

# Technical Data and Ordering Information



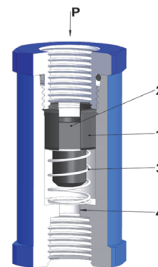
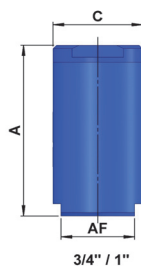
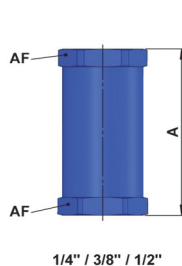
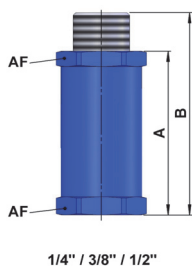
## HoseGuard®

The HoseGuard® offers simple but effective protections to pneumatic systems in the event of a broken compressed air hose or pipe. The air supply is immediately shut off by the HoseGuard®, should the volume of air exceed a set value. This value is factory preset and is set to allow normal air consumption when using air tools. Should the air consumption exceed a set value, e.g. the air is severed, then the internal piston instantly shuts off the main flow. An integral bleed hole allows some air to flow through. This enables the line pressure to automatically reset the HoseGuard® once the main break is repaired.

Thread Connection	Description	Dimensions (mm)				Weight Gram	Maximum Inlet Pressure	Temperature Range	Material	Inlet Thread	Outlet Thread	Order Code	
		A	B	C	AF							BSP	NPT
<b>HoseGuard® Air Fuse Standard Aluminium</b>													
1/4"	Standard	49	-	-	22	33	18 bar 255 psig	-20 °C to 80°C (-4°F to 176°F)	Housing: Aluminium Other Parts: Nitrile Rubber, plastic, stainless steel	Female	Female	281A0211	281A1211
1/4"	Standard	59	49	-	22	40				Male	Female	281A0221	281A1221
1/4"	Low Flow	49	-	-	22	33				Female	Female	281ZL0211	281ZL1211
1/4"	Low Flow	59	49	-	22	40				Male	Female	281ZL0221	281ZL1221
1/4"	High Flow	49	-	-	22	33				Female	Female	281ZH0211	281ZH1211
1/4"	High Flow	59	49	-	22	40				Male	Female	281ZH0221	281ZH1221
3/8"	Standard	58	-	-	27	60				Female	Female	281A0311	281A1311
3/8"	Standard	70	58	-	27	67				Male	Female	281A0321	281A1321
3/8"	High Flow	58	-	-	27	60				Female	Female	281ZH0311	281ZH1311
3/8"	High Flow	70	58	-	27	67				Male	Female	281ZH0321	281ZH1321
1/2"	Standard	65	-	-	30	78				Female	Female	281A0411	281A1411
1/2"	Standard	79	64	-	30	85				Male	Female	281A0421	281A1421
1/2"	High Flow	65	-	-	30	78				Female	Female	281ZH0411	281ZH1411
1/2"	High Flow	79	64	-	30	85				Male	Female	281ZH0421	281ZH1421
3/4"	Standard	76	-	36	30	107	-20 °C to 120°C (-4°F to 248°F)	Housing: Aluminium Other Parts: Nitrile Rubber, plastic, stainless steel	Female	Female	281A0511	281A1511	
3/4"	High Flow	76	-	36	30	107			Female	Female	281ZH0511	281ZH1511	
1"	Standard	100	-	50	41	320			Female	Female	281A0611	281A1611	
1"	High Flow	100	-	50	41	320			Female	Female	281ZH0611	281ZH1611	

### Technical Data:

Pressure drop: Open: 0,05 - 0,1 bar / 0,7 - 1,5 psig  
By closing: 0,3 bar / 5 psig



### How the HoseGuard works:

P is the inlet.

The air passes the piston 1 and continues through the seat.

The air flow, passing the piston, is slowed down by means of some lengthwise grooves 3 on the outer side of the piston.

If the flow is too high, the air cannot pass the piston quickly enough, and the piston will be pressed against the spring 2 towards the seat. If the value indicated is exceeded, e.g. if the hose suddenly breaks, the air supply is automatically shut off.

# Technical Data and Ordering Information

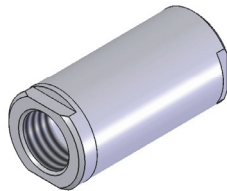
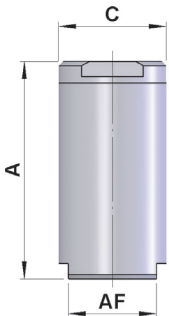


## HoseGuard® - Stainless Steel

Thread Connection	Description	Dimensions (mm)				Weight Gram	Maximum Inlet Pressure	Temperature Range	Material	Inlet Thread	Outlet Thread	Order Code	
		A	B	C	AF							BSP	NPT
BSP/NPT		HoseGuard® Air Fuse Stainless Steel - 316L						Other dimensions on request					
1/4"	Standard	50	-	19.5	17	67	18 bar 255 psig	-20 °C to 80°C (-4°F to 176°F)	Housing: Stainless Steel DIN 17440 Material No. 1.4404 Piston: POM- Polyoxymethylen e, Keptal F20-03, Spring: Stainless Steel DIN 17224 Material No. 1.4310, O-Ring: Nitrile Rubber (NBR) / viton (FKM) Optional: Piston: Stainless	Female	Female	281R0211	281R1211
1/4"	Low Flow	50	-	19.5	17	67				Female	Female	281RZL0211	281RZL1211
1/4"	High Flow	50	-	19.5	17	67				Female	Female	281RZH0211	281RZH1211
1/2"	Standard	67		30	26	192				Female	Female	281R0411	281R1411
1/2"	High Flow	67		30	26	192				Female	Female	281RZH0411	281RZH1411

**Technical Data:**

Pressure drop: Open: 0,05 - 0,1 bar / 0,7 - 1,5 psig  
By closing: 0,3 bar / 5 psig



**Important Information:**

All the following measurement values (flow for closing function) apply for a HoseGuard® (hose breakage safety device) charged with the appropriate pressure P1 and with a free Pa outlet. If a component is fitted after the HoseGuard® which reduces the flow performance (e.g. linkage, screw fitting, hose etc.), it is possible that the required flow for the de-fined closing point is no longer attained and that the HoseGuard® will not close. In this case the application must be appropriately tested. It is possible that another component may have to be selected after the HoseGuard®, or a smaller HoseGuard®, depending on the test result.

# Important Information



All the following measurement values (flow for closing function) apply for a HoseGuard® (hose breakage safety device) charged with the appropriate pressure P1 and with a free Pa outlet.

If a component is fitted after the HoseGuard® which reduces the flow performance (e.g. linkage, screw fitting, hose etc.), it is possible that the required flow for the defined closing point is no longer attained and that the HoseGuard® will not close.

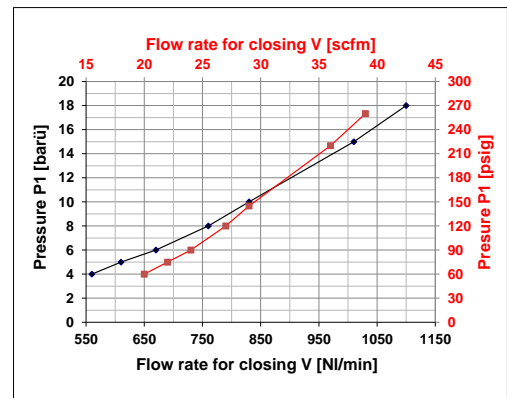
In this case the application must be appropriately tested. It is possible that another component may have to be selected after the HoseGuard®, or a smaller HoseGuard®, depending on the test result.

## HoseGuard® 1/4"

Flow measurement according to DIN EN 60534

Air flow rate for closing (+ - 10%)

p1 (barü)	p1 (psig)	Dp (bar)	Dp (psig)	T (K)	V (NI/min)	V (scfm)
18	260	0.40	5.8	284	1100	39
15	220	0.40	5.8	283	1010	36
10	145	0.40	5.8	283	830	29
8	120	0.40	5.8	283	760	27
6	90	0.40	5.8	283	670	24
5	75	0.40	5.8	283	610	22
4	60	0.40	5.8	283	560	20

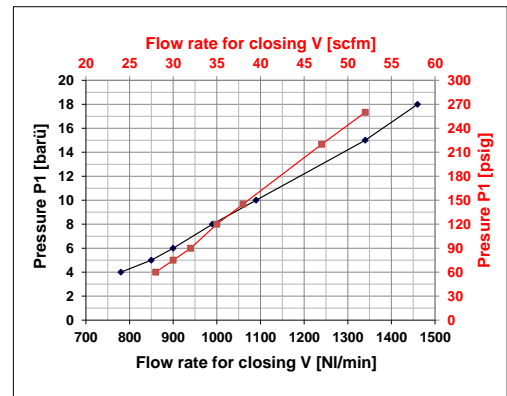


## HoseGuard® 1/4" High Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (+ - 10%)

p1 (barü)	p1 (psig)	Dp (bar)	Dp (psig)	T (K)	V (NI/min)	V (scfm)
18	260	0.90	13	287	1460	52
15	220	0.90	13	286	1340	47
10	145	0.90	13	287	1090	38
8	120	0.90	13	284	990	35
6	90	0.90	13	282	900	32
5	75	1.00	14.5	282	850	30
4	60	1.00	14.5	282	780	28

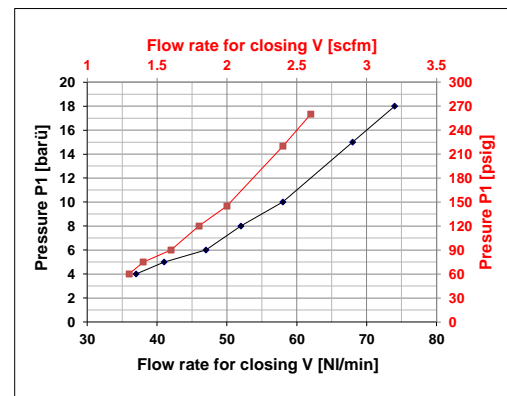


## HoseGuard® 1/4" Low Flow

Flow measurement according to DIN EN 60534

Air flow rate for closing (+ - 10%)

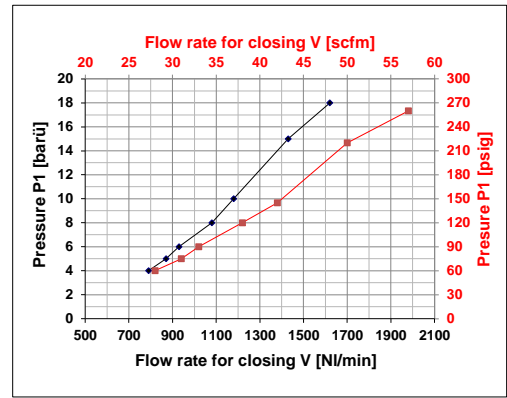
p1 (barü)	p1 (psig)	Dp (bar)	Dp (psig)	T (K)	V (NI/min)	V (scfm)
18	260	0.07	1	283	74	2.6
15	220	0.07	1	282	68	2.4
10	145	0.07	1	284	58	2
8	120	0.06	0.8	283	52	1.8
6	90	0.07	1	286	47	1.6
5	75	0.06	0.8	286	41	1.4
4	60	0.06	0.8	286	37	1.3



### HoseGuard® 3/8"

Flow measurement according to DIN EN 60534  
Air flow rate for closing (+ - 10%)

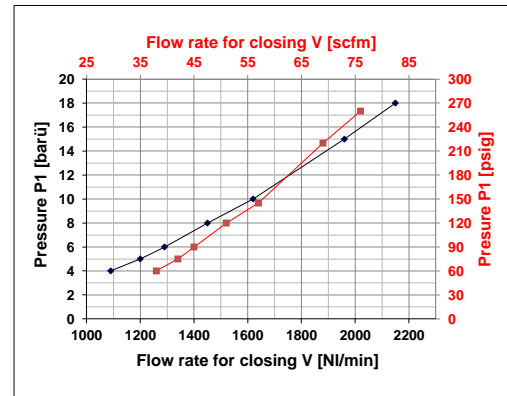
p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.20	2.9	282	1620	57
15	220	0.20	2.9	283	1430	50
10	145	0.21	3	283	1180	42
8	120	0.20	2.9	284	1080	38
6	90	0.19	2.7	285	930	33
5	75	0.20	2.9	284	870	31
4	60	0.19	2.7	284	790	28



### HoseGuard® 3/8" High Flow

Flow measurement according to DIN EN 60534  
Air flow rate for closing (+ - 10%)

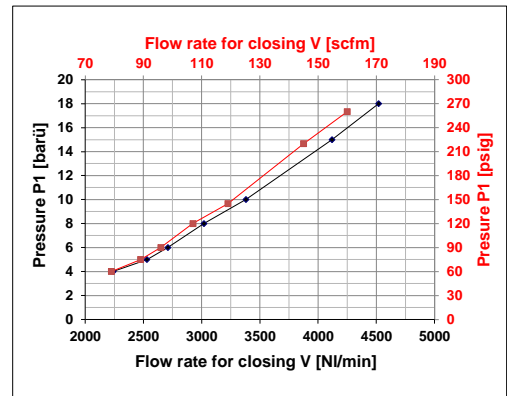
p1	p1	Dp	Dp	T	V	V
[barü]	(psig)	[bar]	(psig)	[K]	[NI/min]	(scfm)
18	260	0.23	3.3	282	2150	76
15	220	0.23	3.3	282	1960	69
10	145	0.23	3.3	283	1620	57
8	120	0.22	3.2	284	1450	51
6	90	0.22	3.2	286	1290	45
5	75	0.23	3.3	285	1200	42
4	60	0.23	3.3	283	1090	38



### HoseGuard® 1/2"

Flow measurement according to DIN EN 60534  
Air flow rate for closing (+ - 10%)

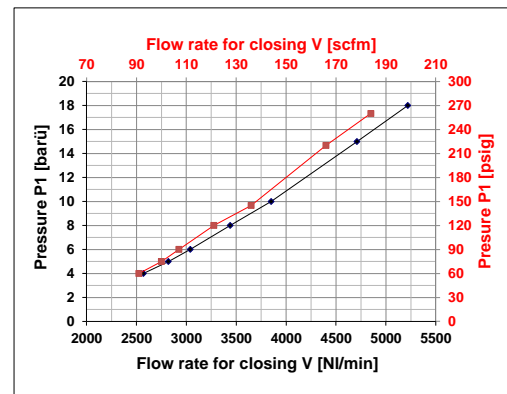
p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.36	5.2	282	4520	160
15	220	0.37	5.4	282	4120	145
10	145	0.37	5.4	283	3380	119
8	120	0.36	5.2	284	3020	107
6	90	0.35	5	283	2710	96
5	75	0.35	5	282	2530	89
4	60	0.35	5	281	2240	79



### HoseGuard® 1/2" High Flow

Flow measurement according to DIN EN 60534  
Air flow rate for closing (+ - 10%)

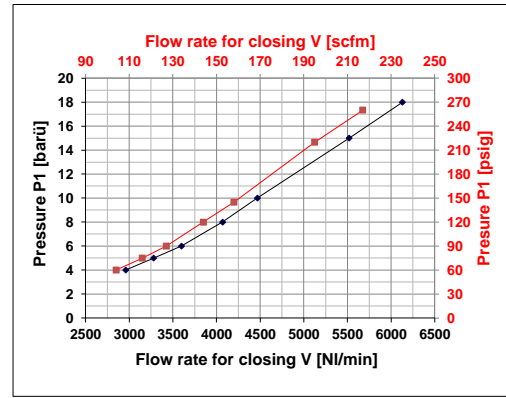
p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.41	5.9	282	5220	184
15	220	0.42	6.1	282	4710	166
10	145	0.42	6.1	283	3850	136
8	120	0.41	5.9	285	3440	121
6	90	0.40	5.8	284	3040	107
5	75	0.41	5.9	283	2820	100
4	60	0.41	5.9	282	2570	91



### HoseGuard® 3/4"

Flow measurement according to DIN EN 60534  
 Air flow rate for closing (+ - 10%)

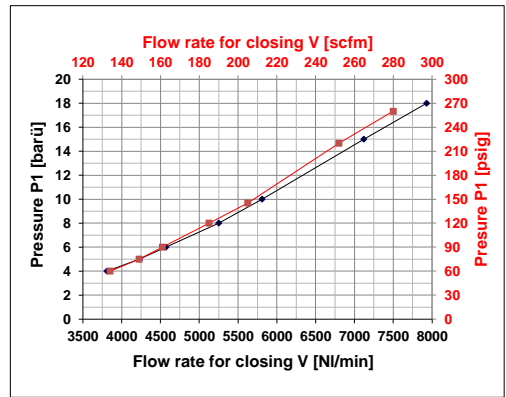
p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.24	3.5	282	6130	217
15	220	0.24	3.5	281	5520	195
10	145	0.25	3.6	283	4470	158
8	120	0.24	3.5	281	4070	144
6	90	0.25	3.5	283	3600	127
5	75	0.25	3.5	287	3280	116
4	60	0.25	3.5	285	2960	104



### HoseGuard® 3/4" High Flow

Flow measurement according to DIN EN 60534  
 Air flow rate for closing (+ - 10%)

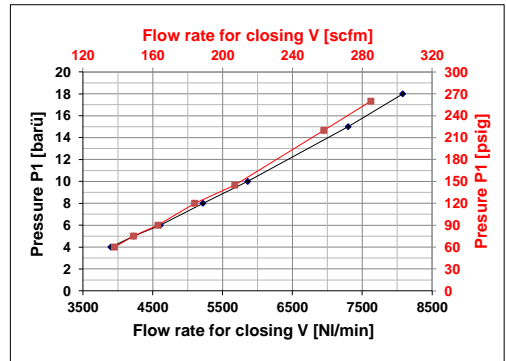
p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.29	4.2	282	7930	280
15	220	0.29	4.2	282	7120	252
10	145	0.30	4.3	282	5810	205
8	120	0.29	4.2	281	5250	185
6	90	0.31	4.5	283	4570	161
5	75	0.31	4.5	290	4230	149
4	60	0.31	4.5	285	3810	134



### HoseGuard® 1"

Flow measurement according to DIN EN 60534  
 Air flow rate for closing (+ - 10%)

p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.21	3	282	8080	285
15	220	0.20	2.9	283	7300	258
10	145	0.21	3	283	5860	207
8	120	0.22	3.2	284	5220	184
6	90	0.21	3	283	4610	163
5	75	0.20	2.9	288	4230	149
4	60	0.20	2.9	287	3900	138



### HoseGuard® 1" High Flow

Flow measurement according to DIN EN 60534  
 Air flow rate for closing (+ - 10%)

p1	p1	Dp	Dp	T	V	V
(barü)	(psig)	(bar)	(psig)	(K)	(NI/min)	(scfm)
18	260	0.27	3.9	282	11820	417
15	225	0.27	3.9	281	10350	366
10	150	0.27	3.9	283	8300	293
8	120	0.27	3.9	284	7600	268
6	90	0.27	3.9	284	6680	236
5	75	0.27	3.9	286	6350	224
4	60	0.26	3.8	285	5850	207

