Table 2. Environmental Specifications

Characteristic	Parameter
Humidity	0% to 95% RH, non-condensing
Vibration	MIL-STD-202, Method 214, Condition 1E (16.9 G)
Shock	MIL-STD-202, Method 213, Condition F (1500 G)
Life[1]	1 million full scale force cycles minimum

[1]Life may vary depending on specific application in which the sensor is utilized.

Table 3. Materials[1]

Component	Material
Covers	high temperature polyamide
Plunger	stainless steel 316
Substrate	alumina, ceramic
Adhesives	epoxy, silicone
Electronic components	ceramic silicon, glass, solder

[1]Contact Honeywell customer service for detailed material information.

Table 4. Absolute Maximum Specifications

Characteristic	Min.	Max.	Unit
Supply voltage	-0.3	6.0	Vdc
Voltage on any pin	-0.3	V_{supply} + 0.3	V
Digital interface clock frequency: SPI I^2C	 50 100	 800 400	kHz
ESD susceptibility (human body model)	2	—	kV
Storage temperature range	-40 [-40]	85 [185]	°C [°F]
Overforce limit	—	6804 [15]	g [lb]
Minimum operating voltage	2.8 Vdc		
Lead soldering time and temperature	4 s max. at 220°C [428°F]		

Force Sensors, FSA Series Compensated/Amplified

Figure 1. Nomenclature and Order Guide

For example, **FSAGPNXX001LCAA3** defines an FSA Series Force Sensor, gel coupling, plunger contact element, no diagnostics, 2 lb force range, force unit in pounds, compression force type, analog output, 10% to 90% transfer function, 3.3 Vdc supply voltage

FSA G P N XX 001 L C A A 3

Series

FSA	Force Sensor Compensated/Amplified

Coupling

G	Gel

Contact Element

P	Plunger

Diagnostics Option

N	No diagnostics
D	Diagnostics, sensor short and open

Future Use

XX

Force Range[1]

Newton (N)		pound (lb)		gram (g)		kilogram (kg)	
005	5 N	**001**	1 lb	**500**	500 g	**001**	1 kg
7.5	7.5 N	**1.5**	1.5 lb	**750**	750 g	**002**	2 kg
010	10 N	**002**	2 lb				
015	15 N	**003**	3 lb				
020	20 N	**005**	5 lb				
025	25 N						

Supply Voltage

3	3.3 Vdc ±10%
5	5 Vdc ±10%

Transfer Function[3]

A	10% to 90%
B	5% to 95%
C	20% to 80%

Output

A	Analog
S	SPI
2	I²C, Address 0x28
3	I²C, Address 0x38
4	I²C, Address 0x48
5	I²C, Address 0x58
6	I²C, Address 0x68

Force Type

C	Compression

Force Unit

W	Newton (N)
L	pound (lb)
F	gram (g)
R	kilogram (kg)

[1]Custom designations available upon request.
[2]Consult with factory.
[3]For other available transfer functions, contact Honeywell customer service.

COMMON CATALOG LISTINGS

FSAGPDXX010WCAA5
FSAGPDXX001RCAB5
FSAGPNXX1.5LCAC5
FSAGPNXX003LCAC5
FSAGPNXX010WC2C3
FSAGPNXX001RC4C5
FSAGPDXX005LCSB5
FSAGPDXX1.5LC5B5