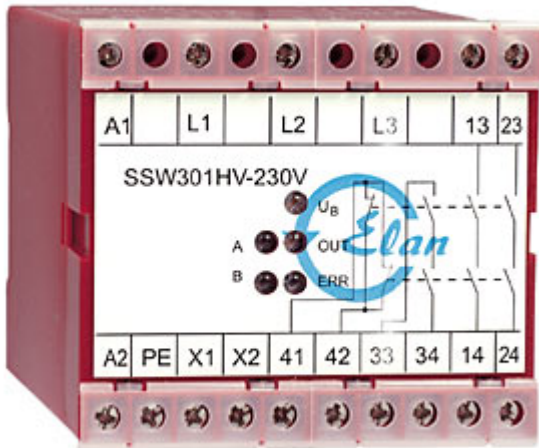


## Datasheet - SSW301HV-230V

Fail-safe standstill monitors / SSW 301HV



(Minor differences between the printed image and the original product may exist!)

- Fail-safe standstill monitors
- This fail-safe standstill monitor has the particular advantage that no adjustment for a required-value is needed during commissioning.
- 3 safety contacts, STOP 0
- Control category 4 to EN ISO 13849-1

### Ordering details

Product type description	SSW301HV-230V
Article number	101182218
EAN Code	4250116202591
eCl@ss	27-37-19-01

### Approval

Approval




### Classification

Standards	EN ISO 13849-1, IEC 61508, EN 60947-5-1
PL	up e (STOP 0)
Control category	bis 4 (STOP 0)
DC	99% (STOP 0)
CCF	> 65 points
PFH	≤ 2,0.0 x 10 <sup>-8</sup> /h (STOP 0)
- notice	up to max. 36500 switching cycles/year and at max. 60% contact load
SIL	up 3 (STOP 0)
Mission time	20 Years
- notice	The PFH value is applicable for the combinations listed in the table for contact load (K) (current through enabling paths) and switching cycle number (n-op/y). In case of 365 operating days per year and a 24-hour operation, this results in the specified switching cycle times (t-cycle) for the relay contacts. Diverging applications on request.

K	n-oply	t-cycle
20 %	525.800	1,0 min
40 %	210.240	2,5 min
60 %	75.087	7,0 min
80 %	30.918	17,0 min
100 %	12.223	43,0 min

## Global Properties

Permanent light	SSW301HV
Standards	IEC/EN 60204-1, EN 60947-5-1, EN ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	Yes
Climatic stress	EN 60068-2-78
Mounting	snaps onto standard DIN rail to EN 60715
Terminal designations	IEC/EN 60947-1
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
- Material of the contacts	AgSn0 + Au, self-cleaning, positive action
Weight	500
Start conditions	Automatic
Start input (Y/N)	No
Feedback circuit (Y/N)	Yes
Start-up test (Y/N)	No
Reset after disconnection of supply voltage (Y/N)	-
Automatic reset function (Y/N)	Yes
Reset with edge detection (Y/N)	No
Pull-in delay	
- ON delay with automatic start	typ. 7 s after detection of the standstill
Drop-out delay	
- Drop-out delay in case of emergency stop	< 15

## Mechanical data

Connection type	Screw connection
Cable section	
- Min. Cable section	0,5
- Max. Cable section	2,5
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,6
Detachable terminals (Y/N)	No
Mechanical life	10.000.000 operations
Electrical lifetime	Derating curve available on request
resistance to shock	30 g / 11 ms
Resistance to vibration To EN 60068-2-6	10...55 HZ, Amplitude 0,35 mm

## Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+45
Storage and transport temperature	
- Min. Storage and transport temperature	-40
- Max. Storage and transport temperature	+85
Protection class	
- Protection class-Enclosure	IP40
- Protection class-Terminals	IP20

- Protection class-Clearance	IP54
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage $U_{imp}$	4 kV
- Overvoltage category	III To VDE 0110
- Degree of pollution	2 To VDE 0110

## Electromagnetic compatibility (EMC)

EMC rating	conforming to EMC Directive
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## Electrical data

Rated DC voltage for controls	
- Max. rated DC voltage for controls	-
- Max. rated DC voltage for controls	-
Rated AC voltage for controls, 50 Hz	
- Min. rated AC voltage for controls, 50 Hz	195.5
- Max. rated AC voltage for controls, 50 Hz	253
Rated AC voltage for controls, 60 Hz	
- Min. rated AC voltage for controls, 60 Hz	195.5
- Max. rated AC voltage for controls, 60 Hz	253
Contact resistance	max. 100 mΩ
Power consumption	max. 4 VA
Type of actuation	AC
Rated operating voltage $U_e$	230 VAC -15% / +10%
Electronic protection (Y/N)	No
Fuse rating for the operating voltage	Internal electronic trip 32 mA slow blow

## Inputs

<b>Monitored inputs</b>	
- Short-circuit recognition (Y/N)	Yes
- Wire breakage detection (Y/N)	Yes
- Earth connection detection (Y/N)	Yes
Number of shutters	0
Number of openers	0
Cable length	< 10
Conduction resistance	max. 40 Ω

## Outputs

Stop category	0
Number of safety contacts	3
Number of auxiliary contacts	1
Switching capacity	
- Switching capacity of the safety contacts	max. 250 V, 6 A ohmic (inductive in case of appropriate protective wiring) min. 10 V / 10 mA
- Switching capacity of the auxiliary contacts	24 VDC, 2 A
Fuse rating	
- Protection of the safety contacts	6.3 A slow blow
- Fuse rating for the signaling/diagnostic outputs	2 A slow blow
Utilisation category	AC-15: 230 V / 6 A; DC-13: 24 V / 6 A
Number of undelayed semi-conductor outputs with signaling function	0

Number of undelayed outputs with signaling function (with contact)	1
Number of delayed semi-conductor outputs with signaling function.	0
Number of delayed outputs with signalling function (with contact).	0
Number of secure undelayed semi-conductor outputs with signaling function	0
Number of secure, undelayed outputs with signaling function, with contact.	3
Number of secure, delayed semi-conductor outputs with signaling function	0
Number of secure, delayed outputs with signaling function (with contact).	0

## LED switching conditions display

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LED switching conditions display (Y/N)	Yes
Number of LED's	5
LED switching conditions display	
- The integrated LEDs indicate the following operating states.	
- Ub: Supply voltage available	
- A: Frequency at channel A	
- B: Frequency at channel B	
- OUT: Enabling safety contacts 13-14, 23-24 closed	
- ERR: Error functional defect	

## Miscellaneous data

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Applications



safe standstill monitoring

## Dimensions

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Dimensions	
- Width	90 mm
- Height	83 mm
- Depth	127 mm

## notice

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Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

## notice - Wiring example

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The sensor-free standstill monitor checks the e.m.f. of the three phase motor.

To secure a guard door

The wiring diagram is shown with guard doors closed and in de-energised condition.

## Ordering code

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SSW 301HV-(1)

(1)

115V

115 VAC

230V

230 VAC

## Documents

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**Operating instructions and Declaration of conformity (it)** 307 kB, 27.08.2018

Code: mrl\_ssw\_301hv\_it

**Operating instructions and Declaration of conformity (en)** 306 kB, 18.07.2018

Code: mrl\_ssw\_301hv\_en

**Operating instructions and Declaration of conformity (pt)** 312 kB, 27.08.2018

Code: mrl\_ssw\_301hv\_pt

**Operating instructions and Declaration of conformity (pl)** 316 kB, 27.08.2018

Code: mrl\_ssw\_301hv\_pl

**Operating instructions and Declaration of conformity (es)** 306 kB, 27.08.2018

Code: mrl\_ssw\_301hv\_es

**Operating instructions and Declaration of conformity (de)** 275 kB, 18.07.2018

Code: mrl\_ssw\_301hv\_de

**Operating instructions and Declaration of conformity (fr)** 309 kB, 27.08.2018

Code: mrl\_ssw\_301hv\_fr

**Operating instructions and Declaration of conformity (jp)** 391 kB, 15.04.2014

Code: mrl\_ssw\_301hv\_jp

**Operating instructions and Declaration of conformity (nl)** 305 kB, 27.08.2018

Code: mrl\_ssw\_301hv\_nl

**Wiring example (99)** 18 kB, 20.08.2008

Code: kssw3l01

**BG-test certificate (en)** 741 kB, 19.07.2018

Code: z\_sswp02

**BG-test certificate (de)** 744 kB, 19.07.2018

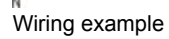
Code: z\_sswp01

**EAC certification (ru)** 1 MB, 15.03.2018

Code: q\_aes01

## Images

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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