



SWITCHOVER DOCUMENT

ZSE20(F)#/ISE20# Series
High-precision Digital Pressure Switch

Improved features and related benefits

Feature

- 3-Screen Display. It can simultaneously display the current pressure and other selectable values (set value, hysteresis value, bottom value or peak value)

Customer Benefit

- Easy visualisation and time saving. (As two specified items can be displayed in each sub-screen, less button operation is required)



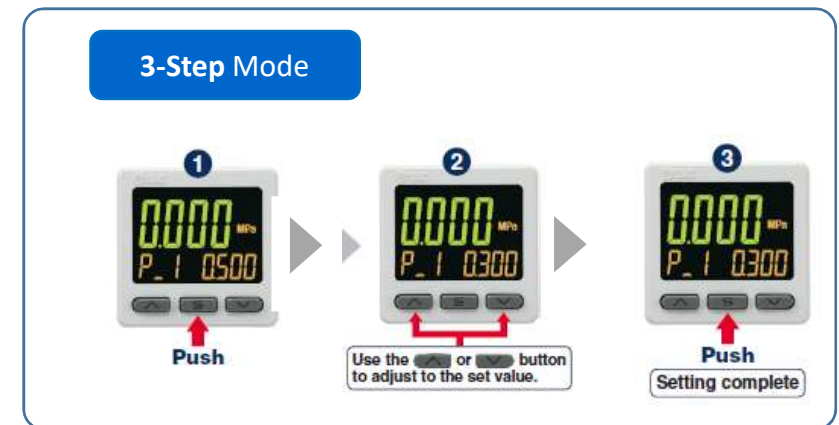
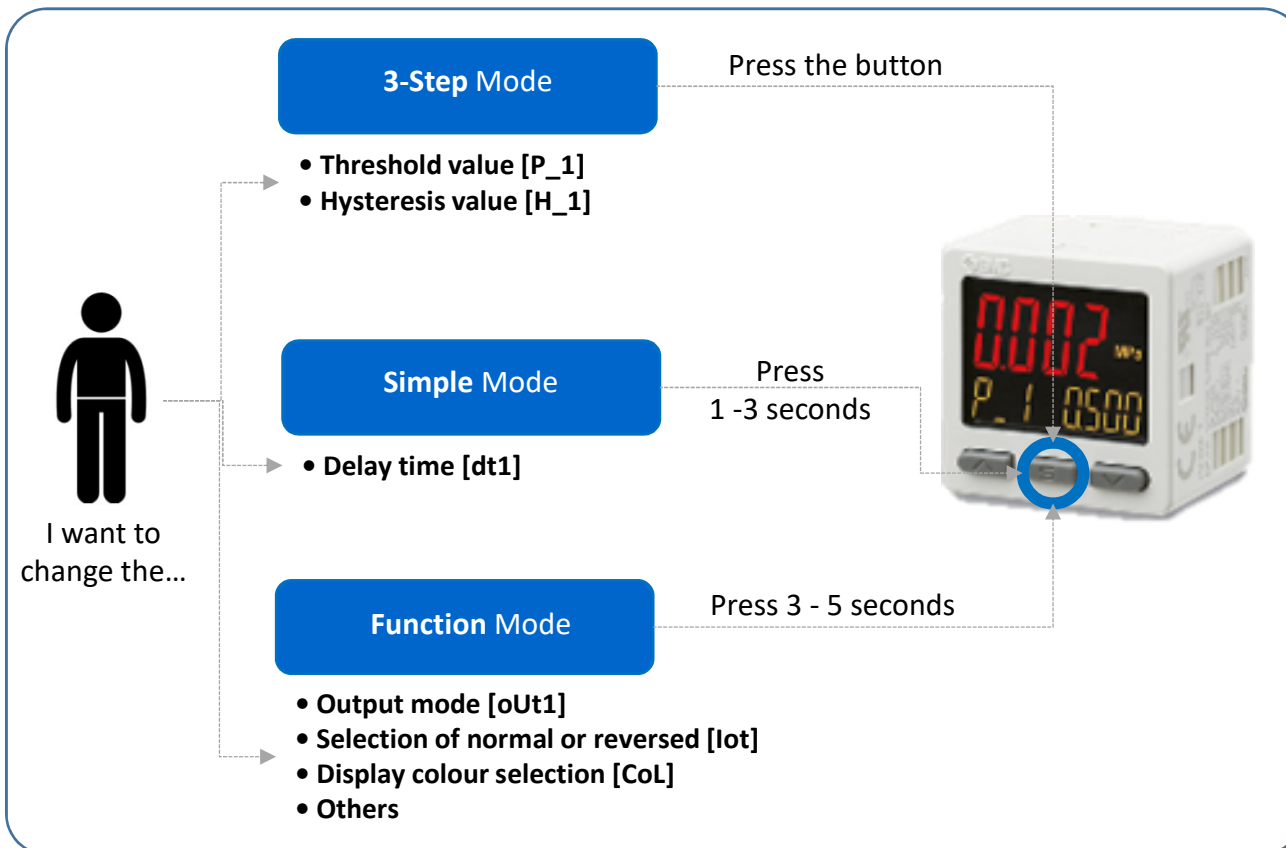
Improved features and related benefits

Feature

- 3 setting modes:
 - 3-step setting mode (+ snapshot)
 - Simple setting mode
 - Function selection (detailed setting) mode

Customer Benefit

- Easy setting. Time saving.



Improved features and related benefits

Feature

- Delay time: fastest 1.5 ms or less, also 20, 500, 1000, 2000 or 5000 ms selectable.

Customer Benefit

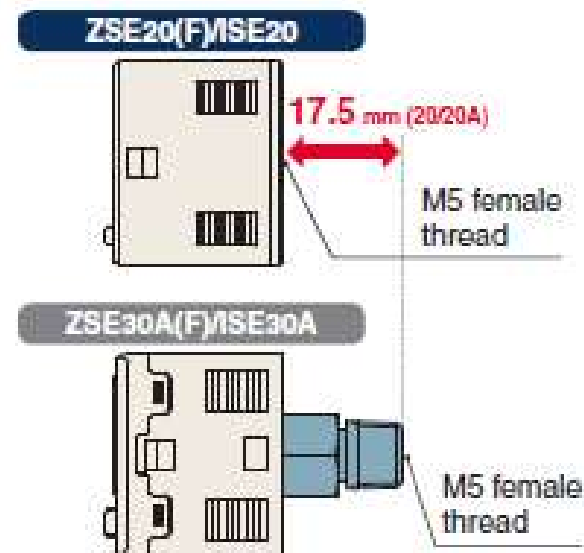
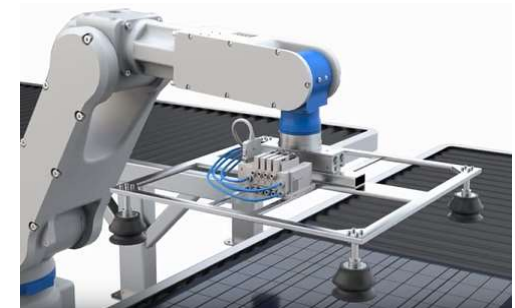
- Fast and flexible for the best adaptation to different application requirements.

Feature

- Compact and lightweight.

Customer Benefit

- Space saving and, due to weight reduction, less inert moments when the ejector is mounted in mobile applications (example: robot arms).



Standard Specification

	SMC ISE/ZSE(F)20A	SMC ISE/ZSE(F)20B	SMC ISE/ZSE(F)30A	SMC ISE/ZSE(F)40
Picture				
Applicable fluid	Air, Non-corrosive gas, Non-flammable gas		Air, Non-corrosive gas, Non-flammable gas	
Rated pressure range	ZSE20#: 0.0 to -101.0 kPa ZSE20#F: -100.0 to 100.0 kPa ISE20#: -0.100 to 1.0 MPa		ZSE#0: 0.0 to -101.0 kPa ZSE#0F: -100.0 to 100.0 kPa ISE#0: -0.100 to 1.0 MPa	
Withstand pressure	ZSE20#, ZSE20#F: 500 kPa ISE20#: 1,5 MPa		ZSE#0, ZSE#0F: 500 kPa ISE#0: 1,5 MPa	
Response time	1.5 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000, 5000 ms)		2.5 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000 ms)	
Repeatability	±0.2% F.S. ±1 digit		±0.2% F.S. ±1 digit	
Output	Switch output	2 output NPN/PNP		2 output NPN/PNP
	Analogue output	1 output Voltage/Current		1 output Voltage/Current
Display	3-screen display 3-colour display		1-screen display 2-colour display (Red/Green)	1-screen display 2-colour display (Red/Green)
More Functions	Copy function, Auto-shift function		Copy function,	Copy function, Auto-shift function
Current consumption	35 mA or less		40 mA or less	45 mA or less
Operating temperature range	-5° to 50°C		0 to 50°C	-5° to 50°C
Enclosure	IP40	IP65	IP40	IP65
Weight	24 g		43 g	78 g
Piping Options	M5, R1/8, NPT1/8		R1/8, NPT1/8, M5, One touch fitting	R1/8, NPT1/8, Rc1/8, M5, G1/8, M5, One touch fitting
Connector Options	ZS-46-3L	ZS-46-5L	ZS-38-4G, ZS-38-5L, ZS-38-U	-

(*) Brackets and lead wires are not the same

 Difference in specifications

Standard Specification

	SMC ISE/ZSE(F)20C	SMC ISE/ZSE(F)20C(H)	SMC ISE/ZSE(F)80	SMC ISE/ZSE(F)80H
Series				
Applicable fluid	Fluid that will not corrode stainless steel 630 and 304		Fluids do not corrode stainless steel 630 and 304	
Rated pressure range	ZSE20C: 0.0 to -101.0 kPa ZSE20CF: -100.0 to 100.0 kPa ISE20C: -100.0 to 1 MPa	ISE20CH: -0.100 to 2.000 MPa	ZSE80C: 0.0 to -101.0 kPa ZSE80CF: -100.0 to 100.0 kPa ISE80C: -100.0 to 1 MPa	ISE80CH: -0.100 to 2.000 MPa
Withstand pressure	ZSE20, ZSE20F: 500 kPa ISE20C: 2 MPa	ISE20CH: 4 MPa	ZSE80, ZSE80F: 500 kPa ISE80C: 2 MPa	ISE80CH: 4 MPa
Response time	1.5 ms or less (with anti-chattering function: 20, 100, 500, 1000, 2000, 5000 ms)		2.5 ms (with anti-chattering function: 20, 100, 500, 1000, 2000 ms)	
Repeatability	±0.2% F.S. ±1 digit		±0.2% F.S. ±1 digit	
Output	Switch output	2 output NPN/PNP		2 output NPN/PNP
	Analogue output	1 output Voltage/Current		1 output Voltage/Current
Display	3-screen display 3-colour display		1-screen display 2-colour display	
Function	Copy function, Auto-shift function, others.		Auto-shift function	
Current consumption	< 35 mA		45 mA or less	
Operating temperature range	-5° to 50°C		0 to 50 °C	
Enclosure	IP65		IP65	
Weight	Min. 46 g		Min. 83 g	
Piping Options	R1/4, NPT1/4, G1/4, Rc1/8, URJ1/4, TSJ1/4, M5		R1/4, NPT1/4, G1/4, Rc1/8, URJ1/4, TSJ1/4, M5	
Connector Options	ZS-46-5F		-	

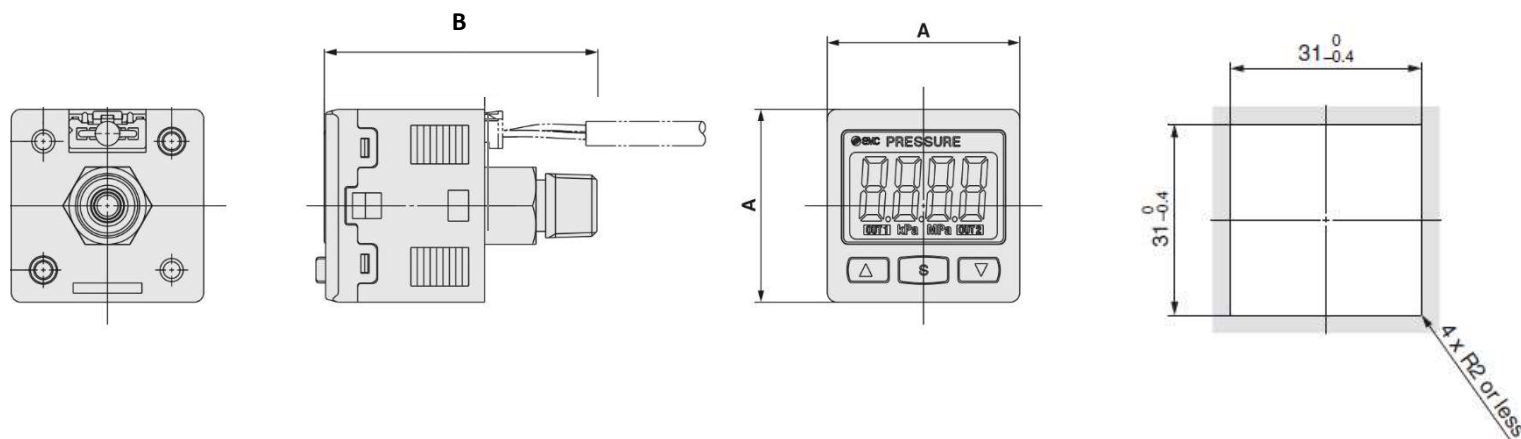
(*) Brackets and lead wires are not the same

 Difference in specifications

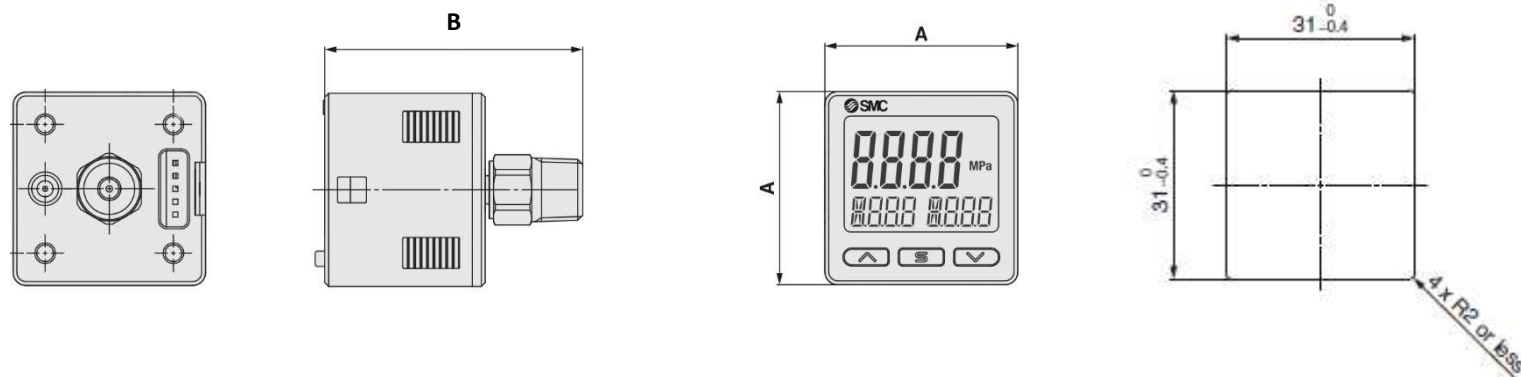
Dimensions

General dimensions

ZSE30A(F)/ISE30A



ZSE20(F)/ISE20
ZSE20A(F)/ISE20A



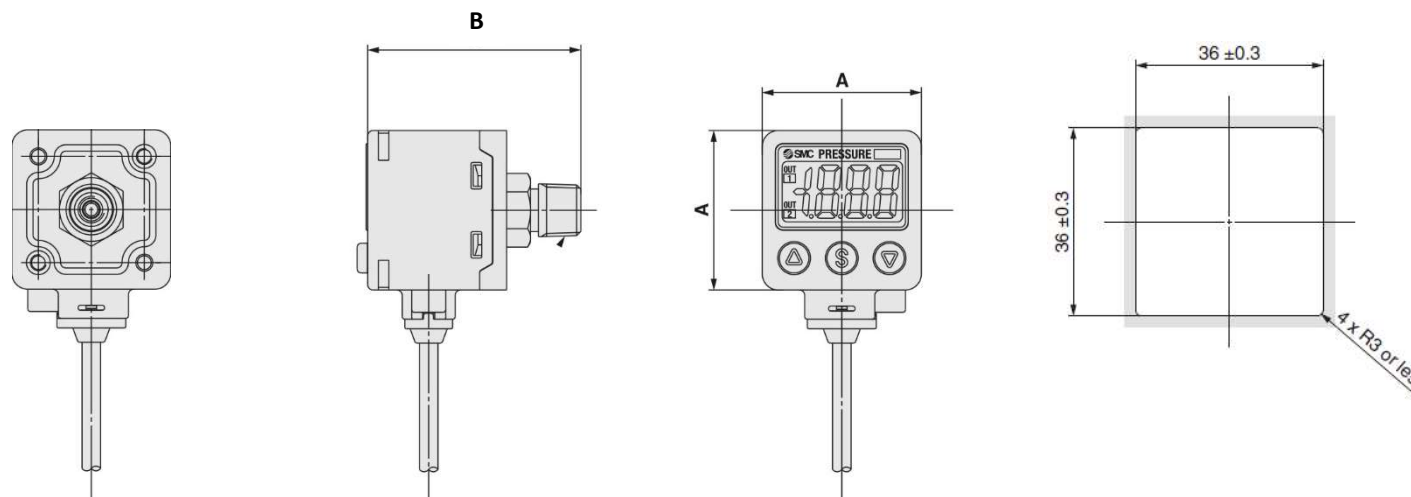
	A [mm]	B [mm]	Panel-cut dimensions [mm]
Current product ZSE30A(F)/ISE30A	30	42.5	31
ZSE20(F)/ISE20 ZSE20A(F)/ISE20A	30	40.2 20 (M5 option)	31

 Difference in specifications

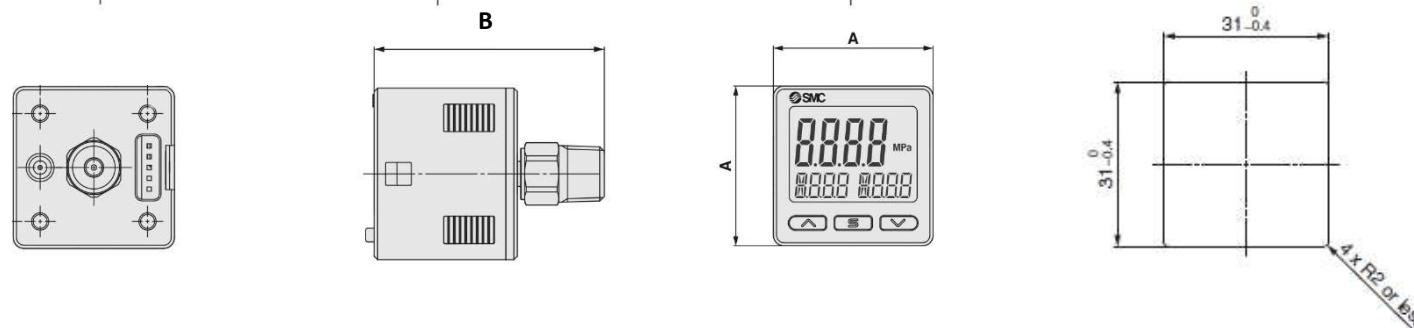
Dimensions

General dimensions

ZSE40A(F)/ISE40A



ZSE20B(F)/ISE20B



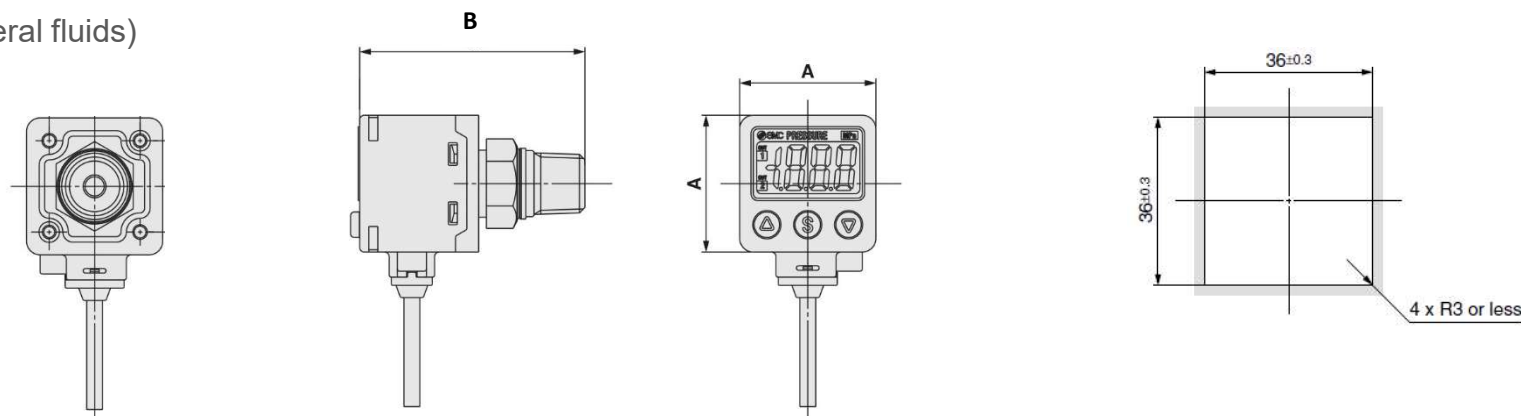
	A [mm]	B [mm]	Panel-cut dimensions [mm]
Current product ZSE40A(F)/ISE40A	30	40.2	36
ZSE20B(F)/ISE20B	30	40.2	31
		20 (M5 option)	

Difference in specifications

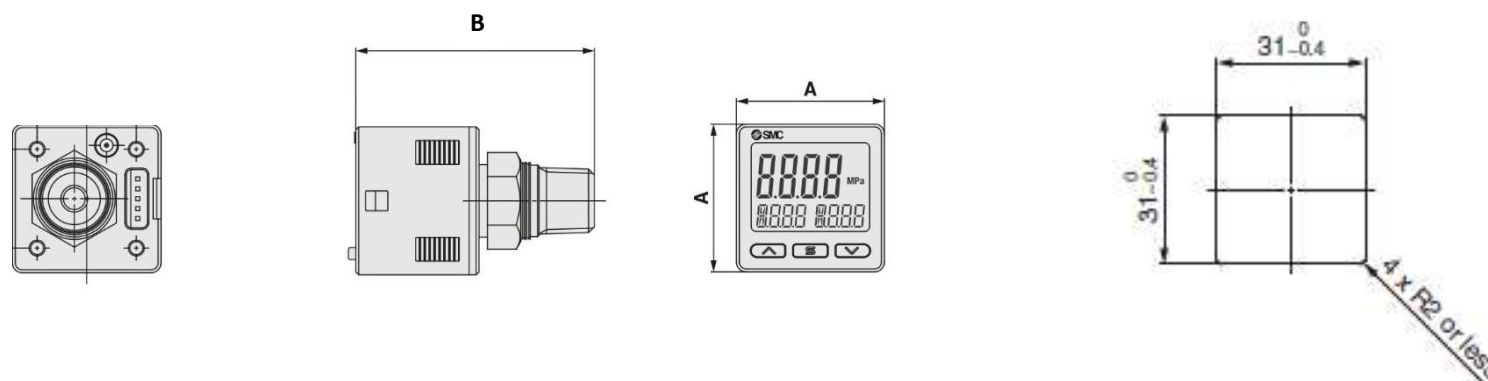
Dimensions

General dimensions (general fluids)

ZSE80A(F)/ISE80A



ZSE20C(F)/ISE20C

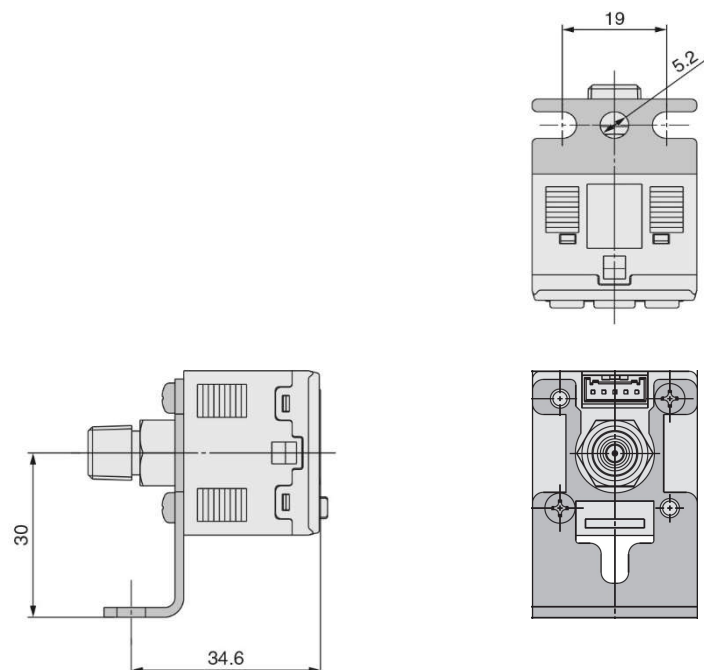


	A [mm]	B [mm]	Panel-cut dimensions [mm]
Current product ZSE80(F)/ISE80	30	49.6 (R ¼ option) 50.1 (NPT ¼ option)	36
ZSE20C(F)/ISE20C	30	48.4 (R ¼ option) 48.9 (NPT ¼ option)	31

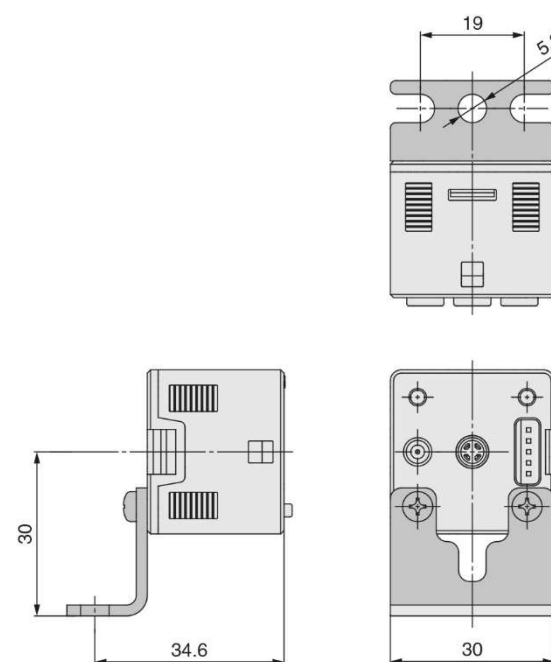
Difference in specifications

Dimensions

Bracket's interchangeability – Bracket A



ZSE30A(F)/ISE30A



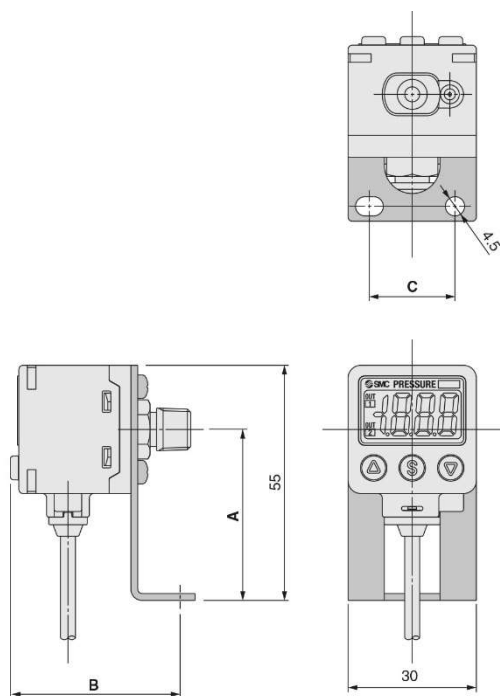
ZSE20A(F)/ISE20A

Series	Accessory	Part number	Interchangeability
Z/ISE30A(F)	BRACKET A	ZS-38-A1	Yes
Z/ISE20(F) Z/ISE20A(F) Z/ISE20B(F)	BRACKET A	ZS-46-A1	Yes

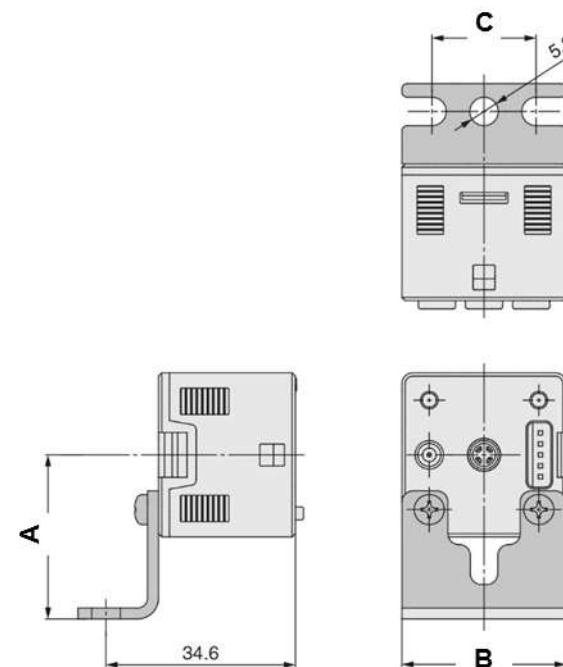
 Difference in specifications

Dimensions

Bracket's interchangeability - Bracket A



ZSE40A(F)/ISE40A



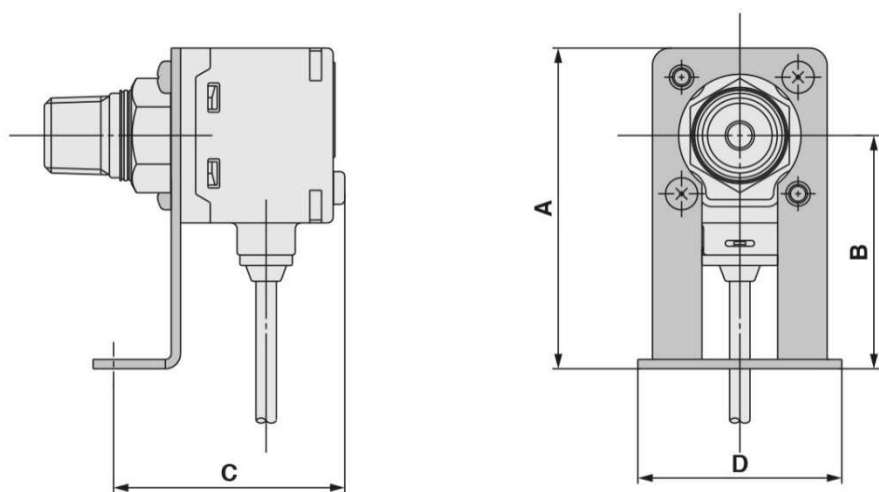
ZSE20A(F)/ISE20A

Series	Accessory	Part number	A [mm]	B [mm]	C [mm]
Z/ISE40A(F)	BRACKET A	ZS-24-A	40	40.9	20
Z/ISE20(F) Z/ISE20A(F) Z/ISE20B(F)	BRACKET A	ZS-46-A1	30	34.6	19

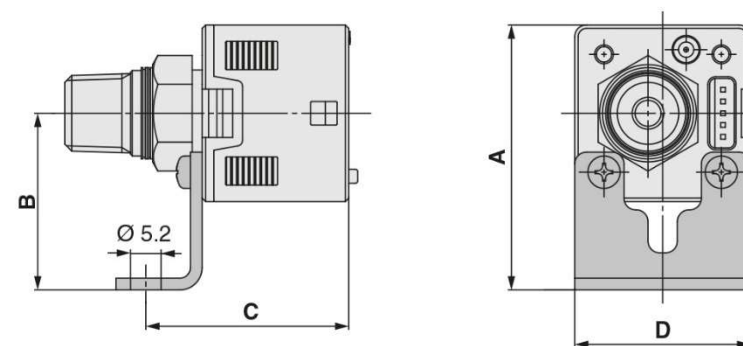
Difference in specifications

Dimensions

Bracket's interchangeability - Bracket A



ZSE80(F)/ISE80



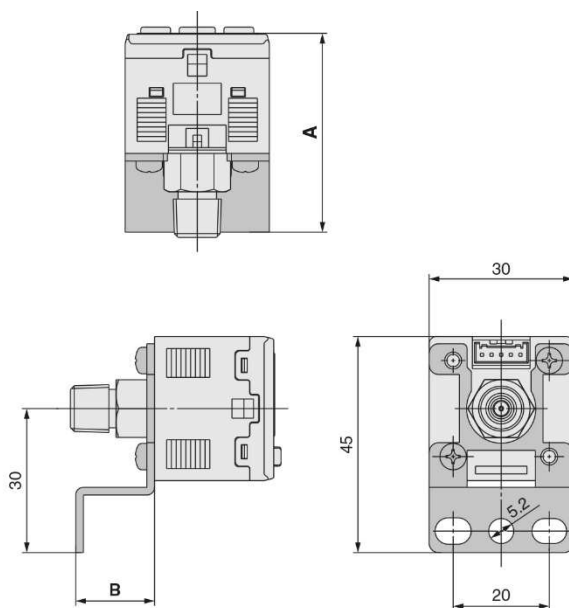
ZSE20C(F)/ISE20C

Series	Accessory	Part number	A [mm]	B [mm]	C [mm]	D [mm]
Z/ISE80(F)	BRACKET A (Rear ported)	ZS-24-A	55	40	39.7	30
Z/ISE20C(F)	BRACKET A	ZS-46-A1	45	30	34.6	30

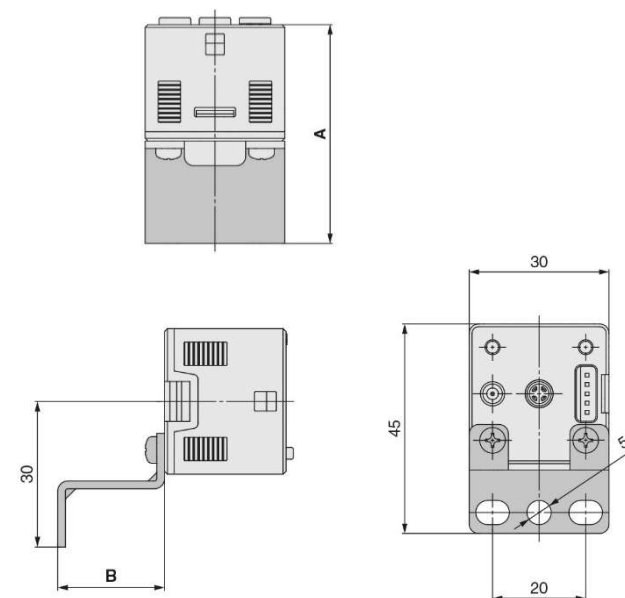
 Difference in specifications

Dimensions

Bracket's interchangeability - Bracket B



ZSE30A(F)/ISE30A



ZSE20A(F)/ISE20A

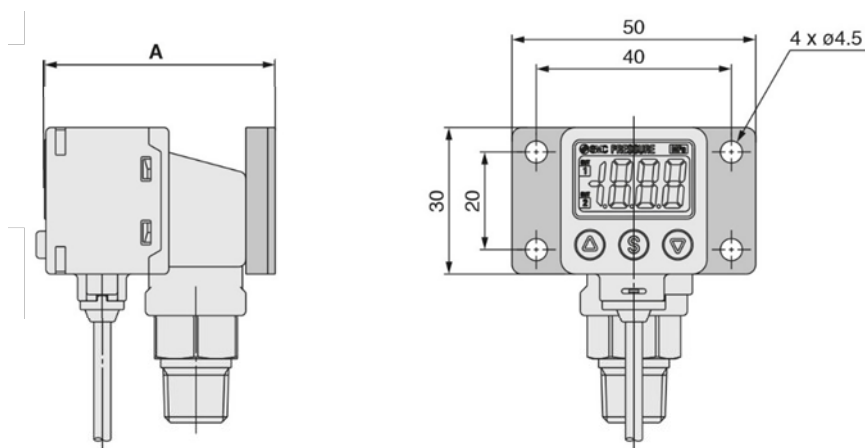
Series	Accessory	Part number	A [mm]	B [mm]
Z/ISE30A(F)	BRACKET B	ZS-38-A2	41.4	16.4
Z/ISE20(F) Z/ISE20A(F) Z/ISE20B(F)	BRACKET B	ZS-46-A2	47	22

Difference in specifications

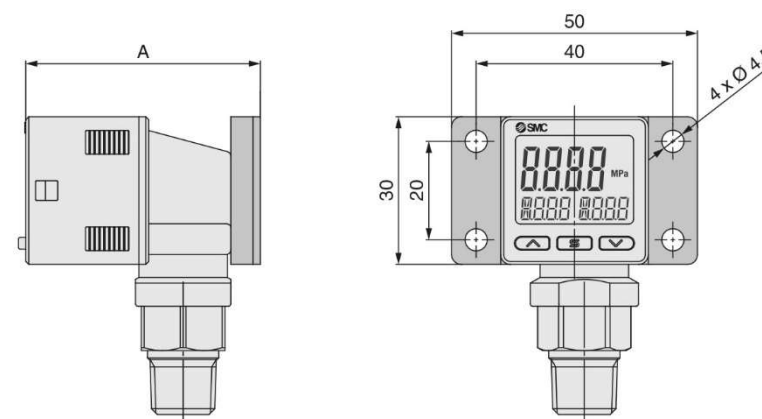
* Z/ISE40A(F) does not have Bracket B

Dimensions

Bracket's interchangeability – Bracket C



ZSE80(F)/ISE80



ZSE20C(F)/ISE20C

Series	Accessory	Part number	A [mm]
Z/ISE80(F)	BRACKET C	ZS-35-A	47
Z/ISE20C(F)	BRACKET C	ZS-46-E	47.7

 Difference in specifications