Honeywell



MICRO SWITCH™ DM | DP Series Snap-in Panel Mount Basic Switches

MICRO SWITCHTM DM/DP basic switches are designed for a variety of applications, and known for their compact, lightweight design and accurate repeatability. The DM/DP Series is a special application precision switch that can be used in a variety of applications, including appliance door lights and door interlocks, as well as service panels.

The DM/DP Series snap-action switches have momentary, push-pull, and pull-to-cheat configurations. The quick-connect terminals and snap-in, panel-mount housings provide easy installation. In addition to the standard quick-connect terminals (4,78 mm x 0,51 mm $[0.188 \text{ in } \times 0.020 \text{ in}]$), larger 6,35 mm x 0,81 mm $[0.25 \text{ in } \times 0.032 \text{ in}]$ quick-connect terminals can be provided.

What makes our switches better?

- The right switch at the right cost for the product performance
- Series meets industries' most common standard applications eliminating need for product modifications
- Repeatable and consistent performance for up to one million lifecycles
- DP Series meets UL 508 requirements with extended electrical endurance for industrial applications



Features and Benefits

EASY INSTALLATION

Attractive, rugged **snap-in design** allows these switches to be easily installed. Quick-connect terminals reduce installation time.

VARIETY OF CIRCUITRIES AND OPERATING ACTIONS

DM and DP Series switches offer a choice of **momentary**, **push-pull**, **or pull-to-cheat** actions to meet equipment requirements. Circuitry options of **SPDT**, **DPDT**, **and SPNO** fit a number of applications.

Options for low energy circuits

LONG LIFE

With a mechanical life of up to **1,000,000 operations**, DM and DP Series switches deliver repeatable and consistent performance.

UL 508 for industrial control equipment

WIDE OPERATING TEMPERATURE RANGE

DM and DP Series operate from -37 °C to 82 °C [-35 °F to 180 °F] to meet many different environmental requirements.

EASILY CONTROLS LOW-VOLTAGE DC APPLICATIONS

Switches available with a choice of **silver or gold-alloy contacts** to handle a variety of electrical load requirements.

MEETS UL 508

DP Series meets Industrial Control Equipment's (**UL508**) requirements with extended electrical endurance of 100,000 operations for long-life applications.

NORTH AMERICAN APPROVALS

DP: UL recognized file #E22779, CSA certified file #LR4442 DM: UL recognized file #E12252, CSA certified file #LR4442

Potential Applications







APPLIANCE DOOR LIGHTS

Used in turning lights "on" in refrigerators and freezers when the door is opened

DOOR INTERLOCKS

Found as a door interlock on residential HVAC equipment and service panels to interrupt power when door access panels are opened

INDICATOR CIRCUITS

Often used for general purposes to turn lights "on" or "off" when doors and/or panels are opened

Table 1. Specifications

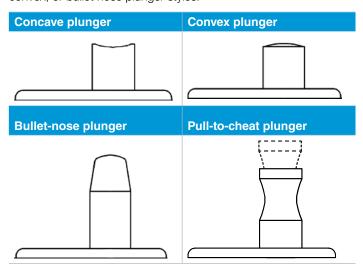
Characteristic	Parameter
Description	snap-in panel mount basic switch
	momentary action
Actuators	push-pull
	push momentary, pull-to-cheat
Terminations	quick connect, 4,78 mm x 0,51 mm [0.188 in x 0.020 in]
Amp rating	10 A, 16 A
Operating temperature	-37 °C to 82 °C [-35 °F to 180 °F]
Operating force	4,17 N [15 oz] max.
Mechanical life	1 million operations, 95 % survival
Circuitry	SPNO, SPDT, DPDT
Voltage	125 Vac, 250 Vac, 277 Vac
Approvals	UL, CSA

Table 2. Electrical Ratings

Series Electrical rating					
DM	UL and CSA rating: 10 A, 1/2 HP, 125, 250 or 277 Vac				
DP	UL standard 508, 14 A, 3/4 HP, 125, 250 Vac;				
DF	Pilot Duty: 150 V A - 125, 250 Vac; 16 A, 125, 250, 277 Vac; 3/4 HP, 125, 250 Vac				

MOMENTARY ACTION

Momentary action switches are available in a choice of concave, convex, or bullet nose plunger styles.



PUSH-PULL

When plunger is depressed, it remains in the depressed position and maintains circuit transfer. Switch contacts return to the previous position when the plunger is pulled to the original extended position.

PULL-TO-CHEAT

Pull-to-cheat operates normally as a momentary action switch. However, by pulling the plunger beyond the normal free position, a maintained-on position is achieved.

POSSIBLE VARIATIONS

In addition to the standard quick-connect 4,78 mm x 0,51 mm [0.188 in x 0.020 in] terminals, 6,35 mm x 0,81 mm [0.25 in x 0.032 in] terminals can be provided. The quick-connect terminals can be provided with terminals formed at different angles. DM plungers and faceplates are available in combinations of white, black, gray, or red.

DM SERIES ORDER GUIDE

						1DM Series	1DM Series	1DM Series
						The state of the s	ALTHOUGH STATES	
					Free position	22,4 mm [0.88 in]	11,4 mm [0.45 in]	11,4 mm [0.45 in]
					Operating position	19,1 mm ±1,5 mm	_	9,02 mm ±1,5 mm
					oportion position	[0.750 in ±0.06 in]		[0.355 in ±0.06 in]
					Overtravel	9,53 mm [0.375 in]	3,05 mm [0.120 in]	3,05 mm [0.12 in]
					Operating force	4,17 N [15 oz]	4,17 N [15 oz]	4,17 N [15 oz]
					Release force	0,83 N [3 oz]	0,83 N [3 oz]	0,83 N [3 oz]
Action	Circuitry	Plunger type	Plunger color	Faceplate color				
Momentary	SPDT	Bullet nose	White	White		1DM1		
Momentary	SPNC	Bullet nose	White	White		1DM2		
Momentary	SPNO	Bullet nose	White	White		1DM3		
Momentary	SPDT	Concave	Black	Gray			1DM18	
Momentary	SPDT	Convex	White	White				1DM21

						DM301 Series	2DM Series	DM401 Series
					Free position	24,1 mm [0.95 in]	11,4 mm [0.45 in]	17,8 mm [0.70 in
					Operating position	-	-	-
					Overtravel	15,9 mm [0.625 in]	3,05 mm [0.12 in]	13,2 mm [0.52 in
					Operating force	-	6,67 N [24 oz]	4,17 N [15 oz]
					Release force	-	1,67 N [6 oz]	0,83 N [3 oz]
ction	Circuitry	Plunger type	Plunger color	Faceplate color				
ush-Pull	SPDT	Finger grip	Black	Gray		1DM301		
ush-Pull	DPDT	Finger grip	Black	Gray		2DM301		
lomentary	DPDT	Concave	Red	Gray			2DM6	
		Finger grip	White	White				1DM401**

 $^{^{\}star\star}$ Extended position 23,6 mm (.930 in. max.)

DM SERIES ORDER GUIDE

	2DM Series	DM409 Series
Free position	22,4 mm [0.88 in]	21,6 mm [0.85 in]
Operating position	19,6 mm ±1,0 mm [0.770 in ±0.040 in]	18,9 mm ±1,3 mm [0.745 in ±0.050 in]
Overtravel	10,2 mm [0.40 in]	15,0 mm [0.59 in]
Operating force	6,67 N [24 oz]	6,67 N [24 oz]
Release force	1,67 N [6 oz]	-

Action	Circuitry	Plunger type	Plunger color	Faceplate color		
Momentary	DPDT	Bullet nose	Black	Black	2DM1	
Pull-to-Cheat	DPDT	Finger grip	Black	Black		2DM409

^{*} Latch position 16,9 mm \pm 0,76 mm (.665 in. \pm .030 in.)

DP SERIES ORDER GUIDE

Circuitry

SPNO

SPNO

Plunger type

Bullet nose

Finger grip

Plunger color

White

White

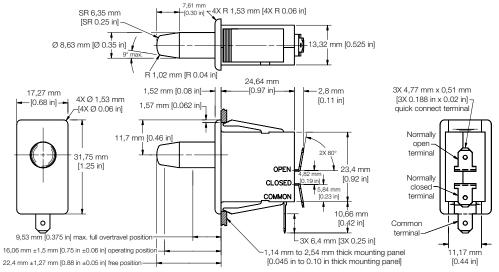
Action

Momentary

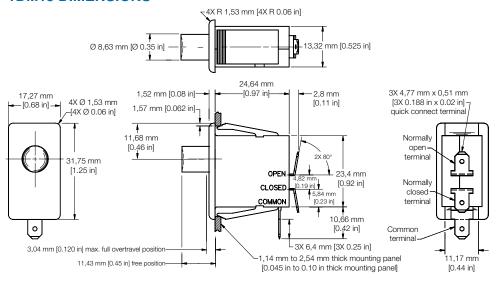
Momentary

		DP Series	DP Series	
		The state of the s		
	Free position	22,4 mm [0.88 in]	31,52 mm [1.242 in]	
	Operating position	15,1 mm ±1,5 mm [0.595 in ±0.06 in]	28,22 mm ±1,5 mm [1.112 in ±0.06 in]	
	Overtravel	9,53 mm [0.375 in]	4,44 mm [0.175 in]	
	Operating force	4,45 N [16 oz]	8,34 N [30 oz]	
	Release force	0.83 N [3 oz]	0.83 N [3 oz]	
Faceplate color				
White		1DP5		
White			1DP8	

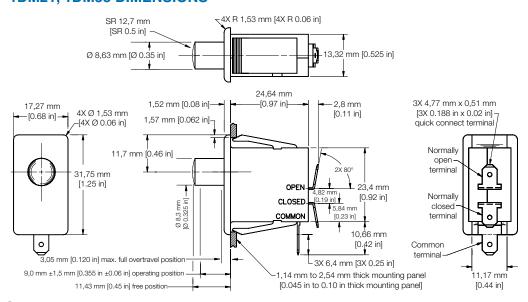
1DM1, 1DM2, 1DM3 DIMENSIONS



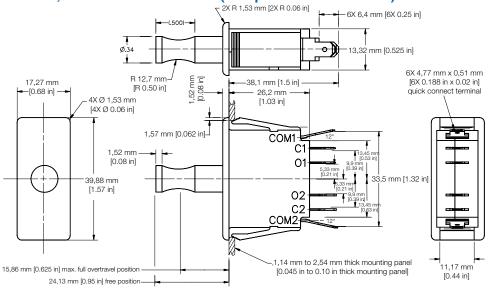
1DM18 DIMENSIONS



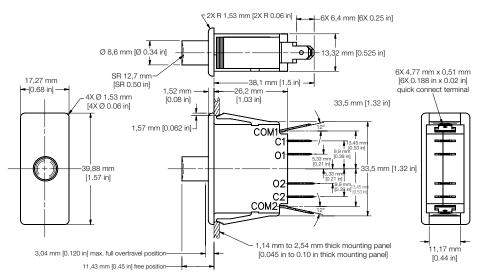
1DM21, 1DM38 DIMENSIONS



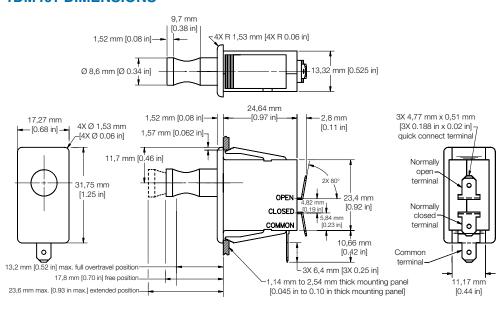
1DM301, 2DM301 DIMENSIONS (two-pole version shown)



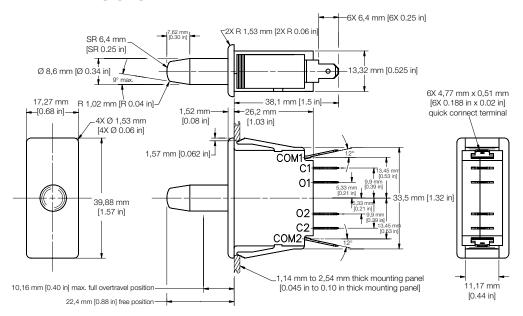
2DM6 DIMENSIONS



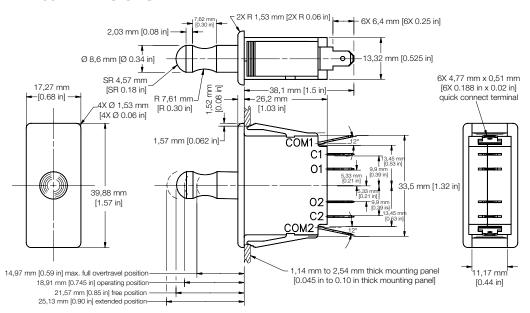
1DM401 DIMENSIONS



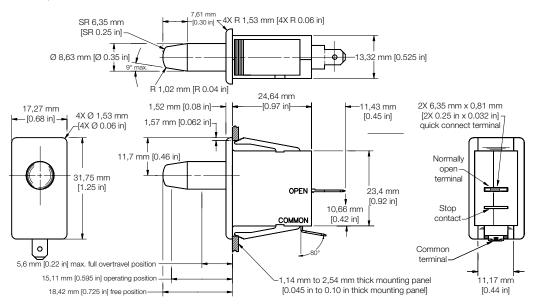
2DM1 DIMENSIONS



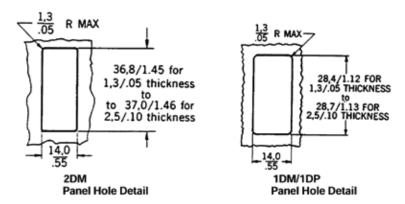
2DM409 DIMENSIONS



1DP5, 1DP8 DIMENSIONS



PANEL CUTOUTS



This Honeywell datasheet supports the following MICRO SWITCH™ DM & DP Series Basic Switch Listings

1DM1	1DM338	1DP8
1DM152	1DM401	2DM1
1DM171	1DM418	2DM11
1DM175	1DM423	2DM301
1DM176	1DM425	2DM310
1DM18	1DM435	2DM4
1DM2	1DM437	2DM409
1DM21	1DM5	2DM438
1DM23	1DM502	2DM6
1DM3	1DM503	2DM640
1DM301	1DM57	2DM8
1DM32	1DM79	2DM83
1DM335	1DP5	DM-10692

ADDITIONAL INFORMATION

The following associated literature is available on Honeywell's web site at sensing.honeywell.com:

- Product installation instructions
- Product range guide
- Product application-specific information
 - Application note: Sensors and Switches in Chemistry Analyzers

AWARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

While we provide application assistance personally, through our literature and the Honeywell website, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

Find out more

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office.

To learn more about Honeywell's sensing and control products, call +1-815-235-6847 or 1-800-537-6945, visit sensing.honeywell.com, or e-mail inquiries to info.sc@honeywell.com

Sensing and Control Honeywell 1985 Douglas Drive North Golden Valley, MN 55422

Honeywell

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Basic / Snap Action Switches category:

Click to view products by Honeywell manufacturer:

Other Similar products are found below:

5SM901-S12 5SM9-S12N195 01.098.1358.1 602EN532 602EN535-RB 602HE5-RB1 604HE162 604HE223-6B 624HE17-RB 6HM82 6HM89 6SE1 6SX1-H58 70500216 70599106 MBD5B1 MBH2731 73-316-0012 EXD-AR20 79211923 79218589 7AS12 MIL30126AB6BBMD4A12XAU ML-1155 ML-1376 831010C3.0 831090C2.EL 83131904 84212012 8AS239 8HM73-3 8SX26-H33 914CE1-6G PL-100 11SM1077-H4 11SM1077-H58 11SM1-TN107 11SM405 11SM8423-H2 11SX37-T 11SX48-H58 11SM2442-T 11SM76-T 11SM77-H58 11SM77-T 11SM863-T 11SM866 A7CN-1M-1-LEFT A831700C7.0 121EN187-R