SLICE Mini Distributor

Use and Operation

The SLICE Mini Distributor allows the user to connect power, communications and control signals to multiple SLICE MICRO/NANO chains simultaneously. It converts the SLICE USB communication on each chain to a single Ethernet connection while providing easy input for local power and control signals on the front panel.

It supports:

- Up to 4 SLICE MICRO/NANO chains of 3 stacks each.
- Primary system input power via the SYS (system) input connector; additional power available on the PWR connector.
- 10/100 Base T/TX Ethernet communication
- Energy storage if primary power fails will back-up EVENT, START, and STATUS signals for 5 seconds.

SLICE CHAIN connectors (x4)
- Provides power, control and communication to SLICE chains
- Each connector supports a single SLICE chain with up to 3 SLICE stacks each

SYS
- Supports remote ON, status output, start record and event signals
- Supports Ethernet communication
- Supports 9-15 VDC main power input

AUX
- Supports status output, start and event input signals

PWR
- Back-up/battery input connector (9-15 VDC)

ON pushbutton switch
- Cycles power ON/OFF
- Momentary; press and hold for 2 seconds

PWR/STS LED
- See table on page 2

(not operational)

Using the SYS Port
The most common operating mode is to connect the SYS port on the SLICE Mini Distributor to any one of the four System ports available on a TDAS PLUS Mini Distributor. Since the SYS port contains all the necessary power, communication and control signals to operate the SLICE chains, it is the only connection required. (Note: Each TDAS PLUS Mini Distributor System port supports a maximum of 67.5 W.)

Using the AUX Port
The AUX port contains additional control and status signals for local control. These signals parallel or complement similar signals on the SYS connector. (See the pin assignments below for additional details.)

Using the PWR Input
The SLICE Mini Distributor does not contain an internal power source but has connector inputs for primary (SYS port) and back-up (PWR) input power. If SYS input power fails, the system will transition to the local power/battery back-up via the PWR connector. (This input is internally diode-OR'd with the SYS power input.) A typical input power requirement is 10 W for a stack of 1 SLICE BASE + 6 SLICE BRIDGEs. See the SLICE User's Manual for more information on SLICE power requirements.

Using the ON Switch
The pushbutton switch will initialize the system when sufficient power is attached via the SYS or PWR connector. Press and hold the switch for 2 seconds to start or stop the system. The PWR/STS light will begin to blink when the system is initializing. Total time from ON initiation to system ready is typically between 1-2 minutes.

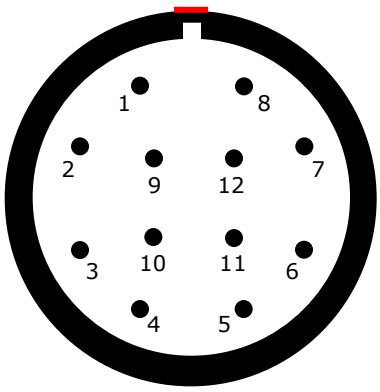
PWR/STS LED
This LED is green, red or blue.

	Action
	Power input detected; unit OFF
	Initializing
	Unit ON
	Input power is overvoltage –or– overcurrent condition is present (cycle power to reset)

Critical Signal Back-up
The SLICE Mini Distributor contains super-cap energy storage to support critical test signals should external (main or back-up) power fail during data collection. Status, start record and event signals are enabled for ~5 seconds in the event of power loss. (Note: Main output power and communications are *not* supported.) When connected to sufficient external power, the unit will be ready to support these critical signals after a few minutes.

Connector Information

12-pin SLICE CHAIN connector
(EEG.2B.312.CLL)

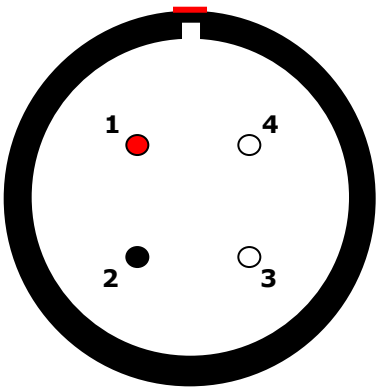


(panel view)

Suggested cable connector P/N:
FGG.2B.312.CLADxx

Pin	Use	Function
1	I/O	/ON Input voltage; normally high Connected to GND to turn ON
2	I/O	/START +5 VDC via 10K; normally high Connected to GND to START
3	I/O	/EVENT +5 VDC via 2K; normally high Connected to GND to EVENT
4	INP	STATUS +5 VDC via 10K ref. to GND High when collecting data
5	PWR	+SLICE_PWR output to chain (+12 VDC)
6	PWR	+SLICE_PWR output to chain (+12 VDC)
7	GND	System ground
8	GND	System ground
9	USB 5V	USB power +5 VDC
10	I/O	USB_DP (data +)
11	I/O	USB_DM (data -)
12	GND	System ground

4-pin PWR connector
(EEG.2B.304.CLL)

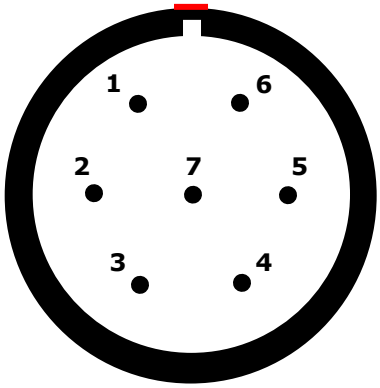


(panel view)

Suggested cable connector P/N:
FGG.2B.304.CLADxx

Pin	Use	Function
1	PWR	Back-up or battery input +9 to +15 VDC
2	GND	System ground
3	GND	System ground
4	GND	System ground

7-pin AUX connector
(EEG.2B.307.CLL)

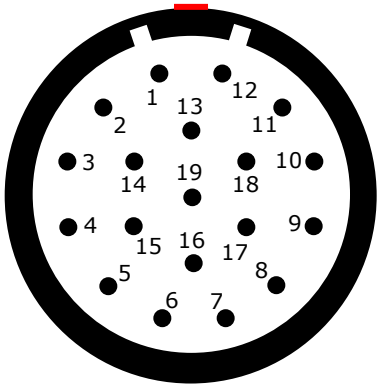


(panel view)

Suggested cable connector P/N:
FGG.2B.307.CLADxx

Pin	Use	Function
1	INP	+Start record, 0-5 V signal to pin 2
2	GND	Ground
3	N/C	No connection
4	GND	Ground
5	OUT	Status output, 0 V/+5 V with respect to pin 4
6	INP	+Event, bidirectional, isolated, contact closure to pin 7
7	INP	-Event, bidirectional, isolated, contact closure to pin 6

19-pin SYS connector
(EEA.2B.319.CLL)



(panel view)

Suggested cable connector P/N:
FGA.2B.319.CLADxx

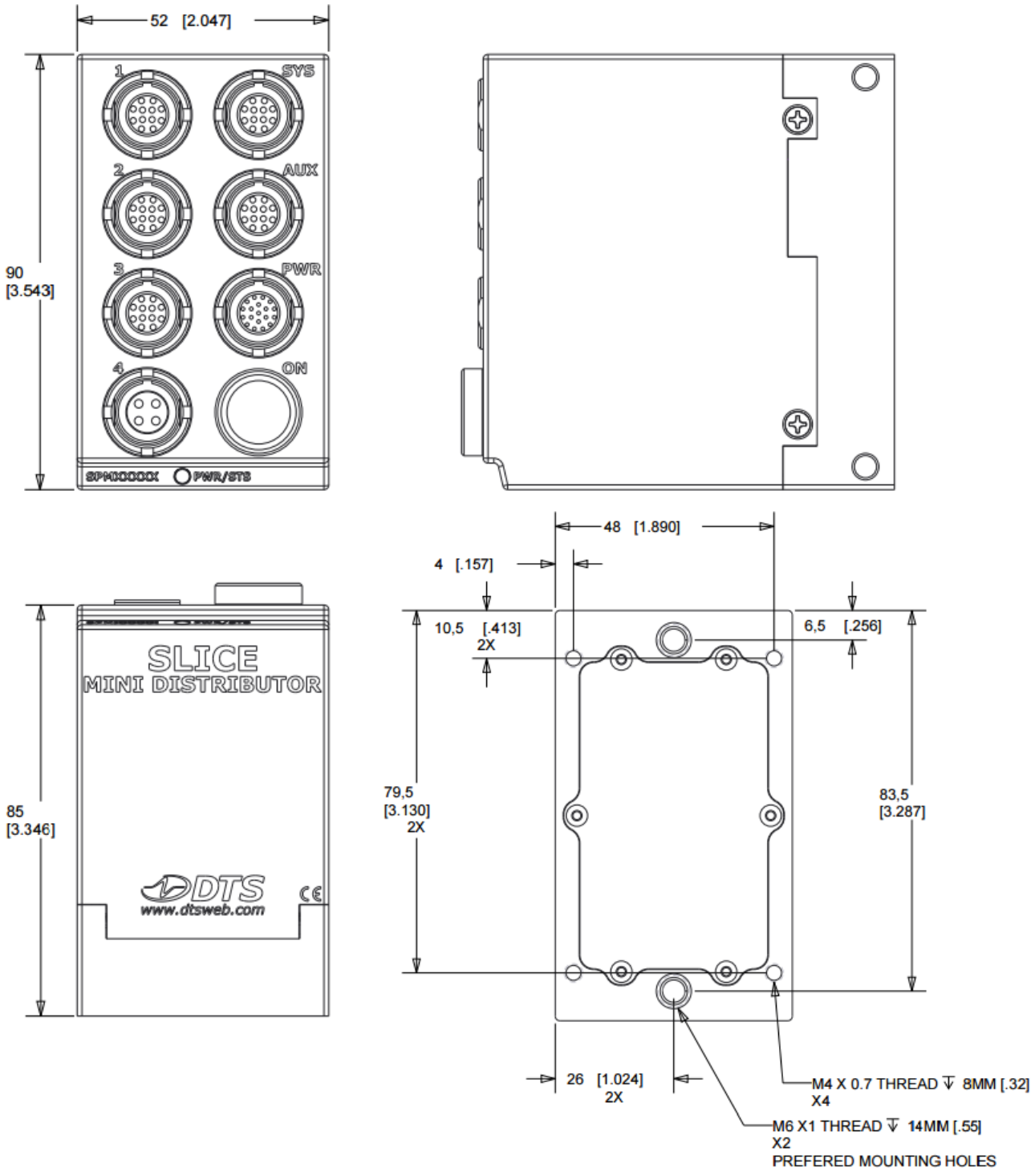
Pin	Function
1	/ON, CC input to ground
2	No connection
3	No connection
4	Start record input; +5 V = start
5	No connection
6	No connection
7	Record status output; +5 V
8	Main power; +9 to +15 VDC
9	Main power; +9 to +15 VDC
10	ON status output; +5 V
11	Ethernet Tx- (10/100BaseT/Tx)
12	Ethernet Tx+ (10/100BaseT/Tx)
13	Ethernet Rx- (10/100BaseT/Tx)
14	Ethernet Rx+ (10/100BaseT/Tx)
15	+Event, bidirectional, isolated, contact closure to pin 19
16	Ground
17	Ground
18	Ground
19	-Event, bidirectional, isolated, contact closure to pin 15

Accessories/support equipment:

10500-00050: TDAS PLUS Mini Distributor (18-36 V input range, Crashlink)
10500-00070: TDAS PLUS Mini Distributor (18-36 V input range, Amphenol)
10500-00080: TDAS PLUS Mini Distributor (36-60 V input range, Amphenol)
10500-00130: TDAS PLUS Mini Distributor (10-36 V input range, Amphenol)
10500-00131: TDAS PLUS Mini Distributor (15-36 V input range, LEMO)
13000-3057x: Cable, Mini Distributor to SLICE On-board Distributor
13000-3043x: Cable, SLICE UI/EI NANO chain
13000-3063x: Cable, SLICE UI/EI MICRO chain
10200-00050: Cable, TDAS status, CONTROL port to green LED (5 m)
10400-00060: Power supply; 15 VDC, 4 A (90-240 VAC in, LEMO term) (PS-05)
10600-0016x: Cable, power, POWER port to pigtail termination (RPX)
10700-0009x: Cable, CONTROL port event (DVB)

(x = multiple lengths available)

Mechanical Specifications



Units in mm (inches)

Torque spec: 84 in-lb (M6)

Revision History

Rev	Date	By	Description
2	4 Apr 2016	EK	Added mechanical specs. Updated support info in footer.
1	9 Sept 2015	EK	Updated main and chain voltages. Updated Accessories. Removed SLICE PRO reference.
0	29 Jan 2013	EK	Initial release.