

Safety relays

SIRIUS 3TK28 Safety Relays

With electronic enabling circuits

Selection and ordering data

Type	Basic units			Multi-function units								
	3TK2840	3TK2841	3TK2842	3TK2845	"Auto-matic and monitored start"	"Auto-matic and monitored start"	"Moni-tored start"	"Moni-tored start"	OK button	OK button	"Spring-type inter-locking"	"Magnet-locked inter-locking"
			t_v		t_v			t_v		t_v	t_v	t_v
Sensors												
• Inputs	1	1	1	2	2	2	2	2	2	2	2	2
• Electronic	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
• With contacts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
• Magnetically operated switch (Reed contacts)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Safety mats	--	✓	✓	✓	✓	✓	✓	✓	--	--	--	--
Start												
• Auto	✓	✓	✓	1	1	--	--	1	1	--	--	--
• Monitored	✓	✓	✓	1	1	2	2	1	1	2	2	2
Cascading input 24 V DC	--	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Key-operated switch	--	--	--	✓	✓	✓	✓	✓	✓	✓	✓	✓
Enabling circuit, floating												
• Stop category 0	--	--	--	2 NO	1 NO	2 NO	1 NO	2 NO	1 NO	1 NO	1 NO	1 NO
• Stop category 1	--	--	--	--	1 NO	--	1 NO	--	1 NO	1 NO	1 NO	1 NO
Enabling circuit, electronic												
• Stop category 0	2 ¹⁾	2	1	2	1	2	1	2	1	1	1	1
• Stop category 1	--	--	1	--	1	--	1	--	1	1	1	1
Signaling outputs												
• Floating	--	--	--	--	--	--	--	--	--	--	--	--
• Electronic	--	--	--	1	1	1	1	1	1	1	1	1
Standards	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508, EN 50156-1						IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508				
Test certificates	TÜV, UL, CSA											
SIL level max. according to IEC 61508	2	3	3	3	3	3	3	3	3	3	3	3
Performance level PL according to EN ISO 13849-1	d	e	e	e	e	e	e	e	e	e	e	e
Probability of a dangerous failure per hour (PFH_d)	1.1×10^{-8} 1/h	5.4×10^{-11} 1/h	5.4×10^{-11} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h	6.9×10^{-9} 1/h
Rated control supply voltage 24 V DC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ Available

-- Not available

¹⁾ The outputs are only safe when an external contactor is used.