APV®

Valve Key

BUTTERFLY, SINGLE SEAT, MIXPROOF, ASEPTIC, REGULATING, PROCESS VALVES



SPXFLOW®

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SV & SVS Delta Butterfly Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	SV1	316L	W	T20	A1	C41Y	20	TR	E	10	A0

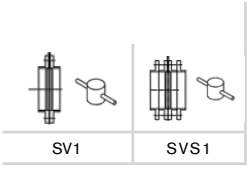
*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

SV1 Standard (2-piece design)

SVS1 Intermediate Flanged (4-piece design)

SVS2 **I**ntermediate Flanges (4-piece design) New version



(2) MATERIAL OF CONSTRUCTION

316L Housing Material

304 Housing Material

(3) PORT CONNECTIONS

F Hygienic Flange (SVS1 only)

T Clamp (DIN 32676)

W Buttweld

G DIN Male Thread (DIN 11851)

S SMS Swedish Milk Standard (SMS 1145)

X Without Counter Flanges (SVS1 only)

Mixed port connections only available for SV1, specify both key identifiers. Example: GW

Additional port connections available upon request. Please contact factory.

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube
DN125	DN 125	**T60**	60" Tube
DN150	DN 150		
DN200	DN 200*		
DN250	DN 250*		

***SVS1 only**

(5) ACTUATOR

NORMALLY CLOSED	NORMALLY OPEN	AIR TO AIR	MANUAL	ACTUATOR SIZE	NOMINAL VALVE SIZE	OPTIONAL VALVE SIZE
A1	**A2**	A3		80 mm diameter	DN25-DN100 or T10-T40	
B1	B2			125 mm diameter	DN125-DN150 or T60	DN100 or T40
C1	C2			180 mm diameter	DN200-DN250	DN125, DN150
			 **H1**	**Standard Manual Handle Open/Closed Position**	**DN25-DN100 or T10-T40**	
			 H1L	Lockable Manual Handle Open/Closed Position	DN25-DN100 or T10-T40	
			 H2	Infinite Position Adjustment Manual Handle	DN25-DN100 or T10-T40	
			 H3	Manual Handle with yoke, coupling, and indicator for position feedback*	Standard in DN25-DN100 or T10-T40	
			H3L	Manual lockable Handle with yoke, coupling and indicator for position feedback*	DN25 - DN 100 or T10 - T40	
			 M1L2	Metal Multi-position Handle	DN25-DN100 or T10-T40	
			 **M1L**	**Standard Lockable Metal Multiposition Handle**	**DN125-DN250 or T60**	
			 H3L2	Manual Handle with compact yoke, coupling, and indicator for position feedback*	DN25-DN100 or T10-T40	

*** Position feedback sensor sold separately.**

Use XX code for butterfly valves without manual handle or actuator. Supplied in parts for assembly.

Note: Control Unit with NOT element needs Air to Air actuator

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "AA0A" as default for valves without control unit or sensor feedback.

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)
CX	IECEx CU (ATEX Zone 1)***
BE	TC8692 Electropneumatic Positioner
CA	CU4 (Certified ATEX Zone2)***
CL	CU4Plus (Certified ATEX Zone2)***

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**
9	1 Solenoid + NOT Element

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4, CU4Plus, CX, CA, CL**
U	Direct Connect	110 V AC	CU4
Y	**ASI 3**		**CU4, CU4Plus, CA, CL**
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION	ENVIRONMENTAL RATING
XX		Manual Handle Only	ATEX Zone 1 compliant***
2X	3X	No CU / Feedback	ATEX Zone 1 compliant***
20	**30**	**Cable Gland**	ATEX Zone 1 compliant***
24	34	4-pin M12 Connector*	ATEX Zone 2 compliant***
25	35	5-pin M12 Connector**	ATEX Zone 2 compliant***

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED ACTUATOR OD	POLISHED ACTUATOR OD	INSIDE SURFACE
11	21	0.8 µm (32 µ-in) Ra ID

Note: Base valve always has machine finish OD

(11) OPTIONS

A0 none

A1S 3.1 SPX FLOW Inspection Certification*

A3 Hazardous rated

C6 Assembled (standard manual handle and actuated valves without CU supplied dis-assembled for easier installation into pipeline; standard actuated valve with CU supplied assembled)

***Always select 0.8 microns inside surface finish**

***** Control Unit:**

CX: ex ia*** / EX ia IIC T4 Gb

CA/CL: Ex ec IIB T4 Gc

***** Valve:**

ATEX 2 G Ex h IIB T6…T3 Gb

BLV1 Ball Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	BLV1	316L	W	T15	A1	C41Y	24	PT	T	11	A0

(1) VALVE TYPE

BLV1 2-way ball valve

(2) MATERIAL OF CONSTRUCTION

316L Housing Material

(3) PORT CONNECTIONS

W Buttweld

T Clamp

(4) PORT SIZES

DN15	DIN 15	**T050**	0.5" Tube
DN20	DIN 20	**T075**	0.75" Tube
DN25	DIN 25	**T10**	1.0" Tube
DN40	DIN 40	**T15**	1.5" Tube
DN50	DIN 50	**T20**	2.0" Tube
DN65	DIN 65	**T25**	2.5" Tube
DN80	DIN 80	**T30**	3.0" Tube
DN100	DIN 100	**T40**	4.0" Tube

(5) ACTUATOR

SPRING TO CLOSE	SPRING TO OPEN	AIR TO AIR	MANUAL	ACTUATOR SIZE	NOMINAL VALVE SIZE
A1	A2	A3		80 mm diameter	DN15-DN50 or T050-T20
B1	B2	B3		125 mm diameter	DN65-DN80 or T25-T30
C1	C2	C3		180 mm diameter	DN100 or T40
			 H1	Standard Manual Handle Open/Closed Position	DN15-DN100 or T050-T40
			 H3L2	Manual Handle with yoke, coupling, and indicator	DN15-DN100 or T050-T40

***Position feedback sensor sold separately.**

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "AA0A" as default for valves without control unit or sensor feedback.

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4**
CP	CU4Plus
BE	TC8692 Electropneumatic Positioner*

***Direct Connect only**

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**
9	1 Solenoid + NOT Element

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4, CU4Plus**
Y	**ASI 3**		**CU4,** CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
XX		Manual Handle Only
2X	3X	No CU / Feedback
20	**30**	**Cable Gland**
24	34	4-pin M12 Connector*
25	35	5-pin M12 Connector**

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

PT PTFE

(9) SEAL MATERIAL

T PTFE

(10) SURFACE FINISH

GLASS BLASTED ACTUATOR OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11) OPTIONS

A0 None

SW Series Single Seat Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	SW	41	W	T30	C1	CP1Y	30	TR	E	10	A0

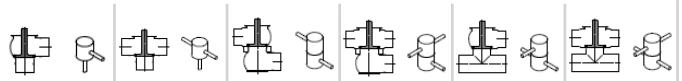
NOTE: Add multiple options to the end of code (i.e. -A1A3)

(1) VALVE TYPE

SW Single Seat Valves

(2) HOUSING COMBINATIONS

Shut-off Valves



41 | 42 | E41 | E42 | E43** | E44**

**E-style manifold housings are one-piece fully welded

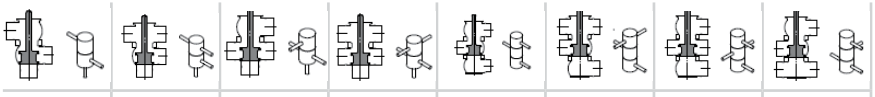
Tank Outlet Valves*



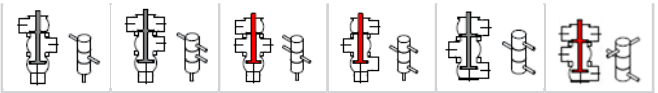
T41 | T42

*Tank flanges ordered separately

Change-over Valves



43 | 44 | 47 | 48 | E45 | E46 | E47 | E48



S45 | S46 | S47 | S48 | SE45 | SE46

(3) PORT CONNECTIONS

W **Buttweld**
T Clamp (DIN 32676)
K DIN Female Liner and Nut (DIN 11851) *

(*) Not available for large sizes DN 125, DN 150 and T60
Additional and mixed port connections available upon request on certain housing combinations.
Please contact factory.

I IDF/ISS (International Dairy Flanges) *
G DIN male Thread (DIN 11851) *
S SMS Swedish Milk Standard (SMS 1145) *
L SMS long 1145 Complete Set
D Clamp Complete set

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube
DN125	DN 125		
DN150	DN 150	**T60**	6.0" Tube

For availability of mixed sizes on E-style matrix housings, please contact Factory

(5) ACTUATOR

NORMALLY CLOSED	NORMALLY OPEN	AIR TO AIR	MANUAL	ACTUATOR SIZE	NOMINAL VALVE SIZE[1]
A1	A2	A3		74 mm diameter	DN25, DN40, T10, T15
B1	B2	B3		110 mm diameter	DN50, DN65, T20, T25
C1	C2	C3		165 mm diameter	DN80, DN100, T30, T40
D1	D2			255 mm diameter	Only DN125, D150, T60
E1	E2			110 mm diameter Long Stroke	Only DN50 to DN65 & T20 to T25
F1	F2			165 mm diameter Long Stroke	Only DN80, DN100, T30, T40
			H1	Manual Hand Actuator	DN25-DN150 or T10-T60

Add "L" to actuator identifier for stroke limiting mid-postion actuator (example "B1L"). Only available on A1, B1, C1.
[1] A, B & C sizes can be used beyond the nominal valve sizes DN25-DN100. See instruction manual for holding pressures. For change-over valves, "Normally Closed" = "Fail Down" and "Normally Open" = "Fail Up"

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. **BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit. Use identifier "AA0A" for valves with manual handle.**

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)
CX	IECEx CU (ATEX Zone 1)***
CA	CU4 (Certified ATEX Zone2)***
CL	CU4Plus (Certified ATEX Zone2)***

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**
9	1 Solenoid + NOT Element*
3	3 Solenoid

***Only available up to DN100/T40 size**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus, CX, CA, CL
U	Direct Connect	110 V AC	CU4
Y	**ASI 3**		**CU4,** CU4Plus, CA, CL
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION	ENVIRONMENTAL RATING
XX		Manual Handle Only	ATEX Zone 1 compliant***
2X	3X	No CU / Feedback	ATEX Zone 1 compliant***
20	**30**	**Cable Gland**	ATEX Zone 1 compliant***
24	34	4-pin M12 Connector*	ATEX Zone 2 compliant***
25	35	5-pin M12 Connector**	ATEX Zone 2 compliant***
28	38	8-PIN M12 Connector	ATEX Zone 2 compliant***

***Available on CU with AS-i and IO-link communication**
****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

***** Control Unit:**

CX: ex ia*** / EX ia IIC T4 Gb
CA/CL: Ex ec IIB T4 Gc

***** Valve:**

ATEX 2 G Ex h IIB T6…T3 Gb

(10) SURFACE FINISH

10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None
A1S 3.1 SPXFLOW Inspection Certificate*
A3 Hazardous rated
A4 High Pressure (25 Bar)
A5 High Pressure (40 Bar)
A6 High Pressure (50 Bar)
B1 3A Autorized
C1 Steam barrier
C4 Modulating cone
C7 Elastomer shaft seal

For high pressure (hp) options, please contact factory
***Always select 0.8 microns inside polish**

SWmini Series Fractional Size Single Seat Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	SWmini	41	W	T050	C1	C41W	20	TR	E	21	A0

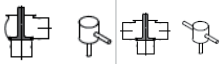
*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

SWmini Single Seat Fractional

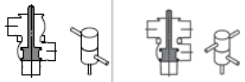
(2) HOUSING COMBINATIONS

Shut-off Valves



41 | 42

Change-over Valves



43 | 44

(3) PORT CONNECTIONS

W **Buttweld**

T Clamp (DIN 32676)

(4) PORT SIZES

DN10 DN 10

DN15 DN 15

DN20 DN 20

T050 0.5" Tube

T075 0.75" Tube

(5) ACTUATOR

NORMALLY CLOSED	NORMALLY OPEN	AIR TO AIR	MANUAL	ACTUATOR SIZE	NOMINAL VALVE SIZE
G1	G2	G3		50 mm	Only Used On SWmini Valves
			H1	Manual Actuator	

For change-over valves, "Normally Closed" = "Fail Down" and "Normally Open" = "Fail Up"

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. **BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit. Use identifier "AA0A" for valves with manual handle.**

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**
9	1 Solenoid + NOT Element

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus
Y	**ASIO 3**		**CU4,** CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
XX		Manual Handle Only
2X	3X	No CU / Feedback
20	**30**	**Cable Gland**
24	34	4-pin M12 Connector*
25	35	5-pin M12 Connector**

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seat

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

POLISHED OD	INSIDE POLISH
21	0.8 µm (32 µ-in) Ra ID

(11) OPTIONS

A0 None

C1 Shaft Flush*

Note: 3-A authorized design is standard

***Always select 0.8 microns inside polish**

MS Series Aseptic Diaphragm Single Seat Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	MS	41	W	T20	B1	C41W	30	TR	E	11	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

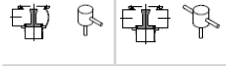
(1) VALVE TYPE

MS Diaphragm Style with Metal Stem and Elastomeric Seat Seal

MSP Diaphragm Style with PTFE Stem

(2) HOUSING COMBINATIONS

Shut-off Valves



41 | 42

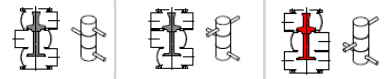
Tank Outlet Valves*



T42

***Tank flanges ordered separately**

Change-over Valves*



ES45 | ES46 | ES48

***Change-over valves only available as MS type**

(3) PORT CONNECTIONS

W Buttweld

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

(5) ACTUATOR

NORMALLY CLOSED	NORMALLY OPEN	AIR TO AIR	MANUAL	ACTUATOR SIZE	NOMINAL VALVE SIZE[1]
A1	A2	A3		74 mm diameter	DN25, T10
B1	B2	B3		110 mm diameter	DN40, DN50, T15, T20
C1	C2	C3		165 mm diameter	DN65, DN80, DN100, T25, T30, T40
			H1	Manual Hand Actuator	DN25-DN100 or T10-T40

Add "L" to actuator identifier for stroke limiting mid-position actuator (example "B1L"). Only available on B1, C1.

[1] A, B & C sizes can be used beyond the nominal valve sizes DN25-DN100. See instruction manual for holding pressures.

For change-over valves, "Normally Closed" = "Fail Down" and "Normally Open" = "Fail Up"

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit. Use identifier "AA0A" for valves with manual handle.

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**
9	1 Solenoid + NOT Element*
3	3 Solenoid

***Not available with MSP type**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus
U	**Direct Connect**	**110 V AC**	**CU4**
Y	**ASI 3**		**CU4,** CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
XX		Manual Handle Only
2X	3X	No CU / Feedback
20	**30**	**Cable Gland**
24	34	4-pin M12 Connector*
25	35	5-pin M12 Connector**
28	38	8-PIN M12 Connector **

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seat

PT PTFE Stem (MSP only)

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

T PTFE (MSP only)

TE PTFE/EPDM*

TV PTFE/FPM*

TH PTFE/HNBR*

* Only available for MSP Tank Outlet

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10*	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

***Not available with MSP type**

(11) OPTIONS

A0 None

A1S 3.1 SPX FLOW Inspection Certificate*

B1 3-A certification (at minimum with 0.8 µm (32 µ-in) Ra ID surface finish)

***Always select 0.8 microns inside polish**

AP Series Fractional Size Aseptic Diaphragm Single Seat Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	AP	11	W	DN10	TC1	AA0A	2X	PT	T	22	A1

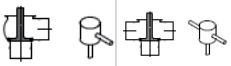
*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

AP Fractional Size Diaphragm Style with PTFE Stem

(2) HOUSING COMBINATIONS

Shut-off Valves



11	12

(3) PORT CONNECTIONS

W Buttweld

T Clamp (DIN 32676)

(4) PORT SIZES

DN10 DN 10

DN15 DN 15

DN20 DN 20

T050 0.5" Tube

(5) ACTUATOR

NORMALLY CLOSED	NORMALLY OPEN	AIR TO AIR	MANUAL	ACTUATOR
TC1	TC2	TC3		Techno Air Actuator
			HT	Techno Hand Actuator

(6) FEEDBACK

IDENTIFIER	DESCRIPTION
AA0A	No CU
HP0N	2 Prox (open/closed) - Prox Holder only (no switches)

(7) CONTROL UNIT / ACTUATOR CONNECTORS

4 MM AIR FITTINGS	ELECTRICAL CONNECTION
XX	Manual Handle Only
4X	No CU / Feedback

(8) SEAT TYPE

PT PTFE Stem

(9) SEAL MATERIAL

T PTFE

(10) SURFACE FINISH

POLISHED OD	INSIDE POLISH
22	Techno Only - 0.5 µm (20 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A1 3.1 Certification (Standard)

Note: 3-A authorized design is standard

AM1 Series Double Seat Aseptic Mixproof Valve - DualSafe™



The order code is constructed as follows:

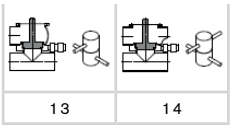
POSITION	1	2	3	4	5	6	7	8	9	10	11*
CODE	AM	14	W	DN50	LS	CP5Y	24	PP	E	11	A1

*** Add multiple options to the end of code (i.e. -A1 -A3)**

(1) VALVE TYPE

AM Double Seat Aseptic Mixproof

(2) HOUSING COMBINATIONS



13	14

(3) PORT CONNECTIONS

W Buttweld

(4) PORT SIZES

DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
		T30	3.0" Tube

For mixed size valves, indicate lower ports first; lower ports are also available in DN80, DN100 and 4"
Example: 2.5" Lower Housing by 2" Upper Housing is T25T20.
To verify availability of mixed sizes, please contact Factory

(5) ACTUATOR

IDENTIFIER	MAIN VALVE	INLET SIDE VALVE	OUTLET SIDE VALVE	COMMENT
LS	(SL) Seat Lifting	NO	NC	Standard
LI	(SL) Seat Lifting	NC	NO	
LC	(SL) Seat Lifting	NC	NC	
LO	(SL) Seat Lifting	NO	NO	

(6) CONTROL UNIT / FEEDBACK

CU4Plus is used for the main valve by default, select below the Control Unit type for the 2x leakage valves. Use identifier 'HP0N' as default for main and side valves without Control Unit.

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE		
CP	**CU4Plus**	**Main Valve and side valves**
CB =(CP+C4)	**CU4Plus** **CU4**	**CU4Plus for the main valve** **CU4 for the side valves**
CH =(CP+HP0N)	CU4Plus HP0N	CU4Plus for the main valve HP0N for the side valves

CU Identifier Position 3 (No selection possible)

SOLENOID	
5	**3 Solenoids for main valve + 2x1 solenoids for side valves**
3	3 Solenoids for main valve*

*** Side valves need to be activated with an external source**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
Y	ASI 3		CU4Plus / CB / CH
S	IO-link	24V DC	CU4Plus / CH
W	Direct Connect	24V DC	CU4Plus / CB / CH
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	¼" OD AIR FITTINGS	ELECTRICAL CONNECTION	CU TYPE
20	30	Cable Gland	AS-i, Direct Connect
24	34	4-pin Connector*	IO-link by default AS-i
22	32	M12 Connector** 12-pin for CU4Plus, 5-pin for CU41	Direct Connect, Dependent on the CU type for the side valves, a 5-pin or 12-pin will be used by default

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAL TYPE

IDENTIFIER	MAIN VALVE	SIDE VALVES	COMMENT
PP	PT	PT	PTFE(PT) lower shaft of main valve and PTFE(PT) for side valves
PT	PT	TR	PTFE(PT) lower shaft of main valve. Side valves elastomeric(TR) profile seat seal
TP	TR	PT	Elastomeric(TR) profile seat seals for the main valve. PTFE(PT) for side valves
TT	TR	TR	Lower shaft of main valve. Side valves with elastomeric(TR) seat seals

***Please contact factory for availability**

(9) SEAL MATERIAL

E EPDM
V FPM / FKM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm

(11) OPTIONS

A1 3.1 cerficate for product contacted metal parts (standard)

AM1 valve is built to meet 3-A standards

PT 100 sensor can be ordered separately.
H346663 Temperature sensor 24 VDC
H348743 Temperature sensor IO-link

D4 Series Double Seat Mixproof Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11*
CODE	D4	44	W	T30	SL	C43W	20	TR	E	11	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

D4 Double Seat Mixproof

(2) HOUSING COMBINATIONS

Shut-off Valves

No Housing (service insert)						
40	41(16)	41(17)	41(18)	42	43	44

(3) PORT CONNECTIONS

W Buttweld

Additional and mixed port connections available upon request. Please contact factory.

(4) PORT SIZES

DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube
DN125	DN 125		
DN150	DN 150	**T60**	6.0" Tube

For mixed size valves, indicate lower ports first.
Example: 1.5" Lower Housing by 2" Upper Housing is T15T20.
To verify availability of mixed sizes, please contact Factory

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
NSL	Non Seat Lifting
SL	Seat Lifting

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. **BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.**

CU Identifier Positions 1 & 2

	CONTROL UNIT TYPE
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)
CX	IECEx CU (ATEX Zone 1)***
CE	CU4 (certified IECEx / ATEX / CCC Zone 2***
CZ	CU4Plus (certified IECEx / ATEX / CCC Zone 2***

***** Control Unit:**
CX: ex ia*** / EX ia IIC T4 Gb
CE/CZ: Ex ec IIB T4 Gc

***** Valve:**
CX: ATEX 2 G Ex h IIB T6…T3 Gb
CE/CZ: Ex h IIB T6…T4 Gb

***** Valve with CU4 (IECEx Zone 2):**
CE/CZ: Ex ec h IIB T4 Gc

CU Identifier Position 3

	SOLENOID
1	1 Solenoid*
3	3 Solenoids
0	No solenoid (service inserts with no Control unit)

***Not available with seat lift actuator**

CU Identifier Position 4

	COMMUNICATION TYPE		CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus, CX, CE, CZ
Y	**ASI 3**		**CU4,** CU4Plus, CE, CZ
S	IO-link	24V DC	CU4Plus, CZ
N	None		(Not applicable Service inserts with no control unit)
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	ELECTRICAL CONNECTION	COMMUNICATION	CONTROL UNIT	ENVIRONMENTAL COMPLIANCE
2X	No CU / Feedback	NA	NA	ATEX Zone 1 compliant***
20	**Cable Gland**	Direct Connect; Asi-3	CU4; CU4Plus; IECEX CU	ATEX Zone 1 compliant***
22	12-pin M12 Connector****	Direct Connect	CU4Plus	ATEX Zone 2 compliant ***
24	4-pin M12 Connector*	Asi-3; IO-Link	CU4; CU4Plus	ATEX Zone 2 Compliant***
25	5-pin M12 Connector**	Direct Connect	CU4-D4NSL	ATEX Zone 2 Compliant***
28	8-pin M12 Connector**	Direct Connect	CU4-D4SL	ATEX Zone 2 Compliant***

***Available on CU4 and CU4Plus with AS-i and IO-link communication**
****Only available on CU4 with Direct Connect wire. (25) for D4 NSL, (28) for D4SL**
****** Only available on CU4Plus with Direct Connect wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11) OPTIONS

A0 None
A3 Hazardous rated
A1S 3.1 SPX FLOW Inspection Certificate
C1 Shaft Flush

NOTE: 3-A authorized design is standard

DU4 Series Double Seat Mixproof Changeover Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11*
CODE	DU4	45	W	T30	SL	C43W	20	TR	E	11	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

DU4 Double Seat Mixproof Changeover

(2) HOUSING COMBINATIONS

Change-over Valves



U45 | U46 | U47 | U48

(3) PORT CONNECTIONS

W Buttweld

Additional and mixed port connections available upon request. Please contact factory.

(4) PORT SIZES

DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
SL	Seat Lifting

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.

CU Identifier Positions 1 & 2

	CONTROL UNIT TYPE
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

	SOLENOID
3	3 Solenoids

***Not available with seat lift actuator**

CU Identifier Position 4

	COMMUNICATION TYPE		CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4 plus
Y	**ASI 3**		**CU4,** CU4 plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION	COMMUNICATION	CONTROL UNIT
2X	3X	No CU / Feed-back	NA	NA
20	**30**	**Cable Gland**	Direct Connect; Asi-3	CU4; CU4Plus
22	32	12-pin M12 Connector****	Direct Connect	CU4Plus
24	34	4-pin M12 Connector*	Asi-3; IO-Link	CU4; CU4Plus
28	38	8-pin M12 Connector**	Direct Connect	CU4

***Available on CU4 with AS-i and IO-link communication**

****Only available on CU4 with Direct Connect Wire**

****** Only available on CU4Plus with Direct Connect wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11) OPTIONS

A0 None

A1S 3.1 SPX FLOW Inspection Certificate

NOTE: 3-A authorized design is standard

DT4 Tank Outlet And DP4 Piggable Mixproof Valve

The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11*
CODE	DT4	T42	W	DN65	SL	C43Y	24	TR	E	11	C1



Tank Outlet Piggable

(1) VALVE TYPE

DT4 Tank Outlet Mixproof

DP4 Piggable Mixproof Valve

(2) HOUSING COMBINATIONS

Shut-off Valves

Tank Outlet	Piggable	
		
T42	P42	P44

(3) PORT CONNECTIONS

W Buttweld

Additional port connections available upon request. Please contact factory.

(4) PORT SIZES

DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
SL	Seat Lifting

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.

CU Identifier Positions 1 & 2

	CONTROL UNIT TYPE
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

	SOLENOID
3	3 Solenoids

CU Identifier Position 4

	COMMUNICATION TYPE		CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus
Y	**ASI 3**		**CU4,** CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	ELECTRICAL CONNECTION	COMMUNICATION	CONTROL UNIT
2X	No CU / Feedback	NA	NA
20	**Cable Gland**	Direct Connect; Asi-3	CU4; CU4Plus
22	12-pin M12 Connector****	Direct Connect	CU4Plus
24	4-pin M12 Connector*	Asi-3; IO-Link	CU4; CU4Plus
28	8-pin M12 Connector**	Direct Connect	CU4

***Available on CU4 with AS-i and IO-link communication**

****Only available on CU4 with Direct Connect Wire**

***** Only available on CU4Plus with Direct Connect wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11) OPTIONS

C1 Shaft Flush

A1S 3.1 SPX FLOW Inspection Certificate

NOTE: Shaft flush and 3-A authorized design as standard

DA4 Double Seat Mixproof Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11*
CODE	DA4	44	W	DN50	SL	C43Y	20	TR	E	11	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

DA4 Advanced Ultra-Hygienic Double Seat Mixproof

(2) HOUSING COMBINATIONS

Shut-off Valves

No Housing (upgrade/ service insert)						
40	41(16)	41(17)	41(18)	42	43	44

Use identifier "40" for replacement insert (less housing) to upgrade an existing DA3+ valve. New control unit is required to adapt to D4 series valves.

(3) PORT CONNECTIONS

W Buttweld

00 Upgrade/Service Inserts (No housing)

Additional and mixed port connections available upon request. Please contact factory.

(4) PORT SIZES

DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

For mixed size valves, indicate lower ports first.
Example: 1.5" Lower Housing by 2" Upper Housing is T15T20.
To verify availability of mixed sizes, please contact Factory

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
SL	Seat Lifting (Includes Integrated Upper and Lower Shaft Flush for extensive cleaning and minimal CIP losses to drain)

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. **BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.**

CU Identifier Positions 1 & 2

	CONTROL UNIT TYPE
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

	SOLENOID
3	3 Solenoids
0	No solenoid (service inserts with no Control unit)

CU Identifier Position 4

	COMMUNICATION TYPE		CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus
Y	**ASI 3**		**CU4,** CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus
N	None		(Not applicable Service inserts with no control unit)

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION	COMMUNICATION	CONTROL UNIT
2X	3X	No CU / Feed-back	NA	NA
20	**30**	**Cable Gland**	Direct Connect; Asi-3	CU4; CU4Plus
22	32	12-pin M12 Connector****	Direct Connect	CU4Plus
24	34	4-pin M12 Connector*	Asi-3; IO-Link	CU4; CU4Plus
28	38	8-pin M12 Connector**	Direct Connect	CU4

***Available on CU4 with AS-i and IO-link communication**
****Only available on CU4 with Direct Connect Wire**
****** Only available on CU4Plus with Direct Connect wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11) OPTIONS

A0 None

C1 Shaft Flush

A1S 3.1 SPX FLOW Inspection Certificate

NOTE: 3-A authorized design is standard

SWcip Series Double Seal Mixproof CIP Valves



The order code is constructed as follows:

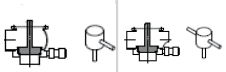
POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	SWcip	41	W	T25	B1	C41W	30	TR	E	10	A0

(1) VALVE TYPE

SWcip Double Seal Mixproof CIP Valve

(2) HOUSING COMBINATIONS

Shut-off Valves



41	42

(3) PORT CONNECTIONS

W Buttweld

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube
DN125	DN 125		
DN150	DN 150	**T60**	6.0" Tube

(5) ACTUATOR

NORMALLY CLOSED	ACTUATOR SIZE	STANDARD VALVE SIZE[1]
A1	74 mm diameter	DN25, DN40, T10, T15
B1	110 mm diameter	DN50, DN65, T20, T25
C1	165 mm diameter	DN80, DN100, T30, T40
D1	255 mm diameter	DN125, DN150, T60

[1]See instruction manual pressure data chart for holding pressures

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. **BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.**

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**
9	1 Solenoid + NOT Element

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus
Y	**ASI 3**		**CU4,** CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
2X	3X	No CU / Feedback
20	**30**	**Cable Gland**
24	34	4-pin M12 Connector*
25	35	5-pin M12 Connector**

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None

A1S 3.1 SPX FLOW Inspection Certificate*

***Always select 0.8 microns inside polish**

SD Series Double Seal Mixproof Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	SD	41	W	DN65	B1	C49Y	20	TR	E	10	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

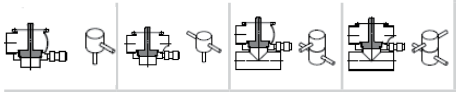
(1) VALVE TYPE

SD Double Seal Mixproof

SDMS Aseptic Double Seal Mixproof

(2) HOUSING COMBINATIONS

Shut-off Valves



41	42	E43	E44

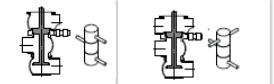
Tank Outlet Valves*



T41	T42

***Tank flanges ordered separately**

Change-over Valves



U45	U46

(3) PORT CONNECTIONS

W Buttweld

Additional and mixed port connections available upon request.
Please contact factory.

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

(5) ACTUATOR

NORMALLY CLOSED	ACTUATOR SIZE	NOMINAL VALVE SIZE[1]
A1	74 mm diameter	DN25, DN40, T10, T15
B1	110 mm diameter	DN50, DN65, T20, T25
C1	165 mm diameter	DN80, DN100, T30, T40

[1] A, B & C sizes are available on all sizes DN25-DN100 see instruction manual for holding pressures
For change-over valves, "Normally Closed" = "Fail Down" and "Normally Open" = "Fail Up"
For SDMS type, nominal actuator sizes will vary. Please confirm configuration with factory.

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)
CX	IECEx CU (ATEX Zone 1)***
CA	CU4 (certified ATEX Zone 2) ***
CL	CU4 Plus (certified ATEX Zone 2) ***

CU Identifier Position 3

SOLENOID	
1	1 Solenoid
9	**1 Solenoid + NOT Element**
2	**2 Solenoid (IECEX)**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus, CX, CA, CL
Y	**ASI 3**		**CU4,** CU4Plus, CA, CL
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION	ENVIRONMENTAL RATING
2X	3X	No CU / Feedback	ATEX Zone 1 compliant***
20	**30**	**Cable Gland**	**ATEX Zone 1 compliant*** **
24	34	4-pin M12 Connector*	ATEX Zone 2 compliant***
25	35	5-pin M12 Connector**	ATEX Zone 2 compliant***

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

***** Control Unit:**

CX: ex ia*** / EX ia IIC T4 Gb

CA/CL: II 3G Ex ec mc T4 Gc

***** Valve:**

ATEX 2 G Ex h IIB T6…T3 Gb

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None

A3 Hazardous rated

C1 Steam barrier (DPF)*

A1S 3.1 SPX Flow Inspection Certificate**

C7 Elastomer shaft seal

B1 3A certification**

Notes: 3-A authorized design is standard with minimum 0.8 µm (32 µ-in) Ra ID surface finish.
***Not available with SDMS type.**
****Always select 0.8 microns inside polish**

DKR Series Double Seat Mixproof Ball Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	DKR	S	F	DN65	A1	C41Y	20	PT	E	10	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

DKR Double Seat Mixproof Ball Valve

(2) HOUSING COMBINATIONS

Standard



S

High Pressure



H*

*** Only available in sizes DN50 and DN80**

(3) PORT CONNECTIONS

F Hygienic Flange

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube
DN125	DN 125		

(5) ACTUATOR

NORMALLY CLOSED	NORMALLY OPEN	ACTUATOR SIZE	STANDARD VALVE SIZE
A1	A2	80 mm diameter	DN25-DN65 or T10-T25
B1	B2	125 mm diameter	DN80-DN100 or T30-T40
C1	C2	180 mm diameter	DN125

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "AA0A" as default for valves without control unit.

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4**
CP	CU4Plus

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**

***** Valve:**

ATEX 2D IIB TX

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4,** CU4Plus
Y	**ASI 3**		**CU4**, CU4Plus
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION	ENVIRONMENTAL RATING
2X	3X	No CU / Feedback	-
20	**30**	**Cable Gland**	-
24	34	4-pin M12 Connector*	-
25	35	5-pin M12 Connector**	-

***Available on CU with AS-i and IO-link communication**

****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

PT PTFE Seal

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None
A3 Hazardous rated
A1S 3.1 SPX Flow Inspection Certificate*
C8 Leakage Reduction
SC CIP Stainless External Flush
D6 Vertical drain G ⅛"

Note: For horizontal valve installation in horizontal or vertical pipelines, please contact factory for special drain options

***Always select 0.8 microns inside polish**

UF4 Series Pressure Relief Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	UF	41	W	DN40	SL	HP0N	2X	TR	E	10	LA

*** Add multiple options to the end of code (i.e. -A1A3)**

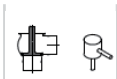
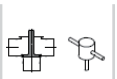
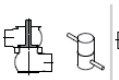
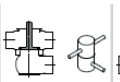
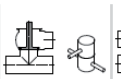
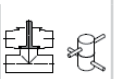
(1) VALVE TYPE

UF Pressure Relief Valve

UFR Pressure Relief Valve with Tapered Stem

(2) HOUSING COMBINATIONS

Shut-off Valves

No Housing (upgrade insert)						
40	41	42	E41	E42	E43**	E44**

**** E type manifold housings are one piece-fully welded**

Use identifier "40" for replacement insert (less housing) to upgrade an existing UF3 valve to new UF4 valve.

(3) PORT CONNECTIONS

W **Buttweld**

00 **Upgrade Insert (No Housing)**

Additional and mixed port connections available upon request on certain housing combinations. Please contact factory.

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

Please contact the factory for availability of mixed sizes on E-style matrix housings.

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
SL	Seat Lifting

UF4/UFR4 comes with default seat lift option

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.

IDENTIFIER	DESCRIPTION
HP0N	2 Prox (open/closed) - Prox Holder only (no switches)

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)
CX	IECEx CU (ATEX Zone 1)***
CA	CU4 (certified ATEX Zone 2) ***
CL	CU4 Plus (certified ATEX Zone 2) ***

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4, CU4Plus, CX, CA, CL**
U	Direct Connect	110 V AC	CU4
Y	**ASI 3**		**CU4, CU4Plus, CA, CL**
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

***** Control Unit:**

CX: ex ia*** / EX ia IIC T4 Gb

CA/CL: Ex ec IIB T4 Gc

***** Valve:**

ATEX 2 G Ex h IIB T6...T3 Gb

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	¼" AIR FITTINGS	ELECTRICAL CONNECTION	ENVIRONMENTAL RATING	COMMUNICATION	CONTROL UNIT
2X	3X	No CU / Feedback	ATEX Zone 1 compliant***	NA	NA
20	**30**	**Cable Gland**	ATEX Zone 1 compliant***	Direct Connect; ASI-3	CU4; CU4Plus
24	34	4-pin M12 Connector*	ATEX Zone 2 compliant***	ASI-3 ; IO-Link	CU4Plus
25	35	5-pin M12 Connector**	ATEX Zone 2 compliant***	Direct Connect	CU4
28	38	8-PIN M12 Connector	ATEX Zone 2 compliant***	Direct Connect	CU4Plus

***Available on CU with AS-i and IO-link communication**
****Only available on CU with Direct Connect Wire**
***** Control Unit:**
IECEx CU: ex ia*** / Ex ia IIC T4 Gb
ATEX CU4/CU4Plus II 3G Ex ec mc T4 Gc
***** Valve:**
ATEX II 2 G Ex h IIB T6...T3 Gb

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11a) OPTIONS

A1S 3.1 SPX FLOW Inspection Certificate*
A3 Hazardous rated
B1 3-A certification (at minimum with 0.8 µm (32 µ-in) Ra ID surface finish)

***Always select 0.8 microns inside polish**

(11b) PRESSURE RELIEF IN BAR (REQUIRED)

UF4				
	PRESSURE RELIEF RANGE (BAR)			
VALVE SIZE	ACTUATOR #41	ACTUATOR #42	ACTUATOR #43	ACTUATOR #44
T10 DN25	**LA**	**L42**	-	-
	0 – 7.0	6.0 – 10		
T15 DN40	**LM**	**L33**	**L41**	-
	0 – 3.5	2.5 – 7.2	6.2 – 10	
T20 DN50	**L45**	**L27**	**L37**	-
	0 – 2.2	1.4 – 4.3	3.3 – 10	
T25	**L46**	**L29**	**L34**	**L44**
	0 – 1.5	1.0 – 3.0	2.5 – 9.3	8.8 – 10
DN65	**L47**	**L48**	**L32**	**L43**
	0 – 1.3	0.5 – 2.7	2.3 – 7.8	7.3 – 10
T30	**L2**	**L49**	**L36**	**L40**
	0 – 1.1	0.5 – 2.3	2.0 – 6.6	6.1 – 10
DN80	**L50**	**L51**	**L28**	**L39**
	0 – 0.9	0.4 – 1.8	1.6 – 5.2	4.7 – 10
T40 DN100	**L52**	**L53**	**L30**	**L38**
	0 – 0.6	0.2 – 1.2	1.0 – 3.5	3.0 – 10

UFR4				
	PRESSURE RELIEF RANGE (BAR)			
VALVE SIZE	ACTUATOR #41	ACTUATOR #42	ACTUATOR #43	ACTUATOR #44
T10 DN25	**LO**	**L54**	-	-
	0 – 6.0	5.0 – 10		
T15 DN40	**L55**	**L56**	**L54**	-
	0 – 3.0	2.0 – 6.0	5.0 – 10	
T20 DN50	**L45**	**L57**	**L58**	-
	0 – 2.2	1.4 – 3.8	2.8 – 10	
T25	**L46**	**L59**	**L31**	**L60**
	0 – 1.5	1.0 – 2.7	2.2 – 7.0	6.5 – 10
DN65	**L47**	**L48**	**L61**	**L60**
	0 – 1.3	0.5 – 2.7	2.3 – 7.0	6.5 – 10
T30	**L2**	**L49**	**L56**	**L62**
	0 – 1.1	0.5 – 2.3	2.0 – 6.0	5.5 – 10
DN80	**L50**	**L51**	**L63**	**L64**
	0 – 0.9	0.4 – 1.8	1.6 – 5.0	4.5 – 10
T40 DN100	**L52**	**L53**	**L65**	**L58**
	0 – 0.6	0.2 – 1.2	1.0 – 3.3	2.8 – 10

The minimum response pressure can be > 0 bar depending on the valve mounting position and the friction on the shaft seal
For higher relief pressure options, please contact Factory

UFHP Series High Pressure Relief Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	UFHP	41	W	DN40	SL	HP0N	2X	TR	E	10	L67

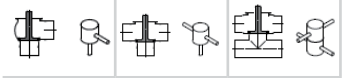
*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

UFHP High Pressure Relief Valve

(2) HOUSING COMBINATIONS

Shut-off Valves



41	42	E44**

**** E type manifold housings are one piece-fully welded**

(3) PORT CONNECTIONS

W **Buttweld**

Additional and mixed port connections available upon request on certain housing combinations. Please contact factory.

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

Please contact the factory for availability of mixed sizes on E-style matrix housings.

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
SL	Seat Lifting

UFHP comes with default seat lift option

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.

IDENTIFIER	DESCRIPTION
HP0N	2 Prox (open/closed) - Prox Holder only (no switches)

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4, CU4Plus**
U	Direct Connect	110 V AC	CU4
Y	**ASI 3**		**CU4, CU4Plus**
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	¼" AIR FITTINGS	ELECTRICAL CONNECTION	COMMUNICATION	CONTROL UNIT
2X	3X	No CU / Feedback	NA	NA
20	**30**	**Cable Gland**	Direct Connect; ASI-3	CU4; CU4Plus
24	34	4-pin M12 Connector*	ASI-3 ; IO-Link	CU4Plus
25	35	5-pin M12 Connector**	Direct Connect	CU4
28	38	8-PIN M12 Connector	Direct Connect	CU4Plus

***Available on CU with AS-i and IO-link communication**
****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11a) OPTIONS

A1S 3.1 SPX FLOW Inspection Certificate*

***Always select 0.8 microns inside polish**

(11b) PRESSURE RELIEF IN BAR (REQUIRED)

UFHP4		
VALVE SIZE	PRESSURE RELIEF RANGE (BAR)	
	ACTUATOR #43	ACTUATOR #44
T10 DN25	**L67** 10.0 – 40.0	-
T15 DN40	-	**L67** 10.0 – 40.0
T20 DN50	-	**L14** 10.0 – 20.0
T25 DN65	-	**L66** 10.0 – 15.0
T30 DN80	-	**L66** 10.0 – 15.0
T40 DN100	-	**L66** 10.0 – 15.0

The minimum response pressure can be > 0 bar depending on the valve mounting position and the friction on the shaft seal

For higher relief pressure options, please contact Factory

UFMS4 Series Aseptic Pressure Relief Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	UFMS	41	W	DN40	SL	HP0N	2X	TR	E	10	LA

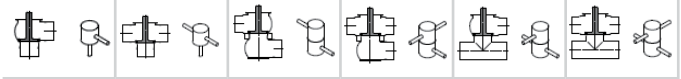
*** Add multiple options to the end of code (i.e. -A1SB1)**

(1) VALVE TYPE

UFMS Aseptic Pressure Relief Valve

(2) HOUSING COMBINATIONS

Shut-off Valves



41	42	E41	E42	E43**	E44**

**** E type manifold housings are one piece-fully welded**

(3) PORT CONNECTIONS

W **Buttweld**

Additional and mixed port connections available upon request on certain housing combinations. Please contact factory.

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

Please contact the factory for availability of mixed sizes on E-style matrix housings.

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
SL	Seat Lifting

UFMS4 comes with default seat lift option

(6) CONTROL UNIT / FEEDBACK

See page 36 for most common control unit configurations. BOLD indicates standard control unit options. Use identifier "HP0N" as default for valves without control unit.

IDENTIFIER	DESCRIPTION
HP0N	2 Prox (open/closed) - Prox Holder only (no switches)

CU Identifier Positions 1 & 2

CONTROL UNIT TYPE	
C4	**CU4 (Ordinary location)**
CP	CU4Plus (Ordinary location)

CU Identifier Position 3

SOLENOID	
1	**1 Solenoid**

CU Identifier Position 4

COMMUNICATION TYPE			CU UNITS AVAILABLE
	COMMUNICATION	VOLTAGE	
W	**Direct Connect**	**24V DC**	**CU4, CU4Plus**
U	Direct Connect	110 V AC	CU4
Y	**ASI 3**		**CU4, CU4Plus**
S	IO-link	24V DC	CU4Plus
F	ASI 5		CU4Plus

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	¼" AIR FITTINGS	ELECTRICAL CONNECTION	COMMUNICATION	CONTROL UNIT
2X	3X	No CU / Feedback	NA	NA
20	**30**	**Cable Gland**	Direct Connect; ASI-3	CU4 ; CU4Plus
24	34	4-pin M12 Connector*	ASI -3; IO-Link	CU4Plus
25	35	5-pin M12 Connector**	Direct Connect	CU4
28	38	8-PIN M12 Connector	Direct Connect	CU4Plus

***Available on CU with AS-i and IO-link communication**
****Only available on CU with Direct Connect Wire**

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11a) OPTIONS

A1S 3.1 SPX FLOW Inspection Certificate*

B1 3-A certification (at minimum with 0.8 µm (32 µ-in) Ra ID surface finish)

***Always select 0.8 microns inside polish**

(11b) PRESSURE RELIEF IN BAR (REQUIRED)

UFMS4				
	PRESSURE RELIEF RANGE (BAR)			
VALVE SIZE	ACTUATOR #41	ACTUATOR #42	ACTUATOR #43	ACTUATOR #44
T10 DN25	**LA**	**L42**	-	-
	0 – 7.0	6.0 – 10		
T15 DN40	**LM**	**L33**	**L41**	-
	0 – 3.5	2.5 – 7.2	6.2 – 10	
T20 DN50	**L45**	**L27**	**L37**	-
	0 – 2.2	1.4 – 4.3	3.3 – 10	
T25	**L46**	**L29**	**L34**	**L44**
	0 – 1.5	1.0 – 3.0	2.5 – 9.3	8.8 – 10
DN65	**L47**	**L48**	**L32**	**L43**
	0 – 1.3	0.5 – 2.7	2.3 – 7.8	7.3 – 10
T30	**L2**	**L49**	**L36**	**L40**
	0 – 1.1	0.5 – 2.3	2.0 – 6.6	6.1 – 10
DN80	**L50**	**L51**	**L28**	**L39**
	0 – 0.9	0.4 – 1.8	1.6 – 5.2	4.7 – 10
T40 DN100	**L52**	**L53**	**L30**	**L38**
	0 – 0.6	0.2 – 1.2	1.0 – 3.5	3.0 – 10

The minimum response pressure can be > 0 Bar depending on the valve installation position and the friction.

RG/RGE Series Modulating Valves



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	RG	41	F	T30 (63)	C1	S20W	30	LL	E	10	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

For sizing of new modulating valve applications, please CLICK HERE to complete the RG specification sheet

(1) VALVE TYPE

RG Regulating
RGE Regulating Economical
RGMS Aseptic Membrane Regulating

(2) HOUSING COMBINATIONS

Shut-off Valves



41

For additional housing combinations, please contact factory

(3) PORT CONNECTIONS

F Hygienic Flange (standard on RG/RGMS)
W Buttweld (Only on RGE)
X Without Counter Flanges

Additional connections available upon request. Please contact factory.

(4) PORT SIZES (FLOW COEFFICIENT)

PORT SIZES (FLOW COEFFICIENT)				RG KV VALUE (M^3/H)[1]	RGE KV VALUE (M^3/H)[1]
DN25	DN 25	**T10**	1.0" Tube	0.25, 0.4, 0.63, 1.0, 1.6, 2.5, 4.0, 6.3, 10	6.3, 10
DN40	DN 40	**T15**	1.5" Tube	2.5, 4.0, 6.3, 10, 16, 25	2.5, 4.0, 6.3, 10, 16, 25
DN50	DN 50	**T20**	2.0" Tube	4.0, 6.3, 10, 16, 25, 40	40
DN65	DN 65	**T25**	2.5" Tube	16, 25, 40, 63	63
DN80	DN 80	**T30**	3.0" Tube	40, 63, 80 (3") or 100 (DN80)	80 (3") or 100 (DN80)
DN100	DN 100	**T40**	4.0" Tube	40, 63, 80 (3") or 100 (DN80)	160
DN125	DN 125			100, 160, 250	N/A

[1]For key use port size with (Kv) in parentheses. Example: T20(6.3).
Kv chart shows all possible combinations of Kv based on valve size

(5) ACTUATOR

SPRING CLOSING MFS	SPRING OPENING MFH	MANUAL	ACTUATOR SIZE	RECOMMENDED KV-VALUES (M^3/H)
A1			120 cm^2 actuating surface	0.25, 0.4, 0.63, 1.0, 1.6, 2.5, 4.0, 6.3, 10
B1			175 cm^2 actuating surface	16, 25
C1			350 cm^2 actuating surface	40, 63, 80, 100
D1			700 cm^2 actuating surface	160, 250, 400
	A2		120 cm^2 actuating surface	0.25, 0.4, 0.63, 1.0, 1.6, 2.5, 4.0, 6.3, 10, 16, 25, 40
	B2		175 cm^2 actuating surface	63, 80
	C2		350 cm^2 actuating surface	100
	D2		750 cm^2 actuating surface	160, 250, 400
		H1	Manual Hand Actuator	Full range: 0.25-160

For special requests, please fill out the specification sheet and contact factory.
For holding pressures on actuators, please see instruction manual.
For actuator and Kv combinations that are not displayed, please contact factory for verification or fill out specification sheet.

(6) POSITIONER

BOLD indicates standard positioner option. Use identifier "AA0A" for valves without positioners (manual hand actuator)

IDENTIFIER	DESCRIPTION
INTEGRATED DESIGN	
S00W	Samson EP I/P (4-20mA) Model IP3725
S20W	**Samson EP I/P (4-20mA) Model IP3730-1 (Auto-tune) - standard**
EXTERNAL MOUNT DESIGN	
SN0W	Samson Namur mount EP I/P (4-20mA) Model IP763*

*** Not available for RGMS**

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	¼" AIR FITTINGS	ELECTRICAL CONNECTION
XX		Manual Handle Only
2X	3X	No Positioner
20	**30**	**Cable Gland**

(8) STEM TYPE

LL Linear

EP Equal Percentage

All seats contain elastomer seat seal except DN25/T10 with 0.25-1.6 Kv values

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID*
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

***Only available with RGE type**

(11) OPTIONS

A0 None

A1S 3.1 SPX FLOW Inspection Certificate*

A8 Noise Reducer**

B1 3-A certification (only with 0.8 µm (32 µ-in) Ra ID surface finish). Standard for RGM.

D4 No Seat Seal

***Always select 0.8 microns inside polish**
****Only available with RG/RGMS types**

CPV Constant Pressure Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	CPV	O	W	T20(25)	STD	AA0A	2X	M	E	11	A0

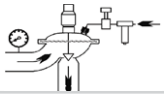
*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

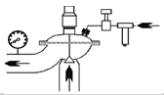
CPV Constant Pressure Valve

(2) APPLICATION

Constant Pressure Before Valve
O
(increasing product pressure acts to open the valve)



Constant Pressure After Valve
C
(increasing product pressure acts to close the valve)



(3) PORT CONNECTIONS

W Buttweld

(4) PORT SIZES (FLOW COEFFICIENT)

APPLICATION	PORT SIZES (FLOW COEFFICIENT)				MAXIMUM FLOW (M^3/H)
CPV-O	DN50(25)	DN 50	T20(25)	2.0" Tube	25
	DN50(10)		T20(10)		10
	DN50(3)		T20(3)		3
	DN25(1.6)	DN 25			1.6
CPV-C	DN50(22.5)	DN 50	T20(22.5)	2.0" Tube	22.5

Note: Additional flow coefficient (Kvs) values available upon request. Please contact Factory.

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
STD	Standard

(6) CONTROL UNIT / FEEDBACK

IDENTIFIER	DESCRIPTION
AA0A	No CU available

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	CONNECTION TYPE
2X	N/A	No CU / Feedback

(8) SEAT TYPE

M Metal

(9) SEAL MATERIAL

T PTFE/EPDM (standard)
E EPDM

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11) OPERATING RANGE (REQUIRED)

B9 0.8-7.0 bar (11.6-101.5 psi) only with PTFE/EPDM seal material standard

B8 0.3-3.0 bar (4.4-43.5 psi) only with EPDM seal material

A1S 3.1 SPX Inspection Certification

Note: 3-A authorized design is standard

RUF Spring Check Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	RUF	S	F	T30	NA	AA0A	XX	TR	E	11	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

RUF Spring Check Non-Return Valve

(2) HOUSING COMBINATIONS

S Standard

(3) PORT CONNECTIONS

F Hygienic Flange

X Without Counter Flanges

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube
DN125	DN 125		
DN150	DN 150	**T60**	6.0" Tube

Schedule 5 and 10 pipe sizes available upon request. Please contact Factory

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
NA	N/A

(6) CONTROL UNIT / FEEDBACK

IDENTIFIER	DESCRIPTION
AA0A	No feedback available

(7) CONTROL UNIT / ACTUATOR CONNECTORS

IDENTIFIER	DESCRIPTION
XX	N/A

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	POLISHED OD	INSIDE POLISH
11	21	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None

A1S 3.1 SPX Inspection Certification

Note: 3-A authorized design is standard

VPN Spring Check Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	VPN	S	W	T10	NA	AA0A	XX	TR	E	10	A0

(1) VALVE TYPE

VPN Spring Check Non-Return Valve

(2) HOUSING COMBINATIONS

S Standard

(3) PORT CONNECTIONS

W Buttweld

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
NA	N/A

(6) CONTROL UNIT / FEEDBACK

IDENTIFIER	DESCRIPTION
AA0A	No feedback available

(7) CONTROL UNIT / ACTUATOR CONNECTORS

IDENTIFIER	DESCRIPTION
XX	N/A

(8) SEAT TYPE

TR Elastomeric Profile Seat

(9) SEAL MATERIAL

E EPDM

(10) SURFACE FINISH

GLASS BLASTED OD	MACHINE FINISH OD	INSIDE POLISH
10	Standard	1.6 µm (63 µ-in) Ra ID

(11) OPTIONS

A0 None

PR Sample Valve



PRD20



PR22

The order code is constructed as follows:

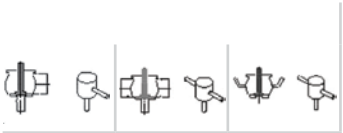
POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	PR	21	W	DN25	G4	AA0A	2X	PT	E	10	A0

*** Add multiple options to the end of code (i.e. -A1A3)**

(1) VALVE TYPE

PR Sample Valve

(2) HOUSING COMBINATIONS



21	22	D20*

***Only available in size DN25**

(3) PORT CONNECTIONS

W Buttweld

(4) PORT SIZES

DN25	DN 25	**T10**	1.0" Tube
DN40	DN 40	**T15**	1.5" Tube
DN50	DN 50	**T20**	2.0" Tube
DN65	DN 65	**T25**	2.5" Tube
DN80	DN 80	**T30**	3.0" Tube
DN100	DN 100	**T40**	4.0" Tube

(5) ACTUATOR

IDENTIFIER	DESCRIPTION
G4	Manual Handle
G5	Pneumatic Actuator and Manual Handle Combination

(6) CONTROL UNIT / FEEDBACK

IDENTIFIER	DESCRIPTION
AA0A	No CU / Feedback*

***Prox holder brackets and sensors ordered separately**

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
XX		Manual Handle Only
2X	3X	No CU / Feedback

(8) SEAT TYPE

PT PTFE

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None (Only for PR)
A1 3.1 certificate (Only for PRD)*
A1S 3.1 SPX Inspection Certificate*
Z1 1 drain pipe (Only for PRD)
Z2 2 drain pipes (Only for PRD)

***Always select 0.8 microns inside polish**

VRA Vacuum Relief Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	VRA	11	W	DN50	SL	AA0A	2X	TR	E	11	A0

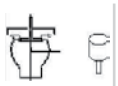
*** Add multiple options to the end of code (i.e. -A1A3)**

For assistance sizing of new vacuum relief valve applications, please contact factory or local sales agent.

(1) VALVE TYPE

VRA Vacuum Relief

(2) HOUSING COMBINATIONS



11

(3) PORT CONNECTIONS

W **Buttweld**

F Hygienic Flange

(4) PORT SIZES

DN50 DN 50

DN100 DN 100

DN150 DN 150

(5) ACTUATOR

TYPE	DESCRIPTION
SL	Seat Lifting

(6) CONTROL UNIT / FEEDBACK

TYPE	DESCRIPTION
AA0A	No CU / Feedback*
HP0N	Proximity Switch Holder w/o CU*

***Prox holder brackets and sensors ordered separately**

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
2X	3X	No CU / Feedback

(8) SEAT TYPE

TR Elastomeric Profile Seal

(9) SEAL MATERIAL

E EPDM

V FPM

H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
10	1.6 µm (63 µ-in) Ra ID
11	0.8 µm (32 µ-in) Ra ID with Electro-Polish

(11) OPTIONS

A0 None

B7 Large outlet port (only with VRA11)

N1 3.1 Flange

SI Safety Valve



The order code is constructed as follows:

POSITION	1	2	3	4	5	6	7	8	9	10	11
CODE	SI	21	FG	DN65	SL	AA0A	2X	TR	E	11	A1

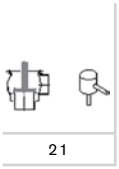
*** Add multiple options to the end of code (i.e. -A1A3)**

For assistance sizing of new safety relief valve applications, please contact factory or local sales agent.

(1) VALVE TYPE

SI Safety Valve

(2) HOUSING COMBINATIONS



21

(3) PORT CONNECTIONS

F Hygienic Flange

(4) PORT SIZES

DN25 DN 25
DN40 DN 40
DN50 DN 50
DN65 DN 65
DN80 DN 80
DN100 DN 100

(5) ACTUATOR

TYPE	DESCRIPTION
HSL	Manual Handle Seat Lifting
SL	Pneumatic Seat Lifting

(6) CONTROL UNIT / FEEDBACK

TYPE	DESCRIPTION
AA0A	No CU / Feedback*

***Prox holder brackets and sensors ordered separately**

(7) CONTROL UNIT / ACTUATOR CONNECTORS

6 MM AIR FITTINGS	1/4" AIR FITTINGS	ELECTRICAL CONNECTION
XX		Manual Handle only
2X	3X	No CU / Feedback

(8) SEAT TYPE

TR Elastomeric Profile Seat

(9) SEAL MATERIAL

E EPDM
V FPM
H HNBR

(10) SURFACE FINISH

GLASS BLASTED OD	INSIDE POLISH
11	0.8 µm (32 µ-in) Ra ID

(11a) OPTIONS

A1 3.1 Certification (standard)

(11b) PRESSURE RELIEF RANGE (REQUIRED)

VALVE SIZE	PRESSURE RELIEF RANGE (BAR) FOR FLUID AND GAS												
DN25	E1	E2	E3	E4	E5	E6	E7	E8					
	0.3-1.5 FG	1.5-2.1 FG	2.1-2.3 F	2.3-3.2 F	3.2-4.3 F	4.3-6.0 F	6.0-7.8 F	7.8-10.0 F					
DN40	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA			
	0.3-0.75 FG	0.75-1.2 FG	1.2-2.1 FG	2.1-3.5 FG	3.5-4.0 FG	4.0-4.6 F	4.6-5.4 F	5.4-7.2 F	7.2-9.2 F	9.2-10.0 F			
DN50	G1	GC	G2	G3	G4	G5	G6	G7	G8	G9	GA	GB	
	0.3-0.55 FG	0.55-0.85 FG	0.85-1.5 FG	1.5-2.5 FG	2.5-2.7 FG	2.7-3.5 FG	3.5-4.1 F	4.1-5.25 F	5.25-6.0 F	6.0-7.4 F	7.4-8.9 F	8.9-10.0 F	
DN65	H1	H2	H3	H4	H5	HD	HC	H6	H7	HB	H8	H9	HA
	0.3-0.6 FG	0.6-0.9 FG	0.9-1.4 FG	1.4-1.7 FG	1.7-2.2 FG	2.2-2.6 FG	2.6-3.0 FG	3.0-3.5 F	3.5-4.3 F	4.3-4.95 F	4.95-5.75 F	5.75-6.95 F	6.95-7.8 F
DN80	J1	J2	J3	J4	J5	J6	J9	J7	JA	JB	J8	JC	
	0.3-0.65 FG	0.65-0.9 FG	0.9-1.15 FG	1.15-1.5 FG	1.5-1.8 FG	1.8-2.3 FG	2.3-2.8 FG	2.8-3.1 FG	3.1-3.5 F	3.5-4.1 F	4.1-5.05 F	5.05-5.9 F	
DN100	K9	K1	K2	K3	K4	K5	K6	KB	K7	KA	K8		
	0.45-0.60 F 0.45-0.50 G	0.75-0.95 F	0.95-1.2 F	1.2-1.6 F	1.6-2.0 F	0.3-0.45 F 0.4-0.45 G	0.6-0.75 F 0.5-0.70 G	2.0-2.35 F	2.35-2.75 F	2.75-3.35 F	>3.35-3.80 F		

Note: Exact relief set point is required when order submitted to factory. Certificate of pressure setting is supplied with valve.

F = Rated for fluid pressure relief

G = Rated for gas pressure relief

Control Units for all Valves



Control Units are identified with a 4 digit code.

For valve models available with control units, please specify the four digit code per the below example:

IDENTIFIER POSITION	1 & 2	3	4
EXAMPLE CODE	C4	1	Y
EXAMPLE VALVE KEY CODE	SV1-316L-F-T20-A1-C41Y-20-TR-E-10-A0		

COMMON CONFIGURATIONS (FOR ORDINARY LOCATIONS)

CONTROL UNIT IDENTIFIER	CU TYPE	COMMUNICATION TYPE	SOLENOIDS	COMMON VALVE TYPE AVAILABLE
AA0A	None	None	0 solenoids	AP, CPV, DKR, MS/MSP, PR, RUF, SI, SV/SVS, BLV1, SW, SWmini, UF/UFR, VPN, VRA
HP0N	Prox Holder Bracket	None	0 solenoid	AP, D4NSL, D4SL, DT4, DA4, MS/MSP, SD/SDMS, SW, SWcip, SWmini, UF/UFR
C41W	CU4	Direct Connect 24V DC	1 solenoids	D4NSL, DKR, MS/MSP, SV/SVS, BLV1, SW, SWcip, SWmini, UF/UFR
C49W	CU4	Direct Connect 24V DC	1 solenoid w/NOT Element	MS, SV/SVS, BLV1, SD/SDMS, SW
C43W	CU4	Direct Connect 24V DC	3 solenoids	D4SL, DT4, DA4, DP4
C41U	CU4	Direct Connect 110V AC	1 solenoid	SV/SVS, BLV1, UF/UFR
C49U	CU4	Direct Connect 110V AC	1 solenoid w/NOT Element	SV/SVS, BLV1
C41Y	CU4	ASI 3	1 solenoid	D4NSL, DKR, MS/MSP, SV/SVS, BLV1, SW, SWcip, SWmini, UF/UFR
C49Y	CU4	ASI 3	1 solenoid w/NOT Element	MS, SD/SDMS, SV/SVS, BLV1, SW
C43Y	CU4	ASI 3	3 solenoids	D4SL, DT4, DA4, DP4
CP1W	CU4Plus	Direct Connect 24V DC	1 solenoid	D4NSL, DKR, MS, MSP, SV/SVS, BLV1, SW, SWcip, SWmini, UF/UFR
CP9W	CU4Plus	Direct Connect 24V DC	1 solenoid w/NOT Element	MS, SV/SVS, BLV1, SD/SDMS, SW
CP3W	CU4Plus	Direct Connect 24V DC	3 solenoids	D4SL, DT4, DA4, DP4
CP1Y	CU4Plus	ASI 3	1 solenoid	D4NSL,DKR, MS, MSP, SV/SVS, BLV1, SW, SWcip, SWmini, UF/UFR
CP9Y	CU4Plus	ASI 3	1 solenoid w/NOT Element	MS, SV/SVS, BLV1, SD/SDMS, SW
CP3Y	CU4Plus	ASI 3	3 solenoids	D4SL, DT4, DA4, DP4
CP1S	CU4Plus	IO-Link	1 solenoid	SV/SVS, SW, SWmini, MS, MSP, SWCIP, UF/UFR, D4NSL, DKR, BLV
CP9S	CU4Plus	IO-Link + NOT element	1 solenoid + NOT element	SV/SVS, SW, MS, BLV, SD, SDMS
CP3S	CU4Plus	IO-Link	3 solenoids	D4SL, DA4, DT4, DP4, DU4
CP5S	CU4Plus	IO-Link	3 solenoids (main valve) 1 solenoid (each side valve)	AM1
CP5Y	CU4Plus	ASI 3	3 solenoids (main valve) 1 solenoid (each side valve)	AM1
CP5W	CU4Plus	Direct Connect 24V DC	3 solenoids (main valve) 1 solenoid (each side valve)	AM1
CB5Y	CU4Plus(main valve) CU4 (side valves)	ASI 3	3 solenoids (main valve) 1 solenoid (each side valve)	AM1
CB5W	CU4Plus(main valve) CU4 (side valves)	Direct Connect 24V DC	3 solenoids (main valve) 1 solenoid (each side valve)	AM1
CH3Y	CU4Plus(main valve) HP0N	ASI 3	3 solenoids (main valve)	AM1
CH3W	CU4Plus(main valve) HP0N	Direct Connect 24V DC	3 solenoids (main valve)	AM1
CH3S	CU4Plus(main valve) HP0N	IO-Link	3 solenoids (main valve)	AM1
CP1F	CU4Plus	ASI 5	1 solenoid	SV/SVS, SW, SWmini, SD, MS, MSP, SWCIP, UF/UFR, D4 NSL, DKR, BLV
CP3F	CU4Plus	ASI 5	3 solenoids	D4 SL, DA4, DT4, DP4, DU4
CP9F	CU4Plus	ASI 5	1 solenoid w/NOT Element	SV/SVS, SW, MS, SD, SDMS, BLV

CONTROL UNIT TYPE	DESCRIPTION
C4	CU4 model with 2 Hall sensors for feedback
CP	CU4Plus model with Teach-in/Linear sensor for feedback and SLD
CX	ATEX and IECEx certified CU model with 2 sensors for feedback (only for Direct Connect 24V DC)
HP	Prox holder bracket compatible with 1 or 2 feedback positions. Sensors ordered separately
CB	CU4Plus (CP) installed on top of the main valve and CU4 (C4) control unit installed on top of the two side valves for AM1 valve
CH	CU4Plus (CP) installed on top of the main valve and Proxy Holder (HP) installed on top of the two side valves for AM1 valve

SLD = Seat Lift Detection for Mixproof Valves

To order spare control units, it is necessary to provide the valve model and size. Please contact factory or local sales agent.

COMMON CONFIGURATIONS (FOR HAZARDOUS LOCATIONS)

ZONE 1 (ATEX / IECEX)

CONTROL UNIT IDENTIFIER	CU TYPE	COMMUNICATION TYPE	SOLENOIDS	COMMON VALVE TYPE AVAILABLE
CX1W	ATEX/IECEx CU	Direct Connect 24V DC	1 solenoid	D4 NSL, MS, MSP, SV/SVS, SW
CX9W	ATEX/IECEx CU	Direct Connect 24V DC	1 solenoid w/NOT Element	MS, SD/SDMS, SV/SVS, SW, SW
CX3W	ATEX/IECEx CU	Direct Connect 24V DC	3 solenoids	D4 SL

ZONE 2 (ATEX)

CONTROL UNIT IDENTIFIER	CU TYPE	COMMUNICATION TYPE	SOLENOIDS	COMMON VALVE TYPE AVAILABLE
CA1W	CU4	Direct Connect 24V DC	1 solenoid	SW, SV/SVS, SD4, UF4, UFR4
CA9W	CU4	Direct Connect 24V DC	1 solenoid w/ NOT Element	SW, SV/SVS, SD4, SDMS
CA1Y	CU4	ASI 3	1 solenoid	SW, SV/SVS, SD4, UF4, UFR4
CA9Y	CU4	ASI 3	1 solenoid w/ NOT Element	SW, SV/SVS, SD4, SDMS
CL1W	CU4Plus	Direct Connect 24V DC	1 solenoid	SW, SV/SVS, SD4, UF4, UFR4
CL9W	CU4Plus	Direct Connect 24V DC	1 solenoid w/ NOT Element	SW, SV/SVS, SD4, SDMS
CL1Y	CU4Plus	ASI 3	1 solenoid	SW, SV/SVS, SD4, UF4, UFR4
CL9Y	CU4Plus	ASI 3	1 solenoid w/ NOT Element	SW, SV/SVS, SD4, SDMS

ZONE 2 (ATEX / IECEX CCC)

CONTROL UNIT IDENTIFIER	CU TYPE	COMMUNICATION TYPE	SOLENOIDS	COMMON VALVE TYPE AVAILABLE
CE1Y	IECEX CU4 (Zone 2)	ASI 3	1 solenoid	D4 NSL
CE3Y	IECEX CU4 (Zone 2)	ASI 3	3 solenoids	D4 SL
CE1W	IECEX CU4 (Zone 2)	Direct Connect 24V DC	1 solenoid	D4 NSL
CE3W	IECEX CU4 (Zone 2)	Direct Connect 24V DC	3 solenoids	D4 SL
CZ1S	IECEX CU4Plus (Zone 2)	IO-link	1 solenoid	D4 NSL
CZ3S	IECEX CU4Plus (Zone 2)	IO-link	3 solenoids	D4 SL
CZ1Y	IECEX CU4Plus (Zone 2)	ASI 3	1 solenoid	D4 NSL
CZ3Y	IECEX CU4Plus (Zone 2)	ASI 3	3 solenoids	D4 SL

CONTROL UNIT TYPE	DESCRIPTION
CE	CCC, ATEX, and IECEX certified CU model with 2 Hall sensors for feedback
CZ	CCC, ATEX, and IECEX certified CU model with Teach-in/Linear sensor for feedback and SLD
CA	ATEX certified CU model with 2 Hall sensors for feedback
CL	ATEX certified CU model with Teach-in/Linear sensor for feedback and SLD

SLD = Seat Lift Detection for Mixproof Valves

To order spare control units, it is necessary to provide the valve model and size. Please contact factory or local sales agent.

ACCESSORY

PART NUMBER	DESCRIPTION	VALVE FAMILY
H347727	Air Lock Out - Tag Out device	All pneumatically actuated valves with Air Fitting 6mm or ¼ inch in place
H346684	Recoil Silencer (IP69K)	Upgrade CU4 and CU4Plus Control Units from IP 67 to IP69K
H346663	Thermo Sensor Labom GA2730 + PA2430	AM1

Notes

APV®

SPXFLOW®

Global locations

AMERICAS
SPX FLOW, Inc.
611 Sugar Creek Road
Delavan, WI 53115
USA
+1 262 728 1900

APAC
SPX FLOW
7F, No. 1568, Huashan Road
Shanghai, 200052
China
+86 21 2208 5888

EMEA
SPX FLOW
Gottlieb-Daimler-Straße 13
D-59439 Holzwickede
Germany
(+49) (0) 2301-9186-0

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APV_Valves-Key_8047_DST_GB
Identification Number: APV-8047-GB

Version: 12/2025