SENSORS

High efficiency fork sensor for booklet and multilayer labels detection

- Multilayer labels detection
- Up to 0,5 mm of minimum size labels/gap
- 5 mm slot width
- 50 mm slot depth
- Dynamic or static setting through single push-button
- 12 kHz switching frequency
- Compact and robust housing, IP65
- M8 connector or 2 m cable models
- PNP or NPN models

APPLICATIONS

-Processing and Packaging machinery
-Automatic labelers

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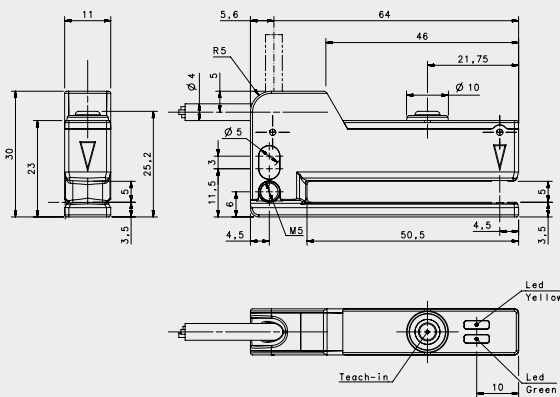| SR23		
Slot width		5 mm
Slot depth		50 mm
Switching frequency		12 kHz
Light emission		IR LED
Setting		Static or dynamic; SET push button
Power supply	Vdc	10...30 Vdc
	Vac	
	Vac/dc	
Output	PNP	▪
	NPN	▪
	NPN/PNP	
	relay	
	other	
Connection	Cable	2 m cable, 4 wires
	connector	M8 conn., 4-pole
	pig-tail	
Approximate dimensions (mm)		30x63x10
Housing material		Alluminum (Zama) [body]; Plastic(PBT) [top]
Mechanical protection		IP65

TECHNICAL DATA

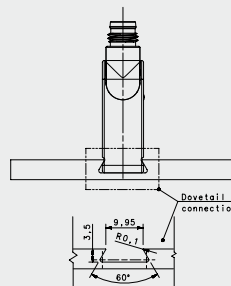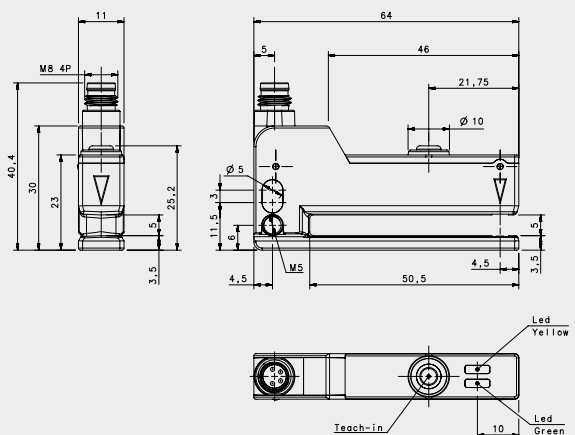|	
Power supply	10 … 30 Vdc
Ripple	2 Vpp max.
Consumption (output current excluded)	30 mA max.
Output current	100 mA max.
Light emission	Infrared 850 nm
Slot width	5 mm
Slot depth	50 mm
Minimum label width	0,5…2 mm*
Minimum space between labels	0,5…2 mm*
Setting	SET push-button
Speed of the conveyor during setting procedure	≤ 20 m/min (30 cm/s)
Indicators	READY LED(green), OUT LED (yellow)
Response time	40 μs max.
Switching frequency	12 kHz max.
Emission frequency	50 kHz modulated light
Output	PNP or NPN
Connection	M8 4-pole connector, 2 m cable 4 wires
Dielectric strenght	500 Vac, 1 min between electronics and housing
Insulating resistance	> 20 MΩ, 500 Vdc between electronics and housing
Housing material	Aluminum (Zama)
Cover material	PBT
Les material	PC
Mechanical protection	IP65
Operating temperature	-20 … 55°C
Storage temperature	-20 … 70°C
Weight	85 g. Cable vers.; 46 g. M8 conn. vers.

* Depends on the transparency degree of the labels support
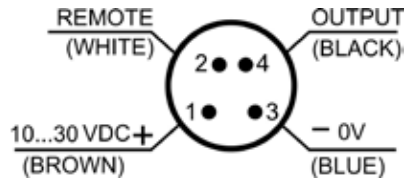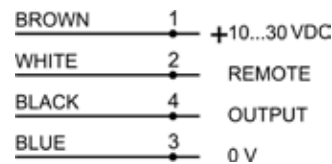
DIMENSIONS

CABLE

M8 CONNECTOR

DOVETAIL GUIDE MOUNTING
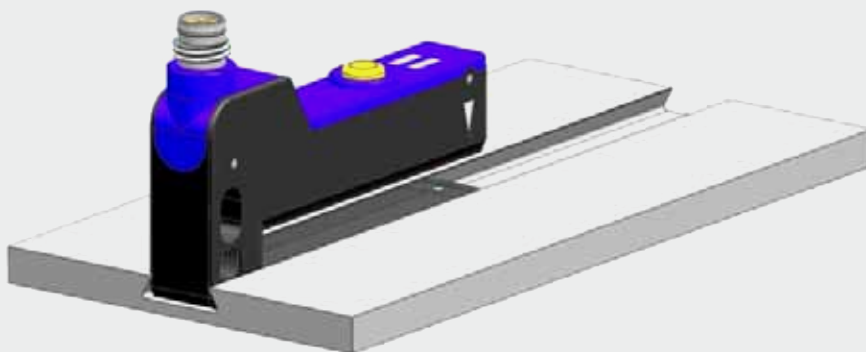
CONNECTION

M8 CONNECTOR

REMOTE (WHITE)   OUTPUT (BLACK)

10...30 VDC+ (BROWN)   — 0V (BLUE)

CABLE

BROWN   1   + 10...30 VDC
WHITE   2   REMOTE
BLACK   4   OUTPUT
BLUE   3   0 V

		CONNECTOR	CABLE
1	Brown	10...30 Vdc	
2	White	SET remote input	
3	Blue	0 V	
4	Black	OUTPUT	

SETTINGS

Using the SET push-button and/or the remote input, which is fitted to the SR23 sensor, you can perform various tasks, such as set the detection threshold between support and label, confirm or reset the settings, and block the use of the push-button to avoid erroneous changes of the sensor settings.

The procedure that allows us to set the sensor for a correct detection of the label, can be performed statically or dynamically. The **static** acquisition, when it is possible, must be performed manually, by moving the tape across the opening of the sensor, first on the label, and then on the support, or vice versa, by pressing the push-button SET at each step and verifying the successful acquisition through indicators LEDs.

The **dynamic** acquisition, however, can be also performed with the machine running, by accessing to the procedure through the SET push-button or the remote input, and letting slide from 3 to 8 labels with a maximum speed of 20 m/min (30 cm/s). By pushing the SET push-button for 7 s, we obtain the output status inverting (output active on label (dark) on on the gap (light). In case of wrong execution of the procedure, it is possible to reset the factory default parameters by pressing the button for 12 seconds.

The SR23 was designed in an innovative housing suitable for installations on the "dovetail" guide, in addition to the standard mountings through threaded holes and/or button-holes.

MODEL SELECTION AND ORDER INFORMATION

OPTIC FUNCTION	CONNECTION	OUTPUT	DESCRIPTION	ORDER No.
Fork Sensor	2 m Cable 4-wires	PNP	SR23-2-IR-PH	953161000
		NPN	SR23-2-IR-NH	953161020
	M8 connector 4-pole	PNP	SR23-5-IR-PH	953161010
		NPN	SR23-5-IR-NH	953161030

CABLES

TYPE	No. Of POLES	SHEAT	LENGTH	DESCRIPTION	ORDER No.
M8 Connector (Axial)	4-pole	Grey, P.V.C.	3 m	CS-B1-02-G-03	95A251420
			5 m	CS-B1-02-G-05	95A251430
			7 m	CS-B1-02-G-07	95A251440
			10 m	CS-B1-02-G-10	95A251480
		P.U.R.	2 m	CS-B1-02-R-02	95A251500
			5 m	CS-B1-02-R-05	95A251520
M8 Connector (Radial 90°)	4-pole	Grey, P.V.C.	3 m	CS-B2-02-G-03	95A251450
			5 m	CS-B2-02-G-05	95A251460
			7 m	CS-B2-02-G-07	95A251470
		P.U.R.	5 m	CS-B2-02-R-05	95ACC2110