

### Comparisons between the current model and the new model with the ZSE10 series

### <Differences>

- The copy function has been added.  
Values set for the master unit can be copied to the other vacuum switches when using the vacuum switches on the multiple stations.


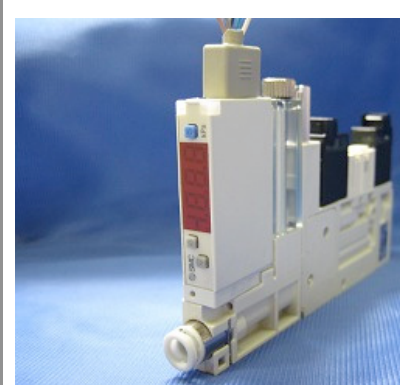
Note: Number of wires used for copy function has been changed from 4 to 5.

- Implementation of multiple angle indicator:  
(The new design allows to view the indicator from various angles.)  
Note: LED colors for the output switch 1/the output switch 2 have been turned to the opposite as follows.

	Output switch 1	Output switch 2
Current model	When ON: Red	When ON: Green
New model	When ON: Green	When ON: Red

- Handling for operation has been improved: Trimmer  $\Rightarrow$  Button
- V port piping method  
Current model: M5 female thread or One-touch fitting  
New model: Cassette type M5 female thread or cassette type One-touch fitting

<Differences in product appearance>

Current model	New model
 <p>The image shows the current model of the One-touch fitting assembly. It is a white plastic device with a grey rectangular component mounted on top. This component has a small blue display screen and several ports. A white fitting is attached to the bottom of the device. The background is a blue textured surface.</p>	 <p>The image shows the new model of the One-touch fitting assembly. It is a white plastic device with a grey rectangular component mounted on top. This component has a small blue display screen and several ports. A white fitting is attached to the bottom of the device. The background is a blue textured surface.</p>
One-touch fitting screwed in thread	Cassette type One-touch fitting

## <How to Order>

ZQ series with the ZSE10 series

Z Q 1 0 5 1 U - K 1 5 L B -                \*          \*          \*          \*          \*          -          2          2

(1)      (2)      (3)      (4)      (5)                                      (6)      (7)

- (1) Rated pressure range for vacuum pressure switch

E: 0 to -101.1kPa

F: 100 to -100kPa

- (2) Vacuum pressure switch output

A: NPN open collector 2-output

B: PNP open collector 2-output

C: NPN open collector 1-output + Analog voltage

E: PNP open collector 1-output + Analog voltage

- (3) Vacuum pressure switch unit

Nil: With unit conversion function

M: Fixed SI unit

P: With unit conversion function (Initial value psi)

- (4) Vacuum pressure switch lead wire  
 Nil: Without connector  
 G: Lead wire with connector (2m)
- (5) Check valve  
 Nil: Without check valve  
 K: With check valve
- (6) Fitting port (V port)  
 0: Without fitting (M5 x 0.8)  
 1: Fitting (Ø3.2 Straight)  
 2: Fitting (Ø4 Straight)  
 3: Fitting (Ø6 Straight)  
 4: Fitting (Ø3.2 Elbow)  
 5: Fitting (Ø4 Elbow)
- (7) Fitting port (P port)  
 0: Without fitting (M5 x 0.8)  
 2: Fitting (Ø4 Straight)  
 3: Fitting (Ø6 Straight)  
 5: Fitting (Ø4 Elbow)

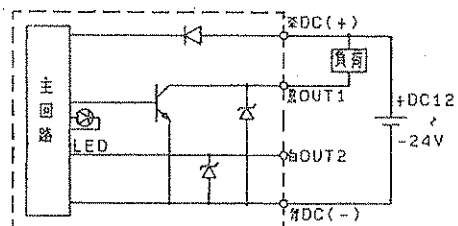
Note: The How to Order information for the current model, please refer to Best Pneumatics Ver. 1 volume 4.

<Specifications>

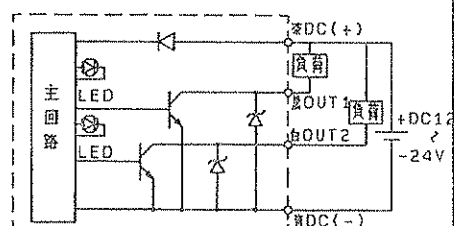
		Current model	New model
Fluid		Vapor (Non-corrosive)	
Rated pressure range		0.0 to -100.0kPa	0.0 to -101.1kPa
Set pressure range		0.0 to -99.0kPa	10.0 to -105.0kPa
Proof pressure		200kPa	500kPa
Power supply voltage		12 to 24VDC+/-10%, Ripple (p-p), 10% or less (with polarity protection)	
Current consumption		35mA or less	40mA or less
Switch output		NPN or PNP open collector 2 outputs (Option)	
Switch output	Max. load current	80mA	
	Max. applied voltage	30V	28V
	Residual voltage	0.8V or less (NPN) 1.2V or less (PNP)  at 80mA	2V or less (NPN, PNP) at 80mA
Pressure representation		+/-3%F.S. or less	+/-3%F.S. or less
Hysteresis		1 point output	Approx. 0 to 15%F.S.
		2 point outputs	2%F.S. or less
Analog output	Output voltage (Rated pressure range)	1 to 5V+/-2.5%F.S.	
	Linearity	+/-0.5%F.S. or less	+/-1%F.S.
Display		2-digit red LED	3 <sup>1</sup> / <sub>2</sub> -digit red LED
Display accuracy		+/-3%F.S.+/-2digit	+/-2%F.S.+/-1-digit
Output indication light		Lights turn ON when switch is ON Switch output 1: Red  Switch output 2: Green	Lights turn ON when switch is ON Switch output 1: Green  Switch output 2: Red
Operating temperature range		5 to 50°C	
Operating humidity range		35 to 85%RH (No condensation)	
Proof voltage		500VAC for 1 min.	1000VAC for 1 min.
Insulation resistance		50MΩ or more (between live parts and pressure port at 500VDC Mega)	

Current model		New model	
<p><b>Current model viewed when the fitting is mounted on V port</b></p>		<p><b>New model viewed when the fitting is mounted on V port</b></p>	

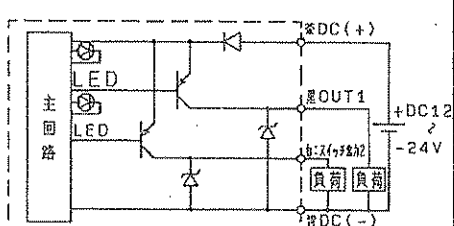
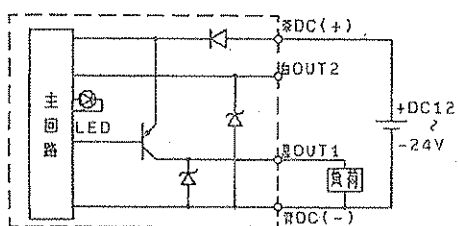
### Circuit diagram for the current model



NPN1 + Analog output

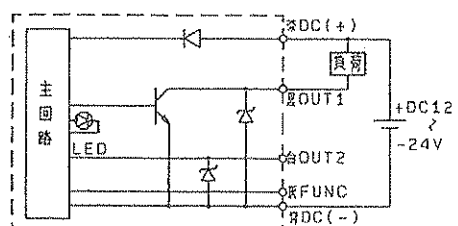


NPN2

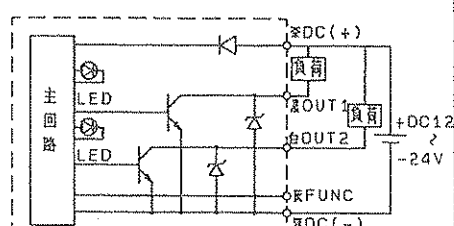


PNP2

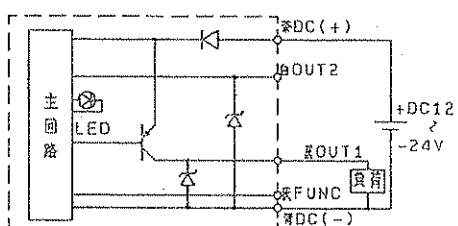
### Circuit diagrams for the new model



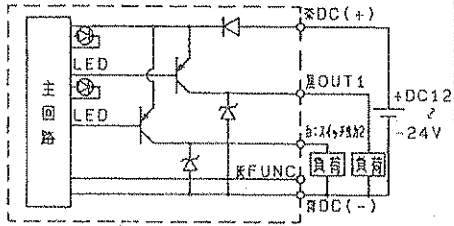
NPN1 + Analog output



NPN2



PNP1 + Analog output



PNP2

※The FUNC terminal is used when utilizing the copy function.