

# ULS24B360M84

## ULTRASONIC FORK FOR LABEL

### SUPPLIED MATERIAL

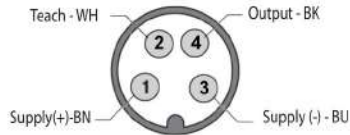
- Installation manual

### GENERAL DESCRIPTION

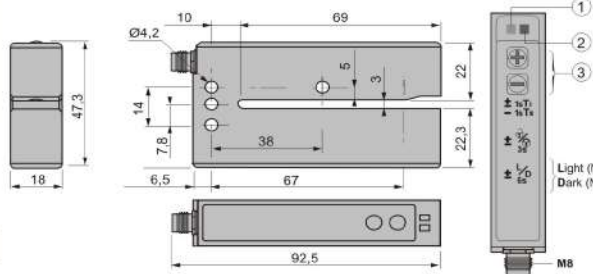
- Ultrasonic fork sensor for transparent labels, any opaque material with connector M8 4-pole
- Teach-in models with dynamic and remote teach
- Ultrasonic technology
- Small size easy to locate
- NPN and PNP, Lo/Do total configurable
- Width slit detection 3 mm
- Depth slit detection 69 mm
- Maximum switching frequency 1500 Hz
- Aluminum case, protected IP65

### PLUGS

M8 4 pin



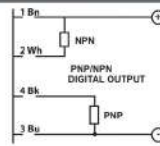
### DIMENSIONS



- KEY**
- 1 Yellow LED, "ON" when the outputs are set to 1 (conducting)
  - 2 Red LED: Keyboard blocking and settings
  - 3 Setting +/- push button
- Light (NC)  
Dark (NO)

### ELECTRICAL DIAGRAMS OF THE CONNECTIONS.

#### PNP/NPN output



- KEY:**  
BN = brown;  
BK = black;  
BU = blue;  
WH = white

### ADJUSTMENT

		⊖ Off / éteinte / Aus	⊕ On / Allumée / Ein	⚡ Blinking / Clignotante / Blinkend	⚡ Blinks slowly / Clignote lentement / Langsam blinkend
en	Action	Red LED	Yellow LED		
1	Dynamic teach	8 Hz	ON/OFF according to the old threshold		
	Or external teach	4 Hz			
2	Dynamic teach	Dynamic teach done	ON/OFF according to the old threshold		
	Or external teach	3 x 1 Hz not enough signal			
<b>Static teach</b>					
3	Place the web (or label)	8 Hz	ON/OFF according to the old threshold		
	Place the label (or web)	Static teach done	ON/OFF according to the old threshold		
<b>Sensitivity adjustemnt</b>					
4	Step by step	ON/OFF when threshold is passed upward of downward			
	Fast	It stays ON when the limit threshold is reached			
<b>Locking/Unlocking keyboard</b>					
5	Locking	Release the buttons	-		
	Keyboard locked		-		
	Unlocking	Release the buttons	-		
Keyboard unlocked		-			
<b>Output signal</b>					
6	Switching NO/NC function	OFF (No Label) ON (Label)			
<b>Output protection</b>					
7	Output in short-circuit				

### TECHNICAL SPECIFICATIONS

Model	ULS24B360M84
Emission	ultrasonic
Minimum lenght of label	2 mm
Minimum distance between 2 label	2 mm
Nominal sensing distance Sn	3 mm
Slot depth detection	69 mm
Maximum flow rate	180 m/min
Detection accuracy	+/- 0.20 mm at 120 m/min
Rated Operational voltage Ua	12 ... 24 Vdc (with protection against reverse polarity)
Max ripple content	10%
No-load supply current	45 mA
Load current	100 mA
Output voltage drop	< 2 V @ IL=100 mA
Switching frequency f	1500 Hz
Time delay before availability	300 us max
Electrical protection	Short-circuit output protected Interference suppression
Operating temperature	+5 ... +55 °C
Storage temperature	-20 ... +70 °C
Degree of protection (DIN 40 050)	IP 65
Materials	Painted Aluminum
Connector type	M8, 4-pin
Weight	Approx. 130 g

### ATTENTION

Make sure that the supply voltage is correctly set with a ripple corresponding to the values indicated on the catalogue. In case the noise produced by the power lines exceeds the values foreseen by the CE norm (interference immunity), separate the sensor cables from both the power and high tension lines and insert it in a grounding metal raceway. Moreover it is advisable to connect the sensor directly to the supply source and not to other devices. To extend the supply and output cables, it is necessary to use a cable having conductors with a minimum size of 1 mm<sup>2</sup>. The maximum length of extension is 100 m (this value is referred to a minimum tension and power supply at the load of 100 mA). In industrial environments, we recommend to use shielded cables in order to prevent possible disturbances on the devices caused by electromagnetic fields induced. Do not expose sensor head to hot water > 50 °C, water steam, acids or solvents. Clean the active face of the sensor with a wet cloth and then dry it.

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MADE IN FRANCE



**WARNING** These products are NOT safety sensors and are NOT suitable for use in personal safety application