

Safety Switches made of Polyester Resin

Series 8146/5-V37

STAHL



- Can be used with conventional drives and drives controlled by frequency converters
- Intelligent design: A single rotary actuator for actuating both main and auxiliary contacts, ≥ 20 ms leading auxiliary contact for safely disconnecting the frequency converter
- Version complies with IEC/EN 62626-1, Class 1
- The rotary actuator can be locked with 3 padlocks in the 0-position

E7

WebCode 8146L



R. STAHL's 8146/5-V37 series safety switches safely disconnect the power supply to machinery and system components for cleaning and repair as prescribed. They can be used at frequencies from 5 to 400 Hz. All of the installed load disconnect switches have an AC-3 switching capacity. The switches can be locked in the 0-position using padlocks.

	IECEX / ATEX					
Zone	0	1	2	20	21	22
Installation in		•	•		•	•

Selection Table								
Rated operational current		0 A / 10 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-300-50-0050	220275 ▲	1.700
Yellow shroud, red handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-300-50-1050	220277	1.700
Rated operational current		0 A / 12 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-301-50-0050	147855 ▲	0.962
	With N-terminal	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-301-50-0150	147857	0.982
Yellow shroud, red handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-301-50-1050	147856 ▲	0.958
	With N-terminal	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-301-50-1150	147858	0.978

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Selection Table

Rated operational current		0 A / 16 A						
Gas temperature class		T4						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Yellow shroud, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-302-00-1510	226354	2.500
Rated operational current		0 A / 16 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-0050	201404 ▲	1.590
	With PTC resistor terminal	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-0250	222088	1.590
	Standard (without)	Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-602-60-0010	201420 ▲	2.640
Yellow shroud, red handle	Standard (without)	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-1050	201405 ▲	1.590
	With N-terminal	Brass plate with 8161	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-302-50-1150	201406	1.590
	Standard (without)	Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-602-60-1010	201421	2.640
Rated operational current		0 A / 20 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M32 Ø 13 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-303-50-0010	220278 ▲	2.020
Yellow shroud, red handle	Standard (without)	Standard 8161, moulded material	2 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-303-50-1010	220279	2.020
Rated operational current		0 A / 25 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-304-50-0010	201422 ▲	1.960
		Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-604-60-0010	201464	2.790

Selection Table								
Rated operational current		0 A / 25 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Yellow shroud, red handle	Standard (without)	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-304-50-1010	201423 ▲	2.020
	With N-terminal	Standard 8161, moulded material	2 x M32 Ø 9 ... 21 mm 1 x M20 Ø 4 ... 13 mm	Without	1 NO / delayed	8146/5-V37-304-50-1110	201462	2.020
	Standard (without)	Standard 8161, moulded material	4 x M25 Ø 7 ... 17 mm 1 x M20 Ø 4 ... 13 mm	Without	2 NO / 1x delayed	8146/5-V37-604-60-1010	201447	2.790
Rated operational current		0 A / 40 A						
Gas temperature class		T4						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Yellow shroud, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-305-00-1510	226355	7.500
Rated operational current		0 A / 40 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm	Without	Without	8146/5-V37-305-00-0010-K	242415	5.520
		Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-305-51-0010-K	200206 ▲	5.560
	Standard (without)	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-605-00-0010-K	200311	10.960
		Standard 8161, moulded material	4 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-605-51-0010-K	200290	10.960
Yellow shroud, red handle	Standard (without)	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-305-51-1010-K	200207	5.520
	With N-terminal	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-305-51-1110-K	200208	5.900
	Standard (without)	Standard 8161, moulded material	2 x M40 Ø 12 ... 28 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-605-51-1010-K	200321	10.960
Rated operational current		0 A / 63 A						
Gas temperature class		T4						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Yellow shroud, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-306-00-1510	226356	10.700

Selection Table

Rated operational current Gas temperature class		0 A / 63 A T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm	Without	Without	8146/5-V37-306-00-0010-K	242416	5.680
		Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-306-00-0010	213115	7.550
	Standard (without)	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-0010-K	200558	5.680
		Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-0010	213395	7.550
		Brass plate with drilled holes	2 x M50 1 x M20	1 NC	1 NO / delayed	8146/5-V37-306-51-0040	213398	11.800
		Standard 8161, moulded material	4 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-606-00-0010	200573	10.100
		Standard 8161, moulded material	4 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-606-51-0010	200574	10.100
Yellow shroud, red handle	Standard (without)	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-1010-K	200559	5.680
		Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-1010	213396	7.550
	With N-terminal	Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-1110-K	200560	5.680
		Standard 8161, moulded material	2 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-306-51-1110	213397	7.550
	Standard (without)	Standard 8161, moulded material	4 x M50 Ø 16 ... 35 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-606-51-1010	200575	10.100
	Rated operational current Gas temperature class		0 A / 80 A T4					
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Yellow shroud, red handle	Main contact on terminals	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-307-00-1510	226357	14.400

Safety Switches made of Polyester Resin

Series 8146/5-V37

STAHL

E7

Selection Table								
Rated operational current		0 A / 125 A						
Gas temperature class		T6						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-308-00-0010-K	201396	14.350
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-308-00-0010	212478	18.500
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-0010-K	201397	14.350
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-0010	212209	18.500
		Brass plate with drilled holes	2 x M63 1 x M20	1 NC	1 NO / delayed	8146/5-V37-308-51-0040-K	201400	21.260
		Brass plate with drilled holes	2 x M63 1 x M20	1 NC	1 NO / delayed	8146/5-V37-308-51-0040	212212	22.770
		Standard 8161, moulded material	4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-608-00-0010	201401	22.760
		Standard 8161, moulded material	4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-608-51-0010	201402	22.760
Yellow shroud, red handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-1010-K	201398	14.350
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-1010	212210	18.500
	With N-terminal	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-1110-K	201399	14.350
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-308-51-1110	212211	23.200
	Standard (without)	Standard 8161, moulded material	4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-608-51-1010	201403	22.760
	With N-terminal	Standard 8161, moulded material	4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-608-51-1110	212766	22.760

Selection Table

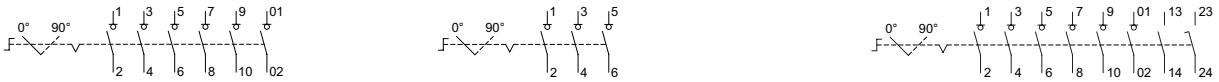
Rated operational current Gas temperature class		0 A / 180 A T4						
Colour of handle	Additional terminal	Entry type	Cable gland	Auxiliary contact NC	Auxiliary contact NO	Product Type	Art. No.	Weight kg
Black shroud and handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-310-00-0010-K	213475	14.360
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-310-00-0010	213482	19.560
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-310-51-0010-K	213476	14.360
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-310-51-0010	213483	19.560
		Brass plate with drilled holes	2 x M63 1 x M20	1 NC	1 NO / delayed	8146/5-V37-310-51-0040-K	213479	15.140
		Brass plate with drilled holes	2 x M63 1 x M20	1 NC	1 NO / delayed	8146/5-V37-310-51-0040	213486	22.770
		Standard 8161, moulded material	4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	Without	Without	8146/5-V37-610-00-0010	213489	37.360
		Standard 8161, moulded material	4 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-610-51-0010	213490	37.360
Yellow shroud, red handle	Standard (without)	Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-310-51-1010-K	213477	14.360
		Standard 8161, moulded material	2 x M63 Ø 28 ... 48 mm 1 x M20 Ø 4 ... 13 mm	1 NC	1 NO / delayed	8146/5-V37-310-51-1010	213484	19.560

Technical Data

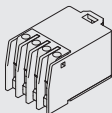
Variant	Gas temperature class T6	Gas temperature class T4
Explosion Protection		
IECEx gas explosion protection	Ex db eb IIC T6 Gb	Ex db eb IIC T4 Gb
IECEx dust explosion protection	Ex tb IIIC T80 °C Db	Ex tb IIIC T130 °C Db
ATEX gas explosion protection	⊕ II 2 G Ex db eb IIC T6 Gb	⊕ II 2 G Ex db eb IIC T4 Gb
ATEX dust explosion protection	⊕ II 2 D Ex tb IIIC T80 °C Db	⊕ II 2 D Ex tb IIIC T130 °C Db
Certificates	ATEX (PTB), China (NEPSI), IECEx (PTB)	ATEX (PTB), China (NEPSI), IECEx (PTB)
Electrical Data		
Notes	Auxiliary contact NO (1 x ON delayed - OFF leading)	
Ambient Conditions		
Notes	Information regarding ambient conditions can be found on the Internet at r-stahl.com. WebCode 8146L	
Mechanical Data		
Degree of protection (IP)	IP66	IP66
Enclosure material	Polyester resin, Glass fibre reinforced	Polyester resin, Glass fibre reinforced
Type of connection cable	Solid Finely stranded	Finely stranded Solid
Seal	Silicone, foamed	Silicone, foamed
Seal Notes	Seal optional: EPDM	Seal optional: EPDM

Technical Data		
Variant	Gas temperature class T6	Gas temperature class T4
Mechanical Data		
Lockable in	3x in 0	3x in 0
Detailed number of poles	3-pole	3-pole

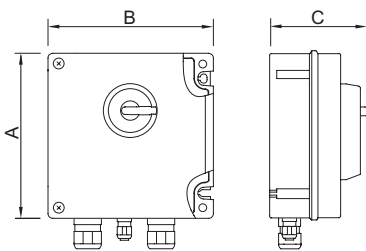
Technical Drawings – Subject to Alterations



Accessories

Figure	Description	Art. No.	Weight kg
Auxiliary contact			
	2 NC contacts (8080/1-3) 250 V AC/DC max. 6 A 1.5 ... 2.5 mm ² solid / finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: synchronising	168356	0.026
	1 NC contact + 1 NO contact (8080/1-1) 250 V AC/DC max. 6 A 1.5 ... 2.5 mm ² solid / finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left: delayed (ON), leading (OFF) Right: synchronising	168351	0.026
	2 NO contacts (8080/1-4) 250 V AC/DC max. 6 A 1.5 ... 2.5 mm ² solid / finely stranded The switching function of the auxiliary contact depends on the installation slot used. Left and right: synchronising	168353	0.026

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



E7

Version	Rated operational current	Product Type	Dimension A [mm]	Dimension B [mm]	Dimension C [mm]
3-pole	10, 12 / 16 A	8146/5-V37-300-50-...	112.5	112.5	131
		8146/5-V37-301-50-...	112.5	112.5	131
	16 A	8146/5-V37-302-50-...	170	112.5	132
		8146/5-V37-302-...-5..	340.5	170	132
		8150/5-V37-302-50-...	176.5	176.5	132
		8146/5-V37-302-50-0250	227	112.5	172
	20 A	8146/5-V37-303-50-...	170	170	132
	25 A	8146/5-V37-304-50-...	170	170	132
		8150/5-V37-304-50-...	176.5	176.5	132
	40 A	8146/5-V37-305-...-K	340.5	170	176.5
		8146/5-V37-305-...-5..	340.5	340.5	195
		8150/5-V37-305-...-K	360	176.5	194
	63 / 80 A	8146/5-V37-306-...-K	340.5	170	195
		8146/5-V37-306-...	340.5	340.5	195
		8146/5-V37-306-...-5..	681.5	340.5	195
8150/5-V37-306-S1-...		360	360	196	
80 A	8146/5-V37-307-...-5..	681.5	340.5	195	
125 / 160 A	8146/5-V37-308-...-K	681.5	340.5	205	
	8146/5-V37-308-...	681.5	681.5	205	
180 A	8146/5-V37-310-...-K	681.5	340.5	205	
	8146/5-V37-310-...	681.5	681.5	205	
6-pole	16 A	8146/5-V37-602-60-...	170	170	172
	25 A	8146/5-V37-604-60-...	227	170	172
	40 A	8146/5-V37-605-...-K	340.5	340.5	205
	63 / 80 A	8146/5-V37-606-...	681.5	340.5	205
	125 / 160 A	8146/5-V37-608-...	1023	681.5	243
	180 A	8146/5-V37-610-...	1023	681.5	243