Digital pressure sensor with solenoid valve control

MPS–10 series

●Number of control wires are reduced

Control vacuum solenoid valve and blow–off solenoid valve by one signal.

●Compact, lightweight

Size : 61 × 25 × 16mm⇒50 × 20 × 9.8mm

Weight : 20g⇒9g

Volume : 1/2

*Compared to MVS–201

●Standard analog output

Analog : 1 to 5VDC

How to order

MPS – 10 ① P CA ② S

①Output type

N	NPN open collector
P	PNP open collector

②Input type

Blank	Sink input
S	Source input

*MPS–10NCAS can not choose.

CONVUM mounting reference

MPS – 10 ① P – ② SC1 – ③ S – ④ S

①Output type

Blank	NPN open collector Note1
P	PNP open collector

Note1) In the case of SC3, it becomes N.

②Applicable series

SC1	For SC1, SC2
SC3	For SC3, SC2
MC3	For MC32
MC4	For MC42, MPV42

③Solenoid value air passage

A	Normally open
B	Normally close
W	Self–holding

④Input type

Blank	Sink input
S	Source input

*④can not choose, if the "blank" is selected at ①

*With valve connector cable and bracket.

Option parts

Connector cable for power/contorl input or output : MPS–10CC

Connection connector cable for valve : MPS – 10 – VC – ① SC1 – ② □

①Applicable series

SC1	For SC1, SC2
SC3	For SC3
MC3	For MC32
MC4	For MC42, MPV42

②Solenoid value

Blank	Normally open, normally close
W	Self–holding

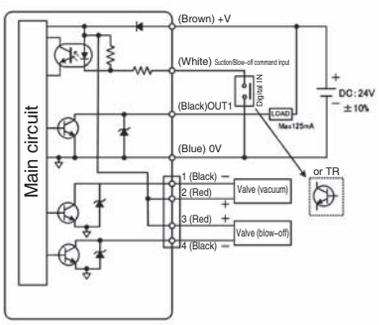
Bracket : MPS–10–B

Specifications

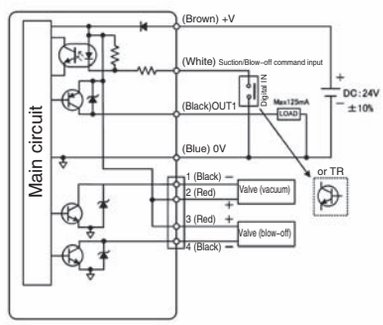
Description	Unit	MPS–10
Fluid		Air (non corrosive, nonflammable gas)
Diaphragm		Silicon diaphragm
Pressure range	kPa	– 101~500
Proof pressure	MPa	0.8
Operating ambient temperature	℃	0~50
Operating humidity	%	35 ~ 85 RH (without condensation)
Power supply	V	DC24, Ripple (Vp–p) less than 5%
Power consumption	mA	45(not include the driven current for valve)
Switch output		NPN or PNP open collector 1 point output
Current load	mA	max.125mA
Analog output	V	DC1 ~ 5 (±0.1%), linearity less than ± 1% of F.S., output impedance 1kΩ
Digital input (Suction/break command)	V	Non–contact input 1point :0V or 24V (more than 1msec)
Repeatability	%	±0.3 F.S., 1digit or less
Temperature characteristic		Less than ±2% of F.S. (At standard temperature 25℃ , range 0 ~ 50℃)
Response time	ms	2.5
Hysteresis		Variable
Display		3 digits 7 segments, Red
Minimum unit setting	kPa	1
Display time	S	0.2
Protection structure		IP 40
Vibration resistance		10 ~ 55Hz, total amplitude 1.5mm, 50m/S^2 (2 hours in direction of XYZ)
Shock resistance	m/s^2	100 (3 times in direction of XYZ)
Electrical connection		connector
Cable		ϕ3.8 0.14mm^2 5lead wires 1m
Connector		Maker : JST, model : GHR–05V–S
Mass	g	10 (without cable)

Internal circuit

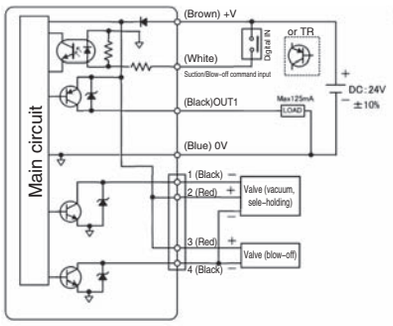
NPN output (Sink input)



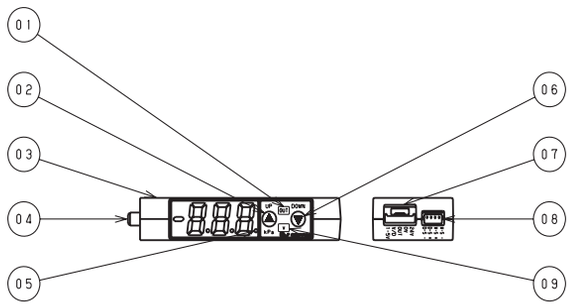
PNP output (Sink input)



PNP output (Source input)

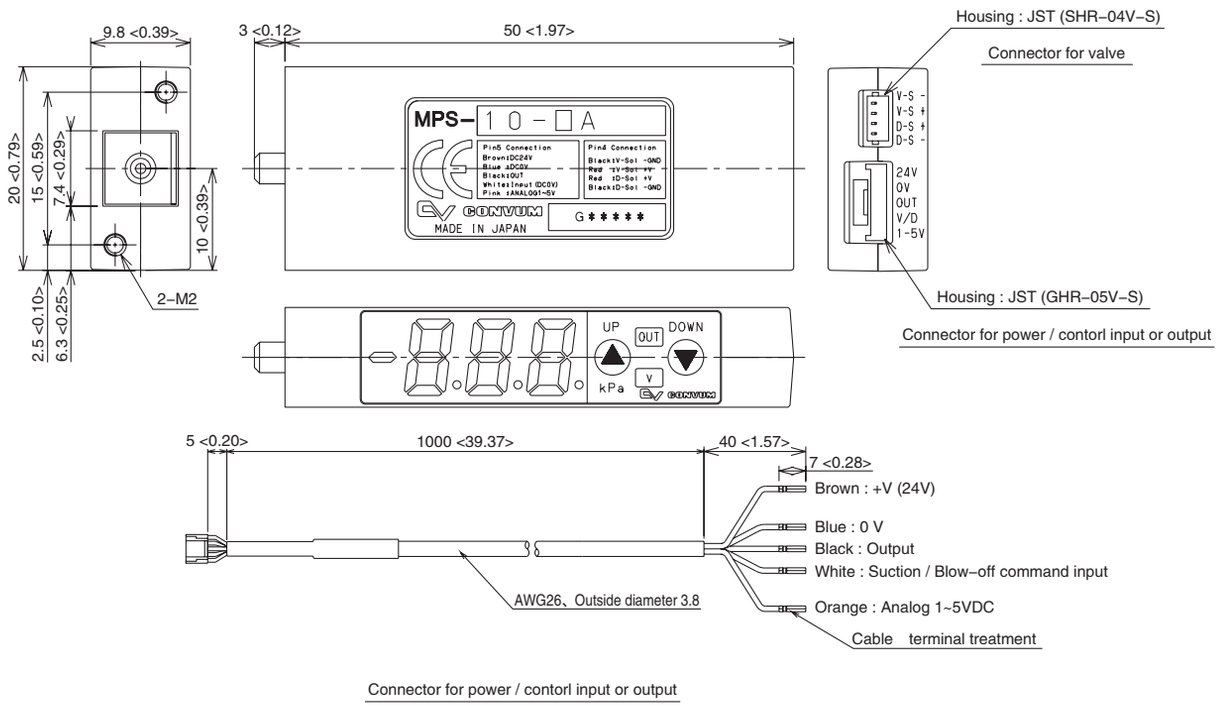


Construction



Main parts

No.	Part name	Material
1	Output LED(Red)	–
2	UP key	–
3	MPS body	ABS
4	Pressure port	PPA
5	Control input (Suction/break command)	–
6	DOWN key	–
7	Connector for power/contorl input/output	–
8	Connector for valve	–
9	Indicator LED(green) of suction valve	–

Dimensions

Unit : mm <inch>