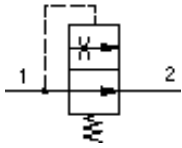


Air fuses

In-line excess flow shut-off valves

¼ to 1½" BSPP



Assists in complying with safety regulations.

Tamper proof.

Compact and safe design.

Low pressure drop.

Automatically resets after failure correction.

High corrosion resistance.

High air pressure rating.

Technical data

Medium:

Compressed air, filtered, lubricated and non lubricated inert gases

Operating pressure:

Maximum 16 bar

Minimum according to hose length

Ambient temperature:

-20°C to +80°C.

Consult our Technical Service for use below +2°C.

Mounting:

In-line two way valve. To be inserted between fixed air supply and flexible hose air line. See guidelines for typical installation.

Materials

Body: aluminium

Internal parts: brass

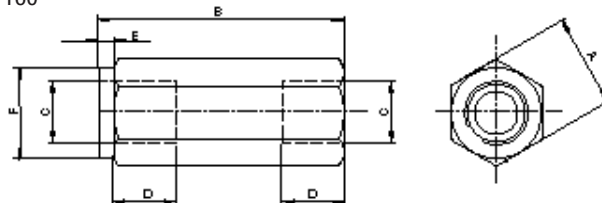
Spring: stainless steel

Port size BSPP	Drop pressure at shut off flow (bar)	Shut off flow rate at 7 bar (dm³/s) ±10%	Flow at 7 bar Δ P 0,07 bar (dm³/s)	Model	kg
1/4	0,14	8,3	6,5	T60C2890	0,041
1/4	0,3	14	6,5	T60C2891	0,041
3/8	0,14	19,4	13,5	T60C3890	0,065
3/8	0,3	32,2	13,5	T60C3891	0,065
1/2	0,14	32,2	23,2	T60C4890	0,150
1/2	0,3	48,3	23,2	T60C4891	0,150
3/4	0,14	48,3	43	T60C6890	0,130
3/4	0,3	80	43	T60C6891	0,130
1	0,14	92	68	T60C8890	0,540
1	0,3	128	68	T60C8891	0,540
1½	0,14	186	145	T60CB890	1,1
1½	0,3	268	145	T60CB891	1,1

BSPP: according to BS2779 and ISO 228/1.

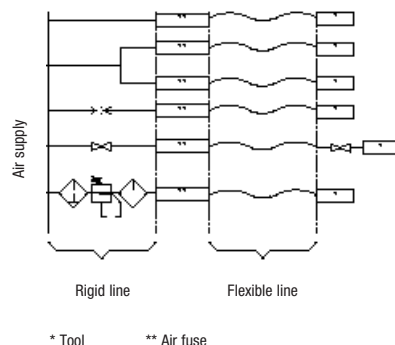
Flow and pressure test conducted according to ISO 6358 test circuit. Mean measured flow values are provided at standard reference conditions. For NPT versions, substitute A at the 4th digit, e.g. T60A2890

T60



Ø	T60C289* BSPP	T60C389* BSPP	T60C489* BSPP	T60C689* BSPP	T60C889* BSPP	T60CB89* BSPP
A a/f	20,6	24	31,75	31,75	50,8	63,5
B	51	62	78	90	118	145
C	1/4	3/8	1/2	3/4	1	1 1/2
D	11	14	15	19	25,5	25,5
E	3	5	5	5	5	5
F	20,6	24	31,75	31,75	50,8	63,5

Guidelines for typical installation



The air fuse should be installed directly between fixed or rigid pipework and the flexible tube to protect the whole length of the flexible tube. Only tubing after the air fuse is protected. The air fuse must be installed in the correct direction for airflow. Failure to do this will render the air fuse ineffective. When a shut-off valve is located before the air fuse, the valve must be opened slowly in order to control initial air flow and avoid decompression effects which may trip the air fuse.

Air fuses

In-line excess flow shut-off valves

G $\frac{1}{4}$ to G1 $\frac{1}{2}$

How to select an air fuse

- The port size of the air fuse should be nominally equal to that of the supply lines e.g. a 1/2" (12,7mm) air fuse should be used with a 1/2" (12,7mm) ID hose.
- Always select the high flow model (91) if there is sufficient system pressure for the length of hose to be protected. See tables hose length vs minimum supply pressure.
- If there is insufficient system pressure, or long hose lengths are to be protected, use model 90.
- After installation always test each valve for proper function. See section how to check an air fuse below.
- The pneumatic system must be capable of delivering the flow required to activate the air fuse.
- For use with spring coils consult table. See table flow vs pressure supply.

How to check an air fuse

- * Install air fuse following the instructions supplied
- * Connect tool or complete circuit to the air line
- * Switch on operation to ensure a complete cycle is performed
- * If tool or complete circuit starts and runs satisfactorily, stop operation and drain air line. Disconnect hose from tool or circuit and secure hose end. Turn on air supply progressively (to avoid decompression effect). Prior to fully reaching operation conditions, the valve should suddenly activate and cut off the flow. A slight air flow will remain as part of the automatic re-set function. If the air fuse is not activated the unit should be disconnected and the lower flow range air fuse should be used.

Spring coils and air fuse minimum required pressure (bar)

Spring coils Model	Air fuse T60C2890	T60C2891	T60C3890	T60C3891	T60C4890	T60C4891
PA330600328						
PA330600428						
PA330600528						
PA330600828						
PA330601528						
PA330800328	4,1					
PA330800428	5,4					
PA330800528						
PA330800828						
PA330801528						
PA331000328	1,0	2,5	4,8			
PA331000428	1,2	3,3	6,4			
PA331000528	1,5	4,2				
PA331000828	2,2	6,2				
PA331001528	4,4					
PA331200338	0,7	0,9	1,5	4,1		
PA331200438	0,7	1,0	2,0	5,4		
PA331200538	0,7	1,3	2,4			
PA331200838	0,7	1,9	3,7			
PA331201538	1,4	3,8				
PA331500348	0,7	0,9	0,7	1,5	1,5	3,5
PA331500448	0,7	0,9	0,7	2,1	2,1	4,6
PA331500548	0,7	0,9	0,9	2,6	2,6	5,8
PA331500848	0,7	0,9	1,4	3,8	3,8	
PU310600218						
PU310600418						
PU310600618						
PU310600818						
PU310800228	5,4					
PU310800428						
PU310800628						
PU310800828						
PU311000228	1,3	3,8				
PU311000428	2,7					
PU311000628	5,0					
PU311000828	6,0					
PU311200238	0,7	1,2	2,4	6,6		
PU311200438	0,9	2,5	4,8			
PU311200638	1,3	3,7				
PU311200838	1,6	4,6				

Note: Where no figure is shown these spring coils cannot be protected by the air fuse

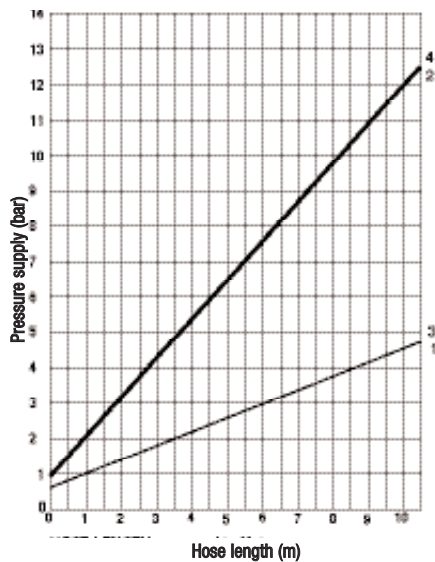
Air fuses

In-line excess flow shut-off valves

G $\frac{1}{4}$ to G $\frac{1}{2}$

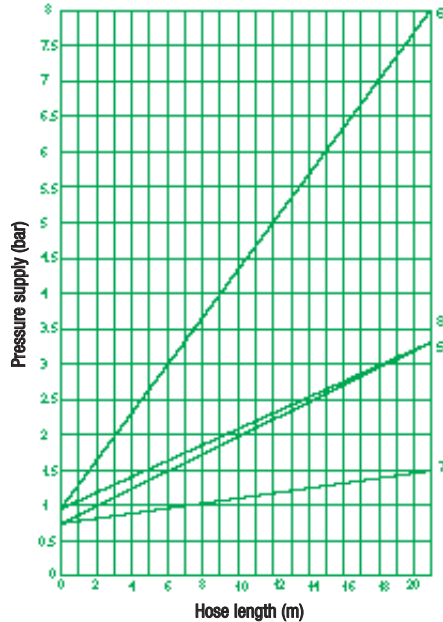
Minimum pressure required to shut off the air supply – check failure flow conditions

Hose length vs minimum pressure supply (1/4" ... 3/8")



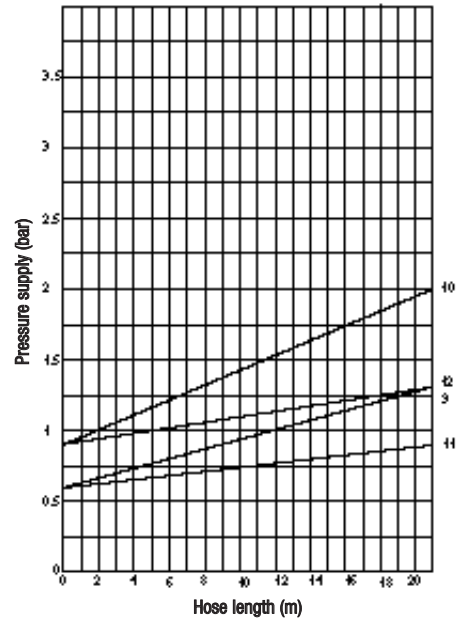
- 1 - T60 * 2890 (ID = 6,6mm)
- 2 - T60 * 2891 (ID = 6,6mm)
- 3 - T60 * 3890 (ID = 9,0mm)
- 4 - T60 * 3891 (ID = 9,0mm)

Hose length vs minimum pressure supply (1/2" ... 3/4")



- 5 - T60 * 4890 (ID = 13mm)
- 6 - T60 * 4891 (ID = 13mm)
- 7 - T60 * 6890 (ID = 19mm)
- 8 - T60 * 6891 (ID = 19mm)

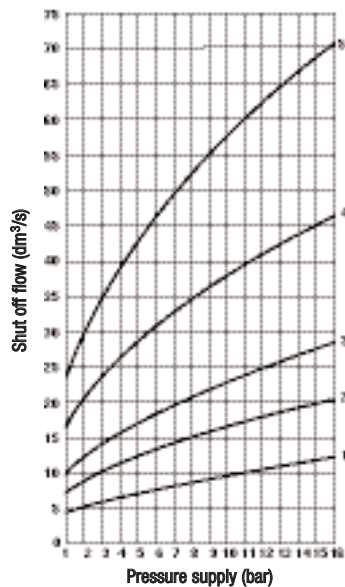
Hose length vs minimum pressure supply (1" ... 1 1/2")



- 9 - T60 * 8890 (ID = 25,4mm)
- 10 - T60 * 8891 (ID = 25,4mm)
- 11 - T60 * B890 (ID = 38,1mm)
- 12 - T60 * B891 (ID = 38,1mm)

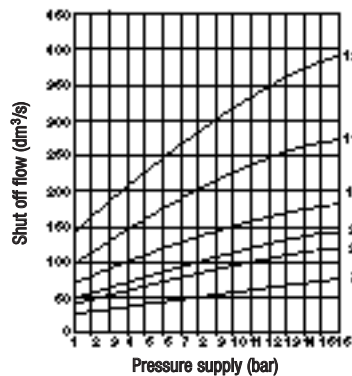
Flow required to shut off air supply – check normal flow conditions

Flow ($\pm 10\%$) vs pressure supply (1/4 ... 1/2")



- 1 - T60 * 2890
- 2 - T60 * 2891
- 3 - T60 * 3890
- 4 - T60 * 3891
- 5 - T60 * 4890
- 6 - T60 * 4891

Flow ($\pm 10\%$) vs pressure supply (3/4 ... 1 1/2")



- 7 - T60 * 6890
- 8 - T60 * 6891
- 9 - T60 * 8890
- 10 - T60 * 8891
- 11 - T60 * B890
- 12 - T60 * B891

Measurements

Flow and pressure tests conducted according to ISO-6358 test circuit
 Mean measured flow values are provided at standard reference condition (20°C, 1,01 bar)
 Indicated pressure values are relative pressure in bar.

Hose lengths

Graphs are for indicated hose internal diameter in key.
 Consult our Technical Service for hose lengths and internal diameters different from the recommended one.