

# Panther Sensitivity Chart V1



Gas Type Name	Trade Name	Chemical Formula	Molecular Weight	Response Factor (He=1)	PPM	cc/sec	mg/m3	g/yr	Calc. (C) or Tested (T)	Gas Group 1-5	Conductivity at 400 K (mW/mK)	Conductivity vs air (mW/mK)
Air											33.3	0
GAS GROUP 1a			6.0	1								
GAS GROUP 1b			150.0	1								
GAS GROUP 2a			15.0	2.5								
GAS GROUP 2b			84.0	2.5								
GAS GROUP 3a			20.0	4								
GAS GROUP 3b			61.0	4								
GAS GROUP 4a			26.0	8								
GAS GROUP 4b			48.0	8								
GAS GROUP 5			36.0	16								
Helium		He	4.0	1.000	150	5.0E-06	25	0.026	T	1	190.6	157.3
Hydrogen		H2	2.0	0.648	97	3.2E-06	8	0.008	T	1	230.4	197.1
Sulfur hexa fluoride		SF6	146.1	1.448	217	7.2E-06	1298	1.364	C	1	20.6	-12.1
Xenon		Xe	131.3	1.447	217	7.2E-06	1165	1.225	T	1	7.3	-26
m-Xylene		C8H10	106.0	1.868	280	9.3E-06	1215	1.227	C	1	17.71	-15.59
Perfluorocyclobutane	C318	C4F8	200.0	1.187	178	5.9E-06	1457	1.531	C	1	19.5	-13.8
Toluene		C7H8	92.0	2.142	321	1.1E-05	1209	1.271	C	2	19.3	-14
Ammonia		NH3	17.0	2.854	428	1.4E-05	298	0.313	C	2	37.4	4.1
Pentane		C5H12	72.2	2.861	429	1.4E-05	1266	1.331	C	2	24.9	-8.4
Tetrafluoropropene	R1234yf	C3H2F4	114.0	2.483	372	1.2E-05	1736	1.825	T	2		
Tetrafluoroethane	R134a	C2H2F4	102.0	2.880	432	1.4E-05	1803	1.895	T	2	14.0	-19.3
Tetra fluoromethane	R14	CF4	88.0	2.246	337	1.1E-05	1212	1.274	C	2	24.1	-9.2
Methane		CH4	16.0	4.007	601	2.0E-05	394	0.415	T	3	49.1	15.8
Isobutane	R600a	C4H10	58.1	3.847	428	1.4E-05	298	0.313	C	2	37.4	4.1
Isopropanol		C3H8O	60.0	3.847	683	2.3E-05	1624	1.708	T	3	28.4	-4.9
Butane		C4H10	58.1	4.556	683	2.3E-05	1624	1.708	T	3	28.4	-4.9
Isobutylene		C4H8	55.1	3.576	536	1.8E-05	1209	1.271	T	3		
Sulfur dioxide		SO2	64.1	3.428	514	1.7E-05	1347	1.416	C	3	14.3	-19
Ethylene oxide		C2H4O	54.0	4.785	718	2.4E-05	1585	1.666	C	3	25.0	-8.3
Argon		Ar	40.0	6.599	990	3.3E-05	1617	1.700	T	4	22.6	-10.7
Carbon dioxide	R774	CO2	44.0	5.576	836	2.8E-05	1506	1.583	T	4	25.1	-8.2
Propane		C3H8	44.1	6.115	917	3.1E-05	1654	1.739	T	4	30.6	-2.7
Nitrogen		N2	28.0	9.182	1377	4.6E-05	1578	1.659	C	4	32.3	-1
Nitrous oxide		N2O	44.0	7.299	1095	3.6E-05	1971	2.072	T	4	26	-7.3
Acetylene		C2H2	26.0	6.907	1036	3.5E-05	1103	1.160	C	4	45.4	12.1
Ethylene		C2H4	28.1	9.329	1399	4.7E-05	1605	1.688	C	4	34.6	1.3
Carbon monoxide		CO	28.0	9.182	1377	4.6E-05	1578	1.659	C	4	32.3	-1
Methanol		CH4O	32.0	22.582	3387	1.1E-04	4439	4.666	C	5	26.2	-7.1
Oxygen		O2	32.0	22.582	3387	1.1E-04	4433	4.660	C	5	33.7	0.4
Nitric oxide		NO	30.0	13.241	1986	6.6E-05	2438	2.563	C	5	33.1	-0.2

