

# PRODUCT INFORMATION

## Digital Pressure Gauge DP Gauge



DP-340BA front panel



DP-340BA rear panel

The wiring of the I/O connector is the same as that of DP-330BA.  
However, the top and bottom sides of the I/O connector should be inverted (180 degrees) to insert the connector.

Digital pressure gauge with high-accuracy sensor  
that has excellent overpressure resistance



- Wide range of pressures from 500 Pa to 50 MPa
- Two types of sensors (Differential pressure, Gauge pressure)

### Overview

- Wide range of pressures applicable to various types of tests.
- Proven world-class high reliability.
- Internal or external sensor can be selected according to your requirements.
- CE-compliant. (Excluding the models with external sensor.)
- Easy replacement for previous models.
- Comes with the Calibration Certificate of the standard used for pressure calibration.

### Application Examples

- Pressure value display in testing machine
- Test pressure monitoring of leak or flow test, etc.
- Pressure decay method
- Hole diameter & dimension test by pressure deviation
- Pressure monitoring inside of tubing or container
- Differential pressure test of orifice, pilot tube

### Features

\* The feature of Saving Method Selection (chs) provided in DP-330BA is not available in DP-340BA.

Feature	Description
Digital Output	With RS-232C and parallel BCD output, data can be transferred to external devices.
Upper/Lower Limits Comparators	Limits can be set in 4 levels (Upper limits (HH, HI), Lower limits (LO, LL)) for criteria for judgment.
Display Digits	3.5-digit or 4.5-digit can be selected.
Analog Output *1	The analog voltage corresponding to the Pressure Range is output.
Auto-Zero	With the current value set to zero, pressure changes after that can be displayed.
Zero Adjustment	Zero-point adjustment by just pushing a button.
Hold	Display hold, Peak hold or Bottom hold can be selected.
Keyboard Lock	Keyboard lock to prevent false operation.

\*1 The analog output during Auto-Zero or Hold is not reflected.

### Model

DP-340BA(A.BC.D) A, B, and D in the model notation are mandatory.

	Category	Code	Description
A	Pressure Range	---	See the "Pressure Ranges" below.
B	Sensor	N	Internal pressure sensor (Standard)
		S1	External pressure sensor
		S2	External pressure sensor with drip-proof*1
		L1	3 m (Standard)
C	Option	LX5	5 m
		LX10	10 m
		F1	F.S. 5 V*3
		F2	F.S. 10 V*3
D	Power Source	A	Analog current output 4 to 20 mA*4
		Q1	Input of 5 V supported
		VG	100 VAC cable 3 m
		VH	240 VAC cable 2 m
	Without AC Adapter	VK	240 VAC cable 2 m (Only for Chinese customers)
		VJ	External 24 VDC power source is required.

\*1 Applicable only for Gauge Pressure model.

\*2 Select if the sensor type is "external".

\*3 The analog output during Auto-Zero or Hold is not reflected.

\*4 Request for quotation (RFQ) is required for Pressure/Vacuum (X) and Vacuum (V) models.

\*5 Standard input is 24 V.

## ■ Pressure Ranges

Code	Diff. pressure / Gauge pressure	Measurement Range	Display Digits at F.S.	Code	Diff. pressure / Gauge pressure	Measurement Range	Display Digits at F.S.
5PD	Diff.	0 to 500 Pa	500	V2KD	Vacuum, Diff.	-2 kPa to 0	-1.999
1KD	Diff.	0 to 1 kPa	1.000	V5KD	Vacuum, Diff.	-5 kPa to 0	-5.00
2KD	Diff.	0 to 2 kPa	1.999	V10KD	Vacuum, Diff.	-10 kPa to 0	-10.00
5KD	Diff.	0 to 5 kPa	5.00	V20KD	Vacuum, Diff.	-20 kPa to 0	-19.99
10KD	Diff.	0 to 10 kPa	10.00	V50KD	Vacuum, Diff.	-50 kPa to 0	-50.0
20KD	Diff.	0 to 20 kPa	19.99	V50KG	Vacuum, Gauge	-50 kPa to 0	-50.0
50KD	Diff.	0 to 50 kPa	50.0	V100KD	Vacuum, Diff.	-100 kPa to 0	-100.0
100KD	Diff.	0 to 100 kPa	100.0	V100KG	Vacuum, Gauge	-100 kPa to 0	-100.0
50KG	Gauge	0 to 50 kPa	50.0	X5PD	Vacuum/Pressure, Diff.	±500 Pa	500
100KG	Gauge	0 to 100 kPa	100.0	X1KD	Vacuum/Pressure, Diff.	±1 kPa	1.000
200KG	Gauge	0 to 200 kPa	199.9	X2KD	Vacuum/Pressure, Diff.	±2 kPa	1.999
500KG	Gauge	0 to 500 kPa	500	X5KD	Vacuum/Pressure, Diff.	±5 kPa	5.00
1MG	Gauge	0 to 1 MPa	1.000	X10KD	Vacuum/Pressure, Diff.	±10 kPa	10.00
2MG	Gauge	0 to 2 MPa	1.999	X20KD	Vacuum/Pressure, Diff.	±20 kPa	19.99
5MG	Gauge	0 to 5 MPa	5.00	X50KD	Vacuum/Pressure, Diff.	±50 kPa	50.0
10MG	Gauge	0 to 10 MPa	10.00	X50KG	Vacuum/Pressure, Gauge	±50 kPa	50.0
20MG	Gauge	0 to 20 MPa	19.99	X100KD	Vacuum/Pressure, Diff.	±100 kPa	100.0
50MG	Gauge	0 to 50 MPa	50.0	X100KG	Vacuum/Pressure, Gauge	±100 kPa <sup>*1</sup>	100.0
V5PD	Vacuum, Diff.	-500 Pa to 0	-500	X200KG	Vacuum/Pressure, Gauge	±200 kPa <sup>*1</sup>	199.9
V1KD	Vacuum, Diff.	-1 kPa to 0	-1.000	X500KG	Vacuum/Pressure, Gauge	±500 kPa	500

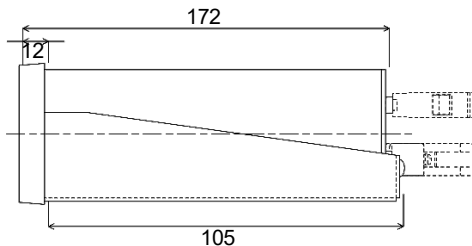
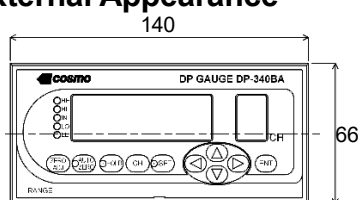
\*1 Range of the negative side is down to -100 kPa.

## ■ Specifications

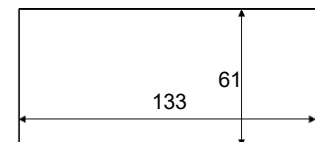
	Differential Pressure	Gauge Pressure
Measurement Range	500 Pa, 1 kPa, 2 kPa, 5 kPa, 10 kPa, 20 kPa, 50 kPa, 100 kPa, -100 kPa	50 kPa, 100 kPa, 200 kPa, 500 kPa, -100 kPa, 1 MPa, 2 MPa, 5 MPa, 10 MPa, 20 MPa, 50 MPa
Pressure Media	Air, Noncorrosive gas	Air, Noncorrosive gas/liquid (Not corrosive to wetted material)
Sensing Element	Beryllium copper	SUS630
Transducer Type	Inductance type	Capacitance type
Accuracy	±0.3% of F.S. ±1 digit	±0.25% of F.S. ±1 digit
Temp. Characteristic: Zero	±0.03% of FS/°C	
Temp. Characteristic: Span	±0.03% of FS/°C	
Proof Pressure	Ranges 50 kPa or less	10 x F.S.
	Range 100 kPa	5 x F.S.
Maximum Line pressure	Ranges 5 MPa or less	2 x F.S.
	Others ranges	1.5 x F.S.
Response Time	2 x Proof pressure	---
Display digits	3.5-digit	000 to ±1999 (Default)
	4.5-digit	0000 to ± 19999
Sampling Time	250 ms, 50 ms (Toggleable)	
Analog Output <sup>*1</sup>	The analog voltage 0.5, 1 or 2 VDC corresponding to the Pressure Range is output.	
Sensor Raw Output	5 V, 10 V available (Option)	
BCD Output	Equipped as standard	
Power Source	24 VDC 0.3A (100 to 240 VAC adapter included)	
Operating Temperature	5 to 40 °C	
Pressure Inlet Port	Rc1/8	

\*1 The analog output during Auto-Zero or Hold is not reflected.

## ■ External Appearance



Mounting panel



Since the lowest calibration point for all the Cosmo products is -90 kPa, the guaranteed range is down to -90 kPa as well.

\* The contents in this Product Information are as of February 2024. The specifications are subject to change without prior notice

## Cosmo Instruments Co., Ltd.

2974-23 Ishikawa, Hachioji, Tokyo 192-0032 Japan

China:	Cosmo (Shanghai) Trading Co., Ltd.	+86-(0)21-6575-6880
	Shanghai, Tianjin, Guangzhou, Chongqing, Changchun, and Wuhan	
Korea:	Cosmo Korea Co., Ltd.	+82-(0)32-623-6961
Taiwan:	Taiwan Cosmo Instruments Co., Ltd.	+886-(0)2-2707-3131
Malaysia:	Wave Electronics & Electrical System Sdn. Bhd.	+60-(0)3-51626677
Thailand:	Cosmowave Technology Co., Ltd.	+66-(0)2-7361667
Indonesia:	Pt. Cosmowave	+62-(0)21-89328750
Vietnam:	Cosmowave Technology Co., Ltd. Vietnam Representative Office	+84-(0)24-37876085

<http://www.cosmo-k.co.jp/>

Phone: +81-(0)42-642-1357 Fax: +81-(0)42-646-2439

India:	Cosmo Instruments India Pvt. Ltd. Head Office	+91-(0)124-421-0946
	Cosmo Instruments India Pvt. Ltd. South Zone Regional Office	+91-(0)80-2686-1350
	Cosmo Instruments India Pvt. Ltd. Pune - Chakan Office	+91-(0)20-6933-2345
Germany:	Cosmo EU Solutions Technology GmbH	+49-(0)212-38367171
USA:	Cosmo Solutions Technology, Inc.	+1-248-488-2580
Mexico:	Cosmo De Mexico	+52 472 748 62 94
Brazil:	Tex Equipamentos Eletronicos Ind. Com. Ltda.	+55-(0)11-4591-2825
Australia:	Industrial Research Technology Pty. Ltd.	+61-(0)412-176-674



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