## SIEMENS

## Data sheet

## 3SU1150-7AE88-1QA0-Z X90



Coordinate switch, 22 mm, round, metal shiny, black, 4 switch positions, latching, without mechanical interlocking, in O position, with holder, 1 NO, 1 NO, 1 NO, screw terminal, Z=20-unit packaging

•	
product brand name	SIRIUS ACT
product designation	Coordinate switches
design of the product	Complete unit
product type designation	3SU1
product line	Metal, shiny, 22 mm
manufacturer's article number	
<ul> <li>of supplied contact module at position 1</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of supplied contact module at position 2</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of supplied contact module at position 3</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of supplied contact module at position 4</li> </ul>	<u>3SU1400-1AA10-1BA0</u>
<ul> <li>of the supplied holder</li> </ul>	<u>3SU1550-0BA10-0AA0</u>
<ul> <li>of the supplied actuator</li> </ul>	<u>3SU1050-7AE88-0AA0</u>
Enclosure	
shape of the enclosure front	round
Actuator	
design of the actuating element	without mechanical interlock
principle of operation of the actuating element	latching
direction of actuation	horizontal / vertical
product extension optional light source	No
color of the actuating element	black
material of the actuating element	plastic
shape of the actuating element	Extended handle
outer diameter of the actuating element	30.5 mm
number of contact modules	4
number of switching positions	4
Maximum deflection angle [°]	30°
Front ring	
product component front ring	Yes
design of the front ring	high
material of the front ring	Metal, high gloss
color of the front ring	silver
Holder	
material of the holder	Plastic
General technical data	
product function positive opening	No
insulation voltage rated value	500 V
degree of pollution	3
type of voltage of the operating voltage	AC/DC
surge voltage resistance rated value	6 kV

protection class IP	IP65, IP67
of the terminal	IP20
shock resistance	
<ul> <li>according to IEC 60068-2-27</li> </ul>	sinusoidal half-wave 15g / 11 ms
vibration resistance	
<ul> <li>according to IEC 60068-2-6</li> </ul>	10 500 Hz: 5g
operating frequency maximum	2 400 1/h
mechanical service life (switching cycles)	
<ul> <li>as operating period per direction of actuation typical</li> </ul>	100 000
electrical endurance (switching cycles) typical	10 000 000
electrical endurance (switching cycles) with	10 000 000
contactors 3RT1015 to 3RT1026 typical	
thermal current	10 A
reference code according to IEC 81346-2	S
continuous current of the C characteristic MCB	10 A; for a short-circuit current smaller than 400 A
continuous current of the quick DIAZED fuse link	10 A
continuous current of the DIAZED fuse link gG	10 A
Substance Prohibitance (Date)	10/01/2014
operating voltage	
• at AC	
— at 50 Hz rated value	5 500 V
— at 60 Hz rated value	5 500 V
at DC rated value	5 500 V
Power Electronics	
contact reliability	One maloperation per 100 million (17 V, 5 mA), one maloperation per 10
	million (5 V, 1 mA)
Auxiliary circuit	<b>2</b> 1
design of the contact of auxiliary contacts	Silver alloy
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	4
-	
Connections/ Terminals	
Connections/ Terminals type of electrical connection of modules and accessories	Screw-type terminal
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections	
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing	2x (0.5 0.75 mm²)
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> )
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> )
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> )
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing • at AWG cables	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14)
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing • at AWG cables	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14)
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections • solid with core end processing • solid without core end processing • finely stranded with core end processing • finely stranded without core end processing • at AWG cables tightening torque of the screws in the bracket tightening torque for auxiliary contacts with screw-type terminals Safety related data	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m
Connections/ Terminals type of electrical connection of modules and accessories type of connectable conductor cross-sections solid with core end processing solid without core end processing finely stranded with core end processing sinely stranded without core end processing stranded without core end proces	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded with core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions         ambient temperature	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 %
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions         ambient temperature         • during operation	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 100 FIT
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions         ambient temperature	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C 3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         during operation         • during operation         • during storage         environmental category during operation according to IEC 60721	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Installation/ mounting/ dimensions	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C 3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel)
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure storage         environmental category during operation according to IEC 60721         Installation/ mounting/ dimensions         fastening method	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C 3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel) front plate mounting
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions         ambient temperature         • during operation         • during storage         environmental category during operation according to IEC 60721         Installation/mounting/ dimensions         fastening method         • of modules and accessories	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C 3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel) front plate mounting Front plate mounting Front plate mounting
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         during operation         • during operation         • during storage         environmental category during operation according to IEC 60721         Installation/ mounting/ dimensions         fastening method         • of modules and accessories         height	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C 3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel) front plate mounting Front plate mounting Front plate mounting 40 mm
Connections/ Terminals         type of electrical connection of modules and accessories         type of connectable conductor cross-sections         • solid with core end processing         • solid without core end processing         • finely stranded with core end processing         • finely stranded with core end processing         • finely stranded without core end processing         • at AWG cables         tightening torque of the screws in the bracket         tightening torque for auxiliary contacts with screw-type terminals         Safety related data         B10 value with high demand rate according to SN 31920         proportion of dangerous failures         • with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         failure rate [FIT] with low demand rate according to SN 31920         Ambient conditions         ambient temperature         • during operation         • during storage         environmental category during operation according to IEC 60721         Installation/mounting/ dimensions         fastening method         • of modules and accessories	2x (0.5 0.75 mm <sup>2</sup> ) 2x (1.0 1.5 mm <sup>2</sup> ) 2x (0.5 1.5 mm <sup>2</sup> ) 2x (1,0 1,5 mm <sup>2</sup> ) 2x (18 14) 1 1.2 N·m 0.8 1 N·m 100 000 20 % 20 % 20 % 100 FIT -25 +70 °C -40 +80 °C 3M6, 3S2, 3B2, 3C3, 3K6 (with relative air humidity of 10 95%, no condensation in operation permitted for all devices behind front panel) front plate mounting Front plate mounting Front plate mounting

mounting diameter	22.3 mm	
<b>v</b>		
positive tolerance of installation diameter	0.4 mm	
mounting height	71.3 mm	
installation width	30.5 mm	
installation depth	53.7 mm	
Certificates/ approvals		
Further information		
Information and Doumlandoonter (Catalone Dreakures )		

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=3SU1150-7AE88-1QA0-Z X90

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SU1150-7AE88-1QA0-Z X90

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3SU1150-7AE88-1QA0-Z X90

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3SU1150-7AE88-1QA0-Z X90&lang=en

last modified:

1/26/2022 🖸