d·flux Multiparameter Series Gas List

V1.7-June 2024

This document is a simple tool listing additional gases and ranges available for the d·flux multiparameter Series.
All flow values in this document are in ln/min and slpm. For gases or gas mixtures not listed, please contact the factory.

IMPORTANT NOTE: The material and elastomer compatibility information come from several specialist databases (RCT Online, DuPont, Linde, and others). Sierra Instruments does not guarantee the accuracy of these compatibilities. It is the user's/customer's responsibility to determine, based on their risk analysis, what is the most appropriate elastomer for their application and process conditions.

All gases must be dry and clean, especially corrosive gases (SO2, NH3, HCl, H2S, F2, Cl2, etc.)

Formula	Gas Name	Minimum Range LFE500**		Maximum Range LFE1400		Maximum Flow Dynamic***	Additional Uncertainty	Sensor (to be used in d·flux)	Sierra Database June 2024 Note: User is responsible for checking compatibility				Comments
		NLPM	SLPM	NLPM	SLPM				ALU / SS316L	O-rings	O-rings "on-demand"*	Valve Seat (Plunger)****	
Air	Air	350	378	1400	1508	1000		Core or Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
Ar	Argon	310	334	1240	1336	1000		Core or Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
C_2F_6	Freon 116, R116, Hexafluoroethane, Perfluoroethane	55	60	220	237	106	+/- 0.3% FS	Prime	SS316L	FKM/EPDM	FFKM	EPDM/FFKM	
C_2H_2	Acetylene	215	232	860	926	324		Prime	ALU / SS316L	EPDM	FFKM	EPDM/FFKM	
C_2H_4	Ethylene	200	216	800	861	431		Prime	ALU / SS316L	FKM	FFKM	FKM/FFKM	
C_2H_6	Ethane	167	180	670	721	222		Prime	ALU / SS316L	FKM	FFKM	FKM/FFKM	
C_3F_8	Perfluoropropane	35	38	140	150	52	+/- 0.3% FS	Prime	ALU / SS316L	FKM	FFKM	FKM/FFKM	
C_3H_6	Propylene	110	119	440	474	124	+/- 0.3% FS	Prime	SS316L	FKM	FFKM	FKM/FFKM	
C_3H_8	Propane	100	108	400	430	104	+/- 0.3% FS	Prime	ALU / SS316L	FKM	FFKM	FKM/FFKM	
C_4H_{10}	Butane	67	73	270	290	160	+/- 0.3% FS	Prime	ALU / SS316L	FKM	FFKM	FKM/FFKM	
C_4H_6	1,3 Butadiene	83	90	330	355	187	+/- 0.3% FS	Prime	ALU / SS316L	FKM	FFKM	FFKM	
CF4	Tetrafluoromethane, Freon-14	108	117	430	463	278		Prime	SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
CH_4	Methane	377	407	1510	1627	638		Prime	ALU / SS316L	FKM	FFKM	FKM/FFKM	
CHClF2	Freon-22, Chlorodifluoromethane	78	85	310	334	129		Prime	SS316L	EPDM	FFKM	EPDM/FFKM	
CL_2	Chlorine	102	110	410	441	187	+/- 0.3% FS	Prime	SS316L	FKM	FFKM	FFKM	Optional "oxygen cleaning" recommended
CO	Carbon Monoxide	347	374	1390	1497	957		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
CO_2	Carbon Dioxide	185	200	740	797	579		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	Max 130 psig (10 barg)
D_2	Deuterium	512	552	2050	2208	1000		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
F_2	Fluorine	352	380	1320	1422	1000		Prime	SS316L	FKM	FFKM	FKM/FFKM	Optional "oxygen cleaning" recommended
H_2	Hydrogen	725	782	2900	3124	1000		Prime H2	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
H_2S	Hydrogen Sulfide	197	213	790	851	350		Prime	SS316L	EPDM	FFKM	EPDM/FFKM	
HCl	Hydrogen Chloride	223	241	890	958	485		Prime	SS316L	FKM	FFKM	FFKM	
He	Helium	350	378	1400	1508	1000		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
Kr	Krypton	165	178	660	711	635		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
N_2	Nitrogen	350	378	1400	1508	967		Core or Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
N_2O	Nitrous Oxide	183	198	730	786	398		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	Optional "oxygen cleaning" recommended
Ne	Neon	298	322	1190	1282	1000		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	
NH_3	Ammonia	320	375	1280	1379	451		Prime	ALU / SS316L	EPDM	FFKM	EPDM/FFKM	
O_2	Oxygen	350	378	1400	1508	1000		Core or Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	Optional "oxygen cleaning" available
SF_6	Sulfur Hexafluoride	57	62	230	247	121	+/- 0.3% FS	Prime	ALU / SS316L	FKM/EPDM		FKM/EPDM	
SO_2	Sulfur Dioxide	108	117	430	463	238		Prime	SS316L	FKM/EPDM	FFKM	EPDM/FFKM	
Xe	Xenon	95	103	380	409	322		Prime	ALU / SS316L	FKM/EPDM	FFKM	FKM/EPDM/FFKM	

Please contact us if your gas is not mentioned in this list or you need a gas mixture.

* FFKM O-rings for "full FFKM units" are also available on-demand but may be associated with longer delivery-time and higher costs.

**Lowest User Full Scale Range : this is approximately 70% of the LFE500 maximum range. Example : for Air, the LFE500 max range is 500 ln/min, so the lowest user full scale range is 70%*500 = 350 ln/min

***Normal dynamics 100:1. The stated dynamic is possible at 203 psia (14 bara) with higher filter setting. Higher dynamics possible at lower pressure.

**** Please note that standard elastomer combination for O-rings / Valve Seat available on short delivery time are : FKM/FKM, EPDM/EPDM, FKM/FFKM, EPDM/FFKM. Cross combinations such as FKM/EPDM or EPDM/FKM are possible but may have longer delivery time as they are not usual.