

DN 08 到 DN 100

PN100 / PN25
通径或缩径
活套法兰连接
ISO法兰平台
防火设计 (可选)



DN08-DN50系列
Size 1/4" to 2" series

Size 1/4" to 4"

PN 100 / PN 25
Full I bore or reduced bore
Rotating ends system
ISO top flange
Fire safe (option)



气动系列
Actuated series



三通球阀系列
3 ways series



青铜制球阀系列
Bronze series

阀座及密封材料 SEATS & SEALINGS MATERIAL

技术参数

PY4CY和PY4CY防火：TF3215阀座
(聚四氟乙烯+碳) 温度范围：-200°C/+200°C
带有延伸阀杆的版本，应用于阀门外部会有凝冰的情况。

316L, 904L (UB6), 304L, C22合金材质

标准型:

在球阀上与阀杆连接处钻孔，用于在阀门开启时的阀腔泻压。而上游泄压孔的设置是为了阀门在关闭位置时增大阀体及球阀内泄压。

PY4CY: 延长阀杆所产生的低温气体缓冲区，可以避免出现冻结状况，保证阀门能够轻松操作

认证

功能性符合EN1626/-196°C

PY4CY防火设计标准: EN12567, ISO10497, API607以及API6FA

PED 97/23/EC

TA-Luft(逃逸泄露)

AD2000 Merkblatt

可选项

ATEX94/9/EC

遵照2010/35/UE TPED认证打上π标识

ADR§1.8.7.6认证

Marquage p suivant la directive 2010/35/UE TPED : certification ADR § 1.8.7.6

Technical data

PY4 CY and PY4 CY fire safe: TF 3215 seats
(PTFE + Carbon). Temperature range: -200°C / +200°C
Version with extension for applications with icing risk.

316L, 904L, 304L, Alloy 22 version.

Standard version:

Ball drilling in the stem mark for cavity relief in the open position.

Upstream vent hole for cavity relief in the closed position.

PY4 CY: Stem extension avoids any stem freezing and allows easy valve operation.

Approvals:

Functionnal EN1626/-196°C

PY4 CY Fire Safe design: EN12567, ISO10497, API607 and API6FA

PED 97/23/CE

TA-Luft (fugitive emissions)

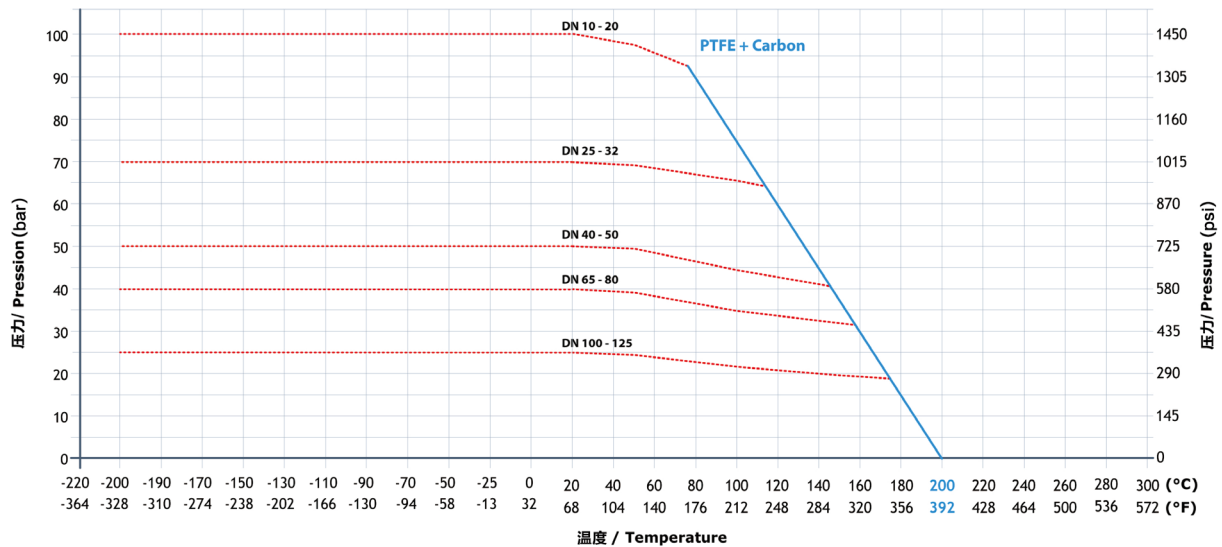
AD2000 Merkblatt

Options:

ATEX 94/9/CE

π marking according to 2010/35/UE TPED: certification ADR §1.8.7.6

压力/温度图 Pressure/Temperature diagrams



--- 阀体的机械强度
— 阀门正常操作的最大压差

所以数据基于阀门的通径尺寸

--- mechanical strength of body
— mechanical strength of seats

All values are given for full bore size.

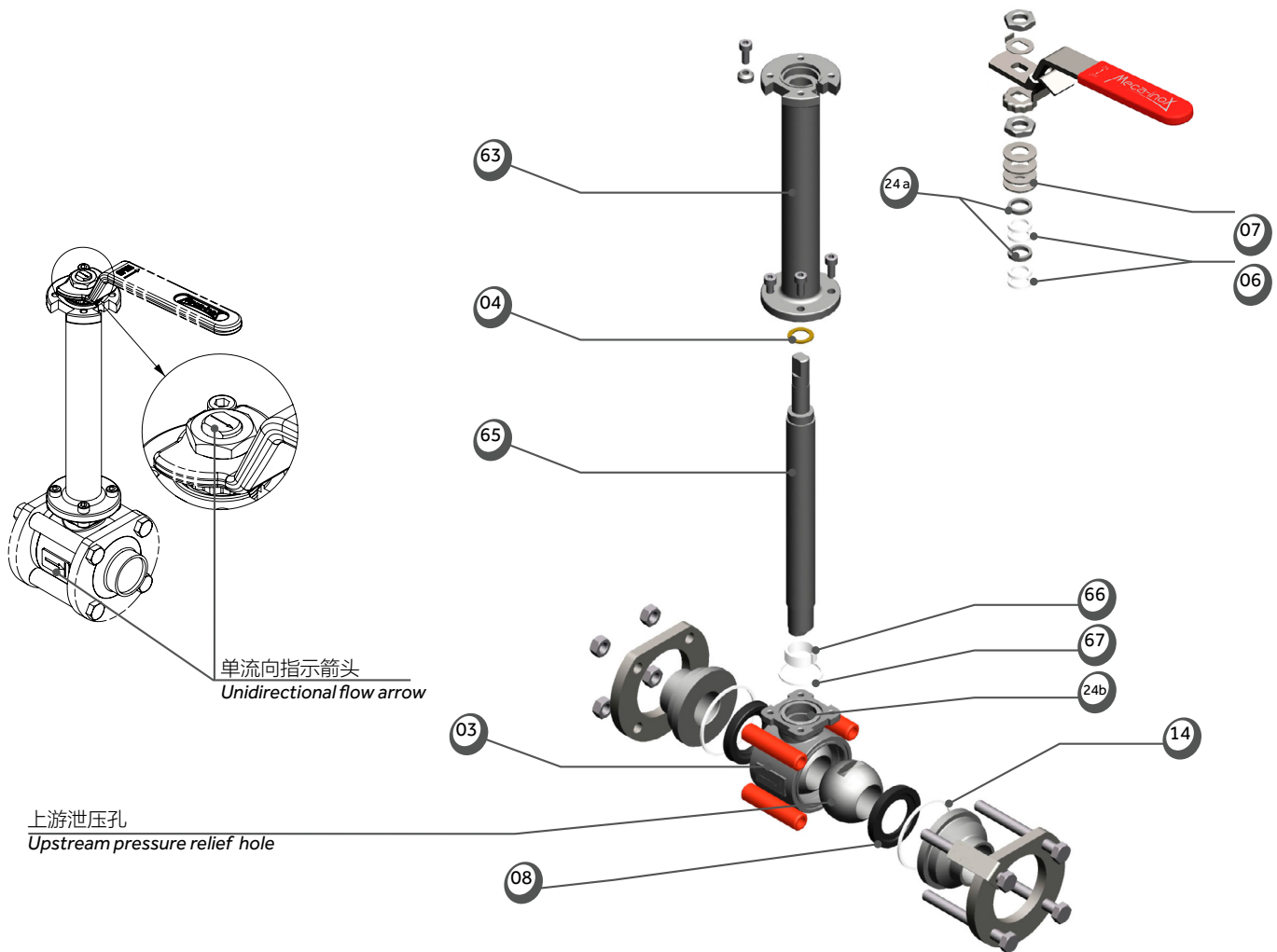
部件 COMPONENTS

PY4 CY

DN 08 到 DN50

PY4 CY

Size 1/4" to 2"



CRYO

功能性符合EN1626/-196°C

编号	数量	描述	材质 (EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20 % PEEK
06	2	填料	PTFE 33 % C + 2 % Gr
07	4	弹簧垫片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	PTFE
24a	2	填料压盖	1.4404
24b	1	导向环	1.4404
63	1	延长套筒	1.4307
65	1	延长阀杆	1.4404
66	1	开口衬套	PTFE
67	1	密封垫片	PTFE

Functionnal EN1626/-196°C

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	33%C+2%Gr PTFE
07	4	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	PTFE
24a	2	Gland	316L
24b	1	Guide ring	316L
63	1	Extension's body	304L
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal (valve)	PTFE

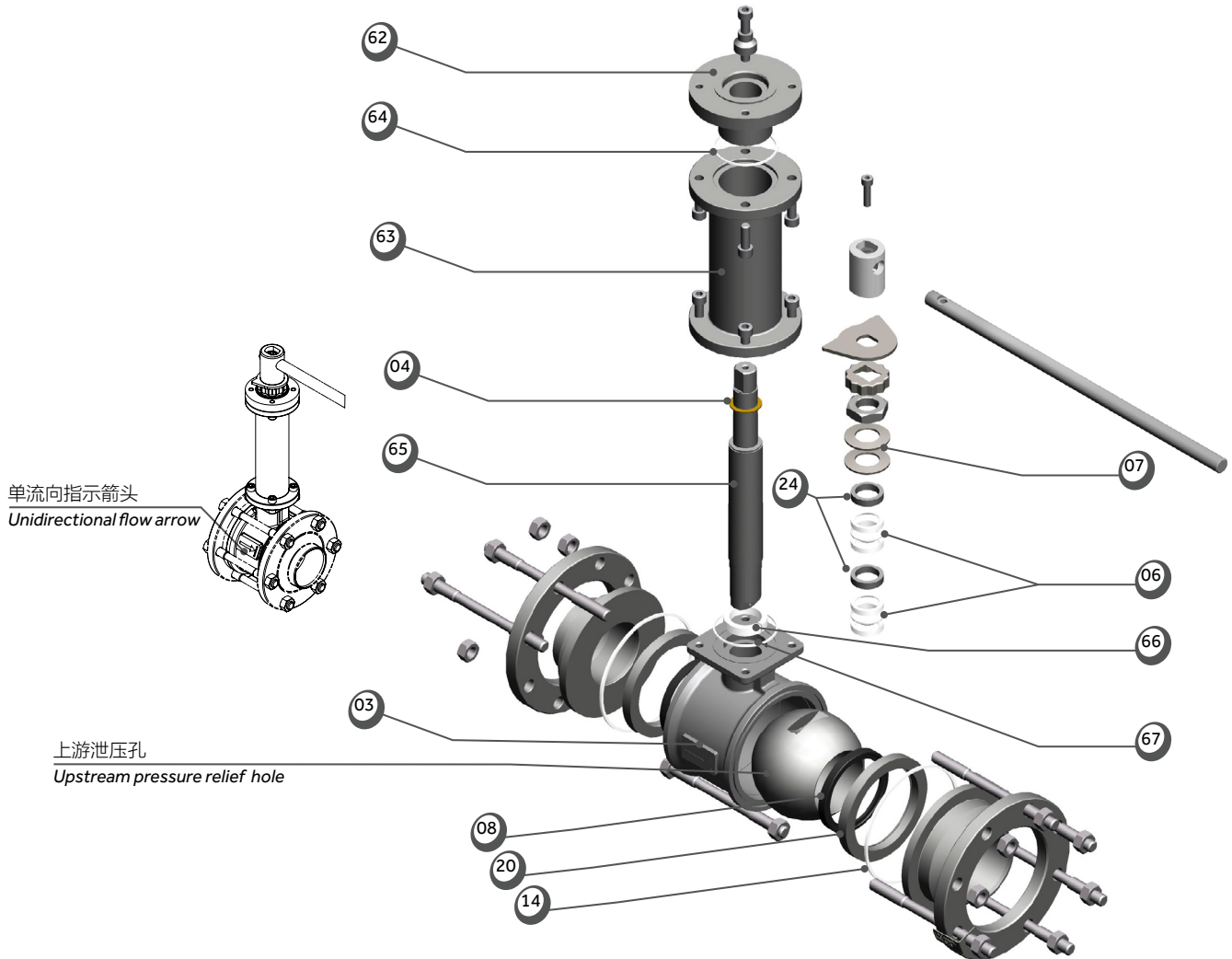
部件
COMPONENTS

PY4 CY

DN 65 到 DN 100

PY4 CY

Size 2"1/2 to 4"



功能性符合EN1626/-196°C

Functionnal EN1626/-196°C

编号	数量	描述	材质(EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20 % PEEK
06	2	填料	PTFE
07	2	弹簧垫片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	PTFE
20	2	阀座支撑	1.4404
24	2	填料压盖	1.4404
62	1	法兰盖	1.4404
63	1	延长套筒	1.4307
64	1	平垫	PTFE
65	1	延长阀杆	1.4404
66	1	阀套	PTFE
67	1	密封垫片	PTFE

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	PTFE
07	2	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	PTFE
20	2	Seat support	316L
24	2	Gland	316L
62	1	Manuel flange	316L
63	1	Extension's body	304L
64	1	Flat seal	PTFE
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal	PTFE

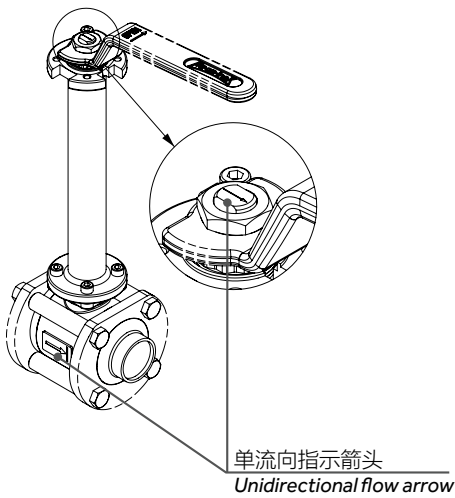
部件 COMPONENTS

PY4 CY 防火设计

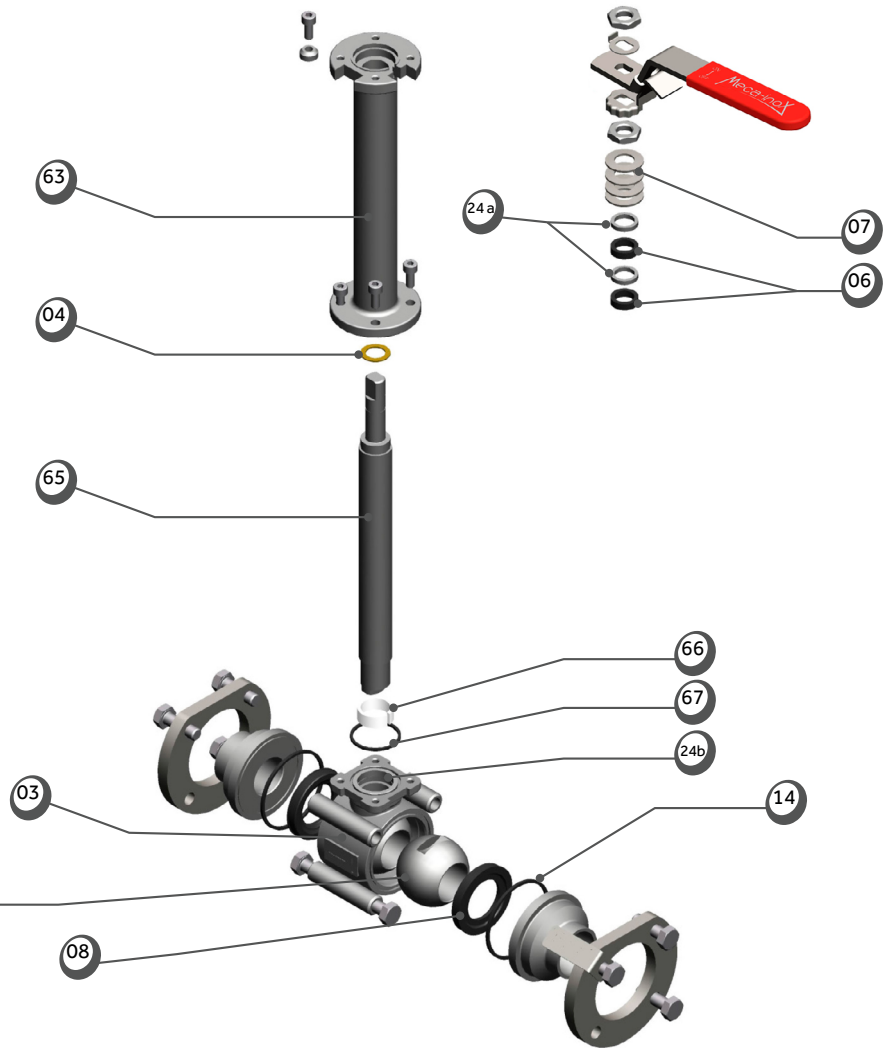
DN 08 到 DN 50

PY4 CY fire safe

Size 1/4" to 2"



上游泄压孔
Upstream pressure relief hole



CRYO

LNG行业符合EN12567标准
耐火性符合ISO10497/API607/API6FA标准

Certified EN12567 for LNG
Certified ISO10497/API607/API6FA Fire Resistance

编号	数量	描述	材质(EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20 % PEEK
06	2	填料	石墨
07	4	弹簧垫片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	石墨
24a	2	填料压盖	1.4404
24b	1	导向环	1.4404
63	1	延长套筒	1.4307
65	1	延长阀杆	1.4404
66	1	开口衬套	PTFE
67	1	密封垫片	石墨

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	Graphite
07	4	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	Graphite
24a	2	Gland	316L
24b	1	Guide ring	316L
63	1	Extension's body	304L
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal (valve)	Graphite

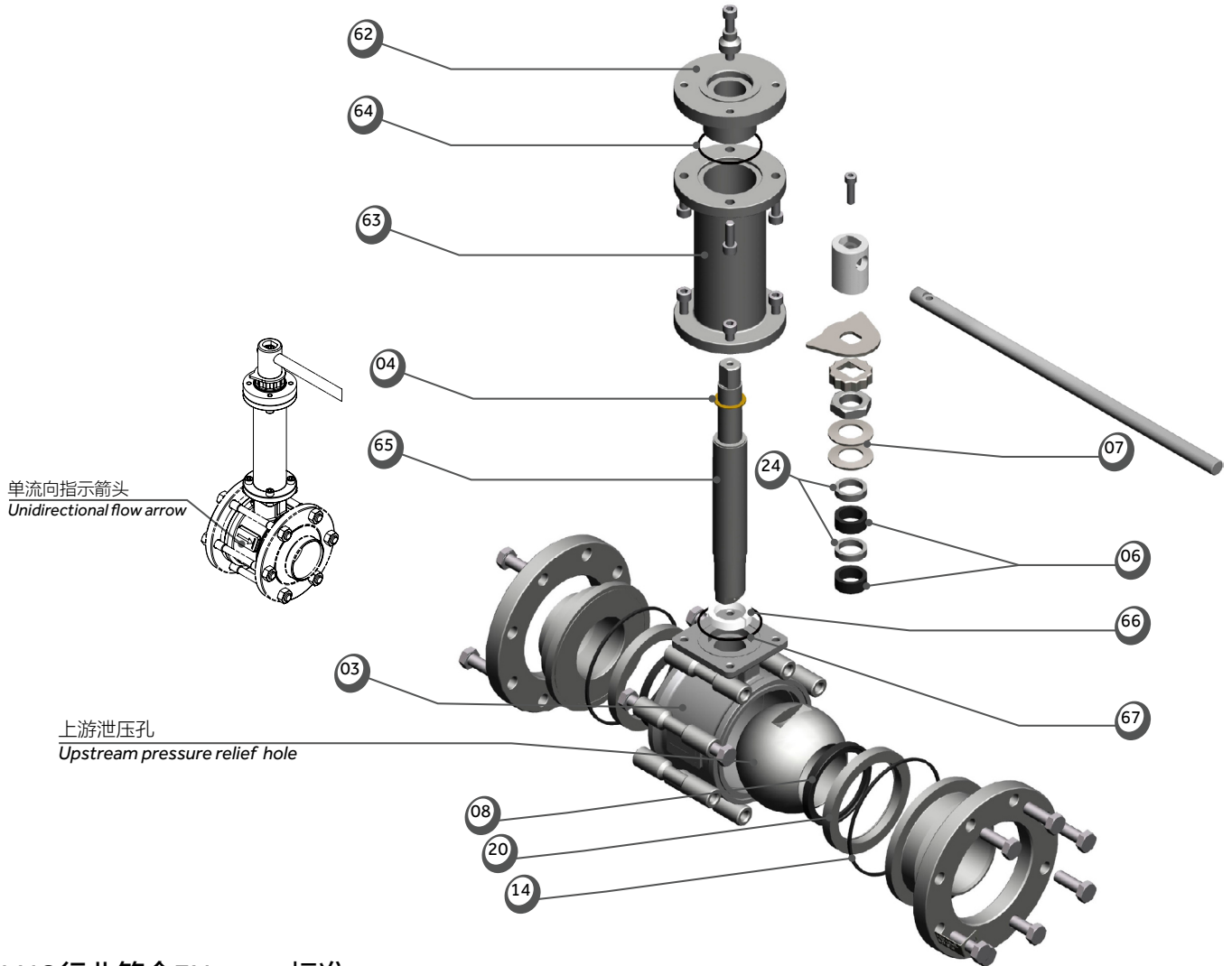
部件
COMPONENTS

PY4 CY 防火设计

DN 65 到 DN 100

PY4 CY fire safe

Size 2"1/2 to 4"



LNG行业符合EN12567标准
耐火性符合ISO10497/API607/API6FA标准

Certified EN12567 for LNG
Certified ISO10497/API607/API6FA Fire Resistance

编号	数量	描述	材质 (EN)
03	1	阀体	1.4409
04	1	阀杆密封	PTFE 20 % PEEK
06	2	填料	石墨
07	2	弹簧压片	1.4310
08	2	阀座	PTFE+碳
14	2	阀体密封	石墨
20	2	阀座支撑	1.4404
24	2	填料压盖	1.4404
62	1	法兰盖	1.4404
63	1	延长套筒	1.4307
64	1	平垫	PTFE
65	1	延长阀杆	1.4404
66	1	阀套	PTFE
67	1	密封垫片	PTFE

Item	Qty	Description	Material (ASTM)
03	1	Body	CF3M
04	1	Stem thrust seal	20%PEEK PTFE
06	2	Gland packing	Graphite
07	2	Spring washers	301
08	2	Seat	PTFE+Carbon
14	2	Body seal	Graphite
20	2	Seat support	316L
24	2	Gland	316L
62	1	Manuel flange	316L
63	1	Extension's body	304L
64	1	Flat seal	PTFE
65	1	Extended stem	316L
66	1	Split ring	PTFE
67	1	Flat seal	PTFE

尺寸 & 操作扭矩 SIZE & OPERATING TORQUES

PY4 CY

DN 08 到 DN 50

PY4 CY

Size 1/4" to 2"

PY4 CY

DN 65 到 DN 100

PY4 CY

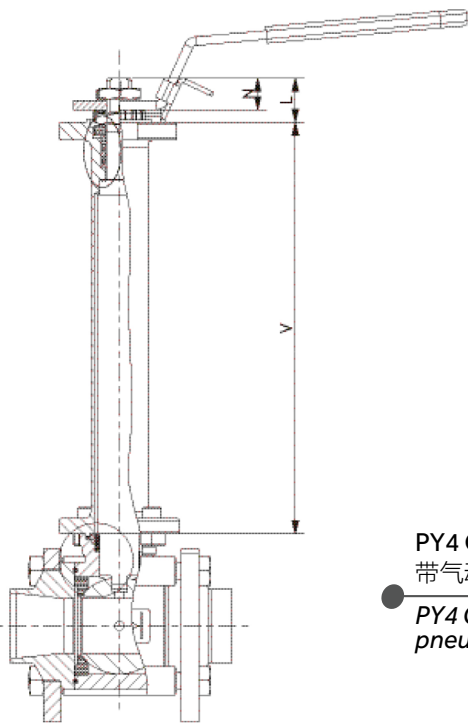
Size 2" 1/2 to 4"

标准:

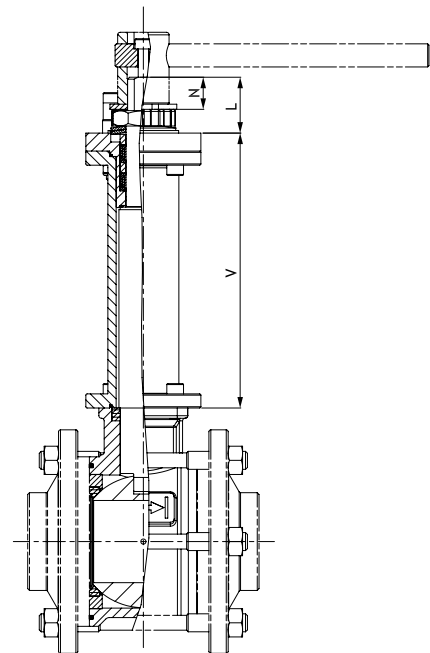
所有阀门清洁及脱脂处理符合EN12300标准
所有阀门将会包装在单独密封的塑料袋中

All valves cleaned & degreased according to EN12300 for Oxygen

All Valves packed in closed individual plastic bag



PY4 CY
带气动执行机构
PY4 CY with
pneumatic actuator



尺寸 & 操作扭矩 Size & operating torques

尺寸 Size	ΔP Max. -196°C / -320°F (bar)	PN (bar)	L	N	V	气缸容积 Volume gas buffer	操作扭矩 Operating torques
08-12 1/4"-3/8"	40	100	13.4	8.7	157	18 cm ³	6 N.m
15 1/2"	40	100	13.4	8.7	157	15 cm ³	12 N.m
20 3/4"	40	100	18.4	12.6	188	15 cm ³	16 N.m
25 1"	40	70	18.4	12.6	188	15 cm ³	26 N.m
32 1"1/4"	40	70	24.2	16.2	211.5	26 cm ³	52 N.m
40 1"1/2"	40	50	24.2	16.2	211.5	26 cm ³	86 N.m
50 2"	40	50	29.6	19	208.8	106 cm ³	158 N.m
65 2"1/2"	10	40	43.2	25	214	43 cm ³	172 N.m
80 3"	10	40	43.2	25	216	264 cm ³	172 N.m
100 4"	10	25	49	30	216	191 cm ³	301 N.m

三通深冷低温球阀
3-WAY CRYOGENIC VALVE

深冷三通阀 / 水平工作
通路和缩径

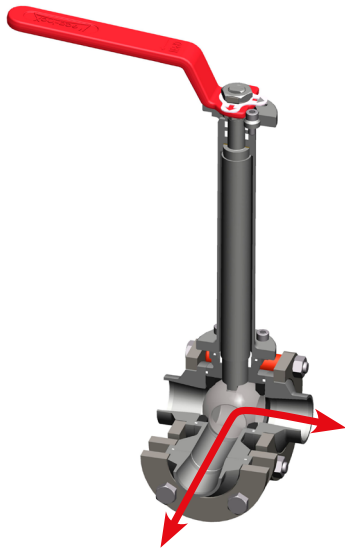
3-way version / Horizontal inlet
Full bore & reduced bore

3VLH

L型流道
换向

3VLH

L port
Diverting flow



3VTH

T型流道
换向或混流

3VTH

T port
Diverting flow or mixing



三通深冷低温球阀 3-WAY CRYOGENIC VALVE

深冷三通阀 / 垂直工作
 通路和缩径

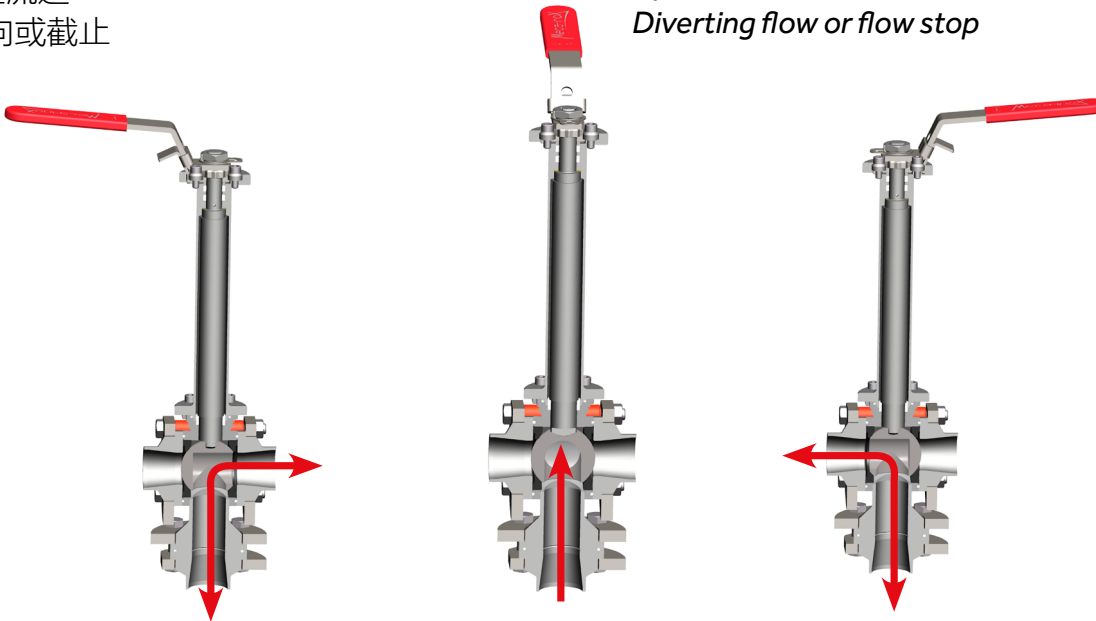
3-way version / Vertical inlet
 Full bore & reduced bore

3VLV

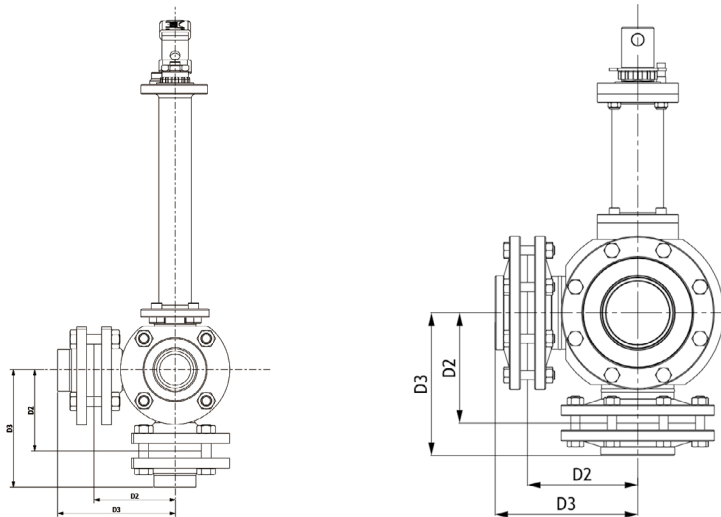
L 型流道
 换向或截止

3VLV

L port
 Diverting flow or flow stop



进出口尺寸 (水平和垂直工作) Horizontal & Vertical inlet size



尺寸 Size	08 1/4"	12 3/8"	15 1/2"	20 3/4"	25 1"	32 1 1/4"	40 1 1/2"	50 2"	65 2 1/2"	80 3"	100 4"
D2	45	45	50	60	65	72	80	103	135	149	170
D3	67.3	67.3	72.8	86.7	94.3	102.9	114.4	142.5	183	202	220

混合材质球阀：青铜/不锈钢

COMBINED VALVE : BRONZE/STAINLESS STEEL

用于液氧 / PY4 CY

对焊连接端 BW

阀座材质：

PTFE (聚四氟乙烯) + 碳

带上游泄压孔

用于在阀门关闭位置时的阀腔泄压

氧清洁 (脱脂处理)

采用单独的塑料袋封装



Liquid oxygen application / PY4 CY

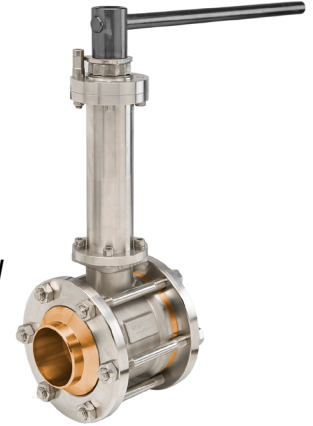
Butt Welding ends BW

Seats material:

PTFE + Carbon

Upstream vent hole
for cavity relief in
the closed position

Cleaned, O₂ degreased
and packed in individual
plastic bag



用于氧气 PS4

对焊连接端 BW

阀座材质：

TFM 1600

氧清洁 (脱脂处理)

采用单独的塑料袋包装



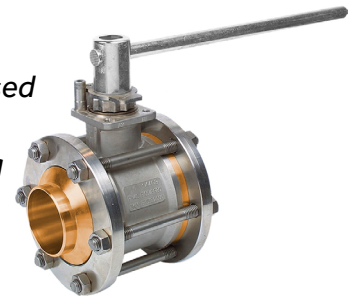
Gas oxygen application / PS4

Butt Welding ends BW

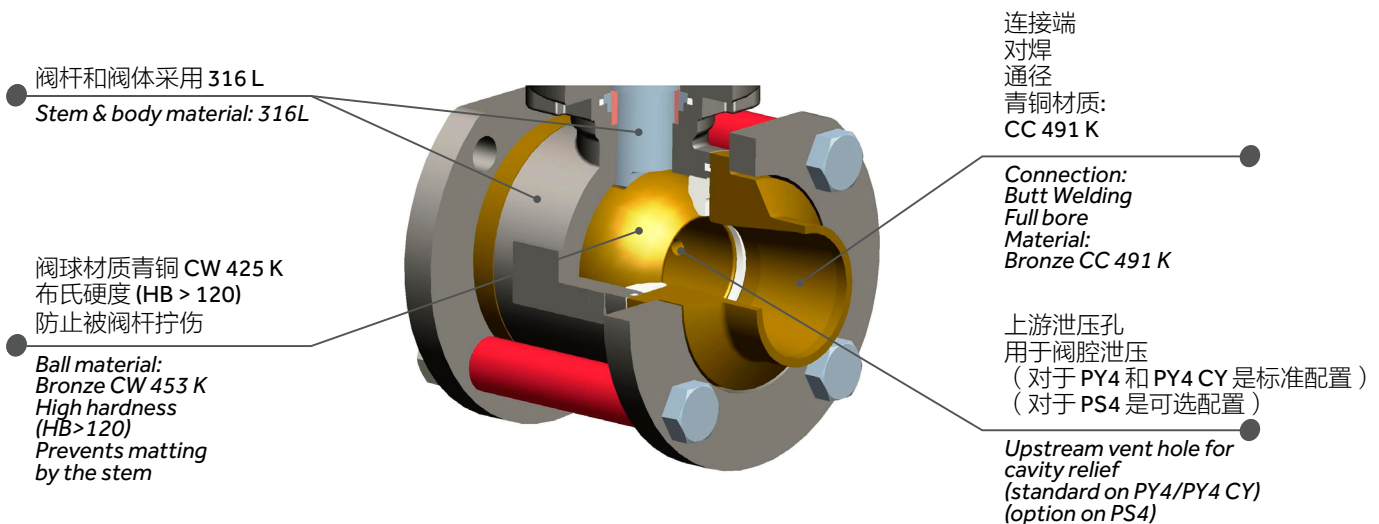
Seats material:

TFM1600

Cleaned, O₂ degreased
and packed in
individual plastic bag



技术参数 PY4 CY / PS4 Technical data PY4 CY / PS4



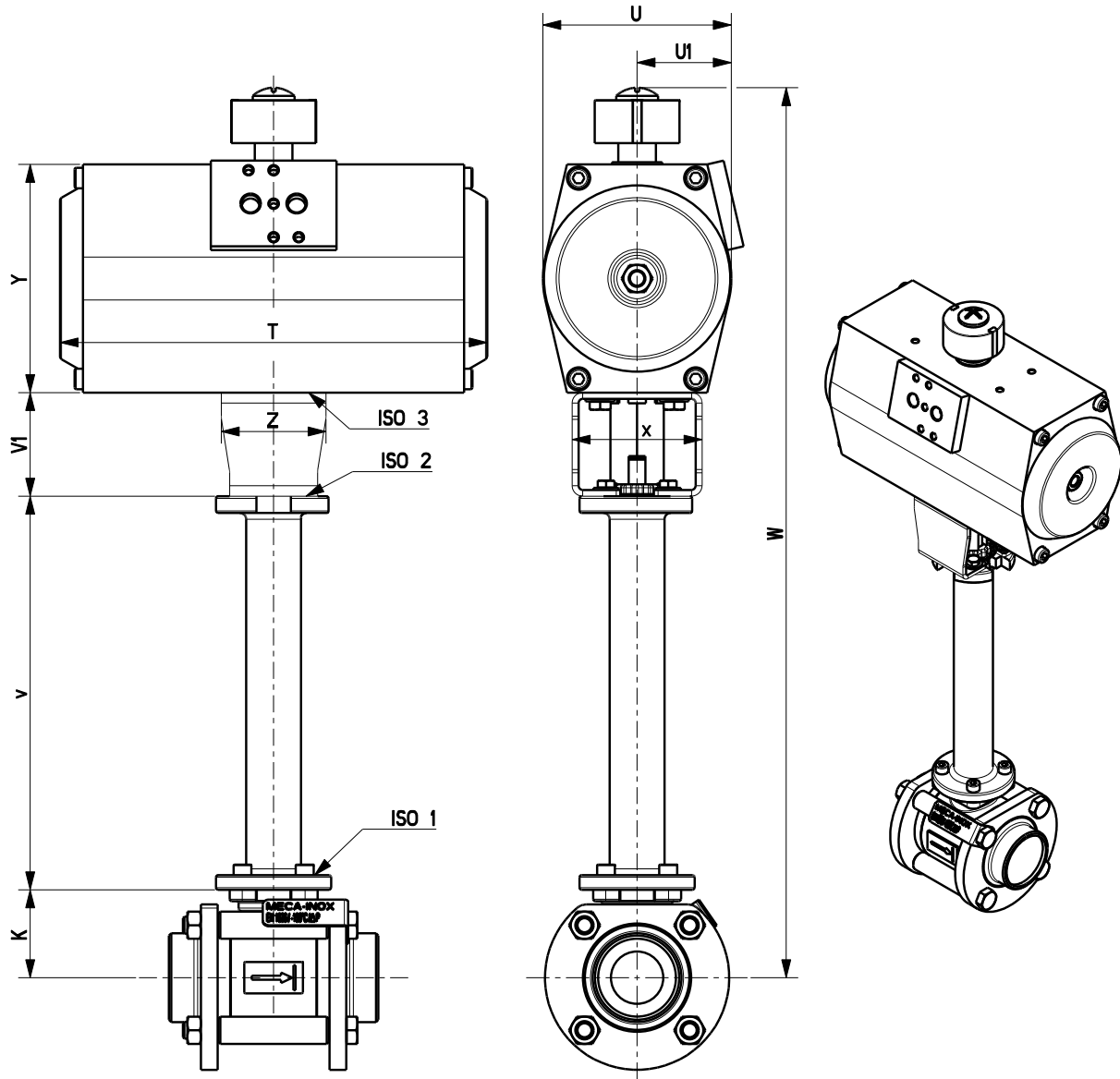
气动执行器
PNEUMATIC ACTUATION

PY4 CY 气动连接件

DN 08 到 DN 50

PY4 CY actuated components

Size 1/4" to 2"



CRYO

气动执行器 PNEUMATIC ACTUATION

PY4 CY 气动参数

DN 08 到 DN 50

PY4 CY actuated

Size 1/4" to 2"

PY4 CY 单作用气动执行器型号 Spring Return type on PY4 CY

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	ISO 3	T	U	U1	V1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore																
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045SR12	F03	F05	146	58	29	47	157	326.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-063SR12	F03	F05	168	72	36	47	157	353	62	88	50
20	3/4"	25	1"	37.9	F04	2MICA-063SR12	F04	F05	168	72	36	49.5	188	393.4	62	88	50
25	1"	32	1"1/4"	42	F04	2MICA-083SR12	F04	F07	204	90	45	49.5	188	418.5	82	109	69
32	1"1/4"	40	1"1/2"	54	F05	2MICA-105SR12	F05	F10	268	115	57.5	49.5	211.5	478	120	133	105
40	1"1/2"	50	2"	59	F05	2MICA-125SR12	F05	F10	298	140	70	49.5	211.5	505	120	155	105
50	2"	65	2"1/2"	73	F07	2MICA-140SR12	F07	F12	390	152	76	79.5	208	562	132	171.5	120

以上数据基于：阀门上下游压差最大值 $\Delta P=40$ bar，气源压力为 6 bar./ Values given for service pressure at: $\Delta P=40$ bar max and 6 bar air supply

PY4 CY 双作用气动执行器型号 Double Acting type on PY4 CY

尺寸 / Size				K	ISO 1	气动执行器 Actuator	ISO 2	ISO 3	T	U	U1	V1	V	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore																
8-12	1/4"-3/8"	15	1/2"	27.5	F03	2MICA-045DA	F03	F05	146	58	29	47	157	326.5	62	65	50
15	1/2"	20	3/4"	31	F03	2MICA-045DA	F03	F05	146	58	29	47	157	330	62	65	50
20	3/4"	25	1"	37.9	F04	2MICA-045DA	F04	F05	146	58	29	49.5	188	370.4	62	65	50
25	1"	32	1"1/4"	42	F04	2MICA-063DA	F04	F05	168	72	36	49.5	188	397.5	62	88	50
32	1"1/4"	40	1"1/2"	54	F05	2MICA-075DA	F05	F05	184	83	41.5	49.5	211.5	445	62	100	50
40	1"1/2"	50	2"	59	F05	2MICA-083DA	F05	F05	204	90	45	49.5	211.5	459	82	109	69
50	2"	65	2"1/2"	73	F07	2MICA-105DA	F07	F07	268	115	57.5	79.5	208	523.5	120	133	105

以上数据基于：阀门上下游压差最大值 $\Delta P=40$ bar，气源压力为 6 bar./ Values given for service pressure at: $\Delta P=40$ bar max and 6 bar air supply

PY4 CY $\Delta P=40$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
10 (8-12) F03	6	2MICA-045DA KPNI410 0511	2MICA-045SR12 KPNI410 0511
15 F03	6	2MICA-045DA KPNI410 0511	2MICA-063SR12 KPNI410 0514
20 F04	6	2MICA-045DA KPNI420 0511	2MICA-063SR12 KPNI420 0514
25 F04	6	2MICA-063DA KPNI420 0514	2MICA-083SR12 KPNI420 0717
32 F05	6	2MICA-075DA KPNI432 0514	2MICA-105SR12 KPNI432 1022
40 F05	6	2MICA-083DA KPNI432 0717	2MICA-125SR12 KPNI432 1022
50 F07	6	2MICA-105DA KPNI450 1022	2MICA-140SR12 KPNI450 1227

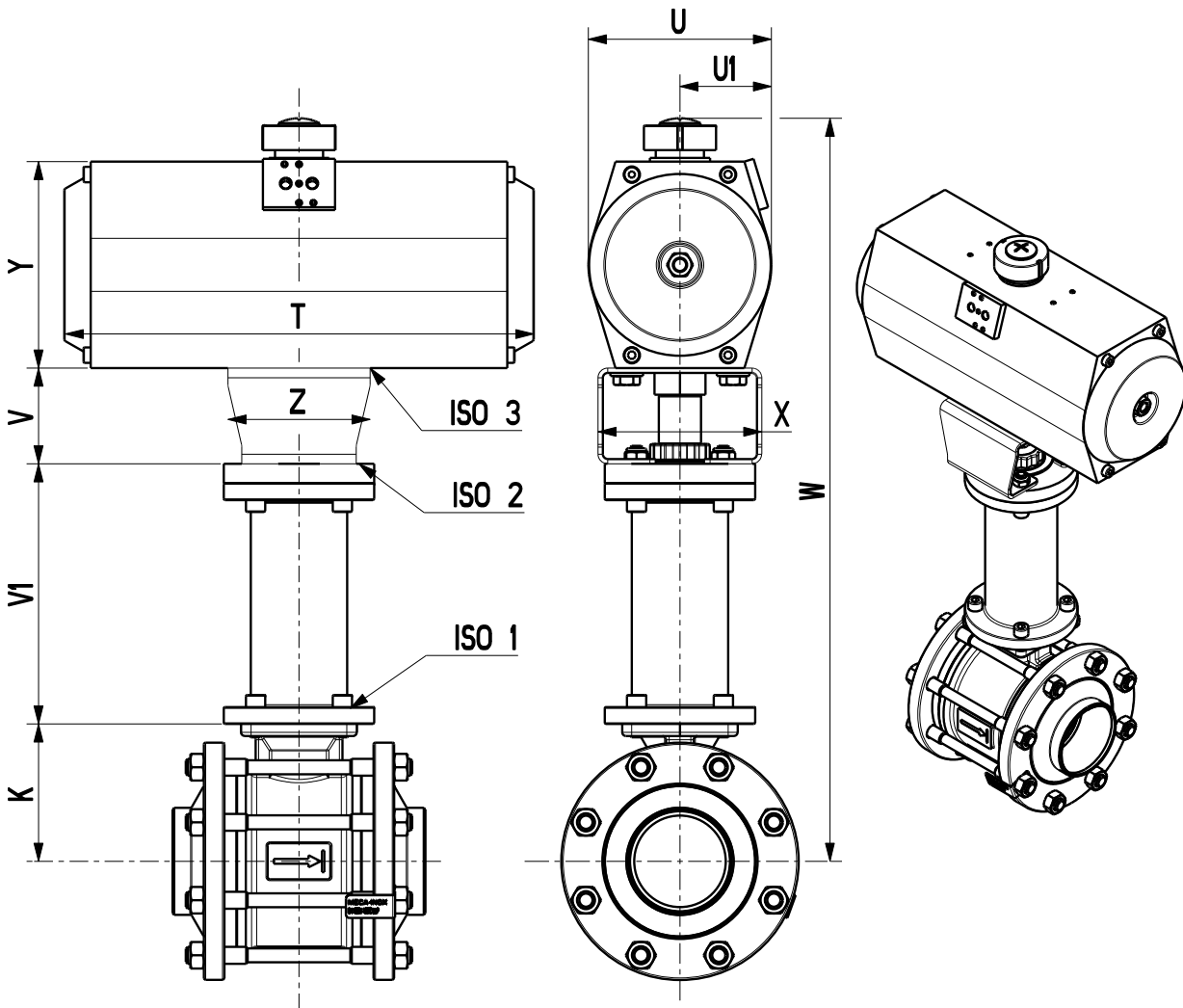
气动执行器
PNEUMATIC ACTUATION

PY4 CY 气动连接件

DN 65 到 DN 100

PY4 CY actuated

Size 2" 1/2 to 4"



CRYO

气动执行器 PNEUMATIC ACTUATION

PY4 CY 气动参数

DN 65 到 DN 100

PY4 CY actuated

Size 2"1/2 to 4"

PY4 CY单作用气动执行器型号 *Spring Return type on PY4 CY*

尺寸 / Size				K	ISO 1	缩径 Reduced Bore	ISO 2	ISO 3	T	U	U1	V	V1	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore																
65	2"1/2	80	3"	104	F07	2MICA-140SR12	F07	F12	390	152	76	214	79.5	599	132	171.5	120
80	3"	100	4"	114	F10	2MICA-140SR12	F10	F12	390	152	76	216	79.5	611	136	171.5	118
100	4"	125	5"	133	F10	2MICA-190SR12	F10	F14	525	206	103	216	79.5	688.5	158	230	140

以上数据基于：阀门上下游压差最大值 $\Delta P=40$ bar，气源压力为 6 bar。/ Values given for service pressure at: $\Delta P=10$ bar max and 6 bar air supply

PY4 CY 双作用气动执行器型号 *Double Acting type on PY4 CY*

尺寸 / Size				K	ISO 1	缩径 Reduced Bore	ISO 2	ISO 3	T	U	U1	V	V1	W	X	Y	Z
通径 Full Bore	缩径 Reduced Bore																
65	2"1/2	80	3"	104	F07	2MICA-105DA	F07	F10	268	115	57.5	214	79.5	560.5	120	133	105
80	3"	100	4"	114	F10	2MICA-105DA	F10	F10	268	115	57.5	216	79.5	572.5	120	133	95
100	4"	125	5"	133	F10	2MICA-125DA	F10	F10	298	140	70	216	79.5	613.5	120	155	95

以上数据基于：阀门上下游压差最大值 $\Delta P=40$ bar，气源压力为 6 bar。/ Values given for service pressure at: $\Delta P=10$ bar max and 6 bar air supply

PY4 CY $\Delta P=10$ bar

尺寸 Size	气源压力 Air supply pressure	双作用 / Double acting 编号 / Code	单作用 / Spring return 编号 / Code
65 F07	6	2MICA-105DA KPNi2P065 1022	2MICA-140SR12 KPNi2P065 1227
80 F10	6	2MICA-105DA KPNi2P080 1022	2MICA-140SR12 KPNi2P080 1227
100 F10	6	2MICA-125DA KPNi2P100 1022	2MICA-190SR12 KPNi2P100 1436