



# VALVE DATA SHEET

|           |  |            |         |
|-----------|--|------------|---------|
| Project   |  |            |         |
| Item      | Pneumatic Control Hi-Performance Butterfly Valve | Sheet No.  | 8 OF 10 |
| Service   |  | P&ID No.   |         |
| Tag. No.  |  | MFG. No.   |         |
| Model No. | PRO-BDS  | Q'ty (Set) | 2       |

|                    |          |                                 |                            |           |                       |                |                  |                             |                              |                         |                |     |
|--------------------|----------|---------------------------------|----------------------------|-----------|-----------------------|----------------|------------------|-----------------------------|------------------------------|-------------------------|----------------|-----|
| SERVICE CONDITIONS | 1        | Medium                          | Water                      |           | Liquid                |                | ACTUATOR         | 46                          | Actuator Type                | Single Acting Diaphragm |                |     |
|                    | 2        |                                 | Max. Q                     | Nor. Q    | Nin. Q                |                |                  | 47                          | Model No.                    | DB-360                  |                |     |
|                    | 3        | Flow Rate                       | kg/hr                      |           |                       |                |                  | 48                          | Close At (bar G)             | Open At (bar G)         | 2.0            | 1.2 |
|                    | 4        | Inlet Pressure                  | kgf/cm <sup>2</sup> G      |           |                       |                |                  | 49                          | Fail Position (Signal / Air) | Open                    |                |     |
|                    | 5        | Outlet Pressure                 | kgf/cm <sup>2</sup> G      |           |                       |                |                  | 50                          | Hand-Wheel (Type / Location) | -                       |                |     |
|                    | 6        | Differential Pressure           | kgf/cm <sup>2</sup>        |           |                       |                |                  | 51                          | Painting Color (RAL No.)     | RAL 5019                |                |     |
|                    | 7        | Inlet Temperature               | °C                         |           |                       |                |                  | 52                          | Painting Type                | Polyurethane            |                |     |
|                    | 8        | Specific Gravity                | G                          |           |                       |                |                  | I / P POSITIONER            | 53                           | Input Signal (mA DC)    | 4 ~ 20         |     |
|                    | 9        | Density                         | kg/m <sup>3</sup>          |           |                       |                |                  |                             | 54                           | Output Pressure (bar G) | 1.2 ~ 2.0      |     |
|                    | 10       | Molecular Weight                | M.W                        |           |                       |                |                  |                             | 55                           | Type                    | Conventional   |     |
|                    | 11       | Viscosity                       | cPs                        |           |                       |                |                  |                             | 56                           | Enclosure               | IP-66          |     |
|                    | 12       | Predicted SPL                   | dBA                        |           |                       |                |                  |                             | 57                           | Model No.               | EP-6100        |     |
|                    | 13       | Calculated Cv                   |                            |           |                       |                |                  |                             | 59                           | MFG.                    | Proval         |     |
|                    | 14       | Opening Lift                    | %                          |           |                       |                |                  |                             | POSITION TRANSMITTER         | 59                      | Output (mA DC) | -   |
|                    | 15       |                                 |                            |           |                       |                |                  | 60                          |                              | Type                    | -              |     |
|                    | 16       |                                 |                            |           |                       |                |                  | 61                          |                              | Model No.               | -              |     |
| DESIGN             | 17       | Shut Off ΔP                     |                            |           | kgf/cm <sup>2</sup> G | SOLENOID VALVE | 62               | Power                       | -                            |                         |                |     |
|                    | 18       | Design Pressure                 |                            |           | kgf/cm <sup>2</sup> G |                | 63               | Type                        | -                            |                         |                |     |
|                    | 19       | Design Temp.                    |                            |           | °C                    |                | 64               | Enclosure                   | -                            |                         |                |     |
| LINE               | 20       | Inlet Pipe Size (A) / Sch. No.  | 200                        |           |                       | LIMIT SWITCH   | 65               | Model No.                   | -                            |                         |                |     |
|                    | 21       | Outlet Pipe Size (A) / Sch. No. | 200                        |           |                       |                | 66               | MFG.                        | -                            |                         |                |     |
| BODY & TRIM        | 22       | Body Type                       | Butterfly (Hi-Performance) |           |                       | AIR SET        | 67               | Quantity                    | -                            |                         |                |     |
|                    | 23       | Body Size (A) / Port Size (A)   | 200                        | 200       |                       |                | 68               | Type                        | -                            |                         |                |     |
|                    | 24       | Trim Design                     | Guide                      | Eccentric | Top & Bottom          | ACCESSORY      | 69               | Enclosure                   | -                            |                         |                |     |
|                    | 25       | Trim Type                       | Trim Seal Ring             | -         | -                     |                | 70               | Model No.                   | -                            |                         |                |     |
|                    | 26       | Rating & End Connection         | JIS 10K R.F Wafer          |           |                       |                | 71               | MFG.                        | -                            |                         |                |     |
|                    | 27       | Flange Facing                   | Smooth-Finish              |           |                       |                | 72               | Air Supply Pressure (bar G) | 3.2                          |                         |                |     |
|                    | Material | 28                              | Body                       | A216-WCB  |                       |                |                  | 73                          | Model No.                    | AR-1501                 |                |     |
|                    |          | 29                              | Plug / Disc / Ball         | A351-CF8  |                       |                |                  | 74                          | Lock-Up Valve                | -                       |                |     |
|                    |          | 30                              | Seat                       | RTFE      |                       |                |                  | 75                          | Volume Booster               | -                       |                |     |
|                    |          | 31                              | Cage                       | -         |                       |                |                  | 76                          | Snap Acting Relay            | -                       |                |     |
|                    |          | 32                              | Stem                       | SUS304    |                       |                |                  | 77                          | Check Valve                  | -                       |                |     |
|                    | 33       | Packing                         | PTFE                       |           |                       |                | 78               | Air-Operated Valve          | -                            |                         |                |     |
|                    | 34       | Bonnet Type                     | Standard                   |           |                       | 79             | Exhaust Valve    | -                           |                              |                         |                |     |
|                    | 35       | Trim Form                       | Modified Equal %           |           |                       | 80             | Speed-Controller | -                           |                              |                         |                |     |
|                    | 36       | Max.Allow Sound Level (dBA)     | Less than 85               |           |                       | 81             |                  |                             |                              |                         |                |     |
|                    | 37       | Required Seat Tightness         | ANSI CLASS VI              |           |                       | 82             |                  |                             |                              |                         |                |     |
|                    | 38       | Rated Cv                        | 1236                       |           |                       | 83             |                  |                             |                              |                         |                |     |
|                    | 39       | Stroke                          | 60°                        |           |                       | 84             |                  |                             |                              |                         |                |     |
|                    | 40       | Flow Action To                  | Direct                     |           |                       | 85             |                  |                             |                              |                         |                |     |
|                    | 41       | Painting Color (RAL No.)        | RAL 9006                   |           |                       | MISCELLANEOUS  | 86               | Conduit Connection          | Air Supply                   | PT.F 1/4"               |                |     |
|                    | 42       | Painting Type                   | SS-Coat 909                |           |                       |                | 87               |                             | Electrical                   | PF.F 1/2"               |                |     |
|                    | 43       |                                 |                            |           |                       |                | 88               | Water Seal                  | -                            |                         |                |     |
|                    | 44       |                                 |                            |           |                       |                | 89               | Tubing Material             | 316 SS                       |                         |                |     |
|                    | 45       |                                 |                            |           |                       |                | 90               |                             |                              |                         |                |     |

\* Actuator 방향 : Type 1

|      |            |  |              |             |            |             |
|------|------------|--|--------------|-------------|------------|-------------|
| NOTE |            |  |              |             |            |             |
|      |            |  |              |             |            |             |
|      |            |  |              |             |            |             |
|      |            |  |              |             |            |             |
|      |            |  |              |             |            |             |
| B    | 2022-10-07 |  | For Approval | S. J. K     | H. S. L    | S. S. H     |
| A    | 2022-10-04 |  | For Approval | S. J. K     | H. S. L    | S. S. H     |
| No.  | Date       |  | Revision     | Prepared By | Checked By | Approved By |



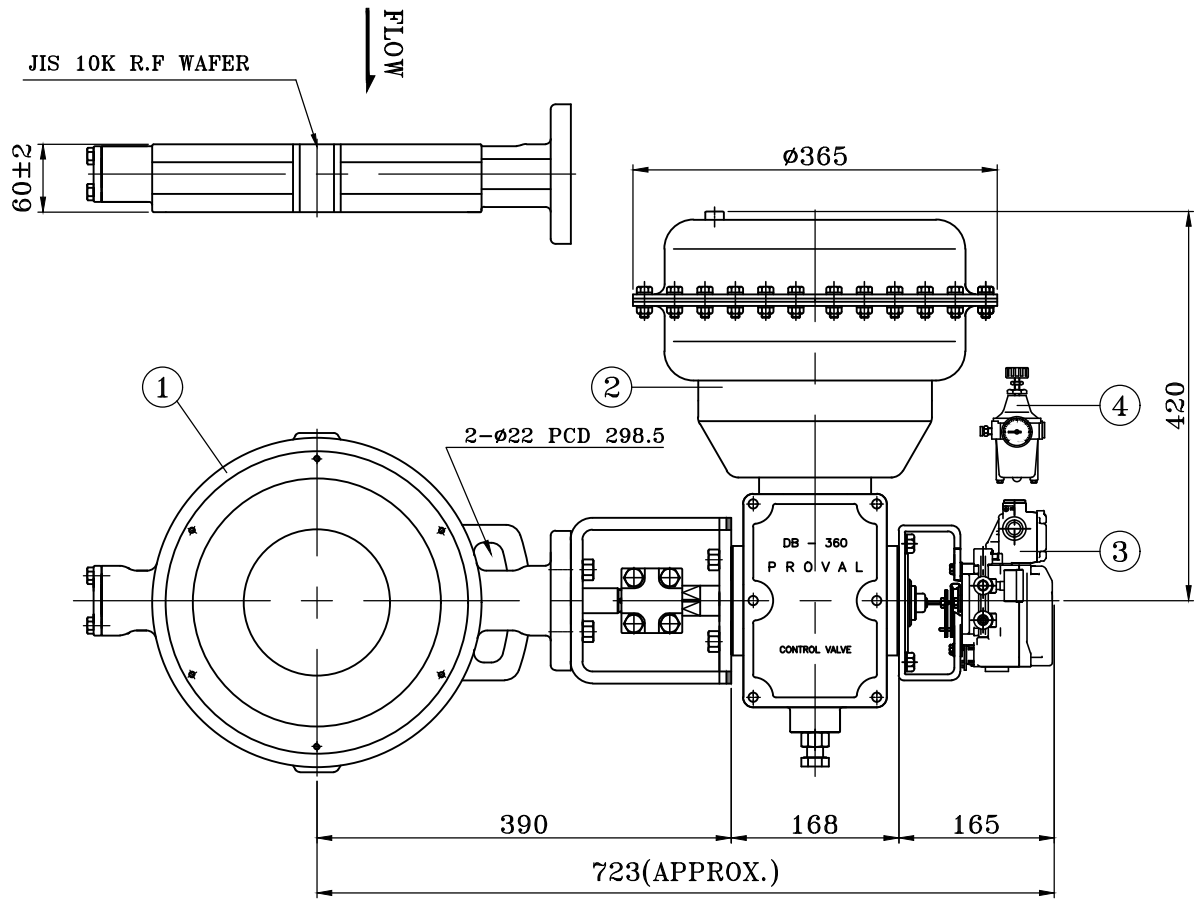
# VALVE DATA SHEET

|           |  |            |         |
|-----------|--|------------|---------|
| Project   |  |            |         |
| Item      | Pneumatic Control Hi-Performance Butterfly Valve | Sheet No.  | 9 OF 10 |
| Service   |  | P&ID No.   |         |
| Tag. No.  |  | MFG. No.   |         |
| Model No. | PRO-BDS  | Q'ty (Set) | 1       |

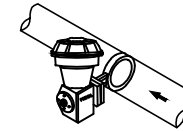
| SERVICE CONDITIONS          | 1 Medium                           |                       | Water                      |                    | Liquid                |              | ACTUATOR              | 46                             | Actuator Type                |                    | Single Acting Diaphragm |           |  |
|-----------------------------|------------------------------------|-----------------------|----------------------------|--------------------|-----------------------|--------------|-----------------------|--------------------------------|------------------------------|--------------------|-------------------------|-----------|--|
|                             | 2                                  |                       |                            | Max. Q             | Nor. Q                | Nin. Q       |                       | 47                             | Model No.                    |                    | DB-360                  |           |  |
|                             | 3                                  | Flow Rate             | kg/hr                      |                    |                       |              |                       | 48                             | Close At (bar G)             | Open At (bar G)    | 2.0                     | 1.2       |  |
|                             | 4                                  | Inlet Pressure        | kgf/cm <sup>2</sup> G      |                    |                       |              |                       | 49                             | Fail Position (Signal / Air) |                    | Open                    |           |  |
|                             | 5                                  | Outlet Pressure       | kgf/cm <sup>2</sup> G      |                    |                       |              |                       | 50                             | Hand-Wheel (Type / Location) |                    | -                       |           |  |
|                             | 6                                  | Differential Pressure | kgf/cm <sup>2</sup>        |                    |                       |              |                       | 51                             | Painting Color (RAL No.)     |                    | RAL 5019                |           |  |
|                             | 7                                  | Inlet Temperature     | °C                         |                    |                       |              |                       | 52                             | Painting Type                |                    | Polyurethane            |           |  |
|                             | 8                                  | Specific Gravity      | G                          |                    |                       |              |                       | I / P POSITIONER               | 53 Input Signal (mA DC)      |                    | 4 ~ 20                  |           |  |
|                             | 9                                  | Density               | kg/m <sup>3</sup>          |                    |                       |              |                       |                                | 54 Output Pressure (bar G)   |                    | 1.2 ~ 2.0               |           |  |
|                             | 10                                 | Molecular Weight      | M.W                        |                    |                       |              |                       |                                | 55 Type                      |                    | Conventional            |           |  |
|                             | 11                                 | Viscosity             | cPs                        |                    |                       |              |                       |                                | 56 Enclosure                 |                    | IP-66                   |           |  |
|                             | 12                                 | Predicted SPL         | dBA                        |                    |                       |              |                       |                                | 57 Model No.                 |                    | EP-6100                 |           |  |
|                             | 13                                 | Calculated Cv         |                            |                    |                       |              |                       |                                | 59 MFG.                      |                    | Proval                  |           |  |
|                             | 14                                 | Opening Lift          | %                          |                    |                       |              |                       |                                | POSITION TRANSMITTER         | 59 Output (mA DC)  |                         | -         |  |
|                             | 15                                 |                       |                            |                    |                       |              |                       | 60 Type                        |                              | -                  |                         |           |  |
|                             | 16                                 |                       |                            |                    |                       |              |                       | 61 Model No.                   |                              | -                  |                         |           |  |
| DESIGN                      | 17 Shut Off ΔP                     |                       |                            |                    | kgf/cm <sup>2</sup> G |              | SOLENOID VALVE        | 62 Power                       |                              | -                  |                         |           |  |
|                             | 18 Design Pressure                 |                       |                            |                    | kgf/cm <sup>2</sup> G |              |                       | 63 Type                        |                              | -                  |                         |           |  |
|                             | 19 Design Temp.                    |                       |                            |                    | °C                    |              |                       | 64 Enclosure                   |                              | -                  |                         |           |  |
| LINE                        | 20 Inlet Pipe Size (A) / Sch. No.  |                       | 150                        |                    |                       |              | LIMIT SWITCH          | 67 Quantity                    |                              | -                  |                         |           |  |
|                             | 21 Outlet Pipe Size (A) / Sch. No. |                       | 150                        |                    |                       |              |                       | 68 Type                        |                              | -                  |                         |           |  |
| BODY & TRIM                 | 22 Body Type                       |                       | Butterfly (Hi-Performance) |                    |                       |              | AIR SET               | 72 Air Supply Pressure (bar G) |                              | 3.2                |                         |           |  |
|                             | 23                                 | Body Size (A)         | Port Size (A)              | 150                |                       | 150          |                       | 73 Model No.                   |                              | AR-1501            |                         |           |  |
|                             | 24                                 | Trim Design           | Guide                      | Eccentric          |                       | Top & Bottom |                       | ACCESSORY                      | 74 Lock-Up Valve             |                    | -                       |           |  |
|                             | 25                                 | Trim Type             | Trim Seal Ring             | -                  |                       | -            |                       |                                | 75 Volume Booster            |                    | -                       |           |  |
|                             | 26 Rating & End Connection         |                       | JIS 10K R.F Wafer          |                    |                       |              | 76 Snap Acting Relay  |                                | -                            |                    |                         |           |  |
|                             | 27 Flange Facing                   |                       | Smooth-Finish              |                    |                       |              | 77 Check Valve        |                                | -                            |                    |                         |           |  |
|                             | Material                           | 28                    |                            | Body               | SCPH2                 |              | 78 Air-Operated Valve |                                | -                            |                    |                         |           |  |
|                             |                                    | 29                    |                            | Plug / Disc / Ball | SCS13                 |              | 79 Exhaust Valve      |                                | -                            |                    |                         |           |  |
|                             |                                    | 30                    |                            | Seat               | RTFE                  |              | 80 Speed-Controller   |                                | -                            |                    |                         |           |  |
|                             |                                    | 31                    |                            | Cage               | -                     |              | 81                    |                                |                              |                    |                         |           |  |
|                             |                                    | 32                    |                            | Stem               | SUS304                |              | 82                    |                                |                              |                    |                         |           |  |
|                             | 33                                 |                       | Packing                    | PTFE               |                       | 83           |                       |                                |                              |                    |                         |           |  |
|                             | 34 Bonnet Type                     |                       | Standard                   |                    |                       |              | 84                    |                                |                              |                    |                         |           |  |
|                             | 35 Trim Form                       |                       | Modified Equal %           |                    |                       |              | 85                    |                                |                              |                    |                         |           |  |
|                             | 36 Max.Allow Sound Level (dBA)     |                       | Less than 85               |                    |                       |              | MISCELLANEOUS         | 86                             |                              | Air Supply         | PT.F 1/4"               |           |  |
|                             | 37 Required Seat Tightness         |                       | ANSI CLASS VI              |                    |                       |              |                       | 87                             |                              | Conduit Connection | Electrical              | PF.F 1/2" |  |
|                             | 38 Rated Cv                        |                       | 644                        |                    |                       |              |                       | 88                             |                              | Water Seal         |                         | -         |  |
|                             | 39 Stroke                          |                       | 60°                        |                    |                       |              |                       | 89                             |                              | Tubing Material    |                         | 316 SS    |  |
|                             | 40 Flow Action To                  |                       | Direct                     |                    |                       |              |                       | 90                             |                              |                    |                         |           |  |
| 41 Painting Color (RAL No.) |                                    | RAL 9006              |                            |                    |                       |              |                       |                                |                              |                    |                         |           |  |
| 42 Painting Type            |                                    | SS-Coat 909           |                            |                    |                       |              |                       |                                |                              |                    |                         |           |  |
| 43                          |                                    |                       |                            |                    |                       |              |                       |                                |                              |                    |                         |           |  |
| 44                          |                                    |                       |                            |                    |                       |              |                       |                                |                              |                    |                         |           |  |
| 45                          |                                    |                       |                            |                    |                       |              |                       |                                |                              |                    |                         |           |  |

\* Actuator 방향 : Std.

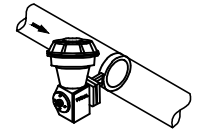
| NOTE |            |  |              |             |                        |
|------|------------|--|--------------|-------------|------------------------|
|      |            |  |              |             |                        |
|      |            |  |              |             |                        |
| B    | 2022-10-07 |  | For Approval | S. J. K     | H. S. L S. S. H        |
| A    | 2022-10-04 |  | For Approval | S. J. K     | H. S. L S. S. H        |
| No.  | Date       |  | Revision     | Prepared By | Checked By Approved By |



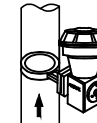
Actuator Location



STANDARD



TYPE 1



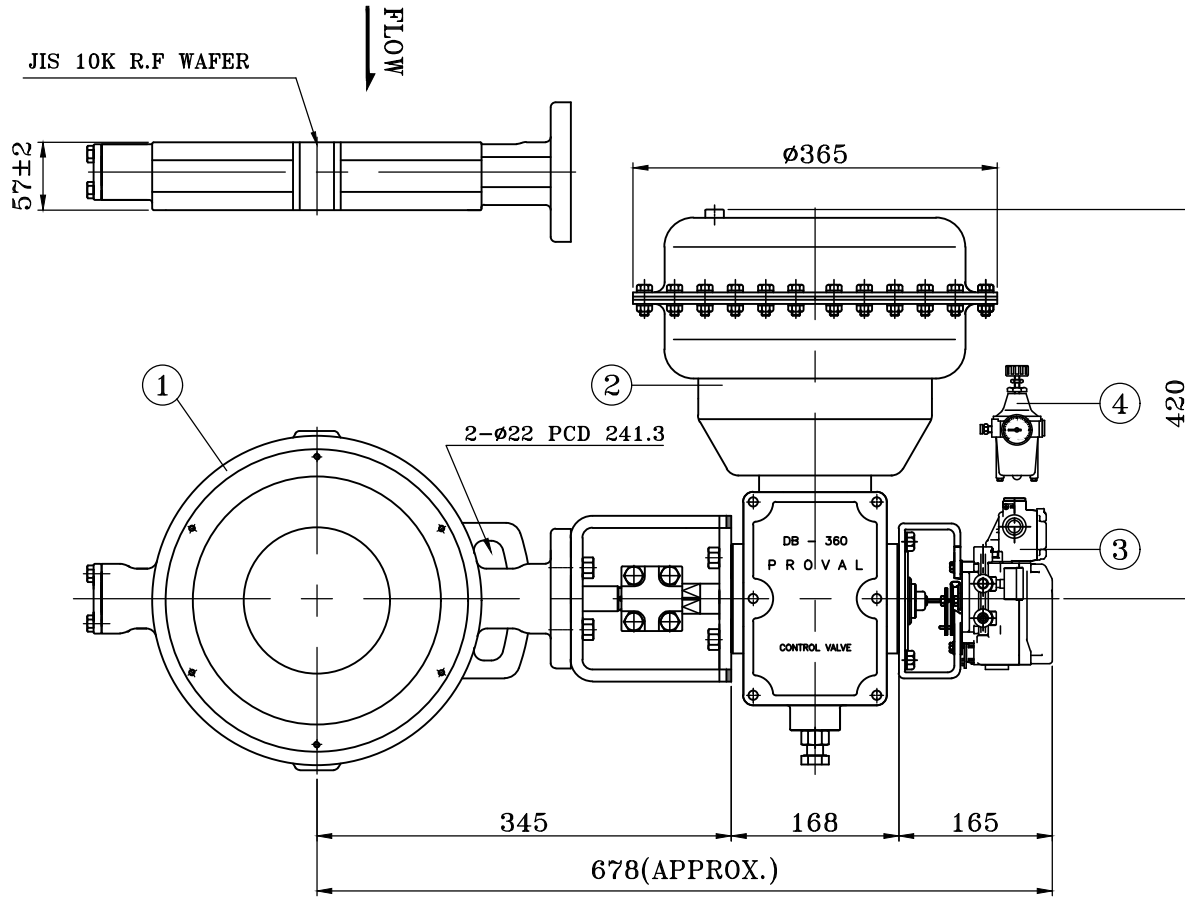
TYPE 2



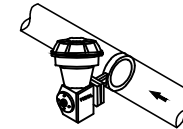
TYPE 3

- Tag No. : -

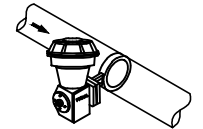
| 4  | Air-Set       |           |            |
|--|---------------|-----------|------------|
| 3  | Positioner    |           |            |
| 2  | Actuator      |           |            |
| 1  | Body          | SCPH2     |            |
| No.  | Name Of Parts | Material  | Remark     |
| Model No.  | PRO-BDS       | Size      | 200A       |
| DWG. Name Pneumatic Control Hi-Performance Butterfly Valve |               |           |            |
| DRAW'N   | J.H Bae       | APP'D     | J.S Noh    |
| PROVAL Co., Ltd.   |               | Date      | 2022.10.05 |
|  |               | Rev.      | A          |
|  |               | Sheet No. | 8 of 9     |



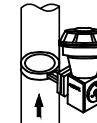
Actuator Location



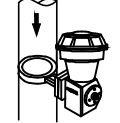
STANDARD



TYPE 1



TYPE 2



TYPE 3

- Tag No. : -

| 4  | Air-Set       |           |            |
|--|---------------|-----------|------------|
| 3  | Positioner    |           |            |
| 2  | Actuator      |           |            |
| 1  | Body          | SCPH2     |            |
| No.  | Name Of Parts | Material  | Remark     |
| Model No.  | PRO-BDS       | Size      | 150A       |
| DWG. Name Pneumatic Control Hi-Performance Butterfly Valve |               |           |            |
| DRAW'N   | J.H Bae       | APP'D     | J.S Noh    |
| PROVAL Co., Ltd.   |               | Date      | 2022.10.05 |
|  |               | Rev.      | A          |
|  |               | Sheet No. | 9 of 9     |