

Pilot Operated 2-Way Gas Valves

Model 2180ED - ductile iron
Model 2180ES - cast steel

Overview

AMOT Model 2180 valves will shut off the fuel gas and vent the manifold when used on an internal combustion engine. Normal application of this model is for shutting down a gas engine in the event of a dangerous condition such as high jacket water temperature, low lubrication oil pressure, excessive vibration, high gas discharge temperature etc.

The valves are used in combination with a complete AMOT control system using AMOT sensors for monitoring the condition of the engine.

Typical applications

- Gas shut off valve
- Gas engine fuel shut off valve
- Gas turbine fuel shut off valve
- Air starting valve

Key benefits

- Compact design
- Easy low cost installation - valve factory set, no adjustments required
- Simple. low cost maintenance



**Model 2180ES
Cast Steel**

Pilot Operated 2-Way Gas Valve - Model 2180

Specification - 2180ED

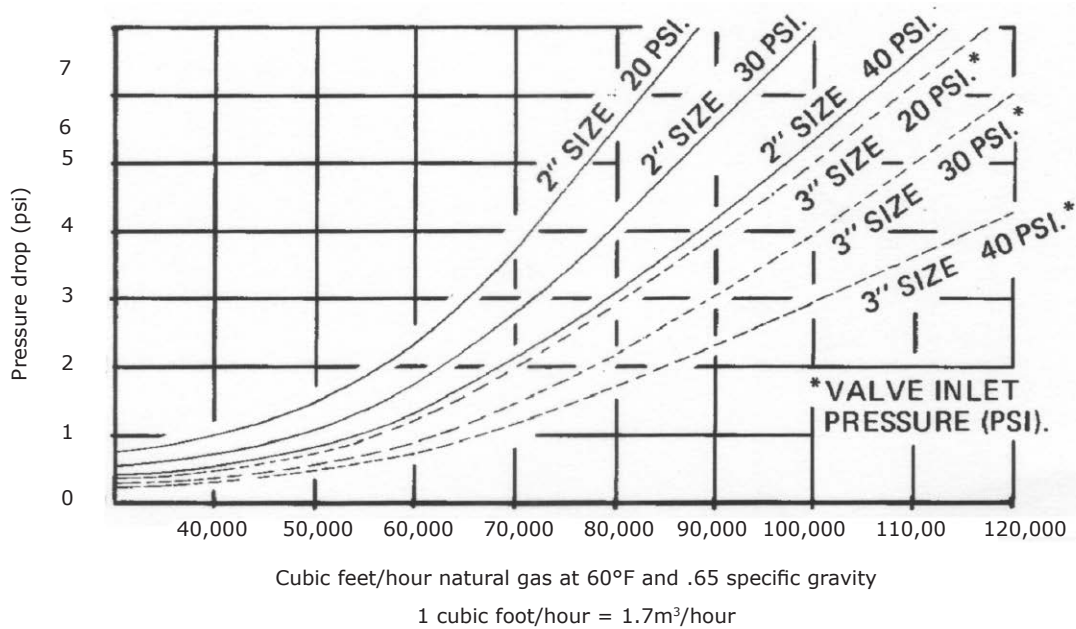
Valve body	Ductile iron		
Diaphragm housing	Cast aluminum		
Valve seats	Viton	Nitrile/Buna N	
Standard diaphragm, dynamic seals & vent seal	Viton	Nitrile/Buna N	
Valve rating	862 kPa	125 psi	
Minimum diaphragm pressure for full stroke	138 kPa	20 psi	
Maximum continuous diaphragm pressure	552 kPa	80 psi	
Flow coefficient	2" valve	Kv = 74	Cv = 85
	3" valve	Kv = 95	Cv = 110
Net weight	2" valve	20 kg	45 lbs
	3" valve	27 kg	60 lbs

Specification - 2180ES

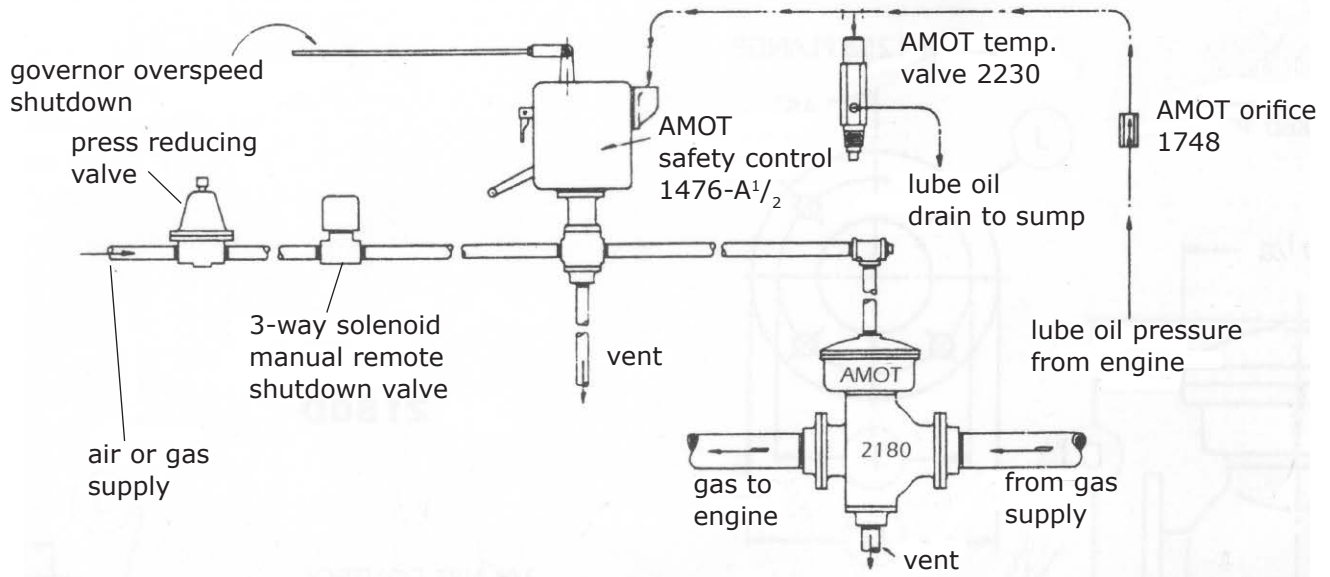
Valve body	Cast steel		
Diaphragm housing	Pressed steel		
Valve seats	Viton	Nitrile/Buna N	
Standard diaphragm, dynamic seals & vent seal	Viton	Nitrile/Buna N	
Minimum diaphragm pressure for full stroke	for 150 psi valve	138 kPa	20 psi
	for 300 psi valve	276 kPa	40 psi
Maximum continuous diaphragm pressure	552 kPa	80 psi	
Valve working pressure rating	for 150 lb flanged valve	1033 kPa	150 psi
	for 300 lb flanged valve	2067 kPa	300 psi
Flow coefficient	2" valve	Kv = 74	Cv = 85
	3" valve	Kv = 95	Cv = 110
Net weight	2" valve	20 kg	45 lbs
	3" valve	27 kg	60 lbs

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Operation Graph



Typical Piping

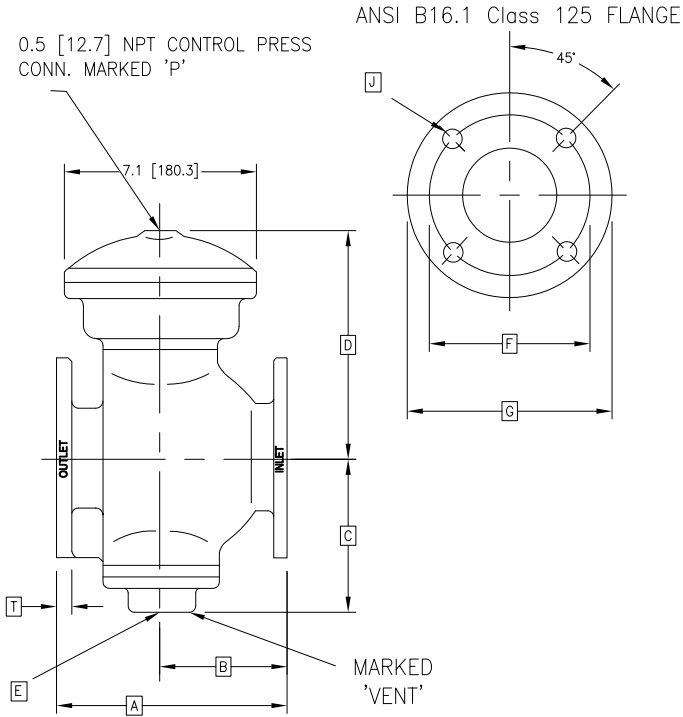


This system will shut down the engine by closing off the gas supply in the event of high water jacket temperature or low oil pressure. Other sensors may be added for overspeed, bearing temperature, compressor interstage pressure, exhaust temperature, crankcase pressure, water pump differential pressure, vibration, and a variety of other parameters.

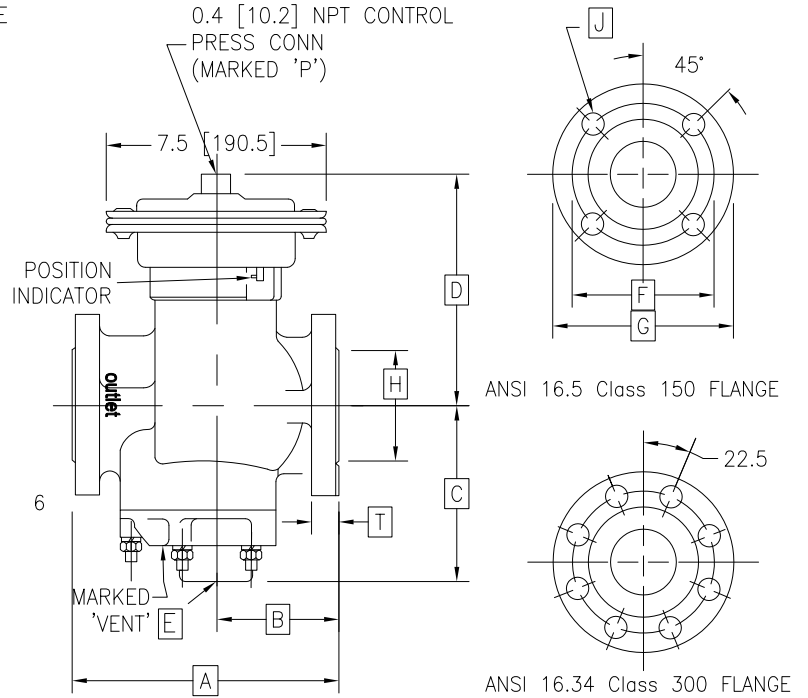
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Dimensions

2180ED



2180ES



Model Number	2180ED1		2180ED4		
	mm	inches	mm	inches	
Valve size	2"		3"		
ANSI flange	125 psi		125 psi		
Face to face	A	194	7-5/8	219	8-5/8
CL to inlet	B	98	3-7/8	117	4-5/8
Depth	C	159	6-1/4	194	7-5/8
Height	D	200	7-7/8	213	8-3/8
Vent size	E	1 NPT		1-1/2 NPT	
Bolt circle	F	121	4-3/4	152	6
Flange diameter	G	152	6	191	7-1/2
Diameter of holes	J	19	3/4	19	3/4
Number of holes		4		4	
Min. thickness	T	16	5/8	19	3/4

Model number	2180ES2		2180ES3		2180ES5		2180ES6		
	mm	inches	mm	inches	mm	inches	mm	inches	
Valve size	2"		2"		3"		3"		
ANSI flange	150 psi		300 psi		150 psi		300 psi		
Face to face	A	225	8-7/8	225	8-7/8	273	10-3/4	273	10-3/4
CL to inlet	B	105	4-1/8	105	4-1/8	127	5	127	5
Depth	C	152	6	152	6	187	7-3/8	187	7-3/8
Height	D	191	7-1/2	191	7-1/2	203	8	203	8
Vent size	E	1 NPT		1 NPT		1-1/2 NPT		1-1/2 NPT	
Bolt circle	F	121	4-3/4	127	5	153	6	168	6-5/8
Flange diameter	G	153	6	165	6-1/2	191	7-1/2	210	8-1/4
Face diameter	H	92	3-5/8	92	3-5/8	127	5	127	5
Diameter of holes	J	19	3/4	19	3/4	19	3/4	22	7/8
Number of holes		4		8		4		8	
Minimum thickness	T	22	7/8	22	7/8	28.5	1-1/8	28.5	1-1/8

Pilot Operated 2-Way Gas Valve - Model 2180

How to order

Use the tables below to select the unique specification of your 2180 series gas valve.

Example	2180E	S	3	1	B	-AA	Comments	
							Basic Model	
Basic model	2180E							
							Material	
Material		D					Ductile iron	
		S					Cast steel	
							Body size	Rating
Body size and pressure rating			1				2"	125 psi
			2				2"	150 psi
			3				2"	300 psi
			4				3"	125 psi
			5				3"	150 psi
			6				3"	300 psi
							Threads	Finish
Threads and finish			1				NPT	Standard
			3				BSP (TR)	Standard
							Seal material	
Seal material					A		Nitrile/ Buna N	
					B		Viton	
							Special requirements	
Special requirements						-AA	Standard	

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