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Data sheet 3SE6415-1CB01

RFID safety switch with tumbler, plastic, with escape release, red levers can be mounted on both sides, quiescent current principle, tumbler monitoring, 24 V DC, IP69, locking force 1150 N, family-coded, diagnostic output, M12 plug 8-pole, 3 LEDs for display of the operating states, 3 directions of actuation, latching force with turnstile adjustable: 25 N or 50 N. hygienic design. actuator 3SE6410-1AC01 to be ordered separately.

product brand name	SIRIUS
product category	Non-contact safety switch
product designation	RFID safety switch with tumbler
design of the product	rectangular sensor unit
product type designation	3SE64
Product Function	
product function	
● positive opening	No
● control function for downstream devices	No
● cross-circuit/short-circuit recognition	Yes
suitability for use	
● safety-related circuits	Yes
General technical data	
product feature	family-coded, catch 25N/50N
product feature suitable for series connection	Yes
locking force	1 500 N
● according to EN ISO 14119	1 150 N
locking mechanism design	quiescent current principle
design of the RFID coding	universal coding
insulation voltage rated value	32 V
degree of pollution according to EN 60664-1	3
overvoltage category	Class III
surge voltage resistance rated value	0.8 kV
no-load current rated value	100 mA
protection class IP	IP66 in accordance with EN 60529 IP67 in accordance with EN 60529 IP69 in accordance with EN 60529
shock resistance	
● according to IEC 60068-2-27	30g / 11 ms
vibration resistance according to IEC 60068-2-6	10 ... 150 Hz, amplitude 0.35 mm
design of the switching function	positive switching
switching frequency	0.5 Hz
mechanical service life (operating cycles) typical	1 000 000
● note	when used as door stop: ≥ 50,000 switching cycles (door masses ≤ 5 kg and actuating speed ≤ 0.5 m/s)
relative ON period [%] of magnet coil	100 %
reference code according to IEC 81346-2	B
Substance Prohibitance (Date)	07/01/2006
Sensor	
height of the sensor	55 mm
length of the sensor	146 mm
width of the sensor	87.5 mm

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Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
● during operation	0 ... 60 °C
● during storage and transport	-10 ... +90 °C
operating resource protection class according to IEC 61140	III
relative humidity	
● during operation	93 %
● during operation maximum note	non-condensing, non-icing
Control circuit/ Control	
current consumption of magnet coil rated value	100 mA
locked-rotor current peak of magnet coil	250 mA
duration of locked-rotor current peak	200 ms
Main circuit	
operating voltage rated value	24 V
operational current rated value	250 mA
Enclosure	
design of the housing	special design
material of the enclosure	plastic, fiberglass reinforced thermoplast, self-extinguishing
Actuator	
● Product equipment auxiliary release of guard locking	Yes
● product feature latching	Yes
detent force adjustable 1	25 N
detent force adjustable 2	50 N
angular offset between guard locking and actuator maximum	2°
Display	
product function status display	Yes
display version as status display by LED	3 LEDs
Contact	
circuit principle	spring-actuated lock (closed-circuit principle)
operating distance	2 mm
assured operating distance OFF	20 mm
assured operating distance ON	1 mm
Installation/ mounting/ dimensions	
fastening method	screw fixing
design of the thread of the screw for securing the equipment	2x M6
tightening torque of fixing screw minimum	6 N·m
tightening torque of fixing screw maximum	7 N·m
Connections/ Terminals	
type of electrical connection	M12 plug, 8-pole, A-coded
wire length maximum	200 m
contact assignment	
● of socket 1 at PIN 1	A1 supply voltage Ub
● of socket 1 at PIN 2	X1 safety input 1
● of socket 1 at PIN 3	A2 GND
● of socket 1 at PIN 4	OSSD1 safety output 1
● of socket 1 at PIN 5	OUT diagnostic output
● of the bushing 1 at PIN 6	X2 safety input 2
● of the bushing 1 at PIN 7	OSSD2 safety output 2
● of the bushing 1 at PIN 8	IN magnet controller
Supply voltage	
type of voltage of the supply voltage	DC
supply voltage rated value	24 V
supply voltage	26.4 ... 20.4 V
fuse protection type for external auxiliary power supply required	2 A gG
Inputs/ Outputs	
input voltage at digital input	

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● with signal <0> at DC	-3 ... +5 V
● for signal <1> at DC	15 ... 30
input voltage at safety-related digital input	
● for signal <0> at DC	-3 ... +5 V
● for signal <1> at DC	15 ... 30 V
input current at digital input for signal <1> typical	10 mA
input current at safety-related digital input for signal <1> typical	5 mA
number of semiconductor outputs	
● for signaling function	1
● safety-related	2
design of the contactless switching element safety-related	short-circuit proof, sourcing output
type of diagnostic output	short-circuit proof, sourcing output
dark period at safety-related digital output maximum	0.5 ms
dark period test duration	
● at digital input maximum	5 ms
● at safety-related digital input maximum	1 ms
dark period test interval	
● at digital input minimum	40 ms
● at safety-related digital input minimum	100 ms
● at safety-related digital output maximum	1 000 ms
residual current at digital output with signal <0> maximum	0.5 mA
voltage drop	
● at safety-related output maximum	4 V
● at diagnostic output maximum	4 V
output current	0.5 mA
output current at safety-related output maximum	0.25 A
output current at diagnostic output maximum	0.05 A
Communication/ Protocol	
design of the interface for safety-related communication	connector M12
transmission frequency rated value	125 kHz
Safety related data	
Safety Integrity Level (SIL)	
● according to IEC 61508	3
● for position monitoring according to IEC 62061	3
● for guard locking according to IEC 62061	2
performance level (PL)	
● according to EN ISO 13849-1	e
● for position monitoring according to ISO 13849-1	e
● for guard locking according to ISO 13849-1	d
category	
● according to EN ISO 13849-1	4
● for position monitoring according to ISO 13849-1	4
● for guard locking according to ISO 13849-1	2
PFHD with high demand rate	
● for position monitoring according to IEC 62061	5.2E-9 1/h
● for guard locking according to IEC 62061	2E-9 1/h
PFDavg with low demand rate	
● for position monitoring according to IEC 62061	4.5E-4
● for guard locking according to IEC 62061	0.0018
T1 value for proof test interval or service life	
● for position monitoring according to IEC 62061	20 a
● for guard locking according to IEC 62061	20 a
category according to EN 954-1	4
type of monitoring	guard locking
response delay maximum	5 000 ms
OFF-delay time with safety-related request	
● when switched off via control inputs maximum	1.5 ms
● for safety-related shutdown via actuator maximum	100 ms
conditional short-circuit current (Iq) at 400 V according to IEC 60947-4-1 rated value	100 A

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Certificates/ approvals

General Product Approval	EMC	Functional Safety/Safety of Machinery	Declaration of Conformity
Confirmation		Type Examination Certificate	

Declaration of Conformity	other
	Confirmation

Further information

Siemens has decided to exit the Russian market (see here).
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875

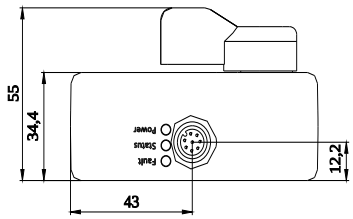
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10

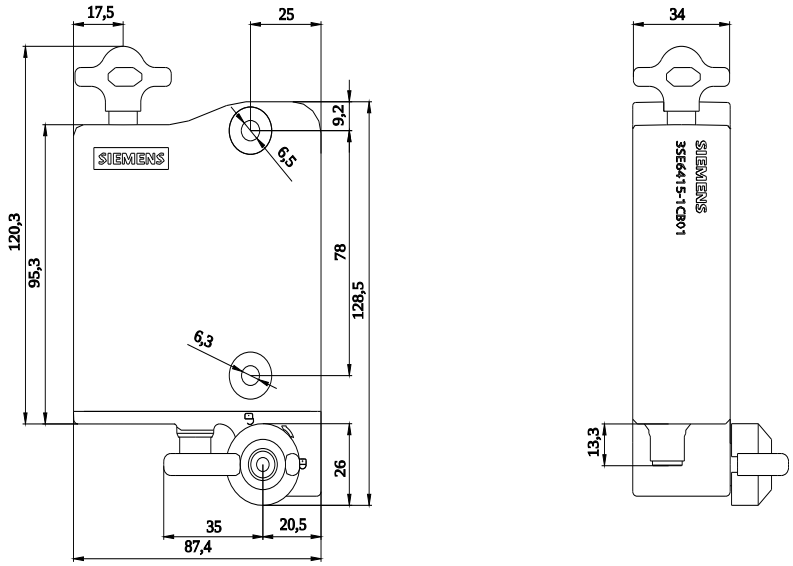
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3SE6415-1CB01

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SE6415-1CB01

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3SE6415-1CB01

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SE6415-1CB01&lang=en





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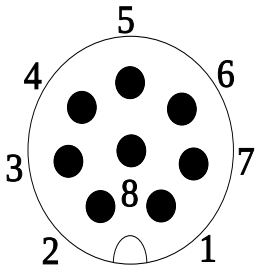

1	WH = White	→	A1	supply voltage Ue
2	BN = Brown	→	X1	safety input 1
3	GN = Green	→	A2	GND
4	YE = Yellow	→	OSSD1	safety output 1
5	GY = Grey	→	OUT	diagnostics output
6	PK = Pink	→	X2	safety input 2
7	BU = Blue	→	OSSD2	safety output 2
8	RD = Red	→	IN	solenoid control

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