

Industrial service pressure gauge

Model : P221, P253 series

Spec. sheet no. PD02-01

Service intended

P221 and P253 series are suitable to be used in a corrosive environment, chemical, petro-chemical, refining facilities, power generation and marine and foods industry. Its stainless steel case and cover have a good appearance and an excellent protection against corrosion and chemical attack.



Nominal diameter

40 and 50 mm

Accuracy

40 mm : $\pm 3.0\%$ of full scale

50 mm : $\pm 1.5\%$ of full scale

Scale range (MPa, kPa, bar)

0 ~ 0.2, 0.4, 0.6, 1, 1.5, 3.5 MPa

Working pressure

Steady : 75% of full scale

Over range protection : 130% of full scale

Working temperature

Ambient : Model P221 : -40 ~ 65°C

Model P253 : -20 ~ 60°C

Fluid : Model P221 : Max. 200°C

Model P253 : Max. 60°C



Temperature effect

Accuracy at temperature above and below the reference temperature (20°C) will be effected by approximately $\pm 0.4\%$ per 10°C of full scale

Standard features

Pressure connection

Model P221 : Stainless steel (316SS)

Model P253 : Nickel plated brass

Element

C type bourdon tube

Model P221 : Stainless steel (316SS)

Model P253 : Brass

Case

Stainless steel (304SS)

Cover

40 mm : Stainless steel (304SS) and polycarbonate

50 mm : Stainless steel (304SS)

Window

Polycarbonate (40 and 50 mm)

Movement

Model P221 : Stainless steel

Model P253 : Brass

Dial

White aluminium with black graduations

Pointer

Black painted aluminium alloy

Process connection

$\frac{1}{8}$ ", $\frac{1}{4}$ " PT, NPT and PF

Optional

Window : Safety glass

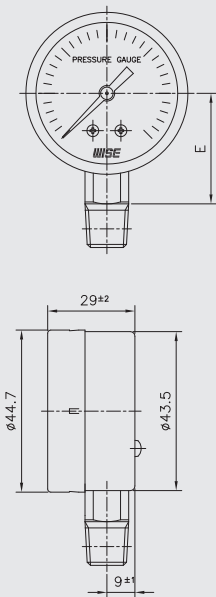
1. Base model**P221** Industrial service pressure gauge**P253** Process industrial service pressure gauge**2. Nominal diameter (mm)****0** 40**1** 50**3. Type of mounting****A** Bottom connection direct**F** Center back connection direct**4. Accuracy****4** ±1.5% of full scale, only available with diameter 50 mm**6** ±3.0% of full scale, only available with diameter 40 mm**5. Process connection****B** 1/8"**C** 1/4"**6. Connection type****B** PF**C** PT**D** NPT**Z** Other**7. Unit****H** bar**I** MPa**J** kPa**8. Range****042** 0 ~ 0.2 MPa (0 ~ 2 bar)**044** 0 ~ 0.4 MPa (0 ~ 4 bar)**045** 0 ~ 0.6 MPa (0 ~ 6 bar)**047** 0 ~ 1 MPa (0 ~ 10 bar)**050** 0 ~ 1.5 MPa (0 ~ 15 bar)**054** 0 ~ 3.5 MPa (0 ~ 35 bar)**9. Dial color****1** 2 colors**3** 3 colors**10. Option****0** None**1** Safety glass

1	2	3	4	5	6	7	8	9	10
P221	1	F	4	B	C	H	044	1	0

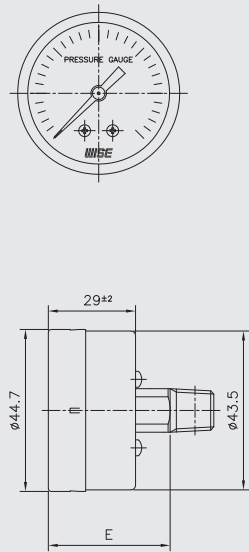
Sample
ordering code

P221, P253 : Type of mounting

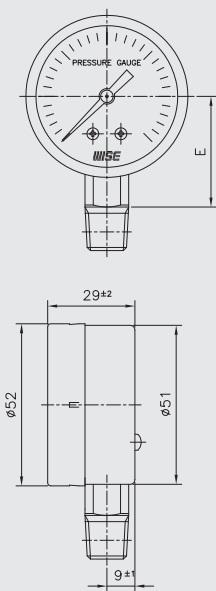
Code A



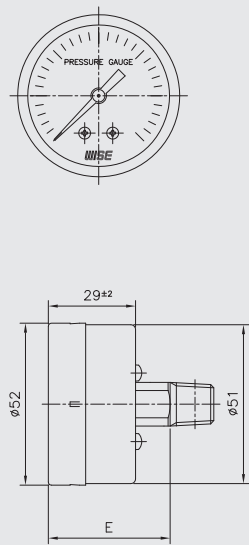
Code F



Code A*



Code F*



Dimensions (mm)

Dial size	Available code	P221	P253
		E±2	E±2
40	A	34.5	27.8
	F	38.1	37.5
50	A*	34.5	27.8
	F*	38.1	37.5

Conversion table

Pressure conversion chart

psi	atm	kgf/cm²	inH₂O	mmHg	inHg	kPa	bar	mmH₂O
1	0.068046	0.070307	27.7276	51.715	2.03602	6.835	0.06895	704.28104
14.696	1	1.0332	407.484	760	29.921	101.325	1.01325	10,350.0936
14.2233	0.96784	1	394.38	735.559	28.959	98.096	0.98067	10,000
0.036092	0.002454	0.00253	1	1.8651	0.07343	0.249	0.00249	25.4
0.019336	0.001315	0.001359	0.53616	1	0.03937	0.1333	0.001333	13.618464
0.491154	0.0033421	0.03453	13.6185	25.4	1	3.3864	0.033864	345.9099
0.145	0.00987	0.010197	4.0186	7.5006	0.2953	1	0.01	102.07244
14.5038	0.98692	1.01972	402.156	750.062	29.53	100	1	10,214.7624
0.00142	0.000097	0.0001	0.03937	0.0734	0.0029	0.0098	0.000098	1

Memo