

High Temperature Valve 8024

with integrated positioner

GS 3 series - 1/2" up to 10"



Pneumatic control valve with integrated positioner for the control of neutral through to highly aggressive media

- Integral top mounted positioner
- High rangeability
- Durable sliding gate seat design
- Light weight self aligning ANSI wafer flange

Technical Information

Body design	ANSI flange wafer (self-aligning)		
Nominal sizes	1/2" up to 10"		
Nominal pressure acc. DIN 2401 for flanges with facing type B	580 psi (fits also to 145-365psi)	1/2" - 6"	
	1450 psi	1/2" - 3"	
	235 psi	8" - 10"	
Nominal pressure acc. ANSI for flanges acc. ASME B16.5 RF	ANSI 150	1/2" - 10"	
	ANSI 300	1/2" - 6"	
	ANSI 600	1/2" - 3"	
Nominal pressure acc. JIS for „raised face“ flanges	10K	1/2" - 2"	
	20K	1/2" - 1 1/2"	
Supply air pressure	max. 90 psi		
Media temperature	-76°F up to +842°F for function unit carbon-stainless steel -76°F up to +842°F for function unit STN2 -76°F up to +572°F for function unit SFC up to +986°F with bellows from Inconel 625 and function unit STN2		
Ambient temperature*	-22°F up to +212°C		
Leakage rate (% of Kvs-value)	Function unit: carbon-stainless steel < 0.0001	Function unit: SFC < 0.0005	Function unit: STN2 < 0.001

* Please consider the limitation of use of the positioner!

Cv-values see data sheet 8001

Fluid temperature

Rating	PN40	PN 16	PN 100	ANSI 150	ANSI 300	ANSI 600
Body material cpl. stainless steel						
Tmin [°F]	-76	-76	-76	-20	-20	-20
Tmax [°F]	986	986	986	986	986	986
Body material carbon steel with stainless steel body cover						
Tmin [°F]	-76	-76	14	-4	-4	-4
Tmax [°F]	842	842	842	842	842	842



Options

- Bellows (stainless steel)
- External i/p-converter
- Positioner
- (II 2 G EEx ib IIC T6)

High Temperature Valve 8024

Materials

Valve Body	Stainless steel 316 Ti resp. 318	Carbon steel ASTM A216 WCB	
Head Section	Stainless steel 316 Ti		
Diaphragm Casing	Aluminium, KTL-coated		
Actuator Springs	Stainless steel 301		
Packing	Carbon-filled PTFE (spring SST 301)		
Valve Stem	Stainless steel 316 Ti, roller burnished		
Fixed disc	stainless steel, stellite coated	STN2-disc	
Sliding disc	special carbon material	SFC-disc (max. +572°F)	STN2-disc

Positioner

For technical information of our positioners please refer to the corresponding data sheets.

High Temperature Valve 8024-GS3



with integrated digital positioner, Type 8049

Admissible Pressures

(For temperatures of up to 100°F for ANSI-classes and up to 250°F for PN-classes)

For temperatures exceeding 100°F (ANSI) or 250°F (PN): consider operation limits

**Disc pair: carbon - stainless steel, coated
SFC - stainless steel, coated**

Actuator Size	20 in ²		40 in ²		80 in ²	
Supply Pressure (psi)	65	80	44,0	58,0	44,0	65,0
Size	maximum pressure psi					
1/2"	1480,5	1480,5	1480,5	1480,5	-	-
3/4"	1480,5	1480,5	1480,5	1480,5	-	-
1"	1276 (1480)*	1276 (1480)*	1276 (1480)*	1276 (1480)*	-	-
1 1/4"	1276	1480,5	1480,5	1480,5	-	-
1 1/2"	972	1204	1276 (1480)*	1276 (1480)*	-	-
2"	638	783	1088	1320	1480,5	1480,5
2 1/2"	537	653	914	1102	1160	1160
3"	334	421	580	696	696	696
4"	218	232	363	450	479	479
5"	145	160	247	305	334	334
6"	102	116	189	218	232	232
8"	51	65	102	131	218	232
10"	39,2	49,3	66,7	81,2	137,8	152,3
Spring Configuration	Code 3 (Standard)	Code 4	Code 3 (Standard)	Code 4	Code 6 (Standard)	Code 8

Standard

*: figures in brackets for bodies made of carbon steel

	Pressure limits ANSI and DIN in psi					
	ANSI150	ANSI 300	ANSI 600	PN16	PN40	PN100
P max. carbon steel	284	741	1480	232	580	1450
P max. stainless steel	276	719	1440			

Disc pair: STN2

Actuator size	20 in ²		40 in ²		80 in ²	
Supply Pressure (psi)	65	80	44	58	44	65
Size	maximum pressure psi					
1/2"	1480	1480	1480,5	1480,5	-	-
3/4"	1175	1480	1480,5	1480,5	-	-
1"	870	1088	1276 (1480)*	1276 (1480)*	1276 (1480)*	1276 (1480)*
1 1/4"	653	812	1117	1349	1480,5	1480,5
1 1/2"	450	551	769	928	1044	1044
2"	261	319	450	551	928	1117
2 1/2"	218	261	377	450	769	899
3"	131	145	218	276	464	522
4"	65	87	131	160	276	334
5"	44	51	87	94	189	232
6"	29	36	58	65	131	160
8"	-	-	-	-	-	-
Spring Configuration	Code 3 (Standard)	Code 4	Code 3 (Standard)	Code 4	Code 6 (Standard)	Code 8

Standard

*: figures in brackets for bodies made of carbon steel

	Pressure limits ANSI and DIN in psi					
	ANSI150	ANSI 300	ANSI 600	PN16	PN40	PN100
P max. carbon steel	284	741	1480	232	580	1450
P max. stainless steel	276	719	1440			

High Temperature Valve 8024-GS3



with integrated i/p and p/p - positioner, Type 8047

Admissible Pressures

(For temperatures of up to 100°F for ANSI-classes and up to 250°F for PN-classes)

For temperatures exceeding 100°F (ANSI) or 250°F (PN): consider operation limits

**Disc pair: carbon - stainless steel, coated
SFC - stainless steel, coated**

Actuator size (cm ²)	20 in ²				40 in ²				80 in ²			
	Spring range (bar)		26 to 55		17 to 32		22 to 39		17 to 32		22 to 39	
Supply Pressure (psi)	58		73		44		58		44		65	
Size	maximum pressure psi				maximum pressure psi				maximum pressure psi			
	Control	On-Off	Control	On-Off	Control	On-Off	Control	On-Off	Control	On-Off	Control	On-Off
1/2"	1480	1480	1480	1480	1480	1480	1480	1480	-	-	-	-
3/4"	1117	1117	1392	1392	1480	1480	1480	1480	-	-	-	-
1"	827	827	1030	1030	1276 (1421)*	1276 (1421)*	1276 (1480)*	1276 (1480)*	1276 (1480)*	1276 (1480)*	1276 (1480)*	1276 (1480)*
1 1/4"	609	609	754	841	1059	1059	1276	1276	1480	1480	1480	1480
1 1/2"	421	421	522	638	711	711	870	870	1276 (1480)*	1276 (1480)*	1276 (1480)*	1276 (1480)*
2"	247	276	305	421	421	421	508	580	870	870	1044	1044
2 1/2"	203	232	247	348	348	348	421	493	711	711	856	856
3"	116	145	145	218	203	203	247	319	421	421	508	638
4"	73	87	87	145	131	131	145	203	261	261	319	406
5"	44	58	58	87	87	87	102	131	174	174	203	276
6"	29	44	44	73	58	58	73	102	131	131	145	203
8"	22	26	26	38	36	36	44	58	73	73	87	116
10"	13	16	16	26	22	22	28	36	46	46	55	75
Spring Configuration	Code 3 (Standard)		Code 4		Code 3 (Standard)		Code 4		Code 3 (Standard)		Code 4	

Standard

*: figures in brackets for bodys made of carbon steel

	Pressure limits ANSI and DIN in psi					
	ANSI150	ANSI 300	ANSI 600	PN16	PN40	PN100
P max. carbon steel	284	741	1480	232	580	1450
P max. stainless steel	276	719	1440			

Disc pair: STN 2

Actuator Size	20 in ²				40 in ²				80 in ²			
	Spring Range (psi)		26 to 55		17 to 32		22 to 39		17 to 32		22 to 39	
Supply Pressure (psi)	58		73		44		58		44		65	
Size	maximum pressure psi				maximum pressure psi				maximum pressure psi			
	Control	On-Off	Control	On-Off	Control	On-Off	Control	On-Off	Control	On-Off	Control	On-Off
1/2"	798	798	986	1015	1378	1378	1480	1480	1480	1480	1480	1480
3/4"	537	537	667	769	928	928	1131	1131	1480	1480	1480	1480
1"	363	377	450	580	624	624	769	798	1276 (1290)*	1276 (1290)*	1276 (1480)*	1276 (1480)*
1 1/4"	247	276	319	435	435	435	522	580	899	899	1088	1160
1 1/2"	160	189	203	290	276	276	348	392	580	580	696	841
2"	87	116	116	174	160	160	189	247	334	334	392	508
2 1/2"	73	87	87	145	131	131	160	203	261	261	319	406
3"	44	58	51	87	73	73	87	116	160	160	189	247
4"	22	29	29	44	44	44	58	73	87	87	116	145
5"	-	-	22	29	29	29	36	51	58	58	73	102
6"	-	-	15	22	22	22	26	36	44	44	51	73
8"	-	-	-	-	-	-	-	-	-	-	-	-
Spring Configuration	Code 3 (Standard)		Code 4		Code 3 (Standard)		Code 4		Code 6 (Standard)		Code 8	

Standard

*: figures in brackets for bodys made of carbon steel

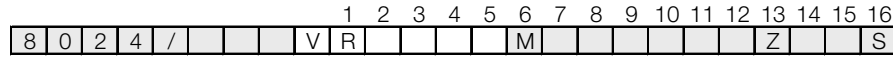
	Pressure limits ANSI and DIN in psi					
	ANSI150	ANSI 300	ANSI 600	PN16	PN40	PN100
P max. carbon steel	284	741	1480	232	580	1450
P max. stainless steel	276	719	1440			

High Temperature Valve 8024-GS3



with integrated positioner

Ordering Number System



1 - 5 : Please quote all 5 sections.
6 - 16: Quote only if required.

Symbol: "V": Valve
"R": Repair kit (sealings)

1. Valve type	2. Body design	3. Body material	4. Safety function	5. Actuator	6. Special version	7. Springs	8. Stem sealing
R	GS-control valve with pneumatic actuator (type 8024)	1 stainless steel 316 Ti / 318 or 316 L / CF8M 4 body carbon steel ASTM A216 body cover stainless steel	0 spring closes 1 spring opens	3 diaphragm actuator 20 in ² (metric) 6 diaphragm actuator 20 in ² (NPT) 4 diaphragm actuator 40 in ² (metric) 7 diaphragm actuator 40 in ² (NPT) 5 diaphragm actuator 80 in ² (metric) 8 diaphragm actuator 80 in ² (NPT)	M to state if some sections 7 - 16 are quoted	- standard 4 8 springs 8 16 springs	- PTFE-packing self-adjusting (Standard) 1 additional bellow 1.4571 3 additional Inconel 625 bellow 2.4856

9. Moving disc	10. Fixed disc	11. Cv-Values	12. Flow characteristic	13. Accessories	14. Positioners	15. Signalling equipment	16. Further special versions
- carbon 9 STN2/STN3 S SFC	- stainless steel/ Stellite 1 STN2 - plate (only in comb. with the position "9") 3 STN3 - plate (only in comb. with the position "9")	- 100 %(Stand.) A red. to 63 % 1 red. to 40 % B red. to 25 % 2 red. to 16 % C red. to 10 % 3 red. to 6,3 % 4 red. to 2,5 % 5 red. to 1 % 6 red. to 20 % 7 red. to 12 % 8 red. to 2 % 9 red. to 0,4 %	- linear 1 equal-%	Z state, if in following sections accessories are quoted.	- without 1 p/p positioner Type 8047 3 i/p positioner Type 8047 6 i/p positioner Type 8047 Eex ib IIC T6 with plug connc. M12x1 8 i/p positioner with Type 8047 plug connc. M12x1 C digital positioner type 8049, 4-wire R digital positioner type 8049, 2-wire T digital positioner type 8049, AS-i version W digital positioner type 8049, 2-wire ex-version	- without 0 2 limit switches M12x1 DC 10-30V PNP	S other special versions have to be quoted in letters!

Ordering Example:

8024/050VRE103M-----Z8

GS3-Control Valve Type 8024 with pneumatic actuator, 2", flangeless design acc. ANSI 150, body material stainless steel, spring close, actuator 20 in², PTFE-V-shaped sealings, function unit: carbon-stainless steel 316 Ti coated, linear characteristic, i/p-positioner

with integrated positioner

Operation limits for GS3-valves from stainless steel

These pressures on stainless steel GS-valves series GS3 must not be exceeded even if the actuator thrust would allow it. Operation Limits for bodys made of carbon steel on request.

ANSI150

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in stainless steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2" - 5"	275	265	235	215	200	175	150	120	95	65
6"	230	230	230	215	200	175	150	120	95	65
8"	230	230	230	215	200	175	150	120	95	65
10"	150	150	150	145	135	120	105	100	90	65

Size	Sliding unit: STN2											
	max. admissible pressures for GS3-valves in stainless steel											
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2" - 5"	275	265	235	215	200	175	150	120	95	65	30	-
6"	235	235	235	215	200	170	140	120	95	65	30	-
8"	-	-	-	-	-	-	-	-	-	-	-	-
10"	-	-	-	-	-	-	-	-	-	-	-	-

Limitation for SFC-sliding discs: 570°F

ANSI300

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in stainless steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-2 1/2"	720	695	610	560	520	485	460	440	425	420
3"	695	695	610	560	520	485	460	440	425	420
4"	480	480	480	480	480	480	460	440	425	420
5"	335	335	335	335	335	335	335	335	335	335
6"	230	230	230	230	230	230	230	230	230	230

Size	Sliding unit: STN2											
	max. admissible pressures for GS3-valves in stainless steel											
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	720	695	610	560	520	485	460	440	425	420	400	375
3/4"	720	695	610	560	520	485	460	440	425	420	400	375
1"	720	695	610	560	520	485	460	440	425	420	385	315
1 1/4"	720	695	610	560	520	485	460	440	425	420	400	360
1 1/2"	720	695	610	560	520	485	460	440	425	420	385	315
2"	720	695	610	560	520	485	460	440	425	420	400	375
2 1/2"	720	695	610	560	520	485	460	440	410	365	330	315
3"	530	530	530	505	480	390	320	275	240	215	195	180
4"	480	480	480	460	435	355	290	250	220	195	175	165
5"	320	320	320	305	290	235	190	165	145	130	115	110
6"	230	230	230	225	210	170	140	120	105	95	85	80

Limitation for SFC-sliding discs: 570°F

ANSI600

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in stainless steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1440	1395	1225	1115	1035	970	915	880	865	810
3/4"	1440	1395	1225	1115	1035	970	915	880	865	700
1"	1275	1275	1225	1115	1015	925	830	785	740	550
1 1/4"	1440	1395	1225	1115	1035	970	915	880	850	630
1 1/2"	1275	1275	1225	1115	1015	925	830	785	740	550
2"	1440	1395	1225	1115	1035	970	915	880	865	835
2 1/2"	1160	1160	1160	1115	1035	970	915	880	865	690
3"	695	695	695	695	695	695	695	645	595	515

Size	Sliding unit: STN2											
	max. admissible pressures for GS3-valves in stainless steel											
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	1440	1395	1225	1115	1035	970	915	880	865	810	565	460
3/4"	1440	1395	1225	1115	1035	970	915	880	865	700	490	400
1"	1275	1275	1225	1115	1015	925	830	785	740	550	385	315
1 1/4"	1440	1395	1225	1115	1035	970	915	875	765	630	440	360
1 1/2"	1050	1050	1050	1000	950	770	630	545	475	425	385	315
2"	1125	1125	1125	1070	1020	825	675	585	510	455	410	390
2 1/2"	905	905	605	865	820	665	545	470	410	365	330	315
3"	530	530	530	505	480	390	320	275	240	215	195	185

Limitation for SFC-sliding discs: 570°F

High Temperature Valve 8024-GS3



with integrated positioner

PN40

Size	Sliding unit: carbon/SFC - stainless steel, coated							
	maximum pressures for GS3-valves in stainless steel (psi)							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	580	580	580	580	580	580	580	580
3/4"	580	580	580	580	580	580	580	580
1"	580	580	580	580	580	580	580	550
1/2" - 1 1/4"	580	580	580	580	580	580	580	580
1 1/2"	580	580	580	580	580	580	580	550
2"	580	580	580	580	580	580	580	580
2 1/2"	580	580	580	580	580	580	580	580
3"	580	580	580	580	580	580	580	505
4"	475	475	475	475	475	475	475	475
5"	475	475	475	475	475	475	475	475
6"	230	230	230	230	230	230	230	230
8" (only 235psi)	230	230	220	190	175	160	145	130
10" (only 235psi)	145	130	130	115	100	85	85	70

Size	Sliding unit: STN2									
	maximum pressures for GS3-valves in stainless steel (psi)									
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	580	580	580	580	580	580	580	580	565	450
3/4"	580	580	580	580	580	580	580	580	480	390
1"	580	580	580	580	580	580	580	550	375	305
1/2" - 1 1/4"	580	580	580	580	580	580	580	580	435	350
1 1/2"	580	580	580	580	580	535	465	420	375	305
2"	580	580	580	580	580	580	510	450	405	375
2 1/2"	580	580	580	580	535	465	405	365	320	305
3"	520	495	480	375	320	275	230	205	190	175
4"	465	450	435	350	290	245	220	190	175	160
5"	305	305	275	230	190	160	145	115	115	100
6"	220	220	205	160	130	115	100	85	75	75
8" (only 235psi)	-	-	-	-	-	-	-	-	-	-
10" (only 235psi)	-	-	-	-	-	-	-	-	-	-

Limitation for SFC-sliding discs: 570°F

PN100

Size	Sliding unit: carbon/SFC - stainless steel, coated							
	maximum pressures for GS3-valves in stainless steel (psi)							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1450	1450	1450	1350	1220	1145	1075	800
3/4"	1450	1450	1290	1175	1060	985	930	695
1"	1275	1175	1015	915	825	785	740	550
1 1/4"	1450	1350	1160	1060	945	900	840	625
1 1/2"	1275	1175	1015	915	825	785	740	550
2"	1450	1450	1450	1450	1450	1365	1260	1100
2 1/2"	1160	1160	1160	1145	1030	970	915	680
3"	695	695	695	695	695	640	595	510

Size	Sliding unit: STN2									
	maximum pressures for GS3-valves in stainless steel (psi)									
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F	930°F	990°F
1/2"	1450	1450	1450	1350	1220	1145	1075	800	565	450
3/4"	1450	1450	1290	1175	1060	985	930	695	480	390
1"	1275	1175	1015	915	825	785	740	550	375	305
1 1/4"	1450	1350	1160	1060	945	870	755	625	435	350
1 1/2"	1045	1000	945	770	625	535	465	420	375	305
2"	1115	1060	1015	810	665	580	510	450	405	375
2 1/2"	900	855	810	655	535	465	405	365	320	305
3"	520	495	480	375	320	275	230	205	190	175

Limitation for SFC-sliding discs: 570°F

with integrated positioner

Application limitations for GS3 valves in carbon steel

These pressure must not be exceeded for GS-valves from the GS3-series made of carbon steel, even though the actuator power might allow it.

ANSI 150

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-5"	285	280	255	230	200	175	150	120	90	65
6"	230	230	230	230	200	175	150	120	90	65
8"	230	230	230	230	200	175	150	120	90	65
10"	150	150	150	145	135	120	105	87	90	65

Size	Sliding unit: STN2									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-5"	285	280	255	230	200	175	150	120	90	65
6"	235	235	235	225	200	170	140	115	90	65
8"	-	-	-	-	-	-	-	-	-	-
10"	-	-	-	-	-	-	-	-	-	-

Limitation for SFC-sliding discs: 570°F

ANSI 300

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	740	725	675	655	635	610	285	580	500	330
1 1/4"	740	725	675	655	635	610	285	580	500	330
1 1/2"	740	725	675	655	635	610	285	580	500	330
2"	740	725	675	655	635	610	285	580	500	330
2 1/2"	740	725	675	655	635	610	285	580	500	330
3"	695	695	675	655	635	610	285	580	500	330
4"	480	480	480	480	480	480	285	475	330	330
5"	335	335	335	335	335	335	285	330	330	330
6"	230	230	230	230	230	230	230	230	230	230

Size	Sliding unit: STN2									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	740	725	675	655	635	610	285	545	500	330
1 1/4"	740	725	675	655	635	610	285	545	500	330
1 1/2"	740	725	675	655	635	610	285	545	475	330
2"	740	725	675	655	635	610	285	545	500	330
2 1/2"	605	605	605	575	545	485	285	470	410	330
3"	530	530	530	505	480	390	285	275	240	210
4"	480	480	480	460	435	355	285	245	215	190
5"	320	320	320	305	290	235	190	155	145	125
6"	230	230	230	225	210	170	140	115	105	90

Limitation for SFC-sliding discs: 570°F

ANSI 600

Size	Sliding unit: carbon/SFC - stainless steel, coated									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	1480	1455	1350	1310	1270	1215	1155	1085	1000	665
1 1/4"	1480	1455	1350	1310	1270	1215	1155	1085	1000	665
1 1/2"	1450	1450	1350	1310	1270	1215	1155	1085	1000	665
2"	1450	1450	1350	1310	1270	1215	1155	1085	1000	665
2 1/2"	1160	1160	1160	1160	1160	1160	1155	1085	1000	665
3"	695	695	695	695	695	695	695	635	595	555

Size	Sliding unit: STN2									
	max. admissible pressures for GS3-valves in carbon steel									
	100°F	120°F	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1"	1480	1455	1350	1310	1270	1215	1155	1085	1000	665,0
1 1/4"	1480	1455	1350	1310	1270	1215	1010	870	760	665,0
1 1/2"	1050	1050	1050	1000	950	770	630	535	475	420
2"	1125	1125	1125	1070	1020	825	675	580	510	450
2 1/2"	905	905	905	865	820	665	545	460	410	365
3"	530	530	530	535	480	390	320	275	240	210

Limitation for SFC-sliding discs: 570°F

High Temperature Valve 8024-GS3



with integrated positioner

PN40

Size	Sliding unit: carbon/SFC - stainless steel, coated							
	max. admissible pressures for GS3-valves in carbon steel							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1 1/4"	580	580	580	580	580	580	580	580
1 1/2"	580	580	580	580	580	580	580	580
2"	580	580	580	580	580	580	580	580
2 1/2"	580	580	580	580	580	580	580	580
3"	580	580	580	580	580	580	580	550
4"	480	480	480	480	480	475	475	475
5"	335	335	335	335	335	330	330	330
6"	230	230	230	230	230	230	230	230
8" (only 235 psi)	230	230	220	190	175	155	145	140
10" (only 235 psi)	145	130	130	115	100	85	85	75

Size	Sliding unit: STN2							
	max. admissible pressures for GS3-valves in carbon steel							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"-1 1/4"	580	580	580	580	580	580	580	580
1 1/2"	580	580	580	580	580	580	460	420
2"	580	580	580	580	580	580	505	450
2 1/2"	580	580	580	580	535	460	405	360
3"	520	495	480	375	320	275	230	200
4"	480	450	435	350	290	245	215	190
5"	320	305	275	230	190	155	145	115
6"	230	220	205	160	130	115	100	85
8" (only 235 psi)	-	-	-	-	-	-	-	-
10" (only 235 psi)	-	-	-	-	-	-	-	-

Limitation for SFC-sliding discs: 570°F

PN100

Size	Sliding unit: carbon/SFC - stainless steel, coated							
	max. admissible pressures for GS3-valves in carbon steel							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1450	1450	1450	1450	1450	1450	1350	1030
3/4"	1450	1450	1450	1450	1450	1450	1450	1160
1"	1450	1450	1450	1450	1365	1260	1170	900
1 1/4"	1450	1450	1450	1450	1450	1435	1350	1040
1 1/2"	1450	1450	1450	1450	1365	1260	1170	910
2"	1450	1450	1450	1450	1450	1360	1260	1175
2 1/2"	1160	1160	1160	1160	1160	1100	1010	940
3"	695	695	695	695	695	635	595	550

Size	Sliding unit: STN2							
	max. admissible pressures for GS3-valves in carbon steel							
	210°F	300°F	390°F	480°F	570°F	660°F	750°F	840°F
1/2"	1450	1450	1450	1450	1450	1450	1350	1030
3/4"	1450	1450	1450	1450	1450	1450	1450	1160
1"	1450	1450	1450	1450	1365	1260	1100	900
1 1/4"	1450	1450	1450	1220	1000	870	750	665
1 1/2"	1045	1000	945	770	625	535	460	420
2"	1115	1060	1015	810	665	580	505	450
2 1/2"	900	855	810	655	535	460	405	360
3"	520	495	480	375	320	275	230	200

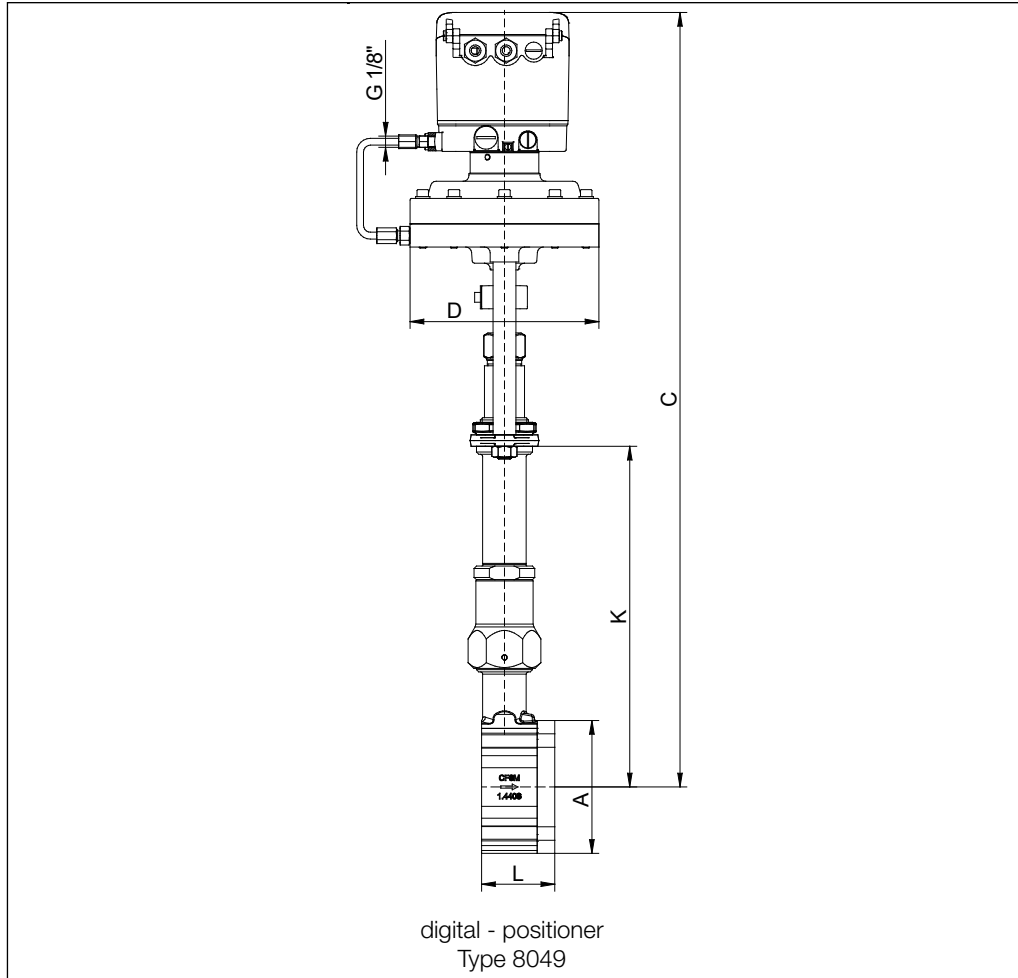
Limitation for SFC-sliding discs: 570°F

High Temperature Valve 8024-GS3



with integrated digital positioner, Type 8049

Dimensions and Weights



Size	Ø A	C *	Ø D for actuator			L	Stroke	Weight (lbs) for actuator		
			20 in ²	40 in ²	80 in ²			20 in ²	40 in ²	80 in ²
1/2"	2.52	25.79	6.5	8.74	8.74	2.2	0.24	18.7	23.5	31.7
3/4"	2.83	25.98	6.5	8.74	8.74	2.2	0.24	19.1	24	32.1
1"	3.23	26.18	6.5	8.74	8.74	2.2	0.24	20	24.9	33
1 1/4"	3.5	26.38	6.5	8.74	8.74	2.2	0.24	20.9	25.7	33.9
1 1/2"	3.9	26.57	6.5	8.74	8.74	2.2	0.24	21.8	26.6	34.8
2"	4.57	26.97	6.5	8.74	8.74	2.52	0.31	25.3	30.1	38.3
2 1/2"	5.43	27.36	6.5	8.74	8.74	2.68	0.31	29.3	34.1	42.2
3"	6.02	27.76	6.5	8.74	8.74	2.76	0.31	31.7	36.5	44.7
4"	7.24	28.15	6.5	8.74	8.74	2.95	0.33	39.4	44.2	52.4
5"	8.35	28.74	6.5	8.74	8.74	3.15	0.33	48.6	53.5	61.6
6"	9.53	29.33	6.5	8.74	8.74	3.15	0.33	56.8	61.6	69.7
8"	11.89	30.51	6.5	8.74	8.74	3.66	0.33	93.9	98.8	106.9
10"	14.17	31.5	6.5	8.74	8.74	3.78	0.33	105.4	110.2	118.4

* for actuator 80 in² + 1,9 "

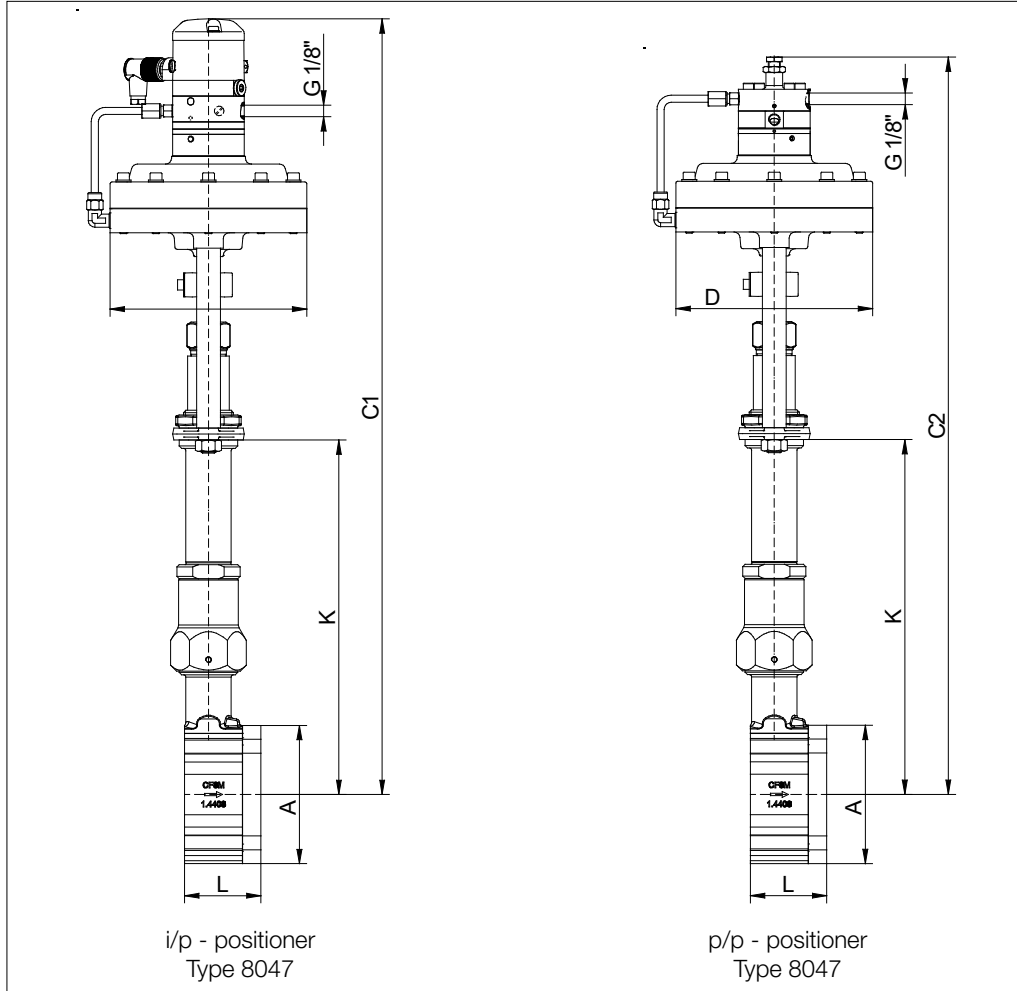
Dimensions in inch

High Temperature Valve 8024-GS3



with integrated i/p and p/p - positioner, Type 8047

Dimensions and Weights



Size	Ø A	C1 *	C2 *	Ø D for actuator			L	Stroke	Weight (lbs) for actuator		
				20 in ²	40 in ²	80 in ²			20 in ²	40 in ²	80 in ²
1/2"	2.5	24.6	23.25	6.5	8.75	8.75	2.2	0.25	18.7	23.5	31.7
3/4"	2.85	24.8	23.45	6.5	8.75	8.75	2.2	0.25	19.1	24	32.1
1"	3.25	25	23.6	6.5	8.75	8.75	2.2	0.25	20	24.9	33
1 1/4"	3.5	25.2	23.8	6.5	8.75	8.75	2.2	0.25	20.9	25.7	33.9
1 1/2"	3.9	25.4	24	6.5	8.75	8.75	2.2	0.25	21.8	26.6	34.8
2"	4.55	25.8	24.4	6.5	8.75	8.75	2.5	0.3	25.3	30.1	38.3
2 1/2"	5.45	26.2	24.8	6.5	8.75	8.75	2.7	0.3	29.3	34.1	42.2
3"	6	26.55	25.2	6.5	8.75	8.75	2.75	0.3	31.7	36.5	44.7
4"	7.25	26.95	25.6	6.5	8.75	8.75	2.95	0.35	39.4	44.2	52.4
5"	8.35	27.55	26.2	6.5	8.75	8.75	3.15	0.35	48.6	53.5	61.6
6"	9.55	28.15	26.75	6.5	8.75	8.75	3.15	0.35	56.8	61.6	69.7
8"	11.9	29.35	27.95	6.5	8.75	8.75	3.65	0.35	93.9	98.8	106.9
10"	14.15	30.3	28.95	6.5	8.75	8.75	3.8	0.35	105.4	110.2	118.4

* for actuator 80 in² + 1,9 "

Dimensions in inch

High Temperature Valve 8024-GS3



Flow Coefficients - Cv-values

Ordering code		-	A	1	B	6	2	7	C	3	4	8	5	9
Size	Charact.	100 %	63 %	40 %	25 %	20%	16 %	12 %	10 %	6,3 %	2,5 %	2 %	1 %	0,4%
1/2"	(mod.) linear	4.6	3	2	1.6	-	0.82	0.57	0.51	0.3	0.16	0.09	0.05	-
	eq. perc.	2	-	1.3	-	-	-	-	-	0.12	-	-	-	-
3/4"	(mod.) lin.	7.4	-	-	-	-	1.16	-	-	-	-	0.15	-	-
	eq. perc.	3.5	-	-	-	-	-	-	-	-	-	-	-	-
1"	(mod.) linear	13	7.4	4.6	-	-	1.9	-	1.08	0.72	0.3	-	0.16	0.05
	eq. perc.	5.8	-	2.8	-	1.3	-	-	-	-	-	-	-	-
1 1/4"	(mod.) linear	19	12	-	-	-								
	eq. perc.	9.3	-	-	-	-								
1 1/2"	(mod.) lin.	30	19	13	8.1	-								
	eq. perc.	13	9.9	-	3.2	-								
2"	(mod.) linear	52	32	23	14	12								
	eq. perc.	22	14	-	-	-								
2 1/2"	(mod.) linear	60	41	-	17									
	eq. perc.	35	-	-	9.3									
3"	(mod.) linear	107	67	46										
	eq.perc.	56	41	-										
4"	(mod.) linear	179	110	72										
	eq.perc.	89	56	-										
5"	(mod.) linear	275	-	110										
	eq.perc.	135	-	-										
6"	(mod.) linear	392	246	-										
	eq.perc.	171	104	-										
8"	(mod.) linear	650	408	-										
	eq.perc.	-	-	-										
10"	(mod.) linear	1056												
	eq.perc.	-												