

Specifications

	ZSE40F (Compound pressure)	ZSE40 (Vacuum pressure)	ISE40 (Positive pressure)
Rated pressure range	-100.0 to 100.0kPa	0.0 to -101.3kPa	0.000 to 1.000MPa
Operating pressure range/Set pressure range	-100.0 to 100.0kPa	10.0 to -101.3kPa	-0.100 to 1.000MPa
Withstand pressure	500kPa		1.5MPa
Set pressure resolution (Note 1)	kPa	0.1	—
	MPa	—	0.001
	kgf/cm ²	0.001	0.01
	bar	0.001	0.01
	psi	0.02	0.01
	mmHg InHg	1 0.1	— —
Applicable fluid	Air, Non-corrosive/Non-flammable gas		
Power supply voltage	12 to 24VDC ±10%, Ripple (p-p) 10% or less		
Current consumption	55mA or less		
Switch output	NPN or PNP 2 outputs	Max. load current : 80mA	Max. applied voltage : 30VDC (with NPN output)
		Residual voltage : 1V or less (with 80mA load current)	
Repeatability	±0.2% F.S. ±1 digit or less		
Hysteresis	Hysteresis mode	Variable	
	Window comparator mode	Fixed (3 digits) ^{Note4}	
Response time (with anti-chattering function)	2.5ms or less (with anti-chattering function: 24ms, 192ms and 768ms selections)		
Output short circuit protection	Yes		
Display	3 1/2 digit LED display (sampling cycle: 5 times/sec.)		
Display accuracy	±2% F.S. ±1 digit or less (at ambient temperature of 25 ±3°C)		
Operation indicator light	Green LED (OUT1: Lights when ON), Red LED (OUT2: Lights when ON)		
Analog output (Note 2)	Output voltage: 1 to 5V ±5% F.S. or less (in rated pressure range) Linearity: ±1% F.S. or less Output impedance: Approx. 1k	Output voltage: 1 to 5V ±2.5% F.S. or less (in rated pressure range) Linearity: ±1% F.S. or less Output impedance: Approx. 1k	
Auto shift input (Note 3)	No-voltage input (reed or solid state), input 5ms or more		
Environmental resistance	Enclosure	IP65	
	Ambient temperature range	Operating: 0 to 50°C, Stored: -10 to 60°C (with no condensation or freezing)	
	Ambient humidity range	Operating/Stored: 35 to 85% RH (with no condensation)	
	Withstand voltage	1000VAC for 1min. between lead wires and body	
	Insulation resistance	50M or more (at 500VDC) between lead wires and body	
	Vibration resistance	10 to 500Hz at the smaller of amplitude 1.5mm or acceleration 98m/s ² (10G) in X, Y, Z directions for 2hrs. each (deenergized)	
Impact resistance	980m/s ² (100G) in X, Y, Z directions 3 times each (deenergized)		
Temperature characteristics	In a temperature range of 0 to 50°C, ±2% F.S. or less of pressure measured at 25°C		
Port size	O1: R1/8, M5 x 0.8, T1: NPT1/8, M5 x 0.8, W1: Rc1/8 C4: With ø4 One-touch fitting, C6: With ø6 One-touch fitting, M5: M5 female threads		
Lead wires	5 wire oil resistant heavy duty cord (0.15mm ²)		
Weight	O1/T1 types approx. 60g, W1 type approx. 80g, C4/C6/M5 types approx. 92g (each including 0.6m lead wires)		

Note 1) Equipped with unit switching function

(Types without the unit switching function use SI units (kPa or MPa) only.)

Note 2) For ZSE40 (F)/ISE40-m -²²/₆₂

Note 3) For ZSE40 (F)/ISE40-m -³⁰/₇₀

Note 4) For ZSE40F (compound pressure) with "psi" indication, this is 0.03 to 0.04 psi.

Note 5) For ZSE40F (compound pressure) with "psi" indication, zero clear is in the range of ±0.01 psi.

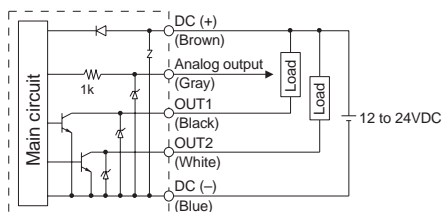
Note:

When equipped with auto shift function, the following ranges can be set.

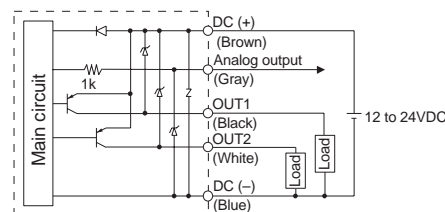
Set pressure range	Setting range
-100.0 to 100.0kPa	-100.0 to 100.0kPa
10.0 to -101.3kPa	-101.3 to 101.3kPa
-0.1 to 1.000MPa	-1.000 to 1.000MPa

Internal circuits and wiring examples

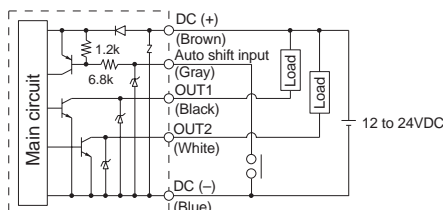
**ZSE40 (F)
ISE40-m -22 (L)-(M)**
With analog output



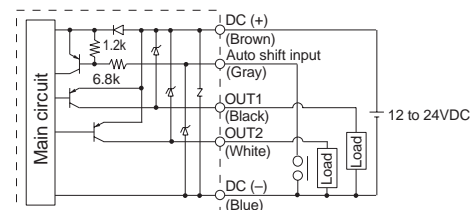
**ZSE40 (F)
ISE40-m -62 (L)-(M)**
With analog output



**ZSE40 (F)
ISE40-m -30 (L)-(M)**
With auto shift input



**ZSE40 (F)
ISE40-m -70 (L)-(M)**
With auto shift input

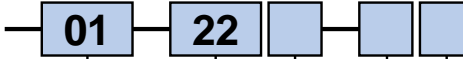


How to Order

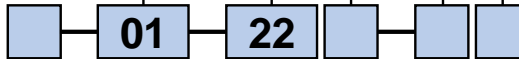
Set pressure range

Nil	-0.100 to 1.000MPa	For positive pressure
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For Positive Pressure ISE40



For Vacuum/Compound Pressure ZSE40



Set pressure range

Nil	10.0 to -101.3kPa	For vacuum pressure
F	-100.0 to 100.0kPa	For compound pressure

Piping specifications

<p>01: R1/8 (with M5 female threads) T1: NPT1/8 (with M5 female threads)</p>	<p>W1: Rc1/8</p> <p>Reverse pressure two directions</p>
<p>C4: With ø4 One-touch fitting C6: With ø6 One-touch fitting</p> <p>Wall mount</p>	<p>M5: M5 x 0.8 (female threads)</p> <p>Wall mount</p>

Optional

Input/Output specifications

22	NPN open collector 2 outputs + analog output
30	NPN open collector 2 outputs + auto shift input
62	PNP open collector 2 outputs + analog output
70	PNP open collector 2 outputs + auto shift input

Optional

Note

When equipped with auto shift function, the following ranges can be set.

Set pressure range	Setting range
-100.0 to 100.0kPa	-100.0 to 100.0kPa
10.0 to -101.3kPa	-101.3 to 101.3kPa
-0.1 to 1.000MPa	-1.000 to 1.000MPa

Option

Nil	None
A	Bracket A (ZS-24-A)
B	Bracket B (ZS-24-B)
E	Panel mount (ZS-22-A)
F	Panel mount (ZS-24-C) + Front protective cover

When optional parts only are required, order with the part numbers inside ().

Unit specifications

Nil	With unit switching function ^{Note 1)}
M	SI units only ^{Note 2)}

Note 1) This will no longer be sold for use in Japan after the new Weight and Measure Act is implemented (October, 1999).

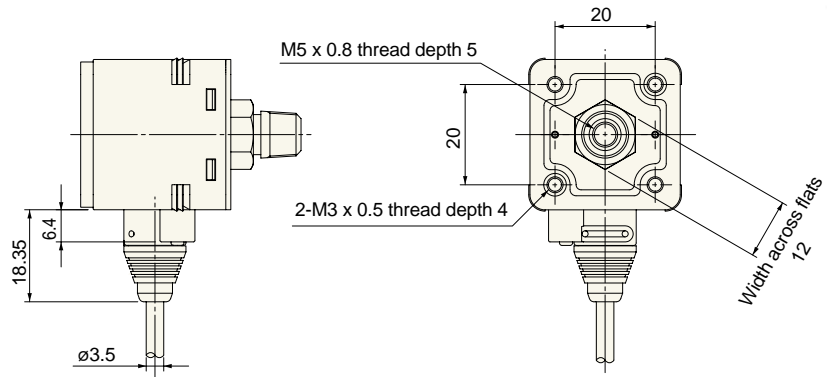
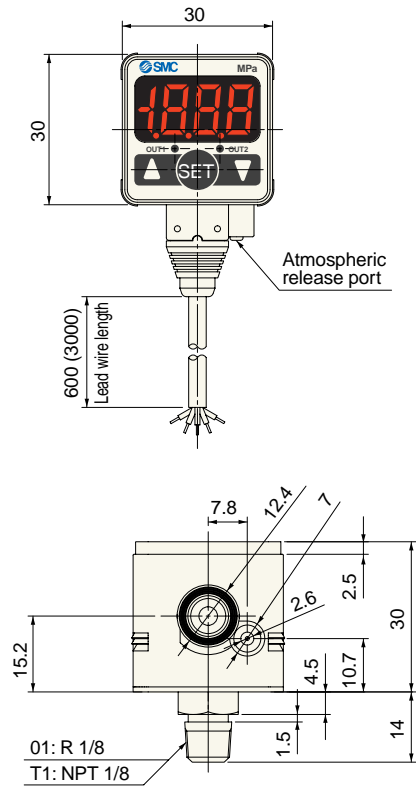
Note 2) Fixed units
For vacuum/compound pressure : kPa
For positive pressure : MPa

Lead wire length

Nil	0.6m
L	3m

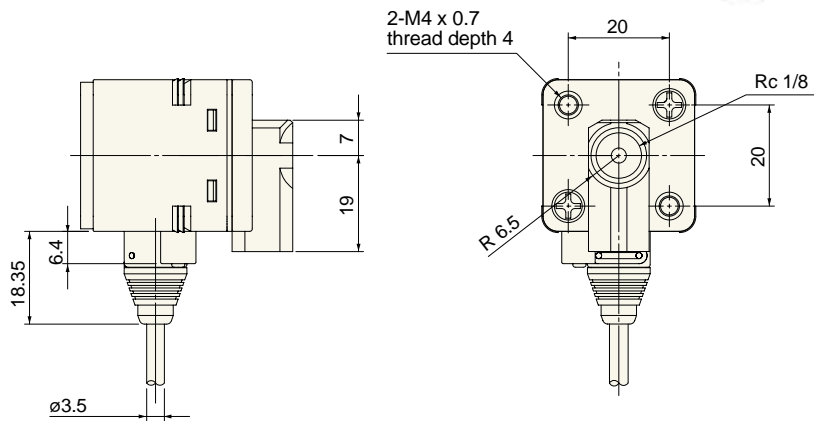
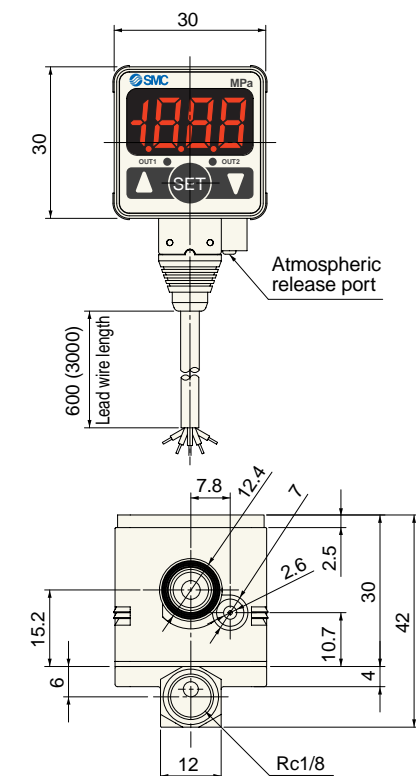
Dimensions

ZSE40(F)/ISE40-⁰¹_{T1}



For splash proof use (IP65), insert an air tube into the atmospheric release port.
 (Refer to Specific Product Precautions 4 on the back cover for details.)

ZSE40(F)/ISE40-W1



For splash proof use (IP65), insert an air tube into the atmospheric release port.
 (Refer to Specific Product Precautions 4 on the back cover for details.)