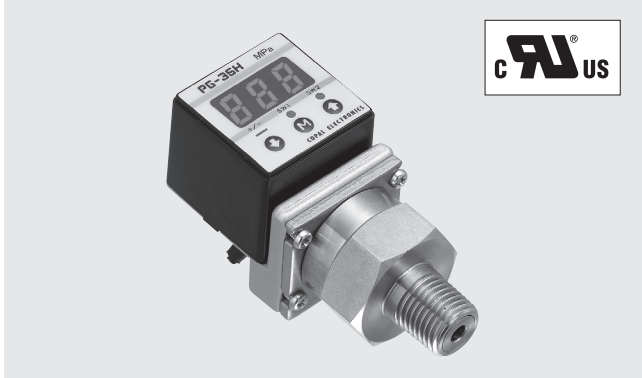


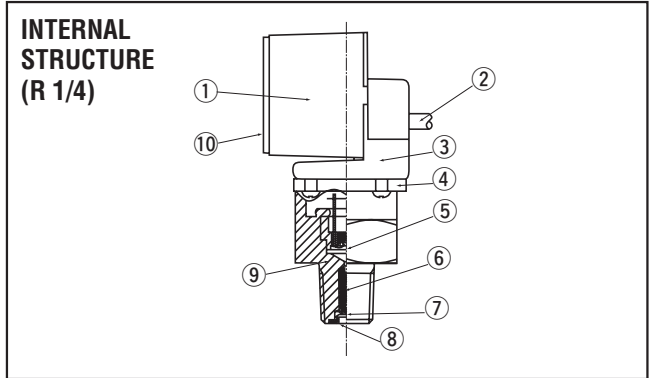
PRESSURE GAUGES

PG-35H



FEATURES

- For high pressure
- For corrosive gases and liquids compatible with SUS316L stainless steel diaphragm
- Compact • Light weight • Drip-proof structure (30 mm sq • 200 g • IP65)
- Low consumption by nondisplay mode
- Set data protection by panel lock function



	Part name	Material
①	Shield case	PBT (Polybutyleneterephthalate)
②	Push cable	Vinyl chlorid resin
③	Adaptor	Aluminum
④	Sensor holder	SUS316L
⑤	Diaphragm	SUS316L
⑥	M4 screw	SUS303 (R2 only)
⑦	Push nut	Spring steel (R2 only)
⑧	Plug	SUS303 (R2 only)
⑨	Fitting	R2 : Iron, Nickel G3 : SUS316
⑩	Panel sheet	Polyester

MODEL NUMBER DESIGNATION

PG-35H-104R-NR2B

Series name

Pressure range

104 : -0.1 ~ 10 MPa
354 : -0.1 ~ 35 MPa

Pressure reference

R : Compound pressure (Negative pressure ~ Positive pressure)

Port

Blank : Stem mount
B : Back mount

Fitting

R2 : R 1/4
G3 : G 3/8

Switch output interface

N : NPN open collector
P : PNP open collector

LIST OF MODEL NUMBERS

Port	Fitting	Pressure reference		Gauge	
		Switch output interface	Rated pressure range	-0.1 ~ 10 MPa	-0.1 ~ 35 MPa
Stem mount	R2 (R 1/4)	NPN		PG-35H-104R-NR2	PG-35H-354R-NR2
		PNP		PG-35H-104R-PR2	PG-35H-354R-PR2
	G3 (G 3/8)	NPN		PG-35H-104R-NG3	PG-35H-354R-NG3
		PNP		PG-35H-104R-PG3	PG-35H-354R-PG3
Back mount	R2 (R 1/4)	NPN		PG-35H-104R-NR2B	PG-35H-354R-NR2B
		PNP		PG-35H-104R-PR2B	PG-35H-354R-PR2B
	G3 (G 3/8)	NPN		PG-35H-104R-NG3B	PG-35H-354R-NG3B
		PNP		PG-35H-104R-PG3B	PG-35H-354R-PG3B

※ Verify the above model numbers when placing orders.

Marked Ⓢ is manufactured upon receipt of order basis.

PG-35H

PRESSURE GAUGES

STANDARD SPECIFICATIONS

● Unless otherwise specified, the specs are defined at an ambient temperature of 25±5 °C and excitation voltage of 12 V DC.

Item	Model number	PG-35H		
		104R	354R	
General specifications	Pressure reference	Gauge		
	Pressure medium	R2	Corrosive hydraulic oil compatible with Iron or Nickel	
		G3	SUS 316・SUS 316L	Corrosive gases/liquids compatible with Iron and Nickel
	Rated pressure range	MPa	- 0.1 ~ 10	- 0.1 ~ 35
	Maximum pressure	MPa	20	50
	Break-down pressure	MPa	40	50
	Operating temp. range	°C	- 10 ~ 50	
	Compensated temp. range	°C	0 ~ 50	
	Operating humidity	%RH	35 ~ 85 (No condensation)	
	Protection grade		IP65	
	Pressure Port		R 1/4, G 3/8	
	Type of mounting		Stem mount, Back mount	
	Material of pressure port attachment		SUS 316L	
	Net weight	g	Approx. 200 (Including 2 m cable)	
	Thermal error		± 3 %F.S. (0 ~ 50 °C)	
	Insulation resistance		100 MΩ minimum	
	Dielectric strength		500 V AC 1 minute	
	Input voltage		10.8 ~ 30 V DC (Including ripple percentage)	
Consumption current		50 mA maximum		
Display	Display element	Full 3-digit LED		
	Rated display range	MPa	- 0.10 ~ 9.99	- 00.1 ~ 35.0
	Multiplier settings		Max. 11 settings	
	Display cycle		Approx. 4 times/s	
	Negative pressure display		“-” LED is ON	
	Display accuracy		± 2 %	
Switch output	Output status	NPN/PNP		
	Output mode	2-point output (Transistor, Open collector output)		
	Output mode	Separate mode / window comparator mode		
	Switching capacity	30 V DC 100 mA maximum		
	Residual voltage	1.2 V maximum (NPN), 2.2 V maximum (PNP)		
	State indication	Output 1 (Green LED), Output 2 (Red LED) Lighted when output is ON.		
	Switch hysteresis	0 ~ 300 counts Adjustable		
	Repeatability	± 0.2 %F.S. ± 1 count		
Response	Approx. 5, 25, 250, 2500 ms adjustable			
Analog output	Output mode	3 modes		
	Output voltage V zero : Pin=0, V span : Pin=0 ~ Pin (H)	1 ~ 5 V (R mode 104R-ZERO : 1.04 ± 0.2 V, SPAN : 3.96 ± 0.2 V, 354R-ZERO : 1.01 ± 0.2V, SPAN : 3.99 ± 0.2 V) G mode ZERO : 1 ± 0.2 V, SPAN : 4 ± 0.2 V ※ The accuracy at V mode is not guaranteed.		
	Impedance	10 kΩ		
	Resolution	1/204 (4.9mV / 0.123% F.S.)		

ENVIRONMENTAL CHARACTERISTICS

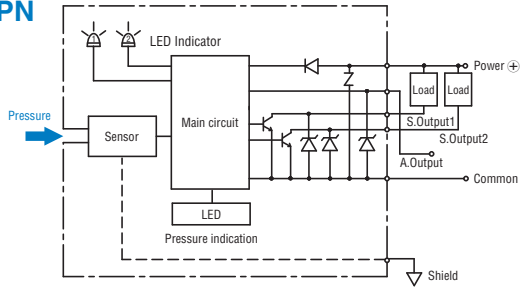
Test item	Test conditions	Permissible change
Vibration	10 ~ 500 Hz, 98.1 m/s ² or 1.5 mm P-P, 3 directions for 2 hours each	Pressure indication, switch operating points and analog output variation : ± 2 %F.S. maximum each after test
Shock	490 m/s ² , 3 directions for 3 times each	
Pressure cycling	0 ~ Rated pressure、10 ⁶ cycles	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	

PG-35H

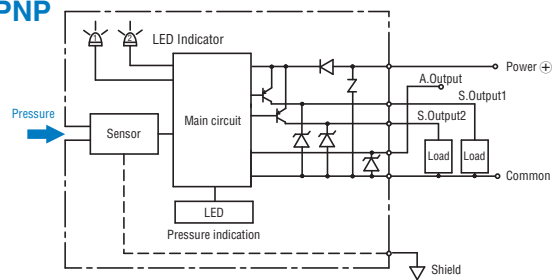
PRESSURE GAUGES

INTERNAL ELECTRICAL SCHEMATICS

NPN



PNP



SELECTION OF DISPLAY MULTIPLIER

The last digit/letter represents the selection code : Blinking red LED indicates negative pressure.

Display multiplier	(- Pr ~ + Pr) Pressure range	
	104R	354R
1 × 1		
2 × 0.0102	- 1.0 ~ 99.9	- 1 ~ 350
3 × 10.2		
4 × 7.501		
5 × 102		
6 × 0.01	- 1.0 ~ 99.9	- 1 ~ 350
7 × 10		
8 × 0.145		
9 × 0.000145	- 0.01 ~ 1.45	- 0.01 ~ 5.07
A × 0.001	- 0.10 ~ 9.99	- 00.1 ~ 35.0
b × 0.2953		

Diagonal column: Display multiplier cannot be selected due to resolution and number of digits. (Selection code is not indicated either.) Selection code is set at "A" prior to shipment.

ANALOG OUTPUT MODE

Pressure range		-Pr	0	Pr
1	R mode	←	→	→
2	G mode	←	→	→

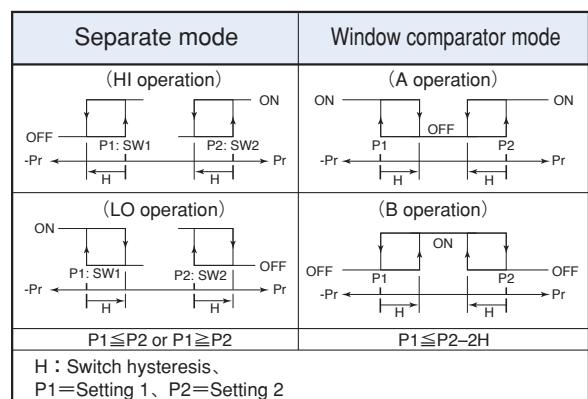
Selection code is set at "G" prior to shipment.

SWITCH OUTPUT MODE

Output	SW1		SW2			
	Separate	Window comparator	Separate	Window comparator		
Mode	Separate	Window comparator	Separate	Window comparator		
Operation	HI LO	A B	HI LO	A	B	
S-1	○		○			
S-2	○			○		
S-3		○	○			
S-4		○		○		
C-5		○			○	
C-6		○				○
C-7					○	○
C-8						○
Pressure setting (Operating point)	Setting 1	(Lower limit) : Setting 1 (Upper limit) : Setting 2	Setting 2	(Lower limit) : Setting 1 (Upper limit) : Setting 2		

Note 1. In the Separate Mode, setting 1 corresponds to SW1, and Setting 2 corresponds to SW2.

Note 2. In the Window Comparator Mode, the minimum value for SW1 and SW2 corresponds to Setting 1 and the maximum value corresponds to Setting 2.

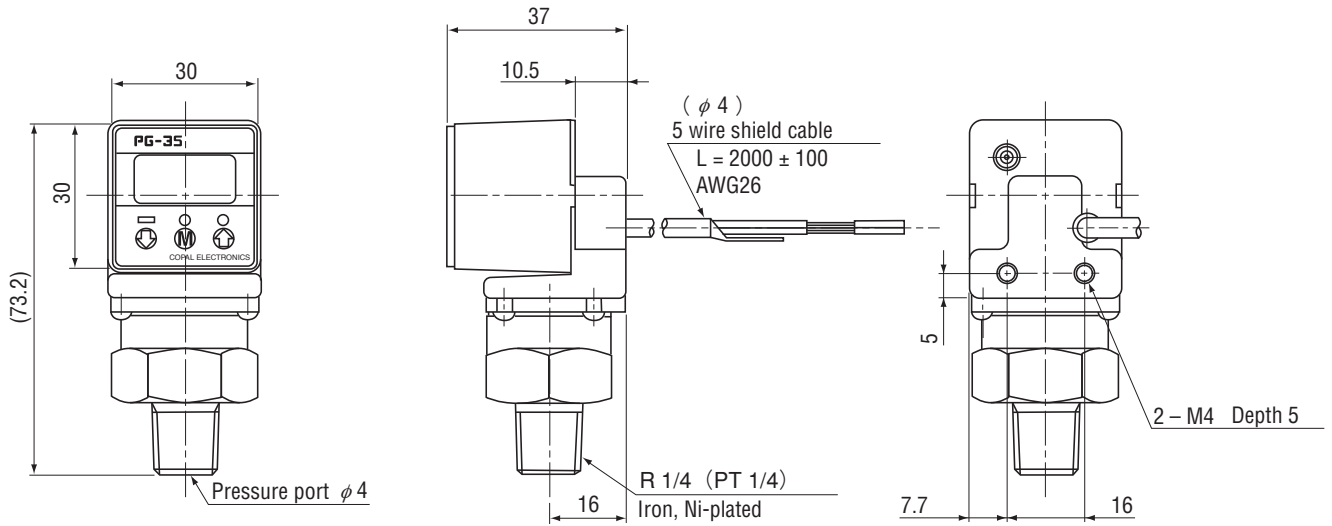


PG-35H PRESSURE GAUGES

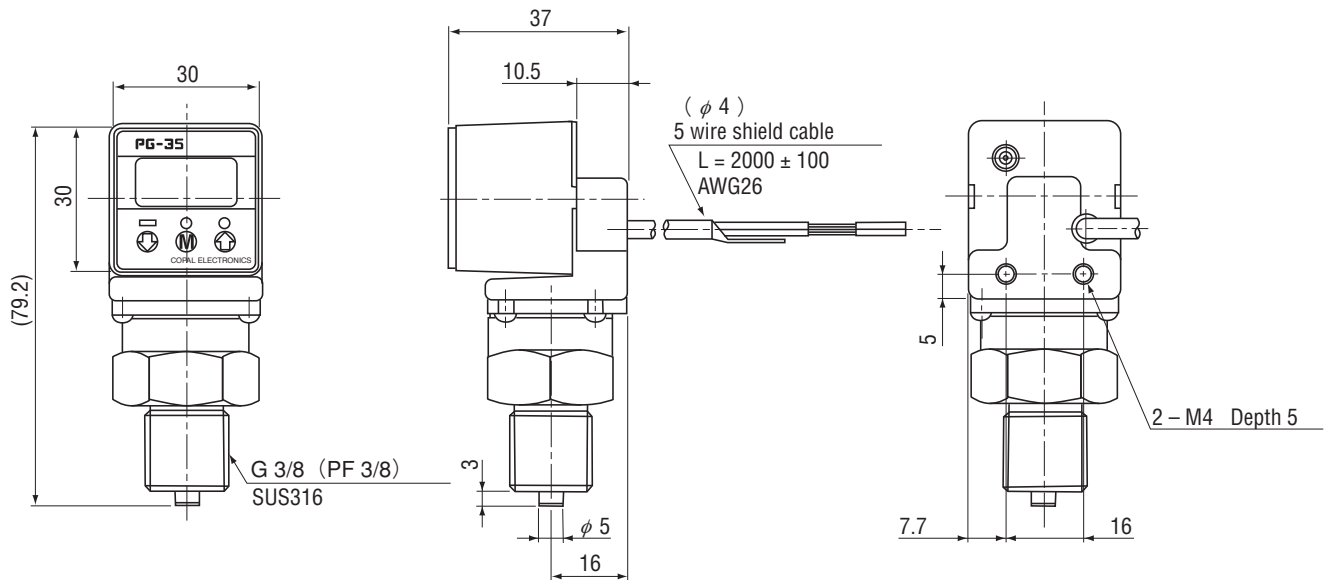
OUTLINE DIMENSIONS

Unless otherwise specified tolerance : ± 0.5 (Unit: mm)

● Fitting R2 (R 1/4)



● Fitting G3 (G 3/8)



Wire color	Connection
Brown	Power \oplus
Gray	Analog output
Black	Switch output 1
White	Switch output 2
Blue	Common
Shield	Fitting

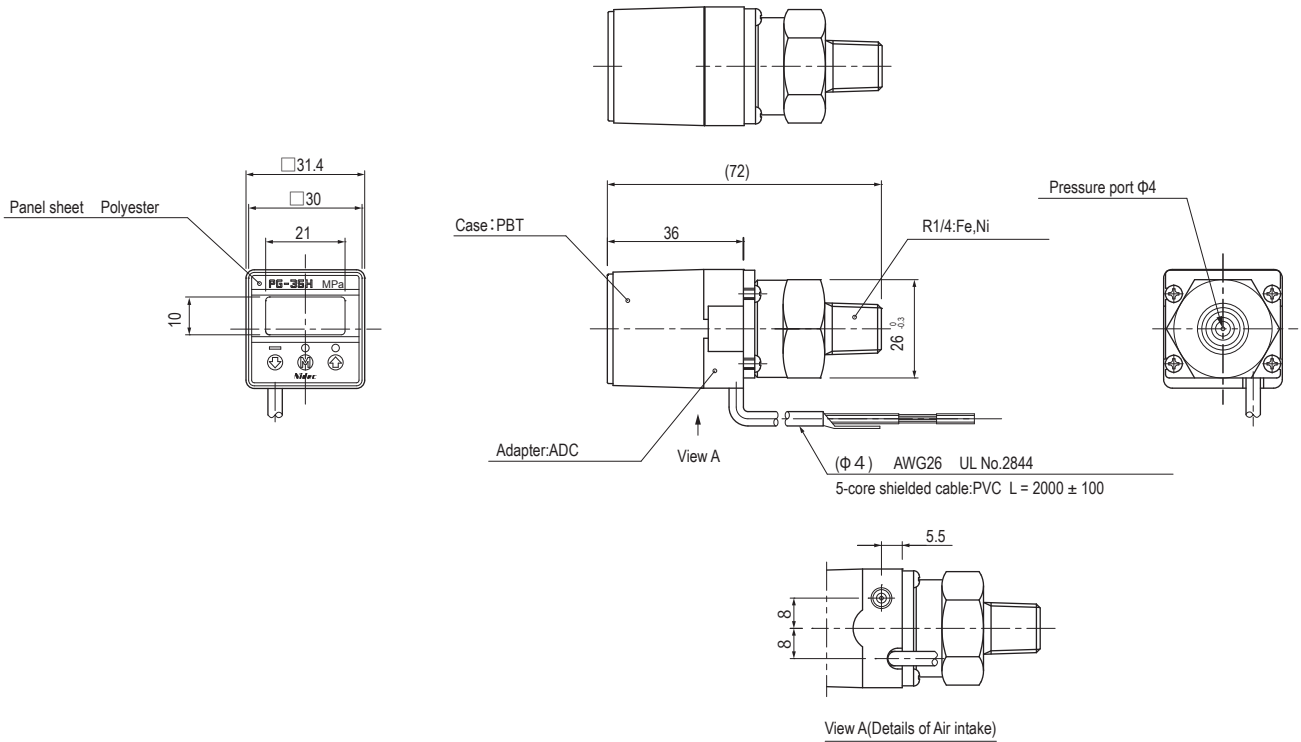
PG-35H

PRESSURE GAUGES

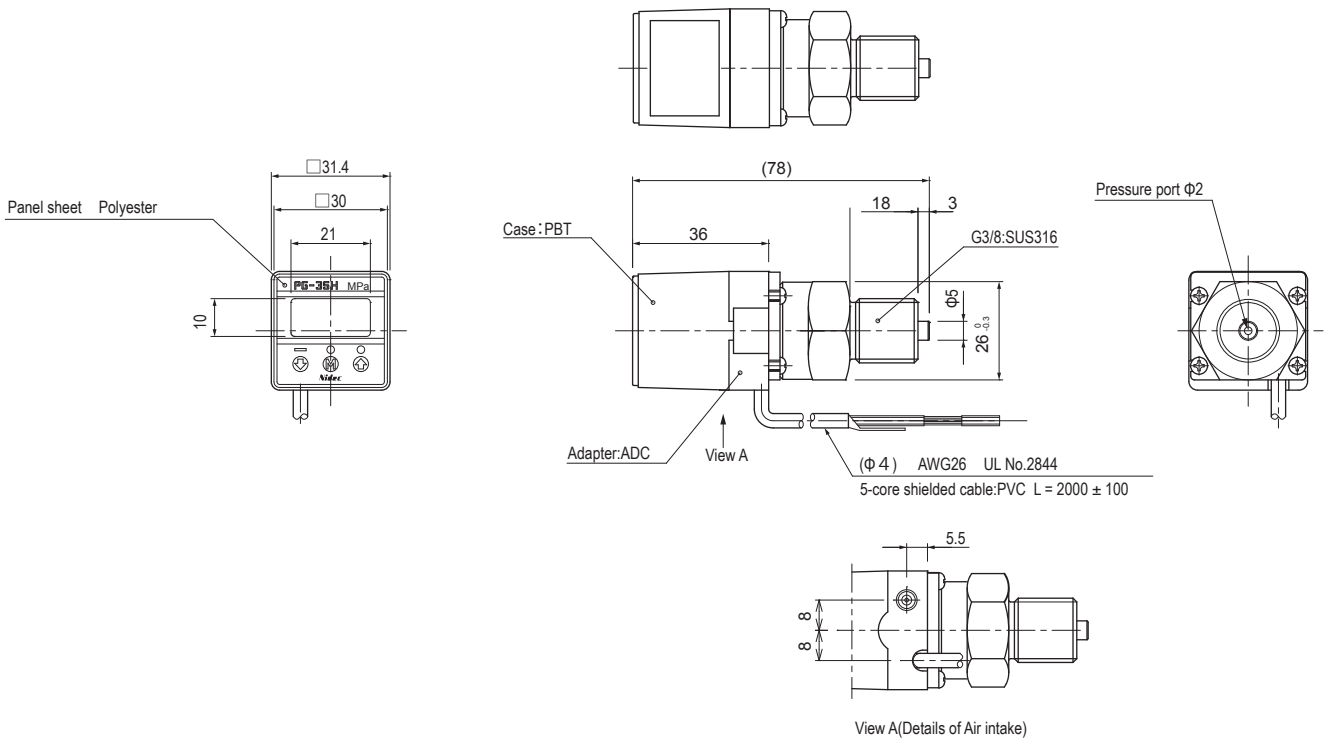
OUTLINE DIMENSIONS

Unless otherwise specified tolerance : ± 0.5 (Unit: mm)

● Fitting R2 (R 1/4) The horizontal installation type



● Fitting G3 (G 3/8) The horizontal installation type



PG-35H PRESSURE GAUGES

■ Piping

Use a wrench on the aluminum die-casting. Do not hold the plastic case when tightening.
Apply sealing tape at the male screw area(R2 type)to protect against air leaks.

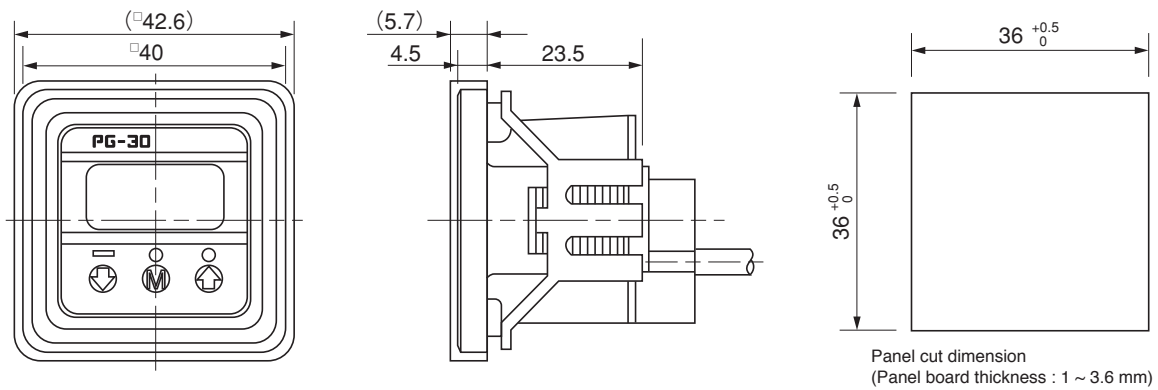
■ ACCESSORIES (Sold separately)

Name	Series name	Contents	Applicable model
Panel holder set	ACPG-003	Panel holder cover Panel holder Panel stopper (2pcs.)	PG-30 · PG-35 · PG-75 · PG-35H · PG-35L
Holder cover set (For protecting gauge operating panel)	ACPG-004	Panel holder cover Panel holder	PG-30 · PG-35 · PG-75 · PG-35H · PG-35L

■ HOW TO MOUNT OPTIONAL ACCESSORIES (Sold separately)

(Unit: mm)

● PG-30 · PG-35 · PG-35H · PG-35L · PG-75 Panel cut holder set & holder cover set



● Panel holder cover set

