

Position switch, 1early N/O+1late N/C, rounded plunger

Powering Business Worldwide[™]

LS-11D Part no. Article no. 266114 Catalog No. **LS-11D**

Delivery programme		
Basic function		Position switches Safety position switches
Part group reference		LS(M)
Product range		Rounded plunger
Degree of Protection		IP66, IP67
Features		Basic device, expandable
Ambient temperature	°C	-25 - +70
Contacts		
N/O = Normally open		1 N/0
N/C = Normally closed		1 NC →
Notes		= safety function, by positive opening to IEC/EN 60947-5-1
Contact sequence		0-\frac{127}{28} \frac{15}{16}
Contact travel = Contact closed = Contact open		0 3.0 6.1 15-16 NC 27-28 NO 2.1 2w = 4.5 mm
Positive opening (ZW)		yes
Colour		
Enclosure covers		Yellow
Enclosure covers		
Housing		Insulated material
Connection type		Cage Clamp
Notes		Cage-Clamp is a registered trademark of Wago Kontakttechnik, 32432 Minden, Germany. Accessories for the Cage-Clamp terminals from Wago:power comb, gray, Wago Article No. 264-402

Approvals

Product Standards	IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14; CE marking	
UL File No.	E29184	
UL Category Control No.	NKCR	
CSA File No.	12528	
CSA Class No.	3211-03	
North America Certification	UL listed, CSA certified	
Degree of Protection	IEC: IP66, 67, UL/CSA Type 3R, 4X (indoor use only), 12, 13	

General

Standards	IEC/EN 60947	
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Climatic proofing			Damp heat, constant, to IEC 60068-2-78; damp heat, cyclical, to IEC 60068-2-30
Ambient temperature		°C	-25 - +70
Mounting position		J	As required
Degree of Protection			IP66, IP67
Terminal capacities		mm ²	11 00, 11 07
·			1(0.5. 0.5)
Solid		mm ²	1 x (0.5 - 2.5)
Flexible with ferrule		mm ²	1 x (0.5 - 1.5)
Contacts/switching capacity			
Rated impulse withstand voltage	U _{imp}	V AC	4000
Rated insulation voltage	Ui	V	400
Overvoltage category/pollution degree			III/3
Rated operational current	l _e	Α	
AC-15			
24 V	I _e	Α	6
220 V 230 V 240 V	l _e	Α	6
380 V 400 V 415 V	l _e	Α	4
DC-13			
24 V	l _e	Α	3
110 V	I _e	Α	0.6
220 V	I _e	Α	0.3
Control circuit reliability			
at 24 V DC/5 mA	H _F	Fault probabilit	< 10 ⁻⁷ , < 1 fault in 107 operations cy
at 5 V DC/1 mA	H _F	Fault probabilit	$< 10^{-6}$, < 1 failure at 5 x 10^6 operations
Supply frequency		Hz	max. 400
Short-circuit rating to IEC/EN 60947-5-1			
max. fuse		A gG/gL	6
Repetition accuracy		mm	0.15
Rated conditional short-circuit current		kA	1
Mechanical variables			
Lifespan, mechanical	Operations	x 10 ⁶	8
Contact temperature of roller head		°C	≦ ₁₀₀
Mechanical shock resistance (half-sinusoidal shock, 20 ms)			
Standard-action contact		g	25
Operating frequency	Operations/h		≦ ₆₀₀₀
Actuation			
Mechanical			
Actuating force at beginning/end of stroke		N	1.0/8.0
Actuating torque of rotary drives		Nm	0.2
Max. operating speed with DIN cam		m/s	1/0.5
Notes			for angle of actuation $\alpha=0^{\circ}/30^{\circ}$

Data for design verification according to IEC/EN 61439

l _e	Α	6
l _e	Α	3
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
		Meets the product standard's requirements.
	1	Δ Δ

10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

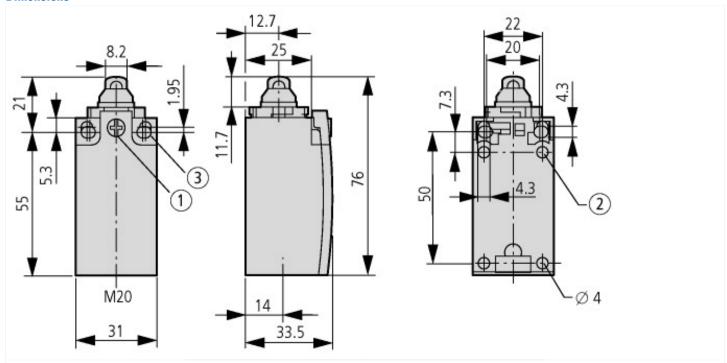
Technical data ETIM 5.0

Sancore (EG000026)	/ End cwitch	(ECUUNOSU)

Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Position switch (Type 1) (ecl@ss8-27-27-06-01 [AGZ382011])

Width sansor Immedia reasors 1 Immedia reasors 1	[AGZ382011])		
Helpit of sensor mm 61 Length of sensor mm 33.5 Rated operation current le at AC-15, 24 V A 6 Rated operation current le at AC-15, 250 V A 3 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 28 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 28 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 5 Rated operation current le at DC-13, 125 V A 1 Rated operation current le at DC-13, 125 V A 1 <td>Width sensor</td> <td>mm</td> <td>31</td>	Width sensor	mm	31
Length of sensor mm 33.5 Rated operation current le at AC-15, 24 V A 6 Rated operation current le at AC-15, 125 V A 6 Rated operation current le at AC-15, 230 V A 6 Rated operation current le at DC-13, 224 V A 0.8 Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Switching function W No No Output electronic No No No Forced opening W Yes No Number of contacts as normally closed contact Yes No Number of contacts as normally closed contact Yes 1 Number of contacts as normally closed contact Yes No Number of contacts as change-over contact Yes No Type of interface for safety communication Yes No Housing according to norm Yes Plastic Construction type housing Yes Plunger Cating housing Yes Plunge	Diameter sensor	mm	0
Rated operation current le at AC-15, 24 V A 6 Rated operation current le at AC-15, 125 V A 6 Rated operation current le at AC-15, 230 V A 6 Rated operation current le at DC-13, 24 V A 0 Rated operation current le at DC-13, 230 V A 0 Rated operation current le at DC-13, 230 V A 0 Switching function C A 0 Output electronic C No No Forced opening C C No Number of safety auxiliary contacts C 0 1 Number of contacts as normally closed contact C 0 1 Number of contacts as normally closed contact C 0 0 Number of contacts as normally closed contact C 0 0 Number of contacts as change-over contact C 0 0 Type of interface for safety communication C 0 0 Housing according to norm C 0 0 Construction type housing C	Height of sensor	mm	61
Rated operation current le at AC-15, 125 V A 6 Rated operation current le at DC-13, 24 V A 3 Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 125 V A 0.3 Rated operation current le at DC-13, 125 V A 0.3 Switching function No 0.3 Switching function No No Forced operation current le at DC-13, 230 V A 0.3 Switching function No No Forced operation No No Forced operation No No Vulptud le factoric No No Number of safety auxiliary contacts 1 1 Number of contacts as normally open contact 1 1 Number of contacts as change-over contact No No Type of interface for safety communication No No Construction type in function type housing Plastic Luboid Material housing Luboid Luboid Control element Plunger	Length of sensor	mm	33.5
Rated operation current le at AC-15, 230 V A 3 Rated operation current le at DC-13, 25 V A 0.8 Rated operation current le at DC-13, 25 V A 0.8 Rated operation current le at DC-13, 230 V A 3 Switching function Book partion current le at DC-13, 230 V Book partion switch Switching function No Slow-action switch Forced opening Yes Post-action switch Number of safety auxiliary contacts 0 9 Number of contacts as normally closed contact 1 1 Number of contacts as change-over contact 9 1 Number of contacts as change-over contact 9 10 Number of contract ace for safety communication 9 10 Housing according to norm 9 10 Construction type housing 9 10 Coating housing 9	Rated operation current le at AC-15, 24 V	Α	6
Rated operation current le at DC-13, 125 V A 3 Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Switching function Switching function Slow-action switch Output electronic No No Forced opening Yes Ves Number of safety auxiliary contacts 1 O Number of contacts as normally closed contact 1 1 Number of contacts as normally open contact 1 1 Number of contacts as change-over contact 9 1 Type of interface None None Type of interface for safety communication None Post Material housing Post Post Coating housing Post Post	Rated operation current le at AC-15, 125 V	Α	6
Rated operation current le at DC-13, 125 V A 0.8 Rated operation current le at DC-13, 230 V A 0.3 Switching function Switching function No No Output electronic No Yes Forced opening Yes No Number of safety auxiliary contacts 1 1 Number of contacts as normally closed contact 1 1 Number of contacts as change-over contact 1 1 Type of interface None None Type of interface for safety communication Yes None Housing according to norm Yes None Conting housing Yes Plastic Cotting housing Yes Plunger Cotting housing Yes Plunger Cotting control element Yes Yes Alignment of the control element Yes Yes Type of electric connection Yes Yes With status indication Yes Yes Suited for safety functions Yes Yes <td>Rated operation current le at AC-15, 230 V</td> <td>Α</td> <td>6</td>	Rated operation current le at AC-15, 230 V	Α	6
Rated operation current le at DC-13, 230 V A 0.3 Switching function Slow-action switch Output electronic No No Forced opening Yes Number of safety auxiliary contacts 0 0 Number of contacts as normally closed contact 1 1 Number of contacts as shange-over contact 9 1 Number of rosafety communication 8 1 None Type of interface for safety communication 9 1 None Housing according to norm 0 None Cuboid Construction type housing 1 Plastic Coating housing 9 1 Plunger Coating housing 9 1 Plunger Alignment of the control element 9 1 9 1 Type of electric connection 9 1 9 1 1 With status indication 9 1 9 1 1 Suited for safety functions 9 1 9 1	Rated operation current le at DC-13, 24 V	Α	3
Switching functionSlow-action switchOutput electronicNoForced openingYesNumber of safety auxiliary contacts0Number of contacts as normally closed contact1Number of contacts as normally open contact1Number of contacts as change-over contact1Type of interfaceNoneType of interface for safety communicationNoneHousing according to normCuboidConstruction type housingPlasticCoating housingPlasticType of control elementPlungerAlignment of the control elementPlungerAlignment of the control elementPlungerVift status indicationNoSuited for safety functionsNoSuited for safety functionsYesExplosion safety category for gasNoneExplosion safety category for dustNone	Rated operation current le at DC-13, 125 V	Α	0.8
Output electronic No Forced opening Yes Number of safety auxiliary contacts 0 Number of contacts as normally closed contact 1 Number of contacts as normally open contact 6 Number of contacts as change-over contact 6 Type of interface None Type of interface for safety communication None Housing according to norm Cuboid Construction type housing Plastic Material housing Plastic Coating housing Plunger Type of control element Plunger Alignment of the control element Plunger Type of electric connection Plunger With status indication No Suited for safety functions Yes Explosion safety category for gas None Explosion safety category for dust None	Rated operation current le at DC-13, 230 V	Α	0.3
Forced opening Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contracts as change-over contact Number of contracts as change-over contact Number of contacts as change-over contacts Number of contacts as change-over contacts Number of contacts as change-over contacts Number o	Switching function		Slow-action switch
Number of safety auxiliary contacts Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as normally open contact Number of contacts as change-over contact None None None None None Construction type of interface for safety communication None Construction type housing None Construction type housing None None Cothoid Cuboid Cuboid Cutodid None Plunger Alignment of the control element Night of electric connection Night status indication None None None None Plunger None	Output electronic		No
Number of contacts as normally closed contact Number of contacts as normally open contact Number of contacts as change-over contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Housing according to norm Construction type housing Material housing Coating housing Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suited for safety functions Explosion safety category for dust More I a land None None Commendation None Plunger Plunger No No No No No No No No No N	Forced opening		Yes
Number of contacts as normally open contact Number of contacts as change-over contact Type of interface Type of interface for safety communication Housing according to norm Construction type housing Material housing Coating housing Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suited for safety functions Explosion safety category for dust I a land many open contact I b None I coating housing Plastic Plunger Plunger Plunger No Solited for safety functions Yes Explosion safety category for dust None None None	Number of safety auxiliary contacts		0
Number of contacts as change-over contact Type of interface Type of interface for safety communication None Type of interface for safety communication None Housing according to norm Construction type housing Material housing Coating housing Coating housing Coating to control element Type of control element Alignment of the control element Type of electric connection With status indication None Suited for safety functions Explosion safety category for dust Explosion safety category for dust None None None None None None None	Number of contacts as normally closed contact		1
Type of interface for safety communication Type of interface for safety communication Housing according to norm Construction type housing Material housing Coating housing Coating housing Coating housing Type of control element Type of control element Type of electric connection Type of electric connection With status indication Suited for safety functions Explosion safety category for gas Explosion safety category for dust None None None	Number of contacts as normally open contact		1
Type of interface for safety communication Housing according to norm Construction type housing Material housing Coating housing Coating housing Coating housing Type of control element Type of control element Type of control element Type of selectric connection With status indication Suited for safety functions Explosion safety category for gas Explosion safety category for dust None None None None None None	Number of contacts as change-over contact		0
Housing according to norm Construction type housing Material housing Coating housing Coating housing Type of control element Alignment of the control element Type of electric connection With status indication Suited for safety functions Explosion safety category for gas Explosion safety category for dust Loboid Cuboid Cuboid Plastic Cuboid Plastic Plastic Plunger Plunger - No No No No No No No No No	Type of interface		None
Construction type housingCuboidMaterial housingPlasticCoating housing-Type of control elementPlungerAlignment of the control element-Type of electric connection-With status indicationNoSuited for safety functionsYesExplosion safety category for gasNoneExplosion safety category for dustNone	Type of interface for safety communication		None
Material housingPlasticCoating housing-Type of control elementPlungerAlignment of the control element-Type of electric connection-With status indicationNoSuited for safety functionsYesExplosion safety category for gasNoneExplosion safety category for dustNone	Housing according to norm		-
Coating housing-Type of control elementPlungerAlignment of the control element-Type of electric connection-With status indicationNoSuited for safety functionsYesExplosion safety category for gasNoneExplosion safety category for dustNone	Construction type housing		Cuboid
Type of control element Alignment of the control element Type of electric connection With status indication Suited for safety functions Explosion safety category for dust Plunger - Connection No Ves Noe None None	Material housing		Plastic
Alignment of the control element Type of electric connection With status indication Suited for safety functions Explosion safety category for dust None None None	Coating housing		-
Type of electric connection With status indication No Suited for safety functions Yes Explosion safety category for gas None Explosion safety category for dust None	Type of control element		Plunger
With status indication No No Suited for safety functions Yes Explosion safety category for dust None Explosion safety category for dust None	Alignment of the control element		-
Suited for safety functions Explosion safety category for dust Yes None None	Type of electric connection		-
Explosion safety category for gas Explosion safety category for dust None None	With status indication		No
Explosion safety category for dust None	Suited for safety functions		Yes
	Explosion safety category for gas		None
Ambient temperature during operating °C -25 - 70	Explosion safety category for dust		None
	Ambient temperature during operating	°C	-25 - 70

Dimensions



- $igotimes_{ ext{Tightening torque of cover screws: 0.8 Nm ±0.2 Nm}}$
- only with LS (insulated version)
- $\begin{array}{c}
 \hline
 3 \\
 \text{Fixing screws 2 x M4} & \cong 30 \\
 \text{M}_{A} = 1.5 \text{ Nm}
 \end{array}$

