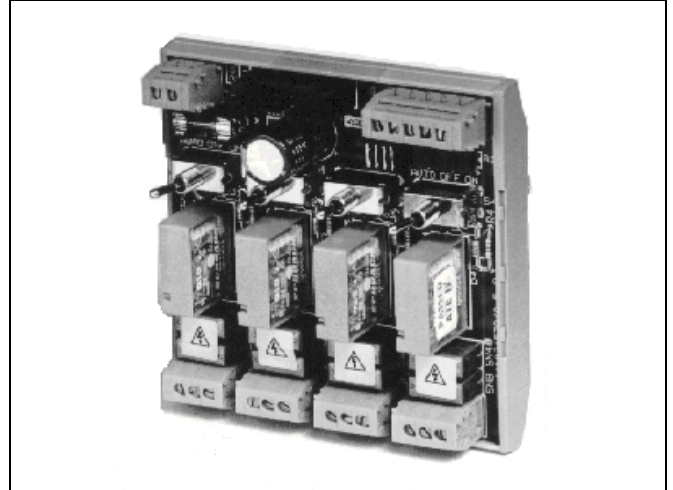


DIGITAL OUTPUT MODULE

The digital output module is designed for use with Satchwell controllers having one or more 0 to 10Vdc outputs. The module allows the 0 to 10Vdc output(s) to drive Voltage free Single Pole Changeover (SPCO) contacts that are mains rated. The contacts switch on at an input of greater than 5Vdc and off at an input of less than 0.2Vdc. Each module has four relay output channels of which some or all may be used depending on the controller(s) used.

Each relay channel has LED indication of the output status and an override switch giving "HAND, OFF and AUTO".

The module is DIN rail mounted and easily wired.



FEATURES

- DIN rail mounting
- Enables controller 0 to 10Vdc outputs to be used to switch mains relay contacts
- LED indication of module output status
- 'HAND' / 'OFF' / 'AUTO' override switch for each channel

SPECIFICATION

Type:	579-1-360 - Digital output module (4 channel)
Power Supply:	24Vac (+/-10%), 50Hz (-10%) to 60Hz (+10%) Supplied by a transformer conforming to EN 61558 - see DS 25.00/25.001
Consumption:	4VA max at 24Vac 50Hz
Associated Controllers:	IAC, MMC, CZT, KMC (BAS can also be used but see DS 13.55/13.355 for full fitting and wiring options)
Ambient Temperature Limits:	Storage/Transit: -10 to 55°C Operating: 0 to +50°C
Relative Humidity Limits:	Storage/Transit: 5 to 95% rh (non condensing) Operating: 10 to 90% rh (non condensing)

OUTPUT

One voltage free SPCO contact per channel, 250Vac (3A resistive, 1A inductive). Each channel has a built in snubber network with a maximum leakage current of 2.5mA @ 240Vac.

Adjacent relay output channels (contacts) should not switch different phases.

It is permitted to connect 24Vac and 240Vac to adjacent channels if required.

One manual override per channel giving 'HAND', 'OFF' and 'AUTO' positions.

INPUT

One 0 to 10Vdc input for each channel

< 0.2V = OFF

> 5V = ON

CONSTRUCTION

Case: PCB mounted on plastic moulding. All modules should be panel mounted. **For safety reasons the digital output module should be mounted in a position to which access is restricted to authorised persons only.**

Mounting: The modules are designed to be DIN rail mounted, the rail should be to DIN 46277 Part 3 - EN 50022/BS 5584.

Protection Class: IP20.

Terminals: Screw terminal connection to the controller. Hard wire plant wiring to screw terminal blocks which accept 0.5 to 1.3mm² conductor.

IDC plug and socket.

Indication: LED indication of channel status .

Overrides: 1 switch per channel giving 'HAND', 'OFF' and 'AUTO' positions

INSTALLATION

LOCATION

The module should be mounted in a panel in a position that is reasonably clean and free from damp and condensation. Ensure that the maximum ambient temperature limit is not exceeded.

Installation should be carried out by a competent engineer or an approved TAC agent. Do not reinstate power to the controller/module until commissioning checks have been completed.

WIRING PRECAUTIONS

All signal wiring to the module input terminals must be twisted pair screened wiring with the screens connected to the controller earth terminal only.

The controller must have a verified good earth. It is recommended that wiring is loomed and identified to aid servicing and extensions to the system. Signal wiring for module inputs should be segregated from mains wiring.

Mains isolators must conform to EN 60335-1.

24Vac devices must be supplied by a transformer conforming to EN 61558 - see DS 25.00/25.001.

DO NOT SWITCH ON THE POWER SUPPLY UNTIL THE COMMISSIONING PROCEDURES HAVE BEEN CARRIED OUT.

MAINS VOLTAGES MAY BE PRESENT ON THE RELAY OUTPUTS ENSURE THAT ALL MAINS VOLTAGES ARE CORRECTLY ISOLATED BEFORE CARRYING OUT ANY WORK ON THE MODULE OR ANY ANCILLARY EQUIPMENT.

COMMISSIONING

1. Check that the module is correctly mounted and wired before switching on the power supply.
2. Check that adjacent relay output channels (contacts) do not switch different phases.
3. Check that mains isolators conform to EN 60335-1.
4. Check that the 24Vac transformer conforms to EN 61558 - see DS 25.00/25.001.
5. Turn on the power supply and check that the correct switching occurs when the channels are overridden ON and OFF using the override switches.
6. Set the override switches to AUTO and vary the controller output signal(s) checking that the relays operate correctly.

MODULE TERMINAL LAYOUT

DIGITAL OUTPUT MODULE TERMINAL LAYOUT

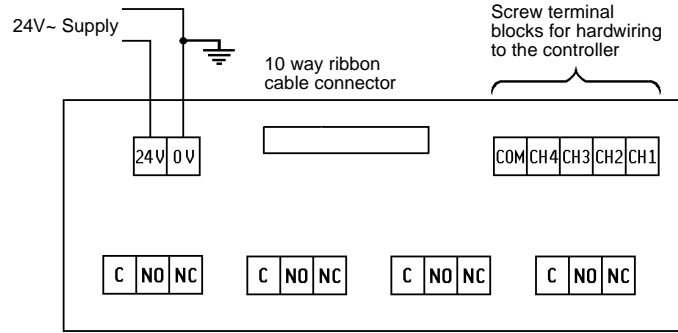


Fig.1

MODULE CONNECTION DIAGRAM

DIGITAL OUTPUT MODULE HARDWIRED TO CONTROLLER ANALOGUE OUTPUTS

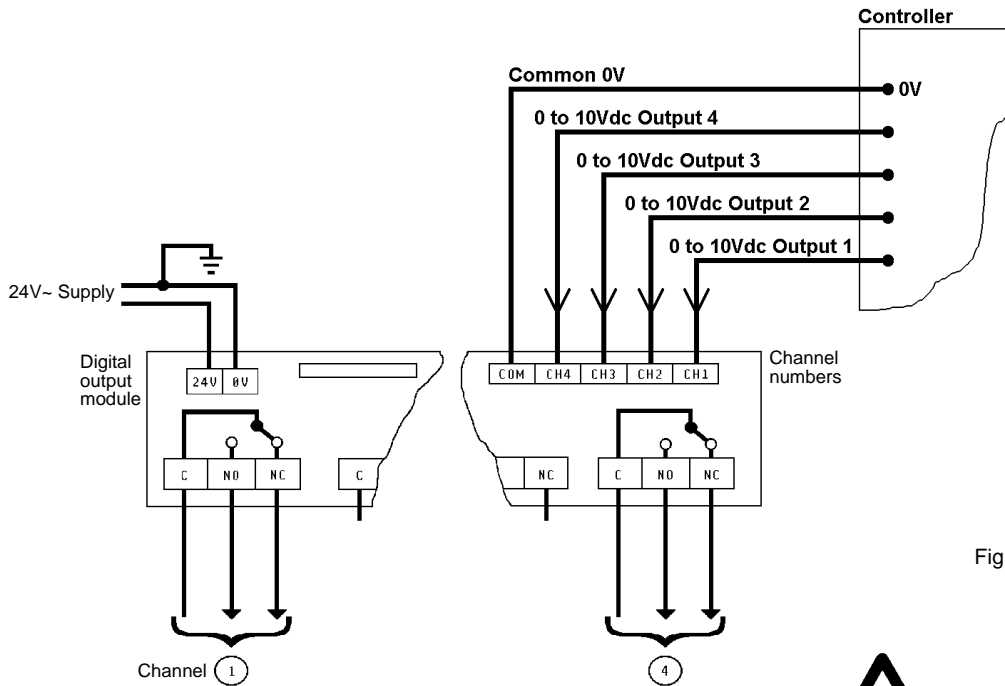


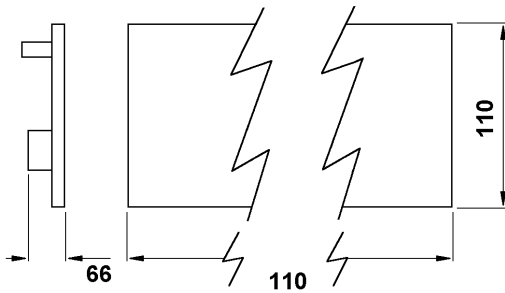
Fig.2

Mains isolators must conform to EN 60335-1.

24Vac devices must be supplied by a transformer conforming to EN 61558 - see DS 25.00/25.001.



DIMENSION DRAWING



Dimensions in mm

Cautions

The Digital Output Module may be at mains potential. On all modules local wiring regulations and usual safety precautions must be observed. Note earthing requirements.

Mains voltages may be present on the relay outputs ensure that all mains voltages are correctly isolated before carrying out any work on the module or any ancillary equipment.

Mains isolators must conform to EN 60335-1.

24 Vac devices must be supplied by a transformer conforming to EN 61558 - see DS 25.00/25.001.

These modules should only be used in conjunction with TAC controllers having a 0 to 10Vdc output.

For safety reasons the digital output module should be mounted in a position to which access is restricted to authorised persons only.

The modules should be installed, commissioned and serviced by a competent engineer or an approved TAC agent.

Wiring Precautions shown ABOVE must be observed.

Do not exceed maximum ambient temperature.

Interference with parts under sealed covers invalidates guarantee.

Design and performance of TAC equipment is subject to continual improvement and therefore liable to alteration without notice.

A periodic system check of the control system is recommended. Please contact your local sales office for details.

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