

FC-SDOL-0424

High-Current Safe Digital Output Module

Four protected high-current 24 V DC safety-related source outputs

PRODUCT SNAPSHOT

BRAND

Honeywell

FAMILY

Honeywell Safety Manager

PART

FC-SDOL-0424

ORIGIN / HS

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PRODUCT OVERVIEW

Four protected high-current 24 V DC safety-related source outputs

1

Provides four high-current safe output channels

2

Supplies as much as one ampere per channel

3

Limits the combined output duty to the documented total

4

Handles inductive loads within the published energy limit

SYSTEM COMPONENTS

Safety Manager I/O chassis

24 V DC external field supply

high-current safety final elements

validated safety application

TECHNICAL NOTE

Calculate the channel and total load currents, isolate both 24 V supplies, record safe-state behavior and prove current sensing and final-element action after installation.

TECHNICAL DATA

PARAMETER	VALUE
Output channels	4
Output type	24 V DC solid-state source
Output protection	Short-circuit proof
Maximum channel current	1 A
Maximum total current	3.6 A
Maximum load inductance	0.5 H
Maximum load capacitance	1 uF
Voltage drop	<1.3 V at 1 A

PARAMETER	VALUE
Off-state current	<0.1 mA
Current-sense voltage drop	<1 V at 1 A
Overload threshold	>10 Ohm
Lamp threshold	>20 Ohm
5 V DC current	15 mA
24 V DC internal current	50 mA
24 V DC external current	15 mA unloaded
Watchdog current	4 mA

ENGINEERING NOTE

Calculate the channel and total load currents, isolate both 24 V supplies, record safe-state behavior and prove current sensing and final-element action after installation.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
621-1100RC	Related industrial automation product	View 621-1100RC page
FC-TSAI-1620M	Related industrial automation product	View FC-TSAI-1620M page
FC-IOTA-R24-51306505-175	Related industrial automation product	View FC-IOTA-R24-51306505-175 page
CC-TDIL11	Related industrial automation product	View CC-TDIL11 page
FTA-T-02	Related industrial automation product	View FTA-T-02 page
621-9940C	Related industrial automation product	View 621-9940C page
C7076A1015	Related industrial automation product	View C7076A1015 page
TC-IAH161	Related industrial automation product	View TC-IAH161 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Large shutdown-solenoid actuation

Provides four high-current safe output channels

Safety contactor control

Supplies as much as one ampere per channel

Inductive trip-load switching

Limits the combined output duty to the documented total

High-current safe-output renewal

Handles inductive loads within the published energy limit

PRODUCT PRECAUTIONS

- 1 Verify the complete FC-SDOL-0424 marking and its assigned four-channel high-current safe-output position before work.
- 2 Place the connected process and control strategy in the approved maintenance state.
- 3 Isolate the applicable cabinet supply and 24 V high-current output field energy before disconnecting conductors.
- 4 Record terminal numbers, channel assignments, polarity, shields and configured ranges before removal.
- 5 Use ESD controls and protect the backplane connector, terminal hardware and coated electronics.
- 6 Confirm the installed Safety Manager I/O chassis and carrier arrangement against the approved project.
- 7 Restore power in a controlled sequence and clear only diagnostics created by the maintenance activity.
- 8 Complete a current-sense and final-element proof test on every active channel and retain the measured result before returning the channel to automatic service.

ENGINEER FAQ

Q1 Does FC-SDOL-0424 match Safety Manager I/O chassis in a Large shutdown-solenoid actuation installation?

Verify the complete FC-SDOL-0424 marking, the documented Honeywell Safety Manager position and the installed Safety Manager I/O chassis before fitting the assembly.

Q2 How should FC-SDOL-0424 be wired when it must provides four high-current safe output channels?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for FC-SDOL-0424; then continuity-test the affected path.

Q3 Which Honeywell Safety Manager records should be captured before removing FC-SDOL-0424?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with FC-SDOL-0424 before disconnection.

Q4 What controlled test confirms that FC-SDOL-0424 can supplies as much as one ampere per channel?

Apply the approved field or simulated stimulus, observe the Honeywell Safety Manager indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which 24 V DC external field supply condition should be checked when FC-SDOL-0424 reports an abnormal state?

Check the 24 V DC external field supply supply, seating and connection first, then compare channel diagnostics with the recorded FC-SDOL-0424 baseline.

Q6 Can FC-SDOL-0424 be moved directly into Safety contactor control without validating validated safety application?

No. Confirm the validated safety application, revision, connection scheme and Honeywell Safety Manager configuration before transferring FC-SDOL-0424 to that duty.

Q7 What maintenance evidence is required after FC-SDOL-0424 is used for Inductive trip-load switching?

Retain the nameplate record, corrective action, final diagnostics and a controlled inductive trip-load switching functional-test result for FC-SDOL-0424.

Q8 How should FC-SDOL-0424 be returned to service in High-current safe-output renewal?

Restore power under control, verify limits the combined output duty to the documented total, exercise the intended signal path and release FC-SDOL-0424 only after the Honeywell Safety Manager remains in its approved operating state.

SOURCE Honeywell Safety Manager Hardware Reference | EP-SM.MAN.6284, Issue 1.10

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