

TECHNICAL REFERENCE MANUAL

IOLITE® V26-1



6.7. ANALOG OUTPUT

The IOLITE AO module comes in the following options:

- IOLITEr-16xAO (rack version), IOLITE-16xAO (modular version)
- IOLITE-1xAO (modular version)

6.7.1. IOLITE 16xAO

IOLITE 16xAO is a 16-channel analog voltage output module with terminal block input connectors. The modules IOLITEr-16xAO and IOLITE-16xAO can output voltage in the range of and is a perfect tool for signal conditioning.



IOLITEr-16xAO



IOLITE-16xAO

6.7.1.1. IOLITE 16xAO: Specifications

Analog Output	
Output types	Voltage
Number of channels	16
Output connector	Terminal block
DAC Resolution	16-bit
Update Rate	20000 S/s (see 1)
Full Scale Output Range	±10 V (see 2)
Accuracy (typ.)	0.05 % ±1.5 mV (0 to 20 mA load)
Temperature gain drift (typ.)	±10 ppm/K
Temperature offset drift (typ.)	±5 uV/K
Output impedance	< 1 Ω DC
Minimal load resistance	500 Ω load @ 10 V output
Settling time (0.05 % of set value)	140 μs
Max slew rate	0.20 V/μs
Max capacitive load (2 % overshoot)	10 nF
Current limit	20 mA per channel (160 mA per module)
Output protection	Short circuit protected
Overvoltage protection	AO to iGND: 11 V continuous, 100 Vpeak (10 msec)
Isolation	200 Vdc or 150 Vacrms channel to ground
Additional Specifications	
Output connectors	Terminal block, 2 pole, 4 x 9 pole OMNIMATE SL 2.50 / BLF 2.50/180
Power supply	9 - 48 V DC
Power out	max. 2 A
Power consumption	Typ. 4.5 W, Max. 8 W
Weight	210 g
Slice Dimensions	128.4 x 115.4 x 30.1 mm

1) Only asynchronous mode is supported in Dewesoft, function generator is not supported

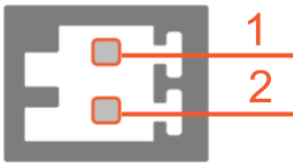
2) Only DC output voltage, function generator not supported

6.7.1.2. IOLITE 16xAO: Terminal block Connectors



IOLITEr-16xAO Front

6.7.1.2.1. IOLITE 16xAO: T2A2f Power Out Connector: Pinout



PWR OUT connector: pin-out (TBLOCK male)

Pin	Name	Description
1	+PWR OUT	V _{supply} output
2	-PWR OUT	Non-isolated GND

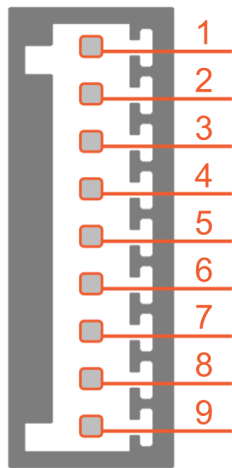
Connector (on the device): OMNIMATE Signal SL 2.50/02/90G
Mating connector (for the cable): OMNIMATE Signal BLF 2.50/02/180



Caution

PWR OUT pins are intended to supply external loads. Do not connect the external power supply to the PWR OUT pins! It can damage the equipment.
Current limit of PWR OUT source is 2 A per module.
Current limit of the IOLITE system is 16 A!

6.7.1.2.2. IOLITE 16xAO: T2A9f connector: Pinout



AO connector: pin-out (TBLOCK male)

Pin	Name	Description
1	AO 1	Analog out 1
2	iGND	Ground
3	AO 2	Analog out 2
4	iGND	Ground
5	AO 3	Analog out 3
6	iGND	Ground
7	AO 4	Analog out 4
8	iGND	Ground
9	iGND	Ground

Connector (on the device): OMNIMATE Signal SL 2.50/09/90G 3.2SN BK BX
Mating connector (for the cable): OMNIMATE Signal BLF 2.50/09/180

6.7.2. IOLITEcw 1xAO

Low-latency, high precision analog output with excellent dynamic performance. Under 100 microseconds of etherCAT-to-analog delay possible(on a real-time EtherCAT controller).



IOLITEcw 1xAO