



# SENSORS

# High performance ultrasonic fork sensors for transparent label detection

- Dynamic or static teach models
- Slot size 3mm
- High resolution up to 2 mm label gap
- M8 connector with PNP or NPN output
- M12 connector with PNP/NPN output and external teach-in
- Rugged and sturdy aluminium housing



#### **APPLICATIONS**

- Detection of transparent, opaque, or metallic ink labels
- Double sheet detection
- Adhesive surface detection



SR23			
Slot width		3 mm	
Slot depth		68 mm	
Switching frequency		500 hz	
Emission type		Ultrasonic 300 Khz	
Setting		300 mm	
Power supply	Vdc	1030 Vdc	
Outrut	PNP	•	
Output	NPN	•	
Connection	Connector	M12 5-pin	
	Connector	M8 4-pin	
Approximate dimensions (mm)		90 x 55 x 22	
Housing material		Aluminium	
Mechanical protection		IP54	



## **TECHNICAL DATA**

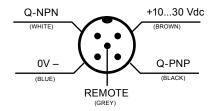
SPECIFICATION				
Minimum pulse time	1ms			
Detectable size	> 2mm			
Max. tape speed	60m/min			
Tape size	> 16mm			
Ultrasonic frequency	300 Khz			
ELECTRICAL DATA				
Power supply	1230 Vdc			
Current consumption	< 55mA			
Ripple	10%			
Output current	250 mA max.			
Output saturation voltage	< 1,5V @ 100mA			
Rising time	0,8 us max			
Falling time	1,6 us max			
Power On delay	325 ms			
Response time	1ms			
Switching frequency	500 hz			
Output	PNP / NPN			
MECHANICAL DATA				
Connection	M12 5 pin			
Operating temperature	0 °C+50 °C			
Storage temperature	-25 °C+75 °C			
Humidity	3585% rH non condensing			
Vibration	0.5 mm amplitude, 10 55 Hz frequency, for every axis (EN60068-2-6)			
Shock resistance	11 ms (30 G) 6 shock for every axis (EN60068-2-27)			
Housing material	Aluminium			
Protection class	IP54			
Weight	300g			

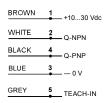
#### **DIMENSIONS** M12 CONNECTOR **M8 CONNECTOR** 90 90 68 M12 ×1 68 55 25,92 25,92 30 90,75 90,75 1 - TEACH-IN PUSH BUTTON 2 - OUTPUT LED 3 - STATUS LED 4 – SENSING POINT REFERENCE



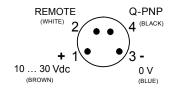
## CONNECTION

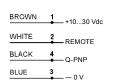
#### M12 CONNECTOR - 5 PIN

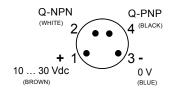




#### **M8 CONNECTOR -8 PIN**







BROWN	1 +1030 V	'dc
WHITE	2 Q-NPN	
BLACK	4 Q-PNP	
BLUE	3 	

#### **SETTINGS**

STEP	USER ACTION DYNAMIC SETTING	LED INTERFACE	USER ACTION STATIC SETTING	LED INTERFACE	SENSOR ACTION
1	Place the label in the fork	It shows the output status	Place the label in the fork	It shows the output status	In working mode
2	press the button for more than 1s	It is turned off and after 1s it is turned on	Press the TEACH Button for more than 1s.	It turns OFF and ON	It measures the time of the button pressure
3	Release the button	It blinks	Release before 4s.	It turns OFF and blinks	It start the calibration
4	Run the tape for some labels	It blinks	Wait the LED blinking	LED is blinking	It searches the bestworking condition
5	To close procedure for D.on, press the button briefly	It blinks	To close and store the calibration, wait the end of the led blinking	LED is blinking then Turns ON	It waits 3s. It stores the new values Then it returns in working mode
	To close procedure for L.on, press the button more than 5 s	After 5 s it blinks slowly	To close WITHOUT store the calibration, press briefly the TEACH-IN within 3s.	It turns OFF and ON	It restore the previous setting
6	Release the button	It shows the output status			



### **MODEL SELECTION AND ORDER INFORMATION**

ADJUSTMENT	OUTPUT	CONNECTION	MODEL	ORDER No.
Dynamic Teach-in	PNP/NPN+EXT	M12 5 pin	SRX3-5-US-M12-PNH	953171000
Static Teach-in	PNP/NPN+EXT	M12 5 pin	SRX3-5-US-3-M12-PNH	953171010
Dynamic Teach-in	PNP+EXT	M8 4 pin	SRX3-6-US-M8-PH	953171020
Static Teach-in	PNP+EXT	M8 4 pin	SRX3-6-US-3-M8-PH	953171030
Dynamic Teach-in	PNP/NPN	M8 4 pin	SRX3-6-US-M8-PN	953171040
Static Teach-in	PNP/NPN	M8 4 pin	SRX3-6-US-3-M8-PN	953171050

### CABLES

TYPE	No. Of POLES	SHEAT	LENGTH	DESCRIPTION	ORDER No.
Female M12 Connector 5-pol (Axial)		Grey, P.V.C.	3 m	CS-A1-03-G-03	95ACC2110
			5 m	CS-A1-03-G-05	95ACC2120
	E polos		10 m	CS-A1-03-G-10	95ACC2140
	5-hoiez	Black, P.V.C. UL	3	CS-A1-03-U-03	95ASE1170
			5	CS-A1-03-U-05	95ASE1180
			10	CS-A1-03-U-10	95ASE1190
M8 Connector (Axial)	4-poles	Grey, P.V.C.	3 m	CS-B-1-02-G-03	95A251420
			5 m	CS-B-1-02-G-05	95A251430
			7 m	CS-B-1-02-G-07	95A251440
			10 m	CS-B-1-02-G-10	95A251480
		P.U.R.	2 m	CS-B-1-02-R-02	95A251500
			5 m	CS-B-1-02-R-05	95A251520
M8 Connector (radial 90°)	4-poles	Grey, P.V.C.	3 m	CS-B2-02-G-03	95A251450
			5 m	CS-B2-02-G-05	95A251480
			7 m	CS-B2-02-G-07	95A251470
		P.U.R.	5 m	CS-B2-02-R-05	95ACC2110







