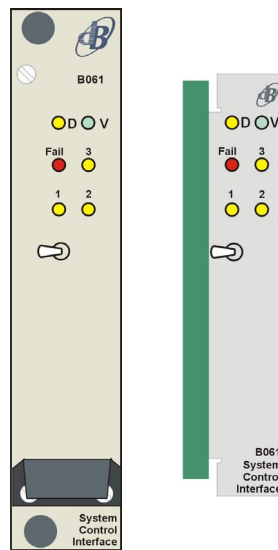


B061

SYSTEM CONTROL INTERFACE



Handbook

Version 1.0



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dB Broadcast Ltd
Registered Office:
Kestrel House
Sedgeway Business Park
Witchford
Ely
Cambridgeshire
CB6 2HY
UK
Tel: +44 (0) 1353 661117
Fax: +44 (0) 1353 665617
Email: sales@dbbroadcast.co.uk
Web: www.dbbroadcast.co.uk
Registered in England No. 2709677

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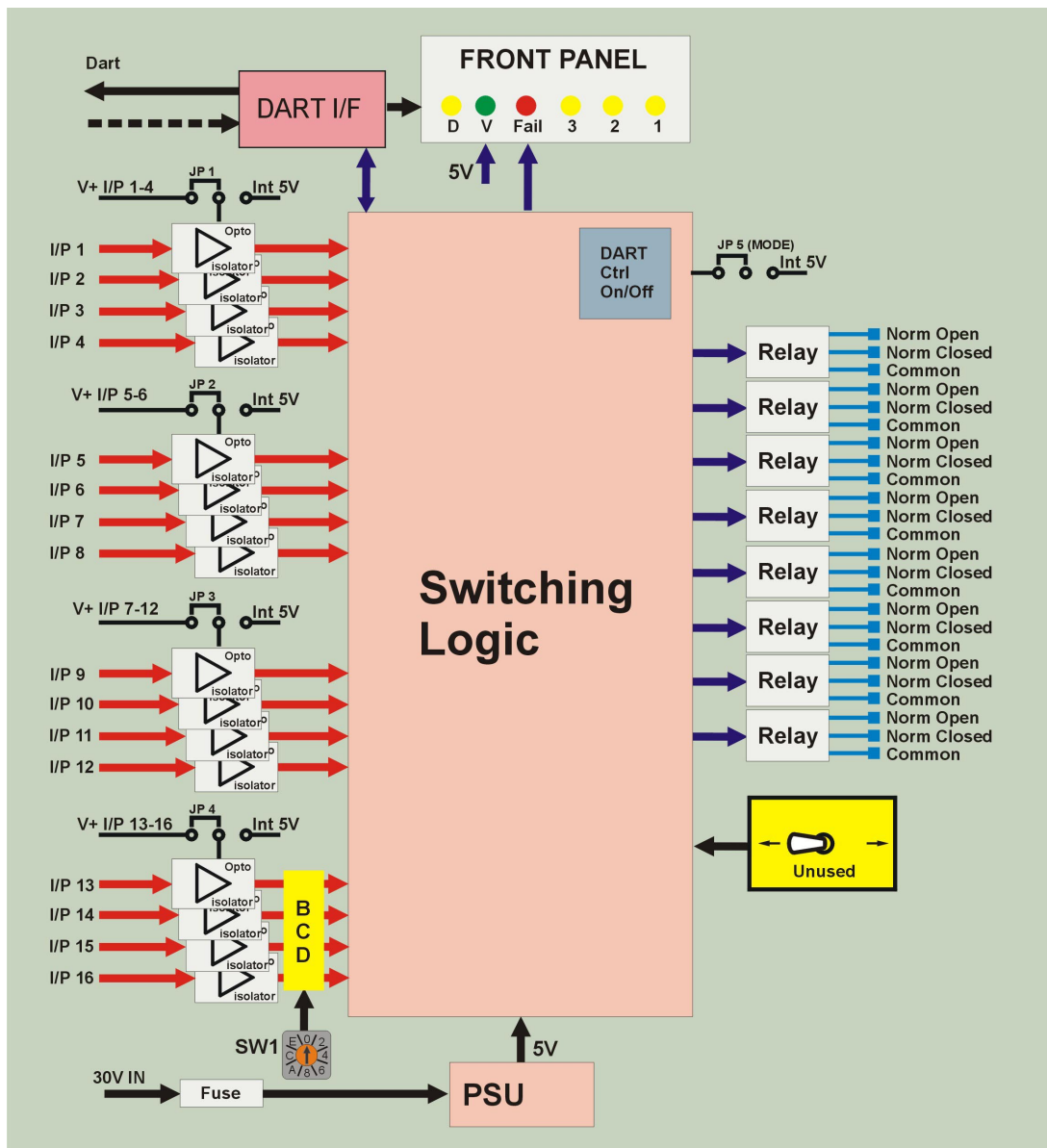
Software covered Refer to original order for software variants

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Introduction

The B061 System Control Interface is fully compatible with the Hawkeye range of modules and provides enhanced control as an interface or as a stand-alone controller. It has 16 opto-coupled inputs and 8 relay outputs, good to fail input timers, and input-to-output logic mapping. This module is normally fitted with customer specified software, but typically selected conditions on the input are used to determine the state of the output relays.



The B061 System Control Interface

It fits in either 1U or 3U Avitel or Vistek frames and all power is derived from the frame PSU. A passive rear connector is required for all signal interconnections (see Installation chapter).

It has a front panel switch (available for a customer specified purpose such as local/remote, auto/manual or other application) and 6 LEDs of which three are used to show Power, DART and System status, but the others (labelled 1 and 2) are available for custom applications.

The B061 has a DART* interface for interrogation and control. This provides a simple way of obtaining information from equipment with GPI outputs and feeding it into the DARTnet system, used by Vistek and Avitel. As such it is compatible with Vistek and Avitel frames.

The presence (or absence) of the B061 can be monitored via DARTnet using Vistek's ViewFind and/or a Vistek V1605 control panel.

If required, the B061 can utilise remnant (set-reset) relays for the output, so that in the event of failure the remnant relay will ensure that the system will come up in the previous state prior to the power going down. dB Broadcast also offers the option of customised software for the B061 to match a customer's particular application.

Main features

- System control interface for Vistek frames and Avitel frames
- 16 opto isolated inputs and 8 relay outputs
- Options for internal or external opto-isolator pull up voltage
- DART module presence/absence monitoring and optional remote control
- Front panel LED's show Dart status, PSU status and system fault – two LEDs available for custom functions
- Front panel toggle switch available (currently unassigned)

Typical applications and custom features

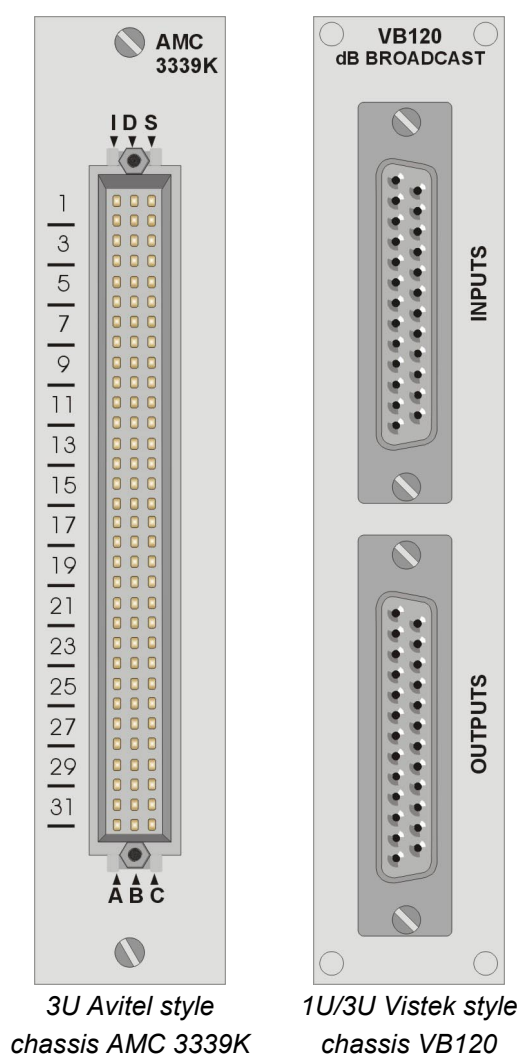
- Interface between manual control panel and switch module (such as B043)
- Three-way control system switching for computer monitoring with customer specified priorities and revertives.
- Customer specified failover hysteresis – (control switching delay after alarm trigger and after alarm clear down)
- BCD switch coding to expand available inputs or outputs – requires compatible controlled device(s)

Installation

Selecting rear connectors

The available rear connectors and the frames/signal I/O used are as follows:

| Type | Frame | Connectors | Signal types |
|------------------|--------------------|----------------------|--------------|
| AMC 3339K | 1U/3U Avitel | DIN41614 | |
| VB120 | 1U(F010)/3U Vistek | 2 X 25 way 'D' types | |



Rear panel connections (AMC3339K - DIN41614)

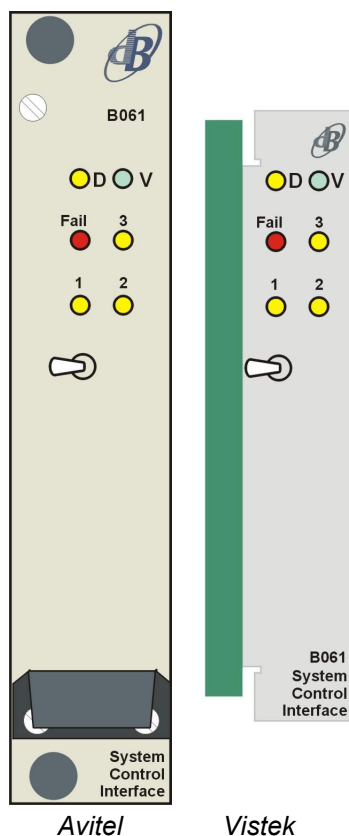
| Pin No | A | B | C |
|--------|-----------|----------------|-----------------|
| 1 | 0V Screen | N/C | N/C |
| 2 | 0V Screen | N/C | N/C |
| 3 | 0V Screen | Input-01 | Input-02 |
| 4 | 0V Screen | Input-03 | Input-04 |
| 5 | 0V Screen | V+ Inputs 1-4 | V+ Inputs 5-8 |
| 6 | 0V Screen | Input-05 | Input-06 |
| 7 | 0V Screen | Input-07 | Input-08 |
| 8 | 0V Screen | Input-09 | Input-10 |
| 9 | 0V Screen | Input-11 | Input-12 |
| 10 | 0V Screen | V+ Inputs 9-12 | V+ Inputs 13-16 |
| 11 | 0V Screen | Input-13 | Input-14 |
| 12 | 0V Screen | Input-15 | Input-16 |
| 13 | 0V Screen | 0V | 0V |
| 14 | 0V Screen | N/C | N/C |
| 15 | 0V Screen | 0V | OUT-8 NO |
| 16 | 0V Screen | 0V | OUT-8 NC |
| 17 | 0V Screen | N/C | N/C |
| 18 | 0V Screen | N/C | N/C |
| 19 | 0V Screen | N/C | N/C |
| 20 | 0V Screen | Out-7 NO | Out-8 Common |
| 21 | 0V Screen | Out-7 Common | Out-7 NC |
| 22 | 0V Screen | Out-6 NC | Out-6 NO |
| 23 | 0V Screen | Out-5 NO | Out-6 Common |
| 24 | 0V Screen | Out-5 Common | Out-5 NC |
| 25 | 0V Screen | Out-4 NC | Out-4 NO |
| 26 | 0V Screen | Out-3 NO | Out-4 Common |
| 27 | 0V Screen | Out-3 Common | Out-3 NC |
| 28 | 0V Screen | Out-2 NC | Out-2 NO |
| 29 | 0V Screen | Out-1 NO | Out-2 Common |
| 30 | 0V Screen | Out-1 Common | Out-1 NC |
| 31 | 0V Screen | N/C | N/C |
| 32 | 0V Screen | N/C | N/C |

Rear panel connections (VB120 – 2 x 25 way 'D' types)

| OUTPUTS - 25 way D type | | INPUTS - 25 way D type | |
|-------------------------|-------------------|------------------------|--------------------|
| PIN | OUTPUTS 1-8 | PIN | INPUTS 1-8 / RS232 |
| 1 | Out-8 NO | 1 | Input-01 |
| 2 | Out-8 Common | 2 | Input-03 |
| 3 | Out-7 NC | 3 | 0V Ground |
| 4 | Out-6 NO | 4 | 0V Ground |
| 5 | Out-6 Common | 5 | Input-05 |
| 6 | Out-5 NC | 6 | Input-07 |
| 7 | Out-4 NO | 7 | Input-09 |
| 8 | Out-4 Common | 8 | Input-11 |
| 9 | Out-3 NC | 9 | 0V Ground |
| 10 | Out-2 NO | 10 | 0V Ground |
| 11 | Out-2 Common | 11 | Input-13 |
| 12 | Out-1 NC | 12 | Input-15 |
| 13 | +Ve Vistek Supply | 13 | +Ve Vistek Supply |
| 14 | Out-8 NC | 14 | Input-02 |
| 15 | Out-7 NO | 15 | Input-04 |
| 16 | Out-7 Common | 16 | V+ Inputs 1-4 |
| 17 | Out-6 NC | 17 | V+ Inputs 5-8 |
| 18 | Out-5 NO | 18 | Input-06 |
| 19 | Out-5 Common | 19 | Input-08 |
| 20 | Out-4 NC | 20 | Input-10 |
| 21 | Out-3 NO | 21 | Input-12 |
| 22 | Out-3 Common | 22 | V+ Inputs 9-12 |
| 23 | Out-2 NC | 23 | V+ Inputs 13-16 |
| 24 | Out-1 NO | 24 | Input-14 |
| 25 | Out-1 Common | 25 | Input-16 |

Configuration and operation

Front panel control



LED Indicators:

D Yellow – Flashing indicates DART monitoring/control is active

V Green – Indicates DC power present & OK

Fail Red – System Fault

3 Yellow – Not assigned

1 Yellow – Not assigned

2 Yellow – Not assigned

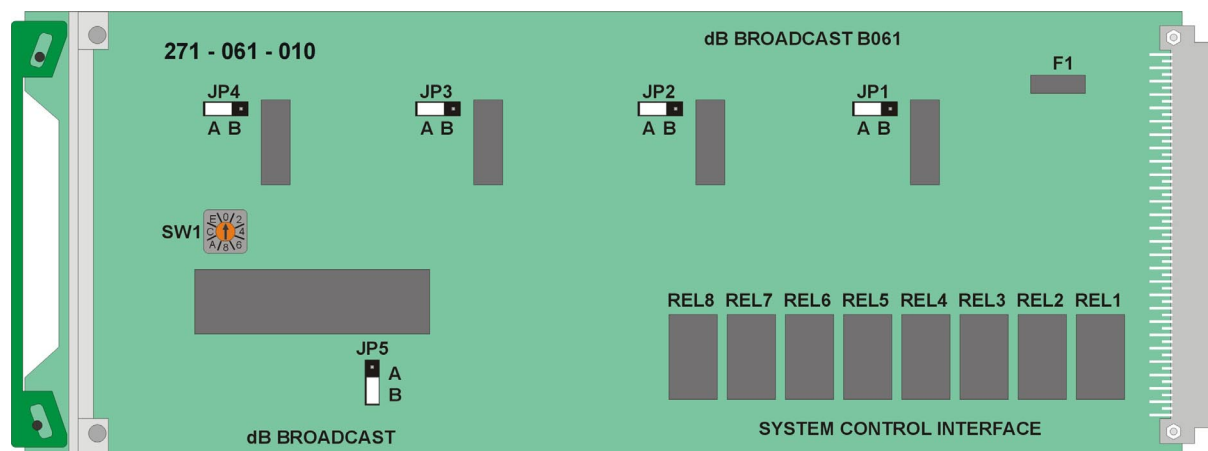
Toggle Switches (3 position):

Not assigned

Note: The switch is not fitted to all versions.

The operation of the 3 yellow LEDs and switch are customer application specific; in most applications they are unassigned.

Configuration



The B061 System Control Interface showing jumper links

Link and switch functions

| Jumper No | Jumpers |
|-----------|--|
| JP1 | Position A: Inputs 1-4 external pull-up Position B: Inputs 1-4 internal pull-up to 5V |
| JP2 | Position A: Inputs 5-8 external pull-up Position B: Inputs 5-8 internal pull-up to 5V |
| JP3 | Position A: Inputs 9-12 external pull-up Position B: Inputs 9-12 internal pull-up to 5V |
| JP4 | Position A: Inputs 13-16 external pull-up Position B: Inputs 13-16 internal pull-up to 5V |
| JP5 | Position A: DART control disabled Position B: DART control enabled (DART status monitoring is always enabled) |
| SW1 | Optional BCD switch fitted as an alternative to using external inputs 13-16. (For specific customer software option) |

Sample problems and their solutions

The unit does not appear to operate correctly

Check that the green 'V' LED is illuminated and that the module is seated correctly in the frame.

Check that the appropriate rear connector has been wired correctly.

Check that any required external operating voltages are present and that jumpers JP1 to JP4 are set appropriately.

There is no DART presence/absence monitoring

Ensure that the frame has been fitted with the DART control module. In the Vistek 3RU frame this is the V606 module.

Ordering information

B061 types

Different frames require different mechanical fittings. All module functionality is identical.

| | |
|---------------|----------------------------|
| B061 | Version for Avitel Chassis |
| B061/V | Version for Vistek Chassis |

3U Avitel configuration

| | |
|---------------------|--|
| ERF 3390K-P1 | 3U Chassis, 14 Module slots, 1 PSU slot, (no PSUs included) |
| ERF 3390K-P2 | 3U Chassis, 12 Module slots, 2 PSU slots, (no PSUs included) |
| MPS 3392L | PSU for above chassis |
| AMC 3339K | DIN41614 Rear connector module |

1U Avitel configuration

| | |
|------------------|--|
| ERF 1131K | 1U Chassis, 3 Module slots, PSU mounted externally, (no PSUs included) |
| MPS 0330 | PSU for above chassis (requires mounting holsters) |
| ECA 0331 | Mounting holsters for PSU MPS 0330 |
| AMC 3339K | DIN41614 Rear connector module |

3U Vistek configuration

| | |
|----------------------|--|
| V1606-dB-2PSU | 3U Chassis, 14 Module slots, 2 PSU slots (2 PSUs included) |
| V1606-dB-48V | 3U Chassis, 14 Module slots, 2 48V PSU slots (2 48V PSUs included) |
| VB120 | 2 x 25 way 'D' type rear connector module |

1U Vistek configuration (dual PSU)

| | |
|--------------|---|
| F010 | 1U Chassis, 2 Module slots, 2 PSUs (PSUs included) |
| VB120 | 2 x 25 way 'D' type rear connector module |