



# Isolated Digital I/O Modules

for DBK208™ & DBK210™

## OPTO-22® Modules for DBK208

A wide selection of OPTO-22 or compatible modules (NEMA ICS 2-230-.02) are available to switch AC or DC loads and to sense AC or DC voltages.

### OPTO-22® Switching Modules

Module	AC Control			DC Control		Dry-Contact
	PCAC1-W	PCAC2-W	PCAC3-W	PCDC1-W	PCDC2-W	PCDC3-W
Operating voltage	24-140 VAC	24-280 VAC	24-280 VAC	5-60 VDC	5-200 VDC	0-100 VDC 0-130 VAC
Nominal line voltage	120 VAC	240 VAC	120-240 VAC	60 VDC max	2 VDC max	100 VDC max 130 VAC max
Isolation	4000V RMS	4000V RMS	4000V RMS	4000V RMS	1000V RMS	1500 VDC
Current rating @ 45°C	3A	3A	3A	3A	1A	1.5A max
Turn-on time	1/2 cycle 0 voltage	1/2 cycle 0 voltage	1/2 cycle 0 voltage	100 µs	100 µs	750 µs
Turn-on time	1/2 cycle 0 current	1/2 cycle 0 current	1/2 cycle 0 current	750 µs	750 µs	750 µs
Contact mode	normally open	normally open	normally open	normally open	normally open	normally open

### OPTO-22® Sensing Modules

Module	AC Sensing				DC Sensing	
	PSAC1-W	PSAC2-W	PSAC3-W	PSAC4-W	PSDC1-W	PSDC2-W
Input voltage range	10-32 VAC	35-60 VAC	90-140 VAC	180-280 VAC	2.5-28 VDC	4-16 VDC
Input current @ max line	25 mA	6 mA	11 mA	6.5 mA	30 mA	45 mA
Input allowed for output	1 mA 3V	0.8 mA 9V	3 mA 45V	1.7 mA 80V	0.2 mA 1V	0.7 mA 1V
Turn-on time	5 msec	10 msec	20 msec	20 msec	1 msec	0.05 msec
Turn-off time	5 msec	10 msec	20 msec	20 msec	1.5 msec	0.1 msec

## Grayhill 70M Series for DBK210

A wide selection of Grayhill 70M series modules are available to switch or sense a large range of AC or DC voltages.

### 70M Series Switching Modules

Module	AC Control		DC Control	
	PCAC1-70M	PCAC2-70M	PCDC1-70M	PCDC2-70M
Operating voltage	24-140 VAC	24-280 VAC	3-60 VDC	4-200 VDC
Nominal line voltage	120 VAC	240 VAC	60 VDC	200 VDC
Isolation	4000V RMS	4000V RMS	4000V RMS	4000V RMS
Current rating @ 45°C	3A	3A	3A	3A
Turn-on time	8.3 msec	8.3 msec	20 µs	75 µs
Turn-off time	8.3 msec	8.3 msec	50 µs	75 µs

### 70M Series Sensing Modules

Module	AC or DC Sensing				DC Sensing
	PSAC1-70M	PSAC2-70M	PSAC3-70M	PSAC4-70M	PSDC1-70M
Input voltage range	12-32 VAC 10-32 VDC	35-60 VAC/DC	90-140 VAC/DC	180-280 VAC/DC	3-32 VDC
Input current @ max line	18 mA	6 mA	8 mA	6 mA	18 mA
Turn-on time	5 msec	10 msec	20 msec	20 msec	0.2 msec
Turn-off time	5 msec	10 msec	20 msec	20 msec	0.4 msec

## Ordering Information

### OPTO-22® Modules

Description	Part No.
AC control module 12 to 140 VAC (normally open)	PCAC1-W
AC control module 24 to 280 VAC (normally open)	PCAC2-W
AC control module 24 to 280 VAC (normally closed)	PCAC3-W
DC control module 5 to 60 VDC (normally open)	PCDC1-W
DC control module 5 to 200 (normally open)	PCDC2-W
AC/DC control module 0 to 100 VDC, 0 to 130 VAC (normally open)	PCDC3-W
AC/DC input module 12 to 32 VAC/DC	PSAC1-W
AC/DC input module 35 to 60 VAC/DC	PSAC2-W
AC/DC input module 90 to 140 VAC/DC	PSAC3-W
DC input module 2.4 to 28 VDC	PSDC1-W
DC input module 4 to 15 VDC	PSDC2-W

### Grayhill 70M Series Modules

AC control module 120 VAC	PCAC1-70M
AC control module 220 VAC	PCAC2-70M
DC control module 3-60 VDC	PCDC1-70M
DC control module 4-200 VDC	PCDC2-70M
DC input module 3-32 VDC	PSDC1-70M
AC/DC input module 12-32 VAC/10-32 VDC	PSAC1-70M
AC/DC input module 35-60V AC/DC	PSAC2-70M
AC input module 120 VAC	PSAC3-70M
AC input module 220 VAC	PSAC4-70M

## Related Products

DBK208	p. 180
DBK210	p. 182



Grayhill 70M series digital I/O modules feature a narrow footprint allowing for high-channel density configurations