


# Limit switches

Osiswitch® Universal, Osiconcept®

Design		Miniature Osiconcept	Compact Osiconcept		
					
<b>Enclosure</b>		Metal	Plastic, double insulated		
<b>Features</b>		Fixing by the body or by the head			
<b>Osiconcept modularity</b>		Head, body and connection modularity		Head and body modularity	
<b>CENELEC conformity</b>		–	EN 50047	EN 50047 compatible	
<b>Body dimensions (w x h x d) in mm</b>		30 x 50 x 16	31 x 65 x 30	58 x 51 x 30	
<b>Head</b>		Linear movement (plunger) Rotary movement (lever) Rotary movement, multi-directional Same heads for ranges XCM D, XCK D, XCK P and XCK T			
<b>Contact blocks</b>	2 snap action contacts with positive opening operation	<b>N/C + N/O; N/C + N/C</b>		<b>N/C + N/O</b>	
	3 snap action contacts with positive opening operation	<b>N/C + N/C + N/O</b>	<b>N/C + N/C + N/O; N/C + N/O + N/O</b>		
	4 snap action contacts with positive opening operation	<b>N/C + N/C + N/O + N/O</b> –			
	2 slow break contacts with positive opening operation	<b>N/C + N/O break before make</b>	<b>N/C + N/O break before make; N/O + N/C make before break; N/C + N/C simultaneous</b>		
	2 slow break contacts	–	<b>N/O + N/O simultaneous</b>		
	3 slow break contacts with positive opening operation	<b>N/C + N/C + N/O break before make</b>	<b>N/C + N/C + N/O break before make; N/C + N/O + N/O break before make</b>		
<b>Insulation voltage (Ui) / thermal current (Ithe)</b>		Pre-cabled 2 contacts: 400 V/6 A 3 contacts: 400 V/4 A 4 contacts: 400 V/3 A	Screw terminal 2 contacts: 500 V/10 A 3 contacts: 400 V/6 A	Screw terminal 2 contacts: 500 V/10 A	
		Connector Integral M12, 4-pin: 250 V/3 A Integral M12, 5-pin: 60 V/4 A Remote 7/8" 16UN: 250 V/6 A	Connector Integral M12, 5-pin: 60 V/4 A	Connector Integral M12, 4-pin: 250 V/3 A	
<b>Degree of protection IP/IK</b>		IP 66, IP 67, IP 68, IK 06	IP 66, IP 67, IK 06	IP 66, IP 67, IK 04	
<b>Connection</b>	<b>Screw terminals</b>	–	1 entry for ISO M16 or M20, Pg 11, Pg 13 cable gland or 1/2" NPT, PF 1/2	2 entries for ISO M16 or Pg 11 cable gland or 1/2" NPT (using adaptor)	
	<b>Pre-cabled</b>	Yes	–		
	<b>Connector</b>	Integral or remote M12 or remote 7/8" 16UN	Integral M12		
<b>Type reference</b>		<b>XCM D</b>	<b>XCK D</b>	<b>XCK P</b>	
				<b>XCK T</b>	
<b>Page(s)</b>		37604/4	37606/2 and 37607/2	37608/2 and 37609/2	
				37610/2	

Miniature Optimum	Compact Optimum	Compact Application: with manual reset		
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Plastic, double insulated		Metal	Plastic, double insulated	
Fixing by the body or by the head		Fixing by the body		
-				
-		EN 50047	-	
30 x 50 x 16	31 x 65 x 30		58 x 51 x 30	
Linear movement (plunger) Rotary movement (lever) Rotary movement, multi-directional		Linear movement (plunger) Rotary movement (lever) Same heads for ranges XC DR, XC PR and XC TR		
<b>N/C + N/O</b>				
-				
-				
-		<b>N/C + N/O break before make</b>		
-		-		
-				
Screw terminal 2 contacts: 400 V/6 A		Screw terminal 2 contacts: 500 V/10 A		
-				
IP 65, IK 04		IP 66, IP 67, IK 04		
-		1 entry for ISO M20 or Pg 11 cable gland	1 entry for ISO M20 or Pg 13 cable gland or 1/2" NPT	2 entries for ISO M16 or Pg 11 cable gland or 1/2" NPT (using adaptor)
Yes	-			
-				
<b>XCM N</b>	<b>XCK N</b>	<b>XCD R</b>	<b>XCP R</b>	<b>XCT R</b>
37603/2	37611/2	37613/2	37614/2	37615/2

Design

Classic



<b>Enclosure</b>	Metal		
<b>Features</b>	–		Fixed or plug-in body, -40 °C or +120 °C versions
<b>Variable composition switches</b>	Head + Body + Operator		
<b>CENELEC or DIN conformity</b>	–		EN 50041
<b>Body dimensions (w x h x d) in mm</b>	63 x 64 x 30	52 x 72 x 30	40 x 77 x 44 42.5 x 84 x 36
<b>Head</b>	Linear movement (plunger) Rotary movement (lever) Rotary movement, multi-directional		
<b>Contact blocks</b>	2 snap action contacts with positive opening operation	N/C + N/O; N/C + N/C	N/C + N/O; N/C + N/C
	3 snap action contacts with positive opening operation	N/C + N/C + N/O; N/C + N/O + N/O	
	C/O snap action contacts	–	2 C/O
	C/O slow break contacts	–	
	2 slow break contacts with positive opening operation	N/C + N/O break before make N/O + N/C make before break N/C + N/C simultaneous	
	2 slow break contacts	N/O + N/O simultaneous	
	3 slow break contacts with positive opening operation	N/C + N/C + N/O break before make; N/C + N/O + N/O break before make	
<b>Insulation voltage (Ui) / thermal current (Ithe)</b>	Screw terminal 2 contacts: 500 V/10 A 3 contacts: 400 V/6 A		Connector Integral M12, 5-pin: 60 V/4 A Integral 7/8" 16UN: 250 V/6 A
<b>Degree of protection IP/IK</b>	IP 66, IK 06		IP 66, IK 07
<b>Connection</b>	<b>Screw terminals (entry for cable gland)</b>	3 entries for ISO M20 or Pg 11 cable gland or 1/2" NPT	1 entry incorporating cable gland or tapped 1/2" NPT
	<b>Connector</b>	–	1 entry for ISO M20 or Pg 13 cable gland or 1/2" NPT
		–	Integral M12 or 7/8" 16UN
<b>Type reference</b>	<b>XCK M</b>	<b>XCK L</b>	<b>XCK J</b>
<b>Page(s)</b>	32100/2	32100/2	32400/2

# Limit switches

## Osiswitch® Classic, Application and Miniature snap switches

Classic	Application: for installations requiring electrical redundancy	Application: for lifting and materials handling equipment or very severe applications	Sub-miniature, miniature: applications requiring high precision and a low operating force	Applications: safety (1)
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Plastic, double insulated	Metal	Metal or polyester	Plastic	Metal or plastic	Plastic
–	2 sets of contacts	–	Depending on type	–	
Head + Body + Operator	Fixed composition		Depending on type, fixed composition or contact and operator	–	
EN 50041	–	–		EN 50041 or EN 50047	–
40 x 72.5 x 36	72 x 81 x 36	Depending on type	DIN 41635, depending on type	Depending on type	16 x 51 x 7 25 x 88 x 13 Ø 30, L 38.5
Linear movement (plunger) Rotary movement (lever) Rotary movement, multi-directional	Linear movement (plunger) Rotary movement (lever)	–		Linear movement (plunger) Linear movement (plunger) Rotary movement (lever) Actuator operated Spindle operated	–
N/C + N/O; N/C + N/C	2 x N/C + N/O contact blocks	Depending on type	–	Depending on type: 2-pole, 3-pole or 4-pole contact blocks	Independent Reed type contacts operated by coded magnet. Must be used with a Preventa safety module. Depending on type: N/C + N/O (N/C staggered) N/O + N/O (1 N/O staggered) N/C + N/C + N/O (1 N/C staggered) N/C + N/O + N/O (1 N/O staggered) N/C + N/O (N/O staggered) N/O + N/O (1 N/O staggered)
N/C + N/C + N/O; N/C + N/O + N/O	–	–	1 single-pole contact		
2 C/O	–	Depending on type	–		
–	–	Depending on type	–		
N/C + N/O break before make N/O + N/C make before break N/C + N/C simultaneous N/O + N/O simultaneous	2 x N/C + N/O break before make contact blocks	Depending on type	–		
N/C + N/C + N/O break before make N/C + N/O + N/O break before make	–	–	–		
Screw terminal 2 contacts: 500 V/10 A 3 contacts: 400 V/6 A	Screw terminal 2 contacts: 500 V/10 A	Depending on type			
–	–				
IP 65, IK 03	IP 66, IK 06	Depending on type: IP 66, IK 05, IP 65, IK 05 or IP 54, IK 05	Depending on type	Depending on type: IP 66 and IP 67 or IP 67	
1 entry for ISO M20 or Pg 13 cable gland	3 entries for ISO M20 or Pg 13 cable gland	Depending on type: 1 or 3 entries for ISO M20 or Pg 13 cable gland	Depending on type: by tags or pre-wired	Depending on type: entry for cable gland or pre-cabled	Depending on type: pre-cabled or with connector on flying lead
–	–				
<b>XCK S</b>	<b>XCK ML</b>	<b>XCR, XCK MR, XC1 AC, XC2 J</b>	<b>XEP</b>	<b>XCS ●</b>	<b>XCS DMC XCS DMP XCS DMR</b>
32300/2	32100/2	32600/2, 32602/2 and 32500/2	37621/2	37616/2	32942/2 and 32942/3

(1) For further information, please refer to our "Safety solutions using Preventa" catalogue.