



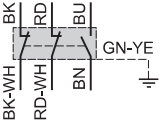
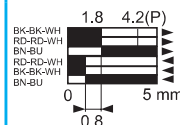
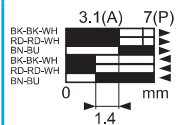
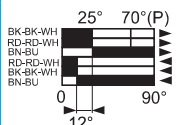
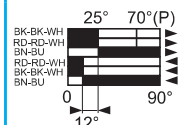
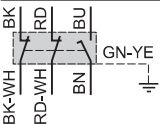
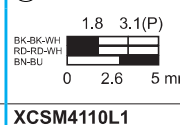
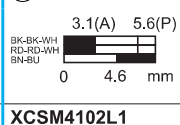
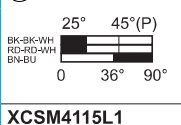
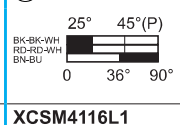
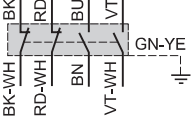
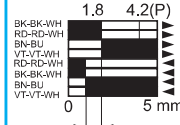
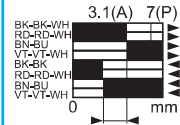
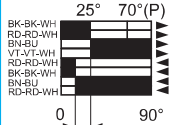
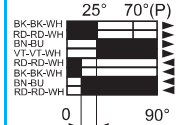
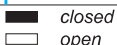





Safety detection solutions

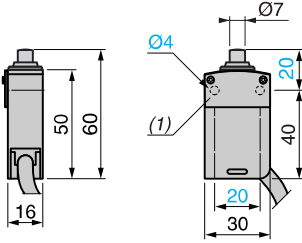
Safety limit switches
XCSM miniature design, metal
Pre-cabled

Type of head	Plunger (fixing by the body)		Rotary (fixing by the body)	
				
Type of operator	Metal end plunger	Roller plunger	Thermoplastic roller lever	Steel roller lever
References (⊖ NC contact with positive opening operation)				
 <p>3-pole 2 NC + 1 NO snap action contact</p>	<p>XCSM3910L1</p> 	<p>XCSM3902L1</p> 	<p>XCSM3915L1</p> 	<p>XCSM3916L1</p> 
 <p>3-pole 2 NC + 1 NO break before make, slow break contact</p>	<p>XCSM3710L1</p> 	<p>XCSM3702L1</p> 	<p>XCSM3715L1</p> 	<p>XCSM3716L1</p> 
 <p>4-pole 2 NC + 2 NO snap action contact</p>	<p>XCSM4110L1</p> 	<p>XCSM4102L1</p> 	<p>XCSM4115L1</p> 	<p>XCSM4116L1</p> 
Weight (kg)	0.165	0.170	0.205	0.210
Contact operation			<p>(A) = cam displacement (P) = positive opening point ⊖ NC contact with positive opening operation</p>	
Complementary characteristics not shown under general characteristics (page 27)				
Switch actuation	On end	By 30° cam		
Type of actuation				
Maximum actuation speed	0.5 m/s	0.5 m/s	1.5 m/s	
Mechanical durability	10 million operating cycles			
Minimum force or torque	Tripping	8.5 N	7 N	0.5 N.m/4.42 lb-in
	Positive opening	42.5 N	35 N	0.1 N.m/0.88 lb-in
Cabling	3-pole contacts	PVC pre-cabled, 7 x 0.5 mm ² , length 1 m (1)		
	4-pole contacts	PVC pre-cabled, 9 x 0.34 mm ² , length 1 m (1)		

(1) For a 2 m long cable, replace L1 with L2.
For a 5 m long cable, replace L1 with L5.

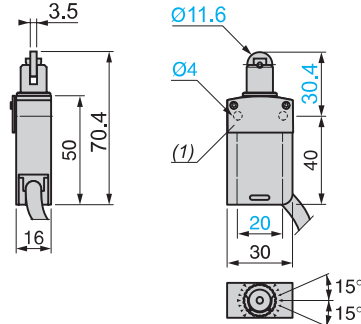
Dimensions

XCSM●●10L1

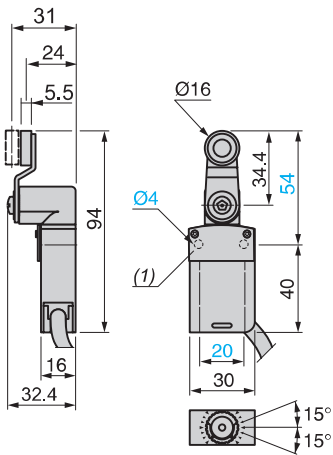


(1) Protective plate fixed by 5-lobe torque safety screws.

XCSM●●02L1

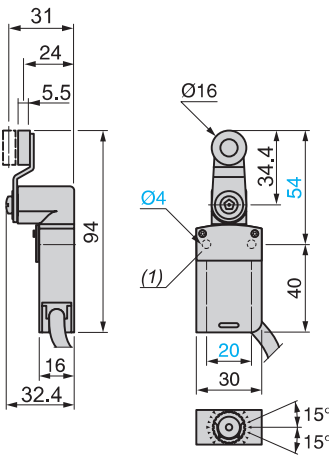


XCSM●●15L1



(1) Protective plate fixed by 5-lobe torque safety screws.

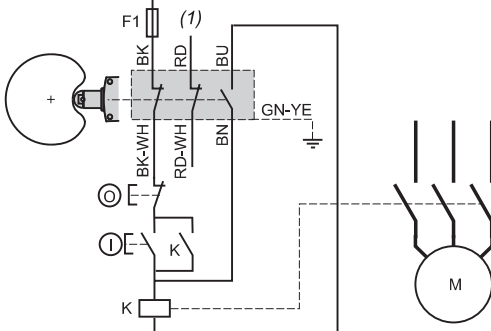
XCSM●●16L1



Connections

Wiring up to PL = b, category 1 conforming to EN/ISO 13849-1

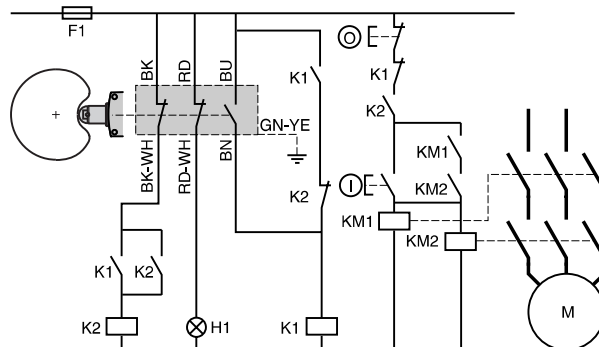
Example with 3-pole 2 NC + 1 NO contact and protection fuse to help prevent shunting of the N/C contacts, due to either cable damage or tampering.



(1) Signaling contact

Wiring up to PL = d, category 3 conforming to EN/ISO 13849-1

Example with 3-pole 2 NC + 1 NO contact with mixed redundancy of the contacts and the associated control relays. Opening and closing of the guard necessary to activate K1.



H1: "Guard closed" indicator light

Example of guard monitoring using 2 switches and 1 safety control unit (PL=e, category 4 conforming to EN/ISO 13849-1)

Operation in positive and negative (combined) mode

