



C4000 Select

Flexible Solutions for Machine Safeguarding

SENSORS
INCORPORATED

507 Kelsey St. • Delano, MN 55328
Phone: 763-972-1040 • Fax: 763-972-1041
Toll Free: 1-888-920-0939
www.SensorsIncorporated.com

SICK
Sensor Intelligence.

...at the Speed of Light

The C4000 Select Safety Light Curtain is the newest addition to the C4000 family from SICK. This innovative light curtain is designed specifically to meet the requirements of our North American customers. It is configured using DIP switches, rather than a PC, and provides intuitive and visible diagnostics for fast troubleshooting. Plus, the integrated laser and alignment bar graph display simplifies commissioning and an optional LED indicator provides continuous status indication – even from a distance.

Versatility...

- Reduce installation and start up time – flexible mounting options, and integrated laser alignment.
- Simplify maintenance – complete, visible diagnostics for troubleshooting.
- Maximize machine availability – on-the-spot replacement and alignment indicators.
- Extended I/O – provides a single set of outputs to simplify wiring.
- Cascade other C4000 Select Light Curtains or a S300 or S3000 Safety Laser Scanner.

...at the speed of light



AUTOMOTIVE

Reduced maintenance and installation costs. The C4000 Select is ideal for automotive manufacturing, such as safeguarding stamping presses and turntable applications.



MATERIAL HANDLING

Versatility. In applications involving automatic material transport, the C4000 Select offers point-of-entry and point-of-operation safeguarding for conveyors, palletizing and specialty machines.



ROBOTICS

Flexibility. The C4000 Select can be cascaded with a S300 or S3000 Safety Laser Scanner or with other C4000 Select Light Curtains to provide complete safeguarding of a robotic work cell with a single safety signal.





MACHINE TOOLS

Simple and intuitive operations. Commissioning time with the C4000 Select is minimized with its integrated laser alignment and no need for software programming. It is ideal for point-of-operation safeguarding on metal working machines.



PACKAGING

Safety and availability. The C4000 Select offers a high-degree of safety and production throughput for packaging lines and machines. In addition, the C4000 is easy to integrate and offers the best response times in the industry.



SafetyPlus

SICK provides a whole system approach to safety, including assessments, consulting services and engineering support. From design... through operation... to retrofitting, our goal is to solve your application efficiently and cost-effectively.



Technical Specifications

General system data	
Sensing range (low/high)	0 ...6 m/ 5...19 m
Protective field height (depending on type)	300 mm, 600 mm, 900 mm, 1200 mm, 1500 mm, 1800 mm
Resolution (depending on type)	30 mm
Protection class	III
Enclosure rating	IP 65
Supply voltage U_V	24 V (19.2 V...28.8 V) DC ¹⁾
Type	Type 4, according to IEC 61496, SIL3 (IEC/EN 62061), PL e (ISO 13849-1:2006)
Synchronization	Optical, without separate synchronization

¹⁾ The external voltage supply must be capable of buffering brief mains failures of 20 ms as specified in EN 60 204-1. Suitable power supplies are available as accessories from SICK.

Receiver unit	
Switching outputs (OSSDs)	2 PNP semiconductors, short-circuit protected, cross-circuit monitored
Switching voltage HIGH _{min} LOW _{max}	$U_V - 2.25$ V DC 2.0 V DC
Switching current max.	500 mA
Receiver Power Consumption	≤ 8.8 W

Sender unit	
Power consumption	≤ 6.9 W

Operating data	
Connection type	M12 x 5
Ambient operating temperature from... to	0...55° C
Storage temperature from... to	-25...70° C
Air humidity from... to	15...95%
Housing cross-section	52 mm x 55.5 mm
Vibration resistance	5 g, 10...55 Hz according to IEC 60068-2-6
Shock resistance	10 g, 16 ms IEC 60068-2-29

Environmental data, materials	
Housing	Aluminum alloy ALMGSI 0.5 (powder coated)
Front screen	Polycarbonate, scratch-resistant coating
Endcaps	Polyamide 6.6 CF30
Packaging	Corrugated cardboard with Instapak®* inlays
Circuit boards	Glass-fiber reinforced epoxy resin with flame retarding agent TBBPA

* Instapak is a foam with a high energy content that generates no waste. If it needs to be buried in a landfill, it can be compacted down to 10% of its original volume. In addition, a return program is available for companies meeting recycling needs.

Ordering Information

C4000 Select without extension connection			
Protective field height (mm)	Part numbers and model designations		
	Sender only	Receiver only	Sender and receiver
300	1204061 (XC40S-0303A0A00AAA)	1204063 (XC40E-0303A0A0AAA)	1043111 (XC40P-0303A0A0AAA)
600	1204068 (XC40S-0603A0A00AAA)	1204116 (XC40E-0603A0A0AAA)	1043112 (XC40P-0603A0A0AAA)
900	1204071 (XC40S-0903A0A00AAA)	1204191 (XC40E-0903A0A0AAA)	1043113 (XC40P-0903A0A0AAA)
1200	1204118 (XC40S-1203A0A00AAA)	1204102 (XC40E-1203A0A0AAA)	1043114 (XC40P-1203A0A0AAA)
1500	1204119 (XC40S-1503A0A00AAA)	1204137 (XC40E-1503A0A0AAA)	1043115 (XC40P-1503A0A0AAA)
1800	1204112 (XC40S-1803A0A00AAA)	1204138 (XC40E-1803A0A0AAA)	104 3116 (XC40P-1803A0A0AAA)

C4000 Select with integrated LED status indicator			
Protective field height (mm)	Part numbers and model designations		
	Sender only	Receiver only	Sender and receiver
300	1204061 (XC40S-0303A0A00AAC)	1204139 (XC40E-0303A0A0AAC)	1043117 (XC40P-0303A0A0AAC)
600	1204068 (XC40S-0603A0A00AAC)	1204140 (XC40E-0603A0A0AAC)	1043118 (XC40P-0603A0A0AAC)
900	1204071 (XC40S-0903A0A00AAC)	1204141 (XC40E-0903A0A0AAC)	1043119 (XC40P-0903A0A0AAC)
1200	1204118 (XC40S-1203A0A00AAC)	1204142 (XC40E-1203A0A0AAC)	1043120 (XC40P-1203A0A0AAC)
1500	1204119 (XC40S-1503A0A00AAC)	1204143 (XC40E-1503A0A0AAC)	1043121 (XC40P-1503A0A0AAC)
1800	1204112 (XC40S-1803A0A00AAC)	1204144 (XC40E-1803A0A0AAC)	1043122 (XC40P-1803A0A0AAC)

C4000 Select with top endcap extension connection			
Protective field height (mm)	Part numbers and model designations		
	Sender only	Receiver only	Sender and receiver
300	1204069 (XC40S-0303A0A00AB)	1204134 (XC40E-0303A0A00AB)	1043123 (XC40P-0303A0A00AB)
600	1204132 (XC40S-0603A0A00AB)	1204146 (XC40E-0603A0A00AB)	1043124 (XC40P-0603A0A00AB)
900	1204145 (XC40S-0903A0A00AB)	1204147 (XC40E-0903A0A00AB)	1043125 (XC40P-0903A0A00AB)
1200	1204148 (XC40S-1203A0A00AB)	1204149 (XC40E-1203A0A00AB)	1043126 (XC40P-1203A0A00AB)
1500	1204150 (XC40S-1503A0A00AB)	1204151 (XC40E-1503A0A00AB)	1043127 (XC40P-1503A0A00AB)
1800	1204152 (XC40S-1803A0A00AB)	1204153 (XC40E-1803A0A00AB)	1043128 (XC40P-1803A0A00AB)

C4000 Select with bottom endcap system and extension connections			
Protective field height (mm)	Part numbers and model designations		
	Sender only	Receiver only	Sender and receiver
300	1204154 (XC40S-0303A0A00BA0)	1204155 (XC40E-0303A0A0CBA0)	1043129 (XC40P-0303A0A0CBA0)
600	1204156 (XC40S-0603A0A00BA0)	1204157 (XC40E-0603A0A0CBA0)	1043130 (XC40P-0603A0A0CBA0)
900	1204158 (XC40S-0903A0A00BA0)	1204159 (XC40E-0903A0A0CBA0)	1043131 (XC40P-0903A0A0CBA0)
1200	1204160 (XC40S-1203A0A00BA0)	1204161 (XC40E-1203A0A0CBA0)	1043132 (XC40P-1203A0A0CBA0)
1500	1204162 (XC40S-1503A0A00BA0)	1204163 (XC40E-1503A0A0CBA0)	1043133 (XC40P-1503A0A0CBA0)
1800	1204164 (XC40S-1803A0A00BA0)	1204165 (XC40E-1803A0A0CBA0)	1043134 (XC40P-1803A0A0CBA0)

C4000 Select with bottom endcap system/extension connections & integrated LED status indicator (receiver only)			
Protective field height (mm)	Part numbers and model designations		
	Sender only	Receiver only	Sender and receiver
300	1204154 (XC40S-0303A0A00BA0)	1204166 (XC40E-0303A0A0CBC0)	1043135 (XC40P-0303A0A0CBC0)
600	1204156 (XC40S-0603A0A00BA0)	1204167 (XC40E-0603A0A0CBC0)	1043136 (XC40P-0603A0A0CBC0)
900	1204158 (XC40S-0903A0A00BA0)	1204168 (XC40E-0903A0A0CBC0)	1043137 (XC40P-0903A0A0CBC0)
1200	1204160 (XC40S-1203A0A00BA0)	1204169 (XC40E-1203A0A0CBC0)	1043138 (XC40P-1203A0A0CBC0)
1500	1204162 (XC40S-1503A0A00BA0)	1204170 (XC40E-1503A0A0CBC0)	1043139 (XC40P-1503A0A0CBC0)
1800	1204164 (XC40S-1803A0A00BA0)	1204171 (XC40E-1803A0A0CBC0)	1043140 (XC40P-1803A0A0CBC0)

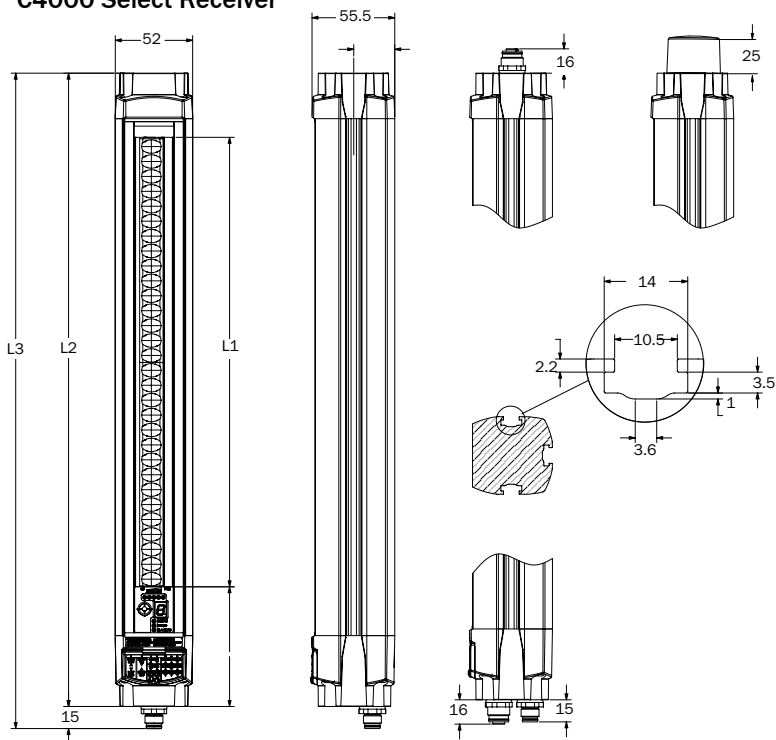
C4000 Select (receiver only has bottom extension connection with integrated LED status indicator)*			
Protective field height (mm)	Part numbers and model designations		
	Sender only	Receiver only	Sender and receiver
300	1204061 (XC40S-0303A0A00AA0)	1204166 (XC40E-0303A0A0CBC0)	1043147 (XC40P-0303A0A0CCC0)
600	1204068 (XC40S-0603A0A00AA0)	1204167 (XC40E-0603A0A0CBC0)	1043148 (XC40P-0603A0A0CCC0)
900	1204071 (XC40S-0903A0A00AA0)	1204168 (XC40E-0903A0A0CBC0)	1043149 (XC40P-0903A0A0CCC0)
1200	1204118 (XC40S-1203A0A00AA0)	1204169 (XC40E-1203A0A0CBC0)	1043150 (XC40P-1203A0A0CCC0)
1500	1204119 (XC40S-1503A0A00AA0)	1204170 (XC40E-1503A0A0CBC0)	1043151 (XC40P-1503A0A0CCC0)
1800	1204112 (XC40S-1803A0A00AA0)	1204171 (XC40E-1803A0A0CBC0)	1043152 (XC40P-1803A0A0CCC0)

* Used when cascading a SICK S300 or S3000 Safety Laser Scanner

Accessories

Part	Part number
System connection cables M12 x 5 connection cable, single-ended female connection with flying leads Plug straight/stripped, 2 m Plug straight/stripped, 5 m Plug straight/stripped, 10 m Plug straight/stripped, 15 m Plug straight/stripped, 30 m	6008899 6009868 6010544 6029215 6032956
Extension connection cables for extended I/O Used for cascade connection between a host/guest 1 C4000 Select extension connection and subsequent C4000 Select guest 1/guests 2 system connection	
M12 x 5 connection cable, double-ended connections, male and female for extended I/O connection of a C4000 Select Plug straight/plug straight, 0.6 m Plug straight/plug straight, 1 m Plug straight/plug straight, 2 m Plug straight/plug straight, 5 m	6025930 6029280 6025931 6029282
M12 x 5 connection cable, single-ended male connection with flying leads for extended I/O connection of S300 or S3000 Plug straight/plug straight, 2 m Plug straight/plug straight, 5 m Plug straight/plug straight, 10 m	6026133 6026134 6026135
Mounting brackets Swivel mounting bracket kit (mounting kit 12) Side mounting bracket kit (mounting kit 6) Standard "L" type mounting bracket kit	2030510 2019506 7021352

C4000 Select Receiver



Protective field height	L1	L2	L3
300	302	425	440
600	602	725	740
900	902	1025	1040
1200	1202	1325	1340
1500	1502	1625	1640
1800	1802	1925	1940

* All dimensions are in mm

RANGE OF EXPERTISE

INDUSTRIAL SENSORS

Our complete range of sensors provides solutions for any application in the field of automation. Even under rugged ambient conditions, objects are reliably detected, counted and positioned in respect to their form, location and surface finish, as well as their distances.



SAFETY SYSTEMS

Comprehensive safeguarding of both personnel and machinery. As specialists in safety technology, SICK develops and manufactures pioneering products for providing protection in hazardous zones, dangerous locations and for safeguarding access points. By providing services, which encompass all aspects of machine safety and security, SICK is setting new standards in Safety Technology.



AUTOMATIC IDENTIFICATION

Whether the tasks involve identification, handling, classification or volume measurement, innovative automatic identification systems and laser measurement systems function extremely reliably, even under rapid cycle times. They conform to the latest standards and can be simply and quickly integrated in all industrial environments and external applications.



ANALYZERS AND PROCESS INSTRUMENTATION

SICK MAIHAK offers solutions for system control, maintaining setpoints, optimizing process control and monitoring the flow of materials. Our analysis and process measurement products are setting the standards for these applications in terms of technology and quality.



Worldwide presence with subsidiaries in the following countries:

Australia
Austria
Belgium/Luxembourg
Brazil
China
Czech Republic
Denmark
Finland
France
Germany
Great Britain
India
Italy
Japan
Netherlands
Norway
Poland
Republic of Korea
Republic of Slovenia
Russia
Singapore

Spain
Sweden
Switzerland
Taiwan
Turkey
USA/Canada/Mexico

Please find the detailed addresses and more representatives and agencies in all major industrial nations at www.sick.com