Basler scout and pilot in a PLC Environment

Basler scout and pilot cameras are used in many industrial areas. They are used to support automatic functions such as pick and place, separation, and quality control. For ease of integration, each camera provides a powerful digital I/O interface to communicate with external applications. The camera interface can be used with different voltage ranges including TTL (0-5 VDC) and CMOS (0-3.3 VDC).

Using the camera interface in a PLC environment requires attention to some specific considerations. The typical PLC voltage level is from 0 to 24 VDC. To adapt the voltage level of a PLC signal to the voltage level of the camera, a special PLC cable is required. The cable includes an electronic device to adapt the voltage level and it also protects the camera against negative voltage peaks.

PLC Cable

The PLC cable must be employed whenever the camera is used in a PLC application. The cable is available in two different versions: as a three meter cable (Hirose connector - open end) and as a ten meter cable (Hirose connector – open end). The order numbers for the PLC cable versions are as follows:

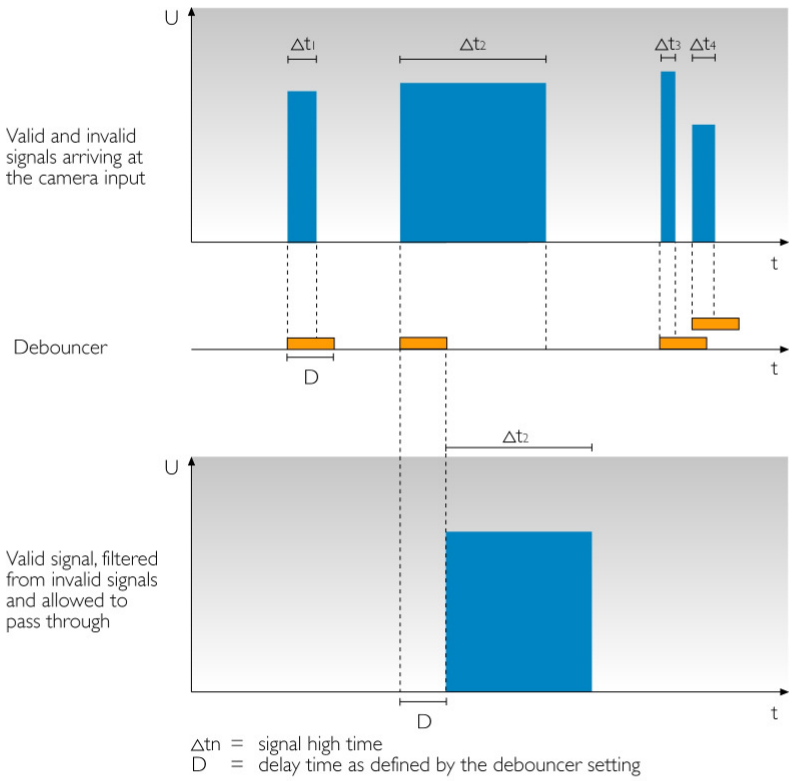
Description	SAP Number
SPS cable, HRS / open, 3 m	2000026630
SPS cable, HRS / open, 10 m	2000026632

Debouncer

To enhance the operational reliability of Basler scout and pilot cameras in industrial environments, a debouncer feature has been introduced. The feature separates short invalid signals from longer valid signals. Short invalid signals are filtered out and longer signals are recognized as valid trigger signals.

The debouncer feature must be enabled whenever a Basler scout or pilot camera is used in an industrial environment and is triggered by an external signal. With the camera's default settings, the debouncer feature is disabled. Refer to the camera User's manual for information about enabling and setting the debouncer feature.

Note: The debouncer feature imparts a time shift to each valid trigger signal. The time shift is related to the setting of the debouncer feature. The time shift can range from a few nanoseconds to approximately one second.



A signal is considered a valid input signal if $\Delta t \geqslant D$

The debouncer feature is included in all Basler scout and pilot cameras with firmware version 3.0 or higher.

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