WINSTAR Display

OLED SPECIFICATION

Model No:

WEO12864x#ZP3N00000-FC

WINSTAR DISPLAY CO., LTD

Represented by:

first FC components

FIRST Components srl Via Cavour 69, 21020 Buguggiate (VA)

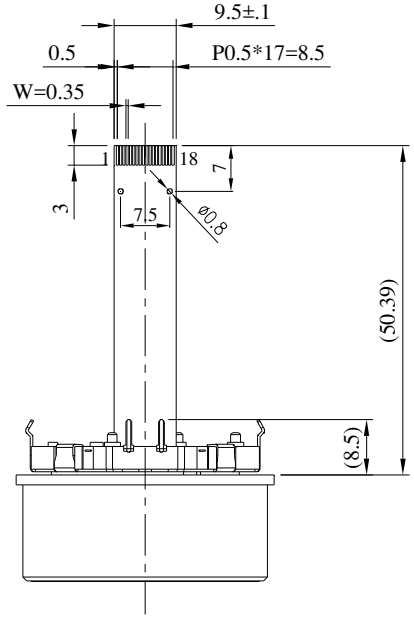
T. +39 0332 1888005 web: www.first-components.com

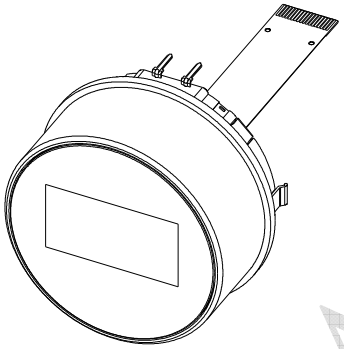
General Specification

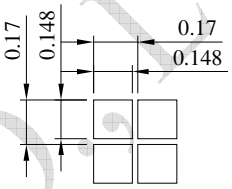
Item	Dimension	Unit
Dot Matrix	128 x 64 Dots	—
Module dimension	Ø39.4 x 24.8	mm
Active Area	21.74 x 10.86	mm
Pixel Size	0.148 x 0.148	mm
Pixel Pitch	0.17 x 0.17	mm
Display Mode	Passive Matrix	
Panel type	OLED , Monochrome	
Duty	1/64	
Controller IC	SSD1306	
Interface	4-wire SPI,I2C	
Size	0.96 inch	

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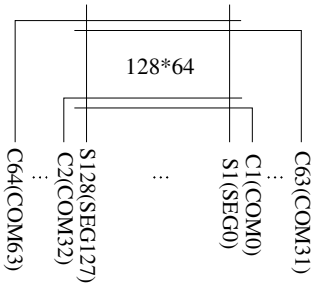
Contour Drawing & Block Diagram

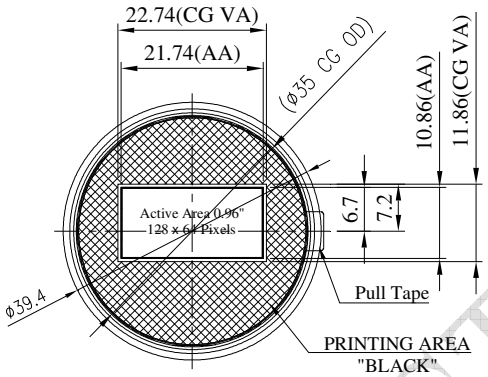


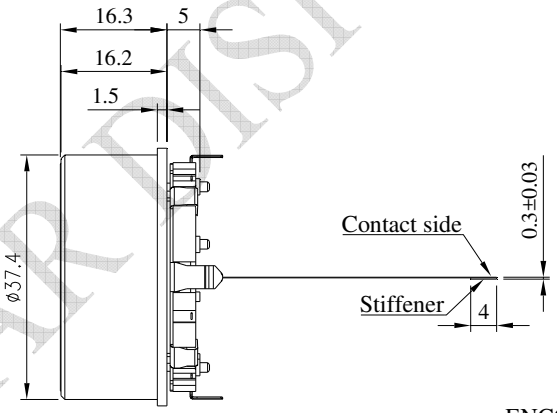


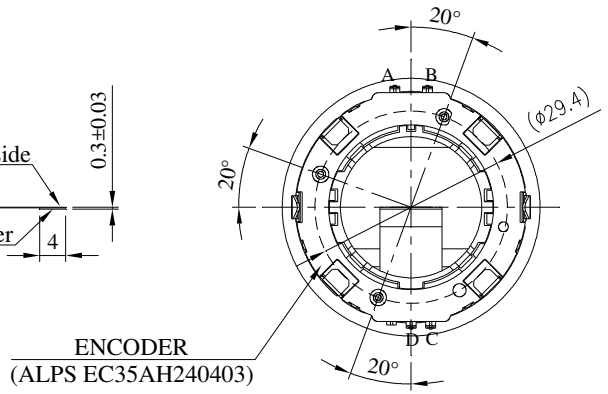


PIN	SYMBOL
1	VSS
2	VCC
3	VCOMH
4	VCI
5	NC
6	BS1
7	IREF
8	CS#
9	RES#
10	D/C#
11	D0
12	D1
13	D2
14	NC
15	NC
16	NC
17	VCC
18	VSS









ENCODER	
PIN	SYMBOL
A	FSW_A
B	FSW_B
C	FSW_C
D	FSW_D

The non-specified tolerance of dimension is ±0.3 mm .

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Interface Pin Function

Pin No.	Symbol	Description
1	VSS	Ground pin.
2	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin.
3	VCOMH	COM signal deselected voltage level. A capacitor should be connected between this pin and VSS.
4	VCI	Power supply pin for core logic operation
5	NC	No connection
6	BS1	MCU bus interface selection pins. Select appropriate logic setting as described in the following table. <table><tr><td></td><td>BS1</td></tr><tr><td>I2C</td><td>1</td></tr><tr><td>4-wire Serial</td><td>0</td></tr></table> Note (1) 0 is connected to VSS (2) 1 is connected to VCI
7	IREF	This is segment output current reference pin. When external IREF is used, a resistor should be connected between this pin and VSS to maintain the IREF current at a maximum of 30uA.
8	CS#	This pin is the chip select input. (active LOW).
9	RES#	This pin is reset signal input. When the pin is pulled LOW, initialization of the chip is executed. Keep this pin HIGH during normal operation.
10	D/C#	When 4-wire serial interface is selected, this pin is Data/Command control pin connecting to the MCU. In I2C mode, this pin acts as SA0 for slave address selection.
11	D0	These pins are bi-directional data bus connecting to the MCU data bus. When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN and D2 should be kept NC. When I2C mode is selected, D2, D1 should be tied together and serve as SDAout, SDAin in application and D0 is the serial clock input, SCL.
12	D1	
13	D2	
14	NC	No connection
15	NC	No connection

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16	NC	No connection
17	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin.
18	VSS	Ground pin.

Encoder PIN Definition

No.	Symbol	Function
A	FSW_A	Encoder terminal signal-A
B	FSW_B	Encoder terminal signal-B
C	FSW_C	Encoder terminal signal-C
D	FSW_D	Ground

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Absolute Maximum Ratings

Item	Symbol	Min	Max	Unit
Supply Voltage	VCI	-0.3	4.0	V
Supply Voltage for Display	VCC	0	15	V
Operating Temperature	TOP	-20	+70	°C
Storage Temperature	TST	-30	+80	°C

Electrical Characteristics

DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	VCI	—	1.65	3.0	3.3	V
Supply Voltage for Display	VCC	—	6	10	10.5	V
Input High Volt.	VIH	—	0.8xVCI	—	—	V
Input Low Volt.	VIL	—	—	—	0.2xVCI	V
Output High Volt.	VOH	Iout = 100uA	0.9xVCI	—	—	V
Output Low Volt.	VOL	Iout = 100uA	—	—	0.1xVCI	V
Operating Current for VCC (VCC Supplied Externally)	ICC	VCC =10V	—	5	10	mA

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