

91MCE SERIES

002311

Issue 3

MICRO SWITCH Miniature Compact Limit Switches



DESCRIPTION

The 91MCE Series limit switch is a compliment to Honeywell's existing product line of smaller, lower cost limit switches. Designed for modern industrial OEMs, the miniature package size fits in applications where space is limited. The small package size can be gang mounted for applications requiring more than two switch circuits. The 20 mm mounting pattern meets most globally accepted mounting standards.

This product family offers the user many options including a variety of different actuator styles. Connection options include pre-leaded cable in various lengths or M12 connectors, both with side or bottom exits. Design flexibility is further enhanced with the availability of both slow action and snap action circuitry. Direct acting contacts are designed to open the NC contact when actuated. The epoxy-sealed rugged die-cast housing provides enhanced environmental durability.

Priced competitively, the 91MCE is a drop-in replacement to many products, and provides enhanced quality that customers expect from Honeywell.

FEATURES

- Direct acting contacts  are designed to open NC contacts when actuated
- Sealed to IP67; NEMA 1, 4, 12, 13 suitable for outdoor applications
- CE, UKCA, cULus, CCC approvals meet most global approvals
- Nine actuator styles offer design flexibility
- Slow-action and snap-action circuitry options
- Pre-leaded cable and M12 connector options
- Expected mechanical life: 5 million operations
- Side exit (standard) and bottom exit connection options

POTENTIAL APPLICATIONS

- Machine equipment
- Material handling
- Aerial lifts
- Forklifts
- Off road and outdoor equipment

PORTFOLIO



The 91MCE Series is part of the 14CE, 914CE, NGC, SZL-VL-S, SSCE and SL1 Series of miniature limit switches.

Honeywell also offers a portfolio of MICRO SWITCH Heavy-Duty Limit Switches and General Purpose Limit Switches.

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MICRO SWITCH MINIATURE COMPACT LIMIT SWITCHES

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TABLE 1. SPECIFICATIONS

Characteristic	Parameter
Operating speed	0,05 mm to 1 m per second
Operating frequency – mechanical	120 ops per minute
Operating frequency – electrical	30 ops per minute
Insulation resistance	> 100 Mohm @ 500 Vdc
Rated voltage	300 Vac (EN60947-5-1)
Rated thermal current	10A pre-leaded versions; 3A connector versions
Electrical rating	ac 15 A 300; dc 13 Q300
Dielectric strength	1000 Vac for one minute between current carrying parts 2500 Vac for one minute between non-current carrying parts
Expected mechanical life	5 million operations
Expected electrical life	5 x 10 ⁵ operations
Operating temperature	-25 °C to 85 °C [-13 °F to 185 °F] without the formation of ice
Humidity	< 95 % RH
Cable	5 core, 0.75 mm ²
Degree of protection	IP67

TABLE 2. ELECTRICAL RATINGS

IEC/EN 60947-5-1

Designation & Utilization Category		Rated operational current I _e (A) at rated operational voltage U _e						VA rating	
		120 V	240 V	380 V	480 V	500 V	600 V	Make	Break
AC15	A300	6	3	–	–	–	–	7200	720
		125 Vdc		250 Vdc					
DC13	Q300	0.55	0.27					69	69

TABLE 3. BAR CHARTS

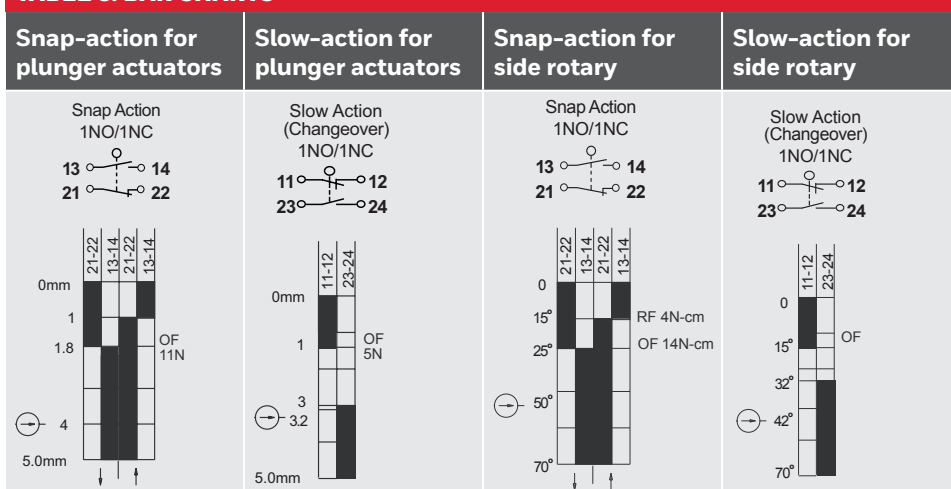


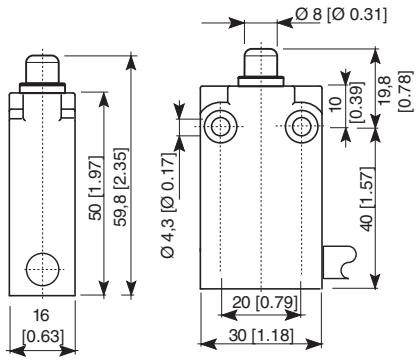
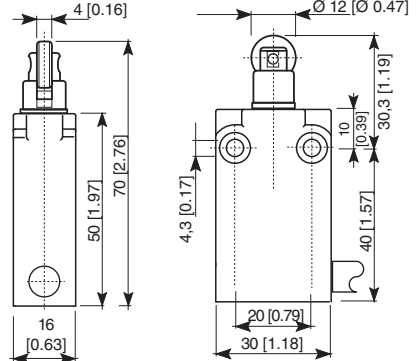
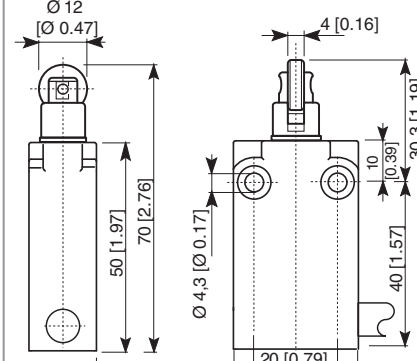
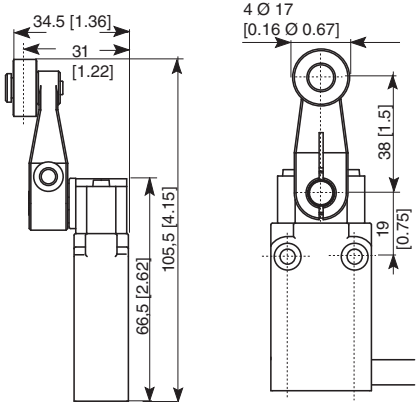
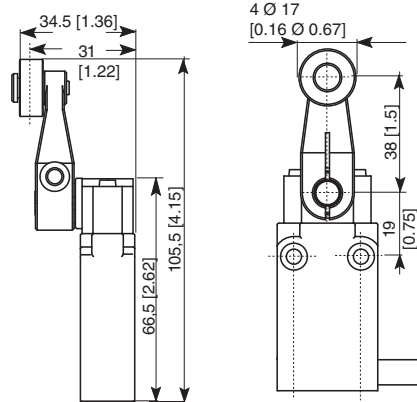
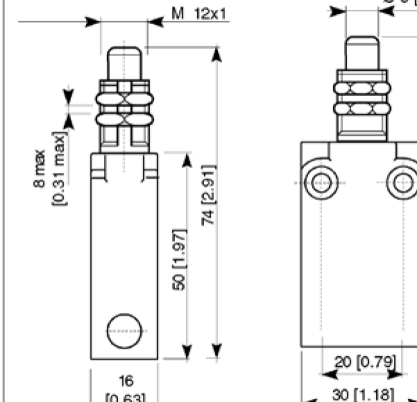
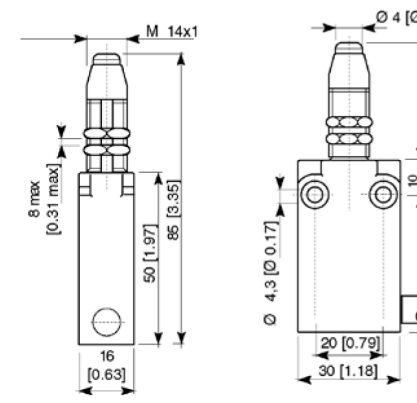
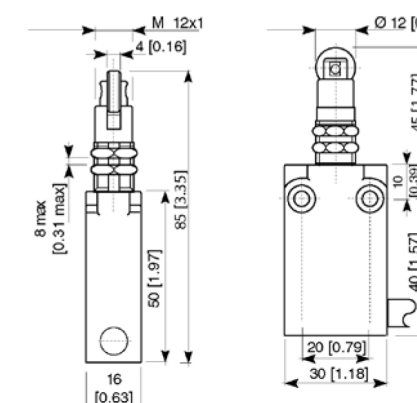
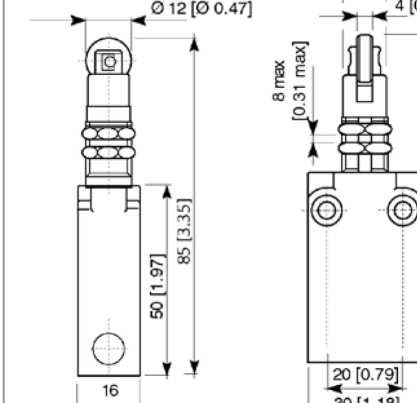
TABLE 4. PIN OUT “Q” OPTION

	Pin 1 & 2 – Normally Closed–
	Pin 3 & 4 – Normally Open

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TABLE 5. DIMENSIONS

91MCE1-P1/S1 – Pin Plunger	91MCE2-P1/S1 – Roller Plunger	91MCE3-P1/S1 – Cross Roller Plunger
		
91MCE16-P1/S1 – Side Rotary Lever with Metal Roller	91MCE18-P1/S1 – Pin Plunger with Boot Seal	91MCE27-P1/S1 – Panel-Mount Pin Plunger
		
91MCE30-P1/S1 – Panel-Mount Booted Pin Plunger	91MCE28-P1/S1 – Panel-Mount Roller Plunger	91MCE29-P1/S1 – Panel-Mount Cross Roller Plunger
		

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PRODUCT NOMENCLATURE

91MCE	16	P	1	B		
Switch Type	Actuator Type	Switch Type	Cable Length*	Cable/ Connector Exit	Lever Type	Connector
91MCE Series Miniature Compact Limit Switch	1 Pin plunger	P 1NO/1NC direct acting snap action	Connector version	Side exit	Standard lever, metal roller	Cable (no connector)
	2 Roller plunger	S 1NO/1NC direct acting BBM	1 1 meters	B Bottom exit	P Standard lever, plastic roller	Q 4-pin M12 connector
	3 Cross roller plunger		2 2 meters		O Short lever, metal roller	
	16 Side rotary with metal lever		3 3 meters		OP Short lever, plastic roller	
	18 Pin plunger with boot seal		5 5 meters			
	27 Pin plunger/ panel mount					
	28 Roller plunger/ panel mount					
	29 Cross roller/ panel mount					
	30 Pin plunger/ panel mount, boot seal					

NOTE: not all combinations of model codes are available.
Please contact your Honeywell provider/representative for assistance.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment 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 that Honeywell, in its sole discretion, 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 Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility 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 writing. However, Honeywell assumes no responsibility for its use.

FOR MORE INFORMATION

Honeywell Advanced Sensing Technologies services its customers through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing or the nearest Authorized Distributor, visit [our website](#) or call:

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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.

WARNING IF USED IN APPLICATIONS CONCERNING HUMAN SAFETY

- Only use NC direct opening  ("positive opening"/"positive break") contacts, identified by the symbol.
- Do NOT use flexible/adjustable actuators. Only use actuators designed for safety applications.
- Do NOT defeat, tamper, remove, or bypass this switch.
- Hazardous voltage, disconnect power before servicing.
- Strictly adhere to all installation and maintenance instructions
- Consult with local safety agencies and their requirements when designing a machine-control link, interface, and all control elements that affect safety.

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