

Safety relays

SIRIUS 3TK28 Safety Relays

With contactor relay enabling circuits

Selection and ordering data

Type	Basic units				Expansion units ¹⁾	Expansion units ¹⁾
	3TK2850	3TK2851	3TK2852	3TK2853	3TK2856	3TK2857 t _v
Sensors						
• Inputs	1	1	1	1	--	--
• Electronic	--	--	--	✓	--	--
• With contacts	✓	✓	✓	✓	--	--
• Magnetically operated switch (Reed contacts)	✓	✓	✓	✓	--	--
Safety mats	✓	✓	✓	✓	--	--
Start						
• Auto	✓	✓	✓	✓	--	--
• Monitored	✓	✓	✓	✓	--	--
Cascading input 24 V DC	--	--	--	✓	✓	✓
Key-operated switch	--	--	--	--	--	--
Enabling circuit, floating						
• Stop category 0	3 NO	2 NO	6 NO	3 NO	6 NO	--
• Stop category 1	--	--	--	--	--	3 NO
Enabling circuit, electronic						
• Stop category 0	--	--	--	1	1	1
• Stop category 1	--	--	--	--	--	--
Signaling outputs						
• Floating	--	1 NC	1 NC	--	1 NC	--
• Electronic	--	--	--	--	--	--
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	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508	IEC 60204-1, EN ISO 12100, EN ISO 13849-1, IEC 61508
Test certificates	TÜV, UL, CSA	TÜV, UL, CSA	TÜV, UL, CSA	TÜV, UL, CSA	TÜV, UL, CSA	TÜV, UL, CSA
SIL level max. according to IEC 61508	2	2	2	3	As basic unit	As basic unit
Performance level PL according to EN ISO 13849-1	d	d	d	e	As basic unit	As basic unit
Probability of a dangerous failure per hour (PFH_d)	1.2 x 10 ⁻⁸ 1/h	1.1 x 10 ⁻⁸ 1/h	1.1 x 10 ⁻⁸ 1/h	1.1 x 10 ⁻⁸ 1/h	1.1 x 10 ⁻⁸ 1/h	1.1 x 10 ⁻⁸ 1/h
Rated control supply voltage						
• 24 V DC	✓	✓	✓	✓	✓	✓
• 24 V AC/DC	--	--	--	--	--	--
• 24 V AC	✓	✓	--	--	--	--
• 115 V AC	✓	✓	--	--	--	--
• 230 V AC	✓	✓	✓	--	--	--
• 24 ... 240 V AC/DC	--	--	--	--	--	--
Rated operational voltage						
• 24 V DC	✓	✓	✓	✓	✓	✓
• 230 V AC	✓	✓	✓	✓	✓	✓
• 600 V AC	✓	✓	✓	✓	✓	✓
Switching capacity						
• AC-15 at U = 230 V	6 A	6 A	6 A	6 A	6 A	6 A
• DC-13 at U = 24 V	10 A	10 A	10 A	10 A	10 A	10 A

✓ Available

-- Not available

¹⁾ For expansion of Siemens safety products.