

# Mega-One LM

## Low-Pressure Manual Valves

### Multi-Colored Handles

Various colors are available to facilitate fluid identification.

### End-Connections

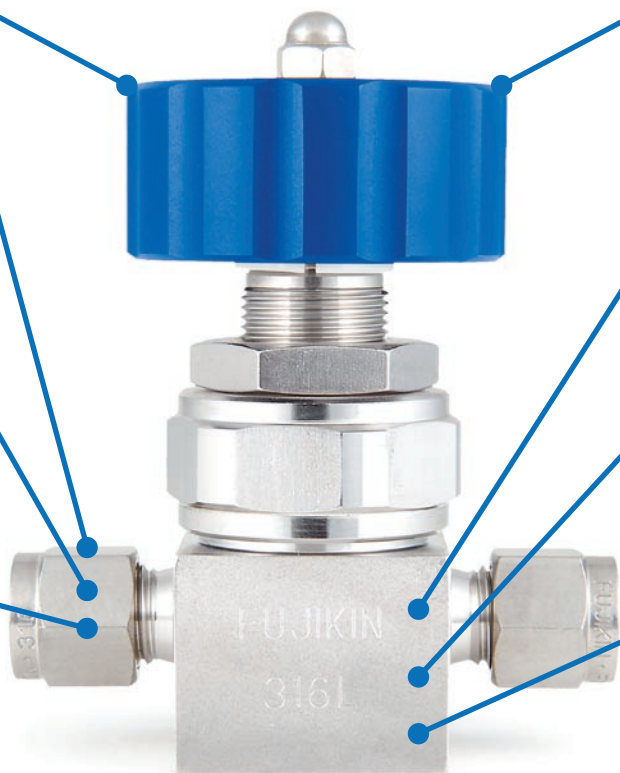
Available in tube-stub, UJR (VCR® compatible), UPG, F900 compression, and IGS surface-mount. This allows great installation flexibility – both in new gas lines as well as in existing lines.

### Various Internal Options

Internal surfaces undergo an EP-Treatment as standard. UP Treatment, chrome oxide passivation, and SS316 double-melt bodies are also available

### Minimal Internal Volume

1.48 cc total internal volume for the male UJR version ensures excellent gas displacement characteristics. This is less than half the internal volume of competitive valves.



### Indicating Handwheel

Upon turning handwheel, the display within the indicating window changes to reveal a red "open" or a blue "close" indication.

### Alloy Diaphragm

Nickel-cobalt alloy diaphragm minimizes particle generation, and provides an extremely durable shut-off surface against the seat.

### PCTFE Seat

PCTFE is standard with polyimide and PFA as optional. The seat is fixed to ensure robust shut-off performance and minimize particle generation.

### Stringent Leakage Standards

Seat and external leakage successfully test at  $5 \times 10^{-11}$  acc/sec – which is two orders of magnitude tighter than industry standards.

### General Specifications

<b>Available Sizes</b>	1/4", 3/8", 1/2" (tube-stub)
<b>Surface Finish</b>	7 Ra average, 10 Ra maximum
<b>Tested Durability</b>	Over 20,000 cycles

### Operating Specifications

<b>Max Operating Pressure</b>	145 psi (1 MPa)
<b>Min Operating Pressure</b>	Vacuum
<b>Temperature Range</b>	14 °F ~ 176 °F (-10 °C ~ 80 °C)

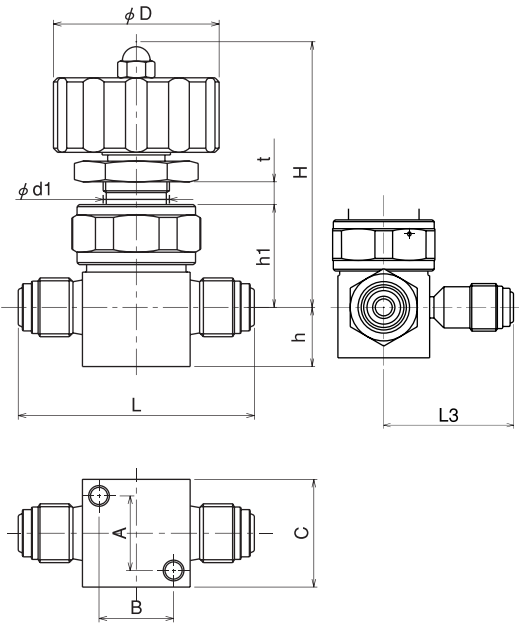
### Materials of Construction

<b>Body</b>	SS 316L
<b>Diaphragm</b>	Nickel-cobalt alloy
<b>Standard Seat</b>	PCTFE
<b>Optional Seat</b>	Polyimide, PFA
<b>Handle</b>	Aluminum alloy

### Functional Performance

<b>Maximum Cv</b>	0.3 (1/4") / 0.65 (3/8" & 1/2")
<b>Leakage Across Seat (Design)</b>	$1 \times 10^{-10}$ scc/sec He
<b>Leakage Across Seat (Tested)</b>	$< 5 \times 10^{-11}$ scc/sec He
<b>Inboard Leakage (Design)</b>	$2 \times 10^{-10}$ scc/sec He
<b>Inboard Leakage (Tested)</b>	$< 5 \times 10^{-11}$ scc/sec He

## Dimensions



Part Number	L	L1	L2	L3	h	H	h1	Ød1	t	D	A	B	C
FUDDF-71G-6.35-NL	57.0				14.3	62.0	23.8	16.5	5.5	40	18.0	18.0	26
FUDDF-71G-9.52-NL	76.2				11.1	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDF-71G-6.35-UG	46.0				14.3	62.0	2.38	16.5	5.5	40	18.0	18.0	26
FUDDF-71G-9.52-UG	57.0				11.1	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDF-71G-6.35-UG-2	71.0				14.3	62.0	23.8	16.5	5.5	40	18.0	18.8	26
FUDDF-71G-9.52-UG-2	86.0				12.7	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDF-91G-6.35-NL	63.5				14.3	62.0	23.8	16.5	5.5	40	18.0	18.0	26
FUDDF-91G-9.52-NL	80.0				12.7	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDF-91G-12.7-NL	85.0				12.7	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDF-71G-6.35-2-NL	70.6				14.3	62.0	24.8	16.5	5.5	40	18.0	18.0	26
FUDDF-71G-9.52-2-NL	83.0				12.7	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDFTB-71G-6.35-NL	65.7	31.0	34.7	38.1	14.3	63.0	24.8	16.5	5.5	40	18.0	18.0	26
FUDDFTB-71G-9.52-NL	79.2	37.7	41.5	43.1	12.7	71.4	31.5	20.5	5.5	40	20.2	20.2	35
FUDDFTB-71G-9.52x6.35-NL	69.9	31.8	38.1	38.1	12.7	66.5	24.8	16.5	5.5	40	18.0	18.0	26

All dimensions in millimeters.

## Part Number Designation

### FUDDF TB - 51 G - 6.35 BW - NL - PI - UP

#### Series

**FUDDF** Round-Handle Stainless Steel Direct Diaphragm Valve

#### Valve Configuration

**(Blank)** 2-Way  
**TB** 3-Port  
**CL** 2-Way, Corner Left

#### End-Connections

**5** Tube-Stub  
**7** UJR / UPG  
**9** F900 Compression

#### Max Operating Pressure

**1** 1 MPa (145 psi)

#### Indicator

**G** Open/Close Indicator

#### End-Connection Size

**6.35** 1/4"  
**9.52** 3/8"  
**12.7** 1/2"

#### Body & Internal Treatment Options

**(Blank)** EP Treatment  
**UP** UP Treatment  
**PS** Cr<sub>2</sub>O<sub>3</sub> Treatment  
**FD** Fluorine Passivation  
**316LP** SS Double-Melt Body Material

#### Seat Material

**(Blank)** PCTFE  
**PI** Polyimide  
**PA** PFA

#### Diaphragm Material

**NL** Nickel-Cobalt Alloy

#### End-Connection Pattern

**(Blank)** Male UJR Both Ends  
**-2** Female UJR Both Ends  
**-3** Male UJR Inlet  
**UG** Female UJR Outlet  
**UG** UPG Both Ends  
**BW** Butt Weld Both Ends

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