

Technical Note

Analog Output modules ADAM-4024 for optris PI/Xi cameras

The industrial process interface (PIF) device supports maximum 3 analog outputs (AO). For applications where more outputs are required Optris recommends the 4-channel analog output module **ADAM-4024** from the company Advantech. The modules are cascable up to the maximum number of 100 modules.

Easy configuration with Optris ADAM IPC Tool software

For the communication the ADAM-4024 module uses the RS485 standard. For an easy configuration Optris provides the ADAM IPC Tool as an interface between PIX Connect software and the Advantech ADAM module device. This tool works via interprocess communication (IPC) with the PIX Connect software and via serial communication over the RS485/422 - USB Adapter to the single ADAM modules. The ADAM module converts temperature values of given measure areas into output signals (0/4-20 mA or 0-10 V). The configuration is explained in the manual in detail.

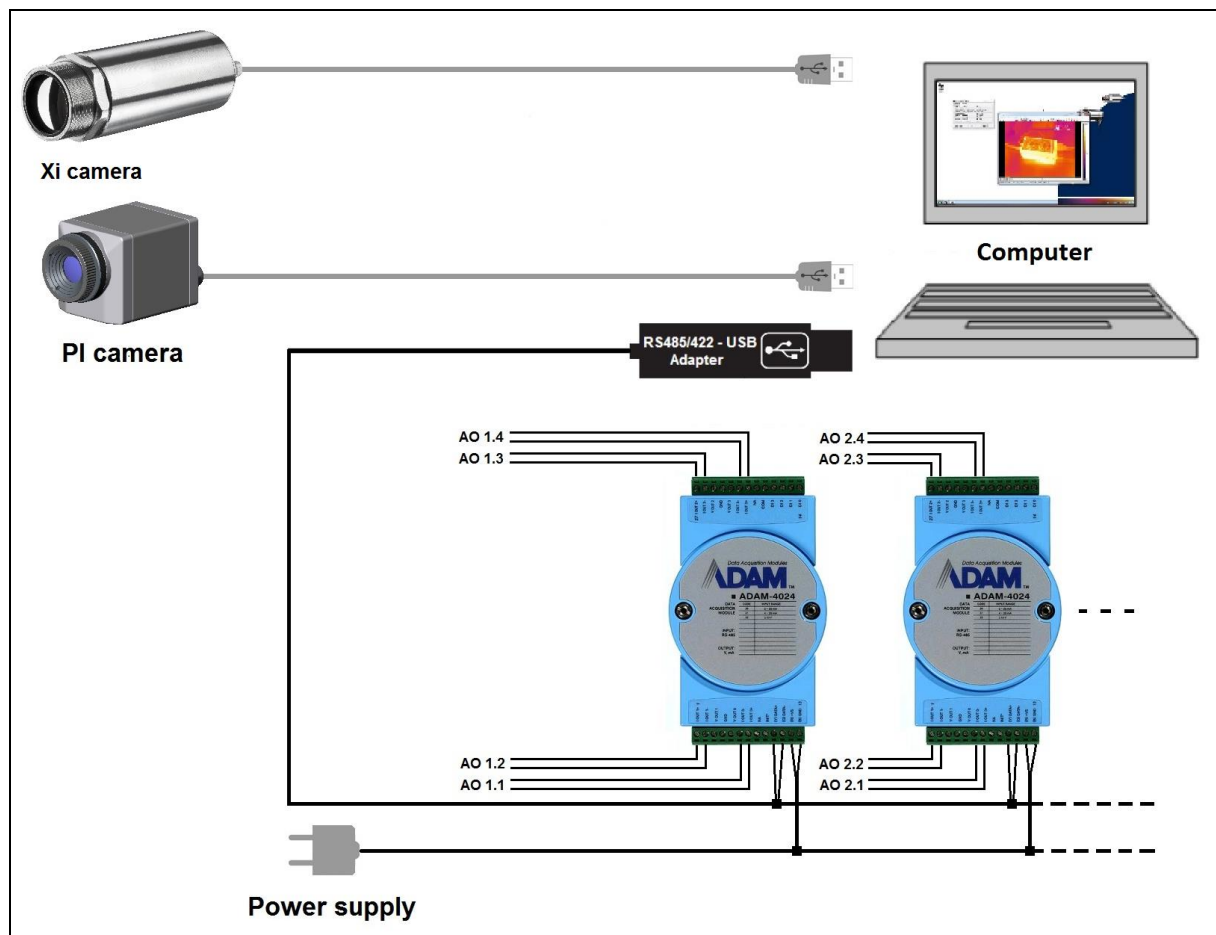


Figure 1: System overview with two ADAM-4024 modules (8 x 4-20 mA outputs (AO 1.1...AO 2.4))

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Hardware and Software Recommendation

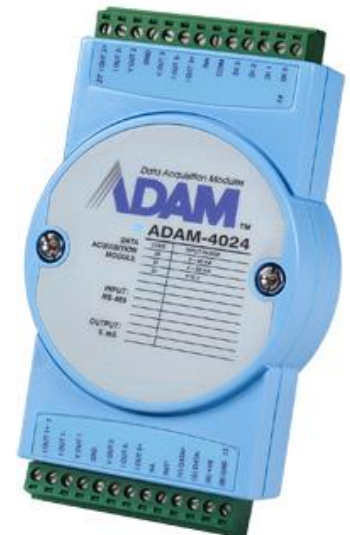
- Computer with OS Windows 10 or higher
- Optris PI/Xi Camera and PIX Connect software version 2.9.2147.0 or higher
- ADAM IPC Tool (included on the PIX Connect USB stick)
- RS485/422 - USB Adapter (Part No.: ACCTRS485USBKV2)
- Advantech ADAM-4024-B1E Module (Price: approx. 270 €)
- Advantech AdamApax.NET Utility (included in ADAM module or on supplier website)

Supplier Link

http://www.advantech.com/products/gf-5vtd/adam-4024/mod_5e18f39b-38ef-4033-98f9-1ede917139ee

Technical Data:

Product number	ADAM-4024-B1E
Power Supply	
Power Requirement	10~30 VDC
Analog Output	
Channels	4
Voltage Range	±10 V
Current Output	0~20 mA (Differential), 4~20mA (Differential)
General	
Watchdog Timer	System (1.6 second) & Communication
Connector	2 x plug-in terminal block (#14~28 AWG)
Temperature (Operating)	-10~70 °C (-13~158°F)
Humidity	5~95 %RH
Temperature (Storage)	-25~85 °C (-13~185 °F)
Interface	RS-485
Isolation Protection	3000 VDC
Communication Protocol	ASCII command & Modbus/RTU
Communication Speed	Serial: From 1,200 to 115.2 k
Comm. Distance	Serial: 1.2 km
Data Flow Control	Yes
Digital Input	
Channels	4
Input Voltage	Logic level 0: 1 VDC max. Logic level 1: 10~30 VDC



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