

14CE/914CE Series Miniature Enclosed Switches



Actuators



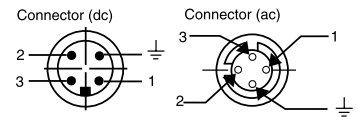
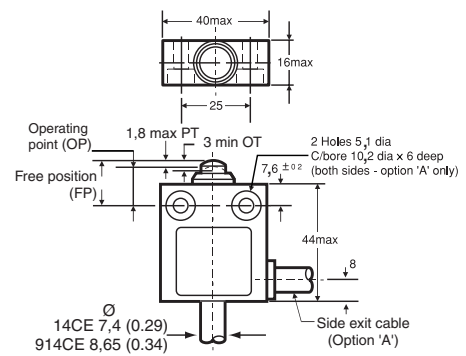
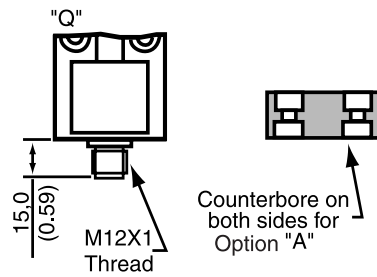
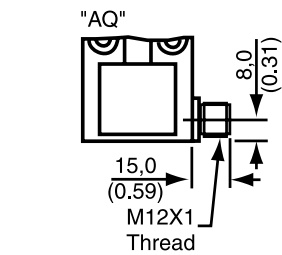
The 14CE/914CE Series offers a miniature, rugged, compact, pre-wired switch which has proved itself successful and gained wide market acceptance. The entire range of 14CE and 914CE switches has been approved to meet the requirements of the Low Voltage directive and is therefore CE marked.

CE switches have different degrees of protection from IP66 to IP68 for the fully booted head styles. The cable entry is fully potted using a special compound to ensure that ingress is virtually impossible.

Mechanical life:		10 million
Sealing:		IP66, IP67, IP68
Operating temperature:	14CE	NEMA 1, 2, 3, 3R, 4, 6, 6P, 12 (boot seal), 13
	914CE	0 °C to 70 °C (32 °F to 158 °F)
Approvals:	14CE	CE
	914CE	CSA, UL, CE
Operating force (OF):		11,8 N (2,65 lb) max.
Pretravel (PT):		1,8 mm (0,71 in) max.
Overtravel (OT):		3,0 mm (0,118 in) min.
Differential travel (DT):		0,1mm (0,004 in) max.
Contact/Rating:	(9)14CE* -*	Silver A
	(9)14CE* -*G	Gold B
	(9)14CE* -Q, -AQ, -AQ1	Silver C
Connection:		Harmonised CENELEC 4 x 0,75 mm ² cable (14CE)
		SJTO 4 x 0,75 mm ² (18 AWG) cable (914CE)
		Connector (dc), 4 pin male, M12 thread (-Q)
		Connector (ac), 4 pin male, ½ in x 20 thread (-Q1)
		Single Pole, Double Throw
		Snap action contacts (1NC/1NO)
Switching options:		SPDT



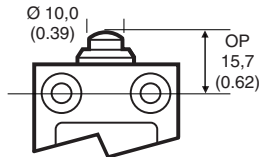
Electrical ratings:		Amps	
		Make	Break
A	240 Vac, ind.	1,2	0,2
	240 Vac, res.	5	5
	28 Vdc, res.	3	3
	28 Vdc, ind.	3	3
UL/CSA:	5 A, 1/10 Hp, 125 or 250 Vac		
B	UL:	1 A res., 0,5 A ind., 30 Vdc	
		1 A, 125 Vac	
C	UL/CSA:	3 A, 125 or 250 Vac	



Plunger actuated switches

OPTIONS

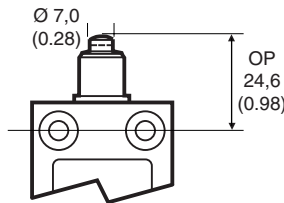
Top pin plunger



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE1-3
3 ft cable, side exit	914CE1-3A
3 ft cable, bottom exit, gold contacts	914CE1-3G
6 ft cable, bottom exit	914CE1-6
6 ft cable, bottom exit, gold contacts	914CE1-6G
9 ft cable, bottom exit	914CE1-9
Connector (dc), bottom exit	914CE1-Q
Connector (ac), bottom exit	914CE1-Q1

EUROPE	REFERENCE
1 metre cable, bottom exit	14CE1-1
1 metre cable, side exit	14CE1-1A
1 metre cable, bottom exit, gold contacts	14CE1-1G
2 metre cable, bottom exit	14CE1-2
3 metre cable, bottom exit	14CE1-3
3 metre cable, side exit	14CE1-3A
3 metre cable, bottom exit, gold contacts	14CE1-3G
Connector (dc), side exit	14CE1-AQ
Connector (dc), bottom exit	14CE1-Q

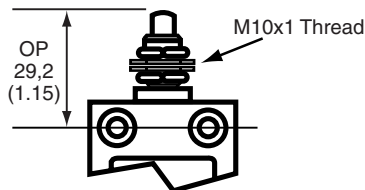
Top pin plunger, boot seal



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE18-3
3 ft cable, side exit	914CE18-3A
6 ft cable, bottom exit	914CE18-6
9 ft cable, bottom exit	914CE18-9
9 ft cable, side exit	914CE18-9A
Connector (ac), side exit	914CE18-AQ1
Connector (dc), bottom exit	914CE18-Q
Connector (ac), bottom exit	914CE18-Q1

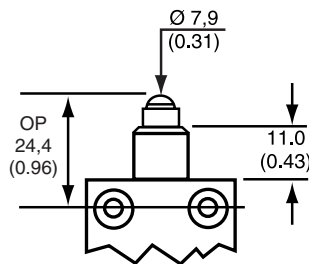
EUROPE	REFERENCE
1 metre cable, bottom exit	14CE18-1
3 metre cable, bottom exit	14CE18-3
Connector (dc), bottom exit	14CE18-Q

Top pin plunger, panel mounted



NORTH AMERICA/GLOBAL	REFERENCE
Connector (dc), bottom exit	914CE27-Q

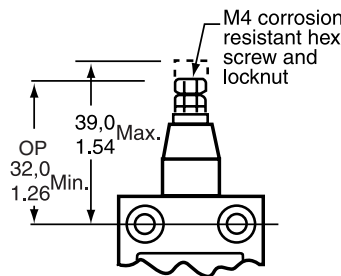
Ball bearing plunger



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE66-3
6 ft cable, bottom exit	914CE66-6

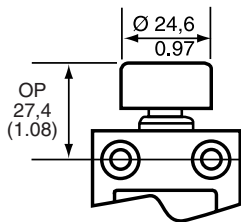
EUROPE/	REFERENCE
1 metre cable, bottom exit	14CE66-1
2 metre cable, bottom exit	14CE66-2

Adjustable plunger



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE19-3
9 ft cable, bottom exit	914CE19-9

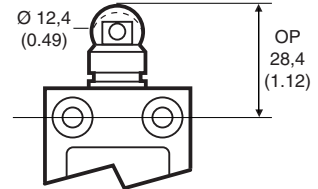
Manually operated



Operating force (OF): 9,0 N (2.02 lb)

NORTH AMERICA/GLOBAL	REFERENCE
6 ft cable, bottom exit	914CE22-6

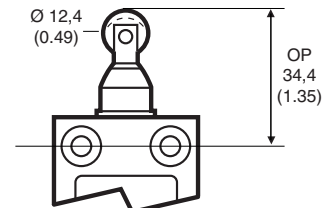
Top roller plunger, parallel



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE2-3
3 ft cable, side exit	914CE2-3A
3 ft cable, bottom exit, gold contacts	914CE2-3G
6 ft cable, bottom exit	914CE2-6
6 ft cable, side exit	914CE2-6A
9 ft cable, bottom exit	914CE2-9
Connector (dc), side exit	914CE2-AQ
Connector (dc), bottom exit	914CE2-Q
Connector (ac), bottom exit	914CE2-Q1

EUROPE	REFERENCE
1 metre cable, bottom exit	14CE2-1
1 metre cable, side exit	14CE2-1A
1 metre cable, bottom exit, gold contacts	14CE2-1G
2 metre cable, bottom exit	14CE2-2
2 metre cable, side exit	14CE2-2A
3 metre cable, bottom exit	14CE2-3
3 metre cable, side exit	14CE2-3A
3 metre cable, bottom exit, gold contacts	14CE2-3G
Connector (dc), side exit	14CE2-AQ
Connector (dc), bottom exit	14CE2-Q

Top roller plunger, parallel, boot seal

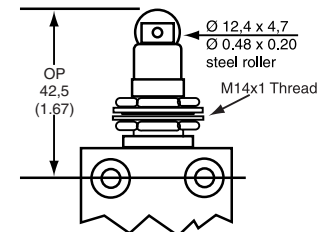


Operating force (OF): 17,5 N (3.82 lb)

NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE31-3
6 ft cable, bottom exit	914CE31-6

EUROPE	REFERENCE
1 metre cable, bottom exit	14CE31-1
3 metre cable, bottom exit	14CE31-3

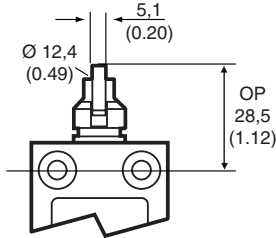
Top roller plunger, parallel, panel mounted



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE28-3
6 ft cable, bottom exit	914CE28-6
Connector (dc), bottom exit	914CE28-Q

**14CE/914CE Series
Plunger actuated switches
(continued)**

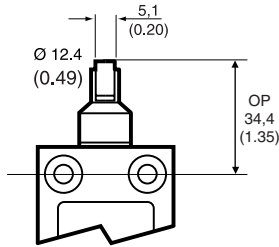
Top roller plunger, perpendicular



NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE3-3
6 ft cable, bottom exit	914CE3-6
6 ft cable, side exit	914CE3-6A
9 ft cable, bottom exit	914CE3-9
Connector (dc), bottom exit	914CE3-Q
Connector (ac), bottom exit	914CE3-Q1

EUROPE	REFERENCE
1 metre cable, bottom exit	14CE3-1
2 metre cable, bottom exit	14CE3-2
3 metre cable, bottom exit	14CE3-3

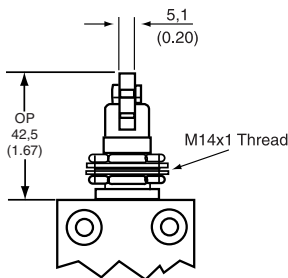
*Top roller plunger, perpendicular,
boot seal*



Operating force (OF): 17,5 N (3.82 lb)

NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE55-3
3 ft cable, side exit	914CE55-3A

*Top roller plunger, perpendicular,
panel mounted*



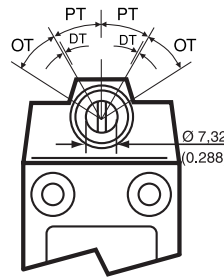
NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE29-3
6 ft cable, bottom exit	914CE29-6

**Side rotary and wobble
actuated switches**

OPTIONS

Rotary motion

(actuating lever not included - use any LSZ51*, LSZ52*, LSZ54*, LSZ55* or LSZ61* Series shown on pages 69-71.)

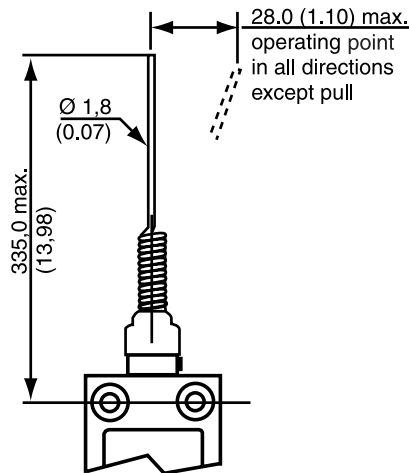


Operating torque: 0,3 Nm (2.66 in lb)
Pretravel (PT): 30° max.
Overtravel (OT) mm: 40° min.
Differential travel: 3°

NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE16-3
3 ft cable, side exit	914CE16-3A
6 ft cable, bottom exit	914CE16-6
9 ft cable, bottom exit	914CE16-9
Connector (dc), bottom exit	914CE16-Q

EUROPE	REFERENCE
1 metre cable, bottom exit	14CE16-1
2 metre cable, bottom exit	14CE16-2
3 metre cable, bottom exit	14CE16-3

Wobble Spring wire



Operating Force (OF): 0,55 N (0.12 lb)

NORTH AMERICA/GLOBAL	REFERENCE
3 ft cable, bottom exit	914CE20-3
6 ft cable, bottom exit	914CE20-6
9 ft cable, bottom exit	914CE20-9
Connector (dc), bottom exit	914CE20-Q

EUROPE	REFERENCE
1 metre cable, bottom exit	14CE20-1
3 metre cable, bottom exit	14CE20-3

24CE/924CE Series Miniature Safety Electromechanical Switches



Actuators



For position sensing and switching applications requiring direct acting, positive opening contacts the 24CE and 924CE ranges are ideal. They have been tested and approved to meet the requirements of the Low Voltage directive and positive opening safety contacts per IEC/EN 60947-5-1-3. The devices are CE marked. The red colour clearly differentiates this safety component in the application. The 924CE range also has UL and CSA approval.

It is possible for the end user to enhance the safety level of these switches from Category 1 on their own to Categories 2, 3 or 4 when the switches are used in conjunction with our wide range of FF-SR safety relays to form a safety system.

Typical applications for these switches would use the roller plunger 24CE2- or 24CE3- style in conjunction with cams on doors with hinges; or our fixed side rotary 24CE16- style for detection of sliding doors. Also available are a range of panel mounting or top mounting versions to ensure that small space or difficult mounting can be simply achieved.

Several contact arrangements are available.

Mechanical life:

Sealing:

Operating temperature:

Approvals:

Connection:

Contacts:

Switching options:

10 million

standard type: IP66; with boot seal type: IP67

0 °C to 70 °C (32 °F to 158 °F)

Low temperature: -40 °C (-40 °F)

0 °C to 105 °C (32 °F to 221 °F)

CE

AC15 B300

DC13 R300

CSA, CE

per UL file #E41859, 10 A 250 Vac; 1/3 Hp 125-250 Vac

AC15 B300

DC13 R300

Harmonised CENELEC 3 or 5 x 0,75 mm² cable (24CE)

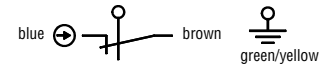
SJTO 3 or 5 x 18 AWG cable (924CE)

Silver

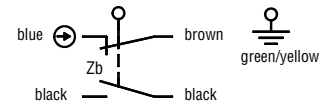
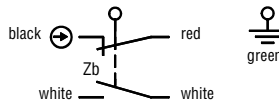
924CE

24CE

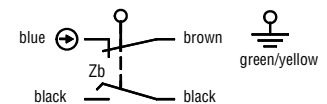
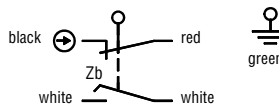
Slow action contacts (1NC)



Slow action contacts (1NC/1NO), Break Before Make (BBM)

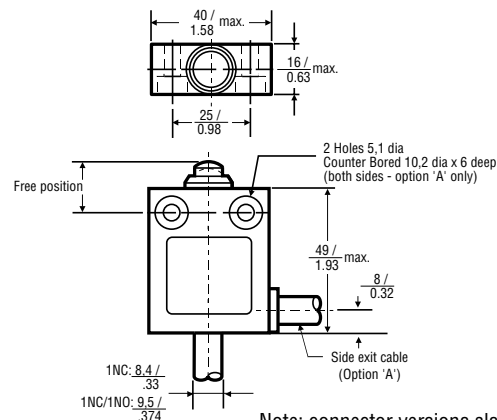


Slow action contacts (1NC/1NO), Make Before Break (MBB)



Electrical ratings:

Designation & Utilization Category		IEC 60947-5-1/EN 60947-5-1						VA rating	
		Rated operational current Ie (A) at rated operational voltage Ue						Make	Break
AC15	B300	120 V	240 V	380 V	480 V	500 V	600 V	3600	360
		3	1.5	-	-	-	-		
DC13	R300	125 V	250 V					28	28
		0,22	0,1						

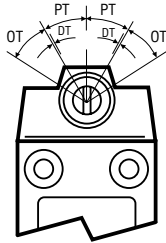


Note: connector versions also available

24CE/924CE Series

OPTIONS

Side rotary



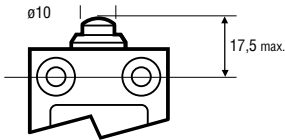
North America/Global

CABLE LENGTH	CONTACT	REFERENCE
3 ft	1NC, BBM	924CE16-S3
9 ft	1NC, BBM	924CE16-S9
3 ft	1NC, MBB	924CE16-T3
3 ft	1NC	924CE16-Y3
9 ft	1NC	924CE16-Y9

Europe

CABLE LENGTH	CONTACT	REFERENCE
1 m	1NC/1NO, BBM	24CE16-S1
1 m	1NC	24CE16-Y1
6 m	1NC	24CE16-Y6

Top pin plunger



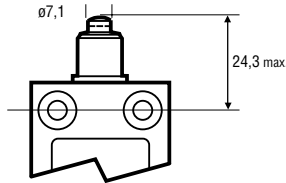
North America/Global

CABLE LENGTH	CONTACT	OPTION	REFERENCE
3 ft	1NC, BBM		924CE1-S3
6 ft	1NC, BBM		924CE1-S6
9 ft	1NC, BBM		924CE1-S9
25 ft	1NC, MBB	side exit	924CE1-T25A
3 ft	1NC, MBB		924CE1-T3
3 ft	1NC, MBB	side exit	924CE1-T3A
6 ft	1NC, MBB	side exit	924CE1-T6A
9 ft	1NC, MBB		924CE1-T9
9 ft	1NC, MBB	side exit	924CE1-T9A
3 ft	1NC		924CE1-Y3
9 ft	1NC		924CE1-Y9

Europe

CABLE LENGTH	CONTACT	OPTION	REFERENCE
12 m	1NC/1NO, BBM	low temperature	24CE1-S12B
2 m	1NC/1NO, BBM		24CE1-S2
2 m	1NC/1NO, BBM	side exit	24CE1-S2A
2 m	1NC/1NO, BBM	low temperature	24CE1-S2B
3 m	1NC/1NO, BBM		24CE1-S3
6 m	1NC/1NO, BBM		24CE1-S6
1 m	1NC	side exit	24CE1-Y1A
2 m	1NC		24CE1-Y2
3 m	1NC		24CE1-Y3

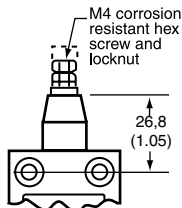
Top pin plunger, boot sealed



North America/Global

CABLE LENGTH	CONTACT	REFERENCE
6 ft	1NC/1NO, BBM	924CE18-S6

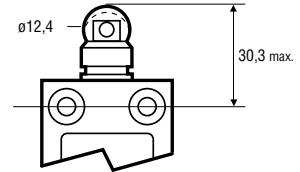
Adjustable plunger



North America/Global

CABLE LENGTH	CONTACT	OPTION	REFERENCE
3 ft	1NC/1NO, BBM	low temperature	924CE19-S3L1

Top roller plunger, parallel



North America/Global

CABLE LENGTH	CONTACT	OPTION	REFERENCE
15 ft	1NC, BBM		924CE2-S15
21 ft	1NC, BBM		924CE2-S21
3 ft	1NC, BBM		924CE2-S3
6 ft	1NC, BBM		924CE2-S6
6 ft	1NC, BBM	side exit	924CE2-S6A
9 ft	1NC, BBM		924CE2-S9
25 ft	1NC, MBB		924CE2-T25
25 ft	1NC, MBB	side exit	924CE2-T25A
3 ft	1NC, MBB		924CE2-T3
6 ft	1NC, MBB		924CE2-T6
9 ft	1NC, MBB		924CE2-T9
3 ft	1NC		924CE2-Y3
9 ft	1NC		924CE2-Y9

Europe

CABLE LENGTH	CONTACT	OPTION	REFERENCE
1 m	1NC/1NO, BBM		24CE2-S1
2 m	1NC/1NO, BBM		24CE2-S2
2 m	1NC/1NO, BBM	side exit	24CE2-S2A
2 m	1NC/1NO, BBM	low temperature	24CE2-S2B
3 m	1NC/1NO, BBM		24CE2-S3
6 m	1NC/1NO, BBM		24CE2-S6
2 m	1NC/1NO, MBB		24CE2-T2
1 m	1NC		24CE2-Y1
2 m	1NC		24CE2-Y2
2 m	1NC	side exit	24CE2-Y2A
4 m	1NC		24CE2-Y4
6 m	1NC	side exit	24CE2-Y6A