OPTIMA™ OPM-1038 Switch Series

Overcurrent Protection Module - Fuseholder and Disconnect Switch for 13/32" × 1½" (10mm × 38mm) Fuses

Catalog Symbol:

Series		Fuse Type		Communication
OPM-1038			SW	
		Blank - 10 x 38mm or 13/32" x 1-1/2" R - Class CC		C - Communication Feature

Physical Characteristics:
- Small size matches 45mm IEC starter width.
- Fits #8-18 AWG stranded wire, #10-18 AWG solid wire.
- 3-pole version.
- Handle and shaft required for through-the-door operation. (See ordering information on page 2).

Product Features:
- "Open" fuse indication lights.
- Finger safe terminals. (Qualified as IP2O per IEC529)
- Cam action handle for easy module removal.
- 35mm DIN-rail or screw panel mounting (#8 screw, 1¼" long).
- Dead front construction. No exposed contacts for added safety.
- Option for remote "open fuse" status indication feature available (reduces down-time).
- Offered with Class CC rejection clips or European 10mm × 38mm clips to meet global needs.
- Wire ready: Saves time as terminals are ready to accept wires.

Materials: Grey Thermoplastic
UL Flammability: UL 94VO
Horsepower Rating of Switch:

3PH	V	240	480	600
	HP	5	10	15

Agency Information:
UL (see table below)
CSA Certified, C22.2 No. 39, Class 6225-01, File 47235
IEC (see table below)
Shipping Weight: Approx. 335g (.74 lb.)
Carton Quantity: 1

Catalog Number	Electrical Rating	SC Rating	Clips	Remote Open Fuse Indication	UL Information			IEC
					Std.	File	Guide	
OPM-1038SW	30A, 600Vac UL/CSA (Max. 3 Watts per fuse) 32A, 660Vac IEC	*	Non-rejection 10 x 38mm or 13/32" x 1-1/2"	No	Recognized UL 508	E161278	NLRV2	IEC 947-3
OPM-1038RSW	30A, 600Vac UL/CSA	100kA	Rejection	No	Listed UL 508	E161278	NLRV	
OPM-1038SWC	30A, 600V UL/CSA (Max. 3 Watts per fuse) 32A, 660Vac IEC	*	Non-rejection 10 x 38mm or 13/32" x 1-1/2"	Yes	Recognized UL 508	E161278	NLRV2	IEC 947-3
OPM-1038RSWC	30A, 600Vac UL/CSA	100kA	Rejection Class CC	Yes	Listed UL 508	E161278	NLRV	

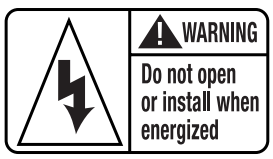
*Rating varies depending on fuse used in module, 100kA maximum..

Recommended Fuse Types:

Class CC	Midget (non-rejection)
LP-CC	KTK
KTK-R	FNM
FNQ-R	FNQ

Spare Fuseholder: Part No. 5TPH

CE CE logo denotes compliance with European Union Low Voltage Directive (50-1000Vac, 75-1500Vdc). Refer to Data Sheet: 8002 or contact Bussmann Application Engineering at 636-527-1270 for more information. Applies to OPM-1038SW and OPM-1038RSW.



COOPER Bussmann
1-23-04 SB04028

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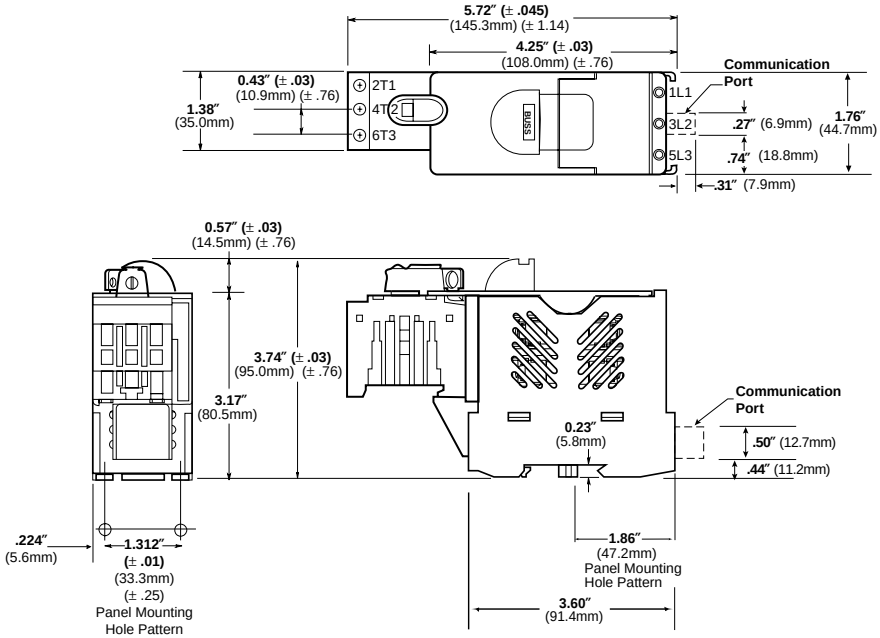
Dimensional Data



Selector Handles - for use with shafts ❑ .20 x .20" (❑ 5x5mm)

NEMA type	IEC type	Color	Defeatable	Padlockable	Weight (lbs)	Catalog number
All marked both O/I & Off/On						
1	IP54	Black	—	—	0.09	CDH1S
1	IP54	Red/Yel	—	—	0.09	CDH2S
1	IP54	Black	—	Yes	0.12	CDH15S
1	IP54	Red/Yel	—	Yes	0.12	CDH16S
1,3R,12	IP65	Black	—	Yes	0.16	CDH3S
1,3R,12	IP65	Red/Yel	—	Yes	0.16	CDH4S
1,3R,12	IP65	Black	Yes	Yes	0.16	CDH5S
1,3R,12	IP65	Red/Yel	Yes	Yes	0.16	CDH6S

Pistol Handles - for use with shafts ❑ .20 x .20" (❑ 5x5mm)

NEMA type	IEC type	Color	Marking	Length inches/mm	Defeatable	Padlockable	Weight (lbs)	Catalog number
All marked both O/I & Off/On								
1,3R,12	IP65	Black	O/I & Off/On	1.8/45	Yes	Yes	0.28	BDH104
1,3R,12	IP65	Red/Yel	O/I & Off/On	1.8/45	Yes	Yes	0.28	BDH105
1,3R,12	IP65	Black	O/I & Off/On	2.6/65	Yes	Yes	0.29	BDH106
1,3R,12	IP65	Red/Yel	O/I & Off/On	2.6/65	Yes	Yes	0.29	BDH107
1,3R,12,4,4X	IP66	Black	O/I & Off/On	2.6/65	Yes	Yes	0.29	CDHXB65
1,3R,12,4,4X	IP66	Red/Yel	O/I & Off/On	2.6/65	Yes	Yes	0.29	CDHXY65

Ordering Information for External Handle*:

OPTIMA Module + OPMRH + Handle + Shaft
= Complete Disconnect Switch (without fuses)

1. Order Bussmann part number OPMRH.
2. Select the appropriate handle style (Selector or Pistol).
3. Select the shaft corresponding to the handle type and mounting depth required.

*All switchable OPM-1038 modules come standard with a small black handle (OPMBH). Bussmann part number OPMRH must be ordered for all through-the-door applications.

Extended Shafts (❑ 5mm × 5mm Shaft Dimension)

For Handle Type	Mounting Depth**	Shaft Length	Catalog Number
Selector	4.2 - 5.0″	3.3″ (85mm)	CDS85S
	5.0 - 5.8″	4.1″ (105mm)	CDS105S
	5.6 - 6.4″	4.7″ (120mm)	CDS120S
	6.0 - 6.7″	5.1″ (130mm)	CDS130S
	7.1 - 8.7″	7.1″ (180mm)	CDS180S
	10.7 - 11.5″	9.8″ (250mm)	CDS250S
	13.8 - 14.6″	13.0″ (330mm)	CDS330S
Pistol	6.2 - 6.7″	5.9″ (150mm)	CDS48P
	7.0 - 7.5″	6.7″ (170mm)	CDS67P
	10.7 - 11.3″	10.4″ (265mm)	CDS49P
	16.0 - 16.6″	15.8″ (400mm)	CDS50P
	20.0 - 20.5″	19.7″ (500mm)	CDS99P

**Mounting depth is the distance from the outside of the door to the disconnect switch. Shaft can be cut to desired length.

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OPEN FUSE INDICATION

Status Output Specifications:
*Minimum operating voltage: 460Vac, 3-phase
*Maximum operating voltage: 620Vac, 3-phase
Status output maximum conducting current: 40mA
Status output maximum on resistance: 35 ohms @ 40mA
Status output typical off resistance: >10 Mohm
Status output maximum turn-on and turn-off delay: 850 milli-second

Status Output Interface Specifications:
Rated Voltage: Recommended 5-35Vdc, 300Vac max.
Rated Current: 40mA max.
Wire Size: #28-14 AWG
Torque: 2.25 lb. in.

Open Fuse Indicator Status Output Description:
The open fuse indicator status output acts very much like an on/off switch. With all three fuses in place and operating properly, this status output has a high resistance value of greater than ten mega-ohms. When one or more of the fuses are open, the status output becomes turned-on with a resistance value less than 35 ohms. This status output withstands voltage (ac or dc) up to 35V at off-state and conducts current up to 40 milli-amps at on-state. Applying voltage and current exceeding these limits will result in damage to the components inside this status output device permanently. There is some time-delay when the status output changes on/off state. The open fuse communications or status output device includes optical isolators within the unit.

Communications output states:

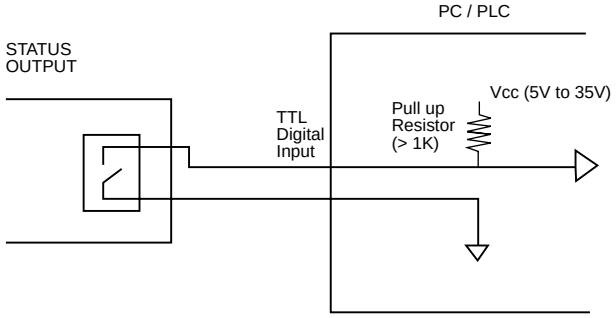
Fuse Good	NO - High Resistance, >10 mega-ohms
Opened Fuse	NC - Low Resistance, < 35 ohms

Note: Operating this device beyond the above limits will cause permanent damage to the components on the board.

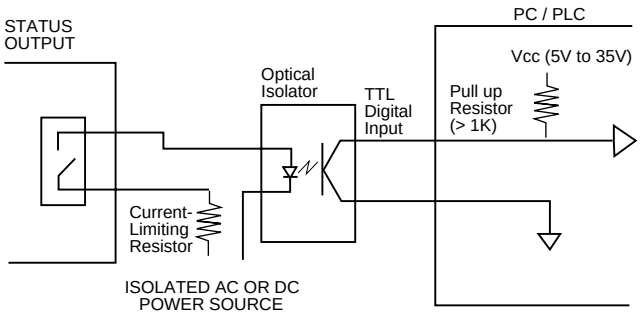
For applications requiring status output below a system voltage of 460V, contact Bussmann.

The examples shown below illustrate typical interface to Programmable Logic Controllers.

EXAMPLE 1: **DIRECT INTERFACE TO PC/PLC**



EXAMPLE 2: **INTERFACE TO PC / PLC WITH OPTICAL ISOLATION**



Note: When energized (switch in the "on" position), a low load terminal voltage will be present when fuses are open or when pullout module is removed. The leakage current is limited to .5mA maximum**.**

Example of Output Voltage with three open fuses or pullout module removed.

Catalog Number Types of Indication	OPM-1038RSW, OPM-1038SW Standard	OPM-1038-RSWC, OPM-1038SWC Communication
System Voltage (1L1-3L2-5L3)	Load Terminal Voltage (2T1-4T2-6T3)	
125Vdc *	12Vdc *	31Vdc *
480Vac, 3-phase	26Vac	56Vac
600Vac, 3-phase	33Vac	88Vac

There is no voltage at the load terminals (2T1-4T2-6T3) on the switch version (SW suffix) when the switch is in the "off" position.

*The communication device requires a minimum circuit voltage (1L1-3L2-5L3) of 460V for the status indicating device to operate. Below 460V, but above 120V, the indicator lights will luminate, but there will not be any communication status output.