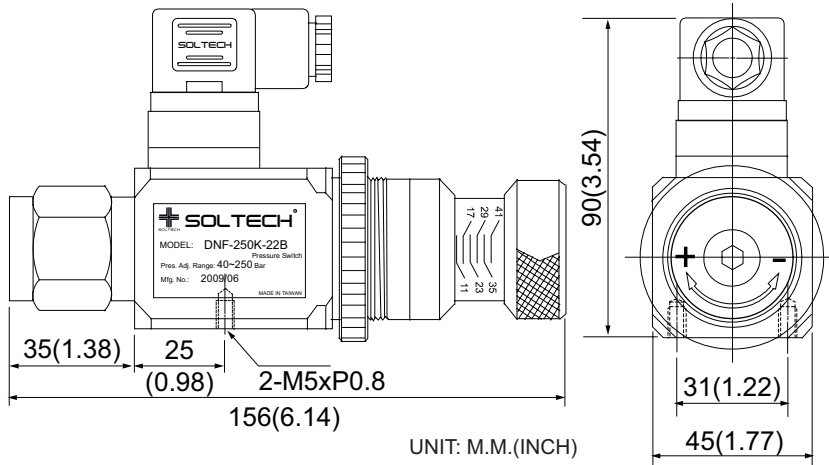
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|----------|------------------------|-------------------|-------------|
| DNF-40KK | 6~40 | 150 | 1.2 |
| DNF-100K | 15~100 | 250 | |
| DNF-250K | 40~250 | 300 | |
| DNF-360K | 50~360 | 400 | |

※MODEL NUMBER DESIGNATION

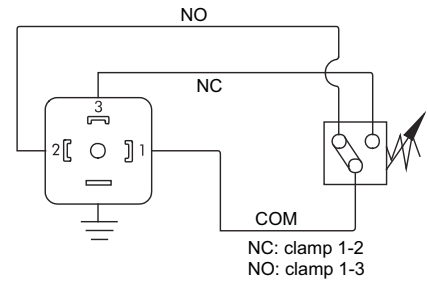
| DNF | 40K | 22B |
|--|---|--|
| Series No. Panel Mounting Direct Read-Out Type | Pres. Adj. Range (Bar) 40K: 6~40 100K: 15~100 250K: 40~250 360K: 50~360 | Design No: 22B: 1/4" PT 22B80: 1/4" PF(G) 22B90: 1/4" NPT |



※DIMENSION



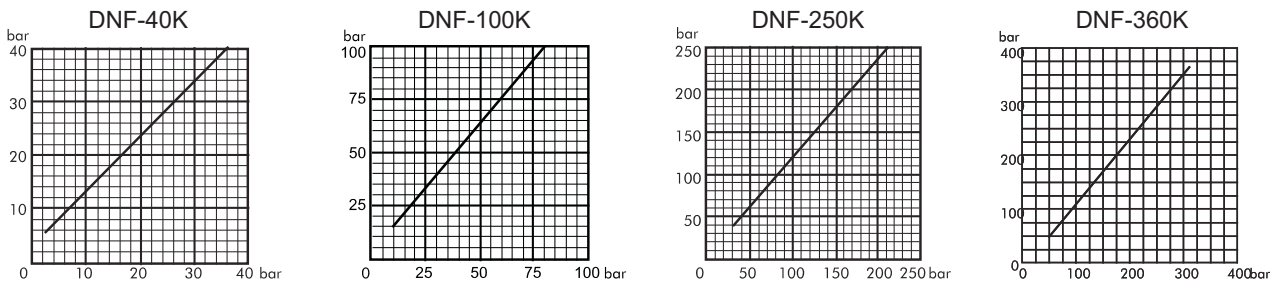
※GRAPHIC SYMBOL



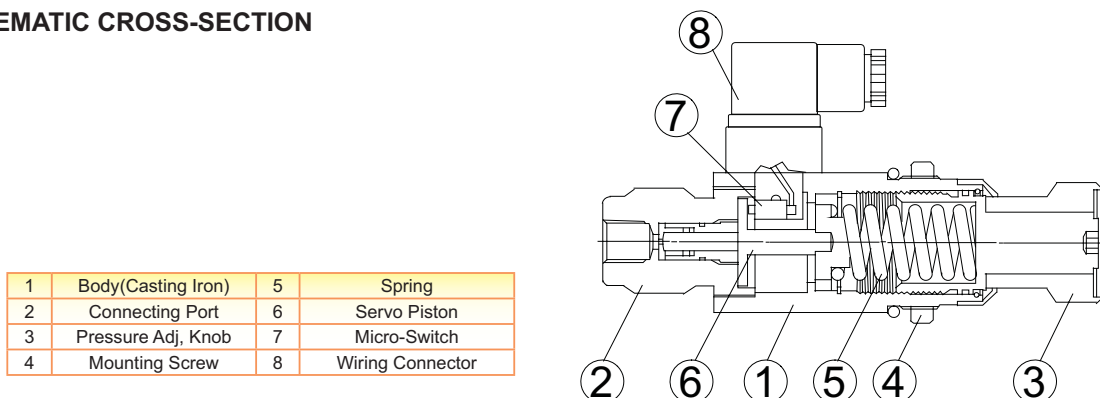
| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

Life Time: 100,000 Times

※PERFORMANCE CURVE



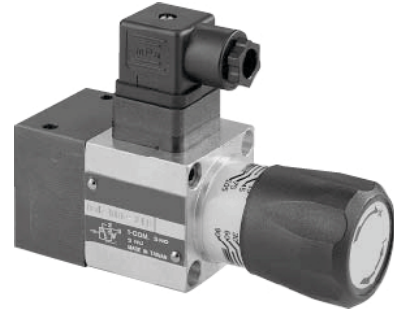
※SCHEMATIC CROSS-SECTION



[DNL]

※SPECIFICATION

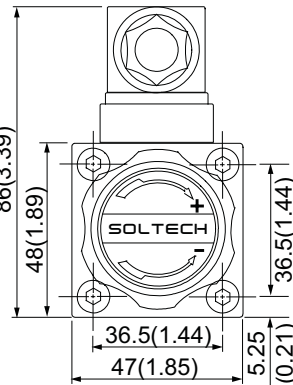
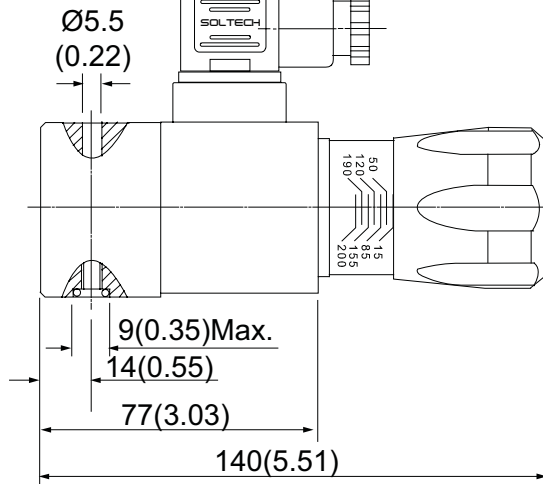
| MODEL | PRES. ADJ. RANGE (Bar) | SURGE PRES. (Bar) | WEIGHT (Kg) |
|-----------|------------------------|-------------------|-------------|
| DNL-50K | 6~50 | 200 | 1.0 |
| DNL-100K | 15~100 | 300 | |
| DNL-200K | 30~200 | 300 | |
| DNL-280K | 40~280 | 350 | |
| DNLL-400K | 50~400 | 450 | |



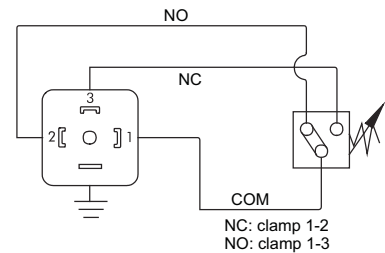
※MODEL NUMBER DESIGNATION

| DNL | 280K | 21B |
|--|---|--|
| Series No. Direct Read-Out, Heavy Duty Type | Pres. Adj. Range (Bar) 50K: 6~50 100K: 15~100 200K: 30~200 280K: 40~280 400K: 50~400 | Design No: 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |

※DIMENSION



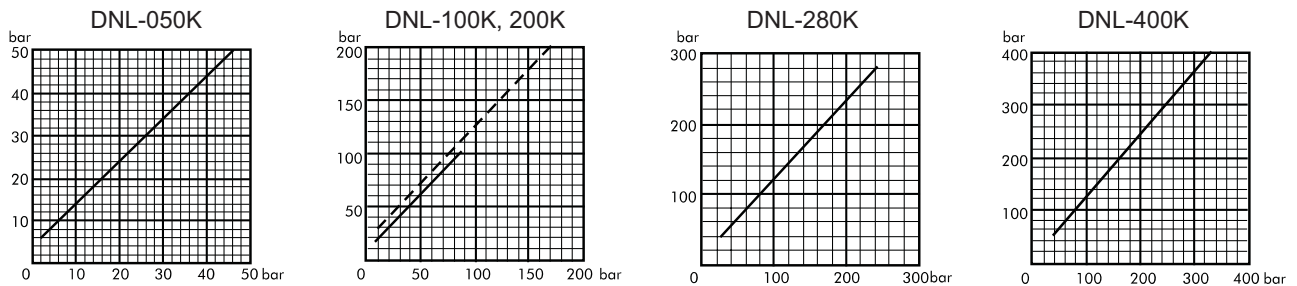
※GRAPHIC SYMBOL



| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 10 A |
| D.C. | 125 V | 0.3 A |
| | 250 V | 0.15 A |

Life Time: 200,000 Times

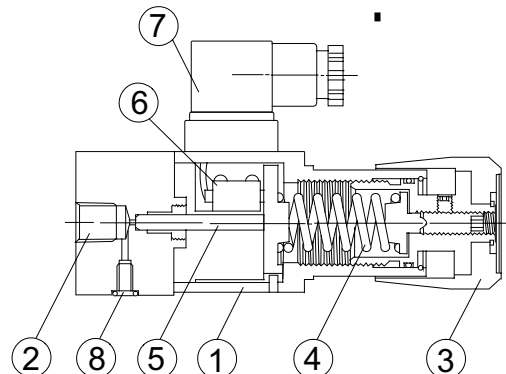
※PERFORMANCE CURVE



UNIT: M.M.(INCH)

※SCHEMATIC CROSS-SECTION

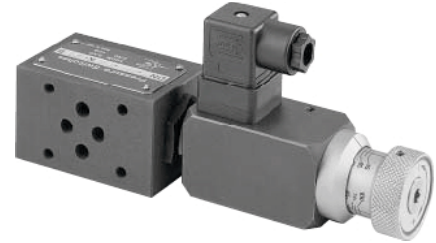
| | | | |
|---|----------------------|---|--------------------|
| 1 | Body(Aluminum Alloy) | 5 | Servo Piston |
| 2 | Connection Port | 6 | Micro Switch |
| 3 | Pressure Adj. Knob | 7 | Wiring Connector |
| 4 | Spring | 8 | O-Ring P6(M5P×0.8) |



[DNM]

※SPECIFICATION

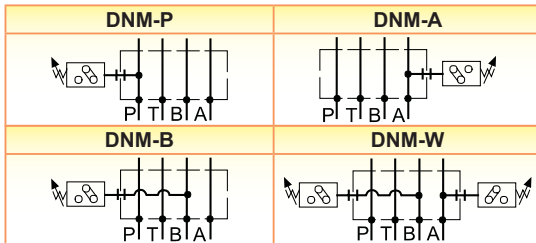
| MODEL | SURGE PRESSURE(Bar) | | | WEIGHT (Kg) |
|--------------|---------------------|-----|------|-------------|
| | 40K | 10K | 250K | |
| DNM-02-A/B/P | 150 | 250 | 300 | 2.1 |
| DNM-02-W | | | | 3.1 |
| DNM-03-A/B/P | | | | 3.1 |
| DNM-03-W | | | | 4.1 |



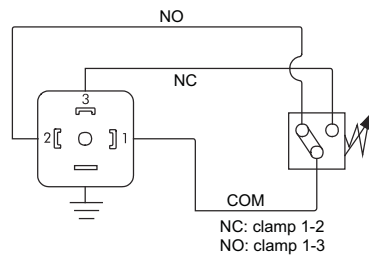
※MODEL NUMBER DESIGNATION

| DNM | 02 | P | 100K | 21B |
|---------------------|---------------------------------|--|---|--|
| Series No. | Valve Size | Function Port | Pres. Adj. Range (Bar) | Design No: |
| Modular(Stack) Type | 02: 1/4"(NG6) 03: 3/8"(NG10) | P: "P" Port A: "A" Port B: "B" Port W: "A"&"B" Port | 40K: 6~40 100K: 15~100 250K: 40~250 | 21B: 1/4" PT 21B80: 1/4" PF(G) 21B90: 1/4" NPT |

※SYMBOL



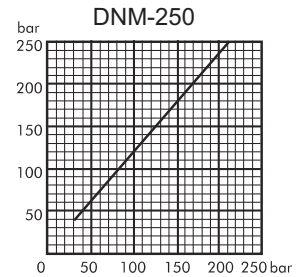
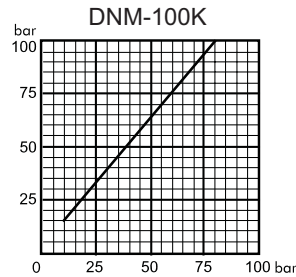
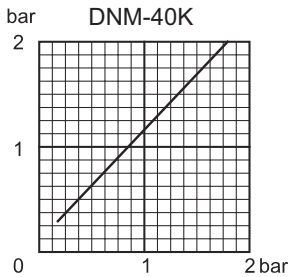
※GRAPHIC SYMBOL



| Breaking Capacity | Voltage Up To | Resistance Load |
|-------------------|---------------|-----------------|
| A.C. | 125/250 V | 5 A |
| D.C. | 30 V | 5 A |
| | 125 V | 0.15 A |

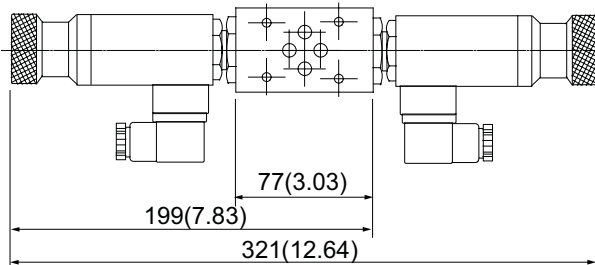
Life Time: 100,000 Times

※PERFORMANCE CURVE

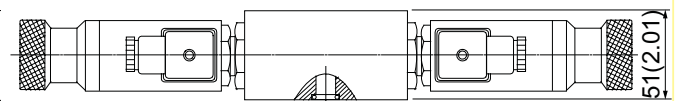
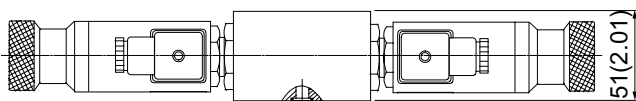
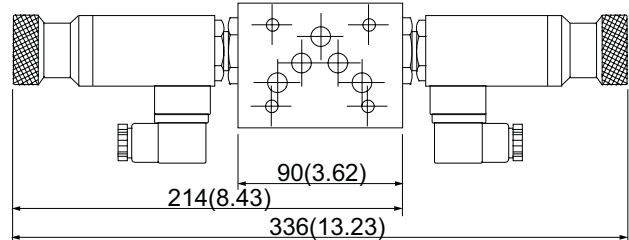


※DIMENSIONS

DNM-02



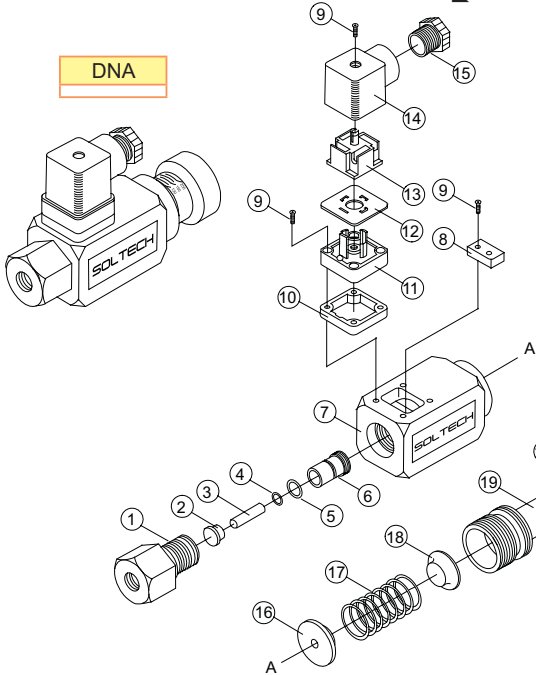
DNM-03



UNIT: M.M.(INCH)

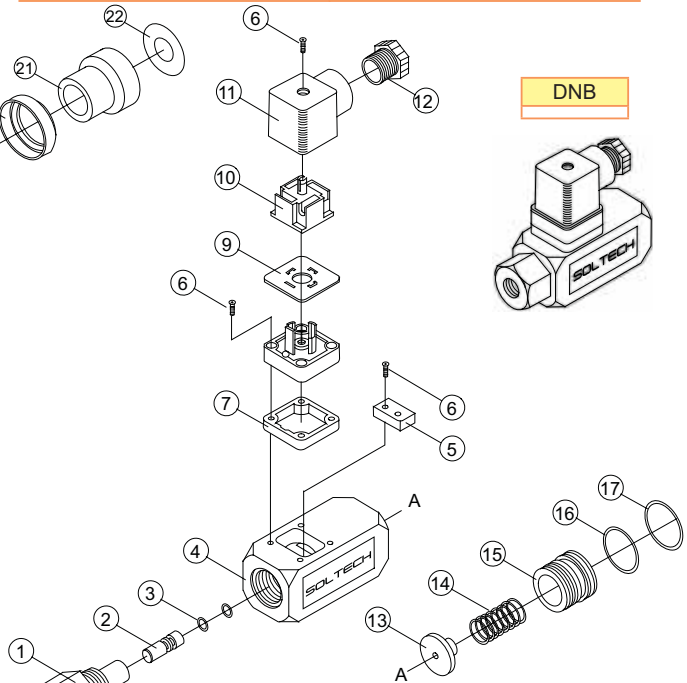
[ASSEMBLY]

DNA

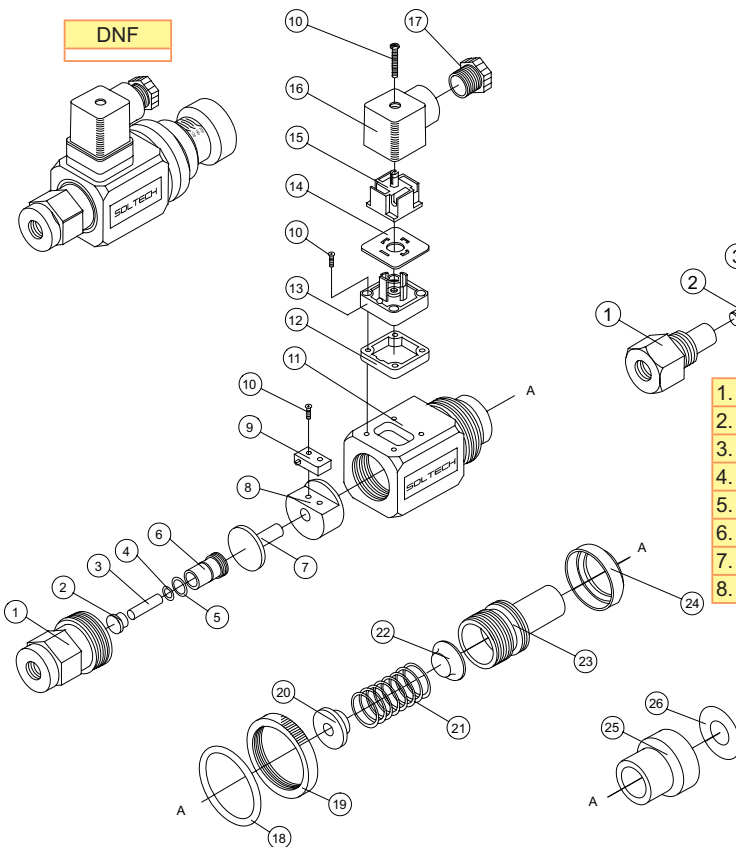


| | |
|-------------------------------|----------------------------|
| 1. Pipe Connector | 12. Gasket |
| 2. Packing Gasket | 13. Terminal Block |
| 3. Servo-Piston | 14. Housing |
| 4. Packing | 15. Gland-Nut |
| 5. Back-Ring | 16. Mechanical Stop |
| 6. Piston Cover | 17. Spring |
| 7. Body | 18. Spring Retainer |
| 8. Micro-Switch | 19. Pressure Adj. Screw |
| 9. Fixing Screw | 20. Control Knob Set Screw |
| 10. Electric Connector Gasket | 21. Control Knob |
| 11. Electric Connector Base | 22. Nameplate |

DNB



DNF



| | |
|------------------------------|-------------------------|
| 1. Pipe Connector | 9. Gasket |
| 2. Servo-Piston | 10. Terminal Block |
| 3. O-Ring | 11. Housing |
| 4. Body | 12. Gland-Nut |
| 5. Micro-Switch | 13. Mechanical Stop |
| 6. Fixing Screw | 14. Spring |
| 7. Electric Connector Gasket | 15. Pressure Adj. Screw |
| 8. Electric Connector Base | 16. O-Ring |
| | 17. O-Ring |

| | | | |
|-------------------|-------------------------------|-----------------------------|----------------------------|
| 1. Pipe Connector | 7. Pressure Actuator | 13. Electric Connector Base | 20. Mechanical Stop |
| 2. Packing Gasket | 8. Micro-Switch Seat | 14. Gasket | 21. Spring |
| 3. Servo-Piston | 9. Micro-Switch | 15. Terminal Block | 22. Spring Retainer |
| 4. Packing | 10. Fixing Screw | 16. Housing | 23. Pressure Adj. Screw |
| 5. Back-Ring | 11. Body | 17. Gland-Nut | 24. Control Knob Set Screw |
| 6. Piston Cover | 12. Electric Connector Gasket | 18. O-Ring | 25. Control Knob |
| | | 19. Screw-Nut | 26. Nameplate |