

Versatile family of photoelectric switches for innovative factory automation

Waldkirch, Innovation No 19 2009 – The new W11-2 series of photoelectric switches from SICK is equally suitable for standard and special applications. The series' innovative sensor technology, e.g. pin-point, and the large number of device variants available are impressive. Adapted for the most varied of tasks, it is always the ideal solution when reliable object detection, universal integration capability and user-friendliness matter.

Selection of the suitable sensors is always an important initial topic when planning a new plant or machine. The W11-2 series offers maximum variety of device variants and sensor technologies. The WTB11-2 photoelectric proximity switch with background suppression and enhanced scanning distance contains an ASIC specially developed by SICK for optoelectronic sensors. The same applies for the WTF11-2, whose foreground suppression ensures reliable object detection even with heterogeneous surfaces. The ASICs in the two sensors allow accurate electronic adjustment of the scanning distance and precise stable definition of the foreground or background area to be suppressed. The family of scanners is rounded out by the WTE11-2 energetic photoelectric proximity switch. With its performance data, the WL11-2 photoelectric reflex switch is intended for tasks in handling and warehousing systems. The WL11G-2, based on the same technological platform, is suitable for the reliable detection of transparent objects, e.g. PET

bottles or transparent foils. The WSE11-2 through-beam photoelectric switch is the ideal solution for applications requiring larger functional reserves or very long ranges.

Reliable in industrial environments

The availability of sensors in industrial environments is highly dependent on their reliability under varying operating conditions. Particular attention was paid to this during development of the W11-2. The rugged housing design together with the reinforced mounting holes give the sensors extreme immunity to heavy mechanical vibrations. The permissible operating temperature lies between -30°C and +60°C and thus covers almost all environmental demands found in industry. Chemical resistance has been inspected and confirmed in comprehensive tests using the materials produced by ECO-LAB. Regarding the effect of electromagnetic fields, the devices' EMC lies well above CE requirements, i.e. sources of interference of all types in the operating environment are electronically suppressed and thus reliably cut out.

Universal integration and user-friendliness

Machine constructors, OEMs and users are just as impressed by the new W11-2 series' technical performance data for the detection of transparent to jet black objects as they are by its particular ease of integration and user-friendliness. The space-saving, compact housings as well as the uniform housing, mounting and connection features across the entire series – including dovetail mounting and rotating M12 plug with intermediate positions – offer universal integration potentials for almost all machine sizes. The devices are easily and rapidly mounted and connected. The operating mode and switching

state of the W11-2 sensors are indicated by means of two easily visible 360° status LEDs on the housing.

Summary: in sensor, integration and operation terms, the new W11-2 is the ideal series of photoelectric switches for many standard applications, as well as for challenging special solutions. It thus opens up a wide range of uses in the most varied of automation segments, e.g. in handling and warehousing systems, in packaging machines or in filling lines.



For decades, SICK has been one of the world's most innovative companies in the sensor sector. The latest technological knowledge and processes are implemented in innovative products and system solutions. They position SICK as a technology and market leader in the customer segments of factory, logistics and process automation.

More than 50 innovations in sensor and control solutions are planned for 2009. SICK will launch a new product each week as part of its "SICK Innovation Marathon 2009". All innovations – from No. 1 to No. 52 – are more than just products: they solve tasks intelligently, efficiently and precisely. And create unbeatable customer advantages.