



# SLICE Technical Specifications



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### SLICE MICRO Base



### SLICE NANO Base



#### Power:

- 7-15 VDC input voltage to entire stack via Base
- 100 mA maximum current draw
- Reverse current protection
- Remote power control input for turning unit on/off

#### Communication:

- USB from Base (Stack) to PC and module to module
- DTS software using Windows® XP, Vista

#### Trigger:

- Contact closure

#### Data Storage:

- 7 Gbyte non-volatile flash
- 120k samples/sec/channel maximum
- Recorder or circular buffer mode

#### Environment:

- 0 to 50°C operating temperature
- Rated to 500 g, 4 msec half-sine

#### System:

- One Base supports a maximum current draw of 1 A total per stack
- Sensor excitation shuts down when not recording
- Exceeds SAEJ211 response

### SLICE MICRO Bridge



### SLICE NANO Bridge



#### Three differential, programmable sensor channels:

- 2.5 or 5.0 V excitation via one 20 mA current-limited source per channel (voltage set at factory)
- ±2.4 V input range (2.5 V center)
- DC to 40 kHz bandwidth
- 1.0 to 1280 gain
- Auto offset range = 100% of effective input
- 16-bit SAR, one ADC per channel
- Software-adjustable, 5-pole Butterworth, low-pass, anti-alias filter (1 Hz – 40 kHz)
- ½ bridge and shunt emulation support
- 120 mA maximum current draw (depends significantly on sensor load)

### SLICE MICRO Accel



- 3 internal accelerometers
- Options from 50 to 2000 g
- 65 mA maximum current draw

### SLICE MICRO ARS



- 3 internal angular rate sensors
- Options from 300 deg/sec to 50000 deg/sec
- 75 mA maximum current draw

### SLICE NANO Stack Battery



- Charges whenever input power is connected to the Base
- ~15 minutes from complete discharge to full charge (10.5 VDC, 100 mA, at input connector on Base)
- Discharge rates:
  - ~16 seconds at 1 A
  - ~2 minutes at 400 mA

Specifications may be revised without notice.

Drawings not to scale.



# SLICE MICRO Pin Assignments



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**DOWN** and **UP\*** connectors for SLICE MICRO Base



(looking into the connector)  
Mating connector: DTS P/N S-MCP-12

Pin	Function
1	On (contact closure input to ground)
2	Start (contact closure input to ground)
3	Event (contact closure input to ground)
4	Status output (5 V via 10K with respect to ground)
5	7-15 VDC
6	7-15 VDC
7	Ground
8	Ground
9	USB_PWR
10	USB_DP
11	USB_DM
12	Ground

\* to PC

Channels **1**, **2** and **3** for SLICE MICRO Bridge



(looking into the connector)  
Mating connector: DTS P/N S-MCP-07

Pin	Function
1	+ Sig
2	- Sig
3	+ Ex
4	+ ID
5*	- Ex
6*	- ID
7*	Shield

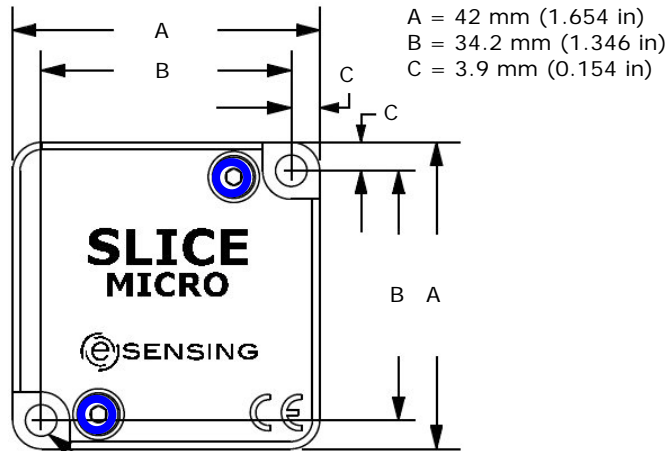
\* Pins 5, 6 and 7 are common



# SLICE MICRO Mechanical Specifications



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Ø4.3 mm (0.169 in) mounting thru holes x2  
 Accepts 6-32 (loose fit); M4 (free fit); 8-32 (tight fit)

	Weight	Height mm (inch)
Lid	~9 grams	2 (0.079)
Accel	~33 grams	9 (0.354)
ARS	~33 grams	9 (0.354)
Bridge	~25 grams	7 (0.276)
Base	~28 grams	8 (0.314)

Total Stack Height mm (inch)	Assembly Screw Length (FH)	Mounting Screw Length (min) (BH or SHC)	
	M3*	M4**	6-32***/8-32**
17 (0.67)	16 mm	22 mm	7/8"
24 (0.95)	20 mm	30 mm	1-1/4"
26 (1.02)	25 mm	35 mm	1-1/4"
31 (1.22)	30 mm	35 mm	1-1/2"
33 (1.30)	30 mm	40 mm	1-1/2"
35 (1.38)	35 mm	40 mm	1-5/8"
38 (1.50)	35 mm	45 mm	1-3/4"
40 (1.57)	40 mm	45 mm	1-3/4"
42 (1.65)	40 mm	50 mm	2"
45 (1.77)	45 mm	50 mm	2"
47 (1.85)	45 mm	55 mm	2-1/4"
49 (1.93)	45 mm	55 mm	2-1/4"
52 (2.05)	50 mm	60 mm	2-1/4"
54 (2.13)	50 mm	60 mm	2-1/2"
56 (2.21)	55 mm	70 mm	2-1/2"
59 (2.32)	55 mm	70 mm	2-1/2"
61 (2.40)	60 mm	70 mm	3"
63 (2.48)	60 mm	70 mm	3"
66 (2.60)	65 mm	70 mm	3"
68 (2.68)	65 mm	80 mm	3"
70 (2.76)	70 mm	80 mm	3"
73 (2.87)	70 mm	80 mm	3"
75 (2.95)	75 mm	80 mm	3-1/2"
77 (3.03)	75 mm	90 mm	3-1/2"
80 (3.15)	80 mm	90 mm	3-1/2"
82 (3.23)	80 mm	90 mm	3-1/2"
84 (3.31)	80 mm	90 mm	3-1/2"

Specifications may be revised without notice.

Torque specs: \* 5.2 in-lb (0.59 Nm); \*\* 19.8 in-lb (2.24 Nm); \*\*\* 9.6 in-lb (1.1 Nm)