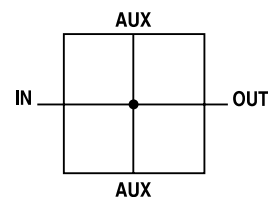


Manifold Blocks



Features

- Available in 1/4, 1/2 & 3/4 threaded inlet / outlet ports
- Two additional top and bottom auxiliary ports standard
- Can be mounted anywhere in the FRL system

Manifold Blocks

Model Type	In / Out Port Size	Auxiliary Port Size Top	Auxiliary Port Size Bottom	Thread Type	Order Code
P31	1/4"	1/4"	1/4"	BSPP	P31MA12022N
P32	1/2"	1/4"	1/2"	BSPP	P32MA14024N
P33	3/4"	1/4"	1/2"	BSPP	P33MA16024N

For thread type: BSPP **1** NPT **9**

Branch Manifold

P32	1/2"	1/4"	1/4"	BSPP	P32MD14022N
P32	1/4"	1/4"	1/4"	BSPP	P32MD12022N

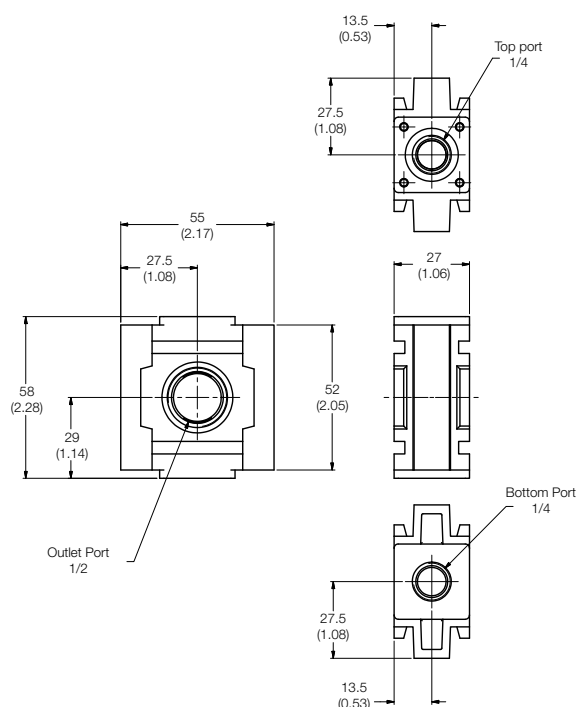
Materials of Construction

Body Aluminium

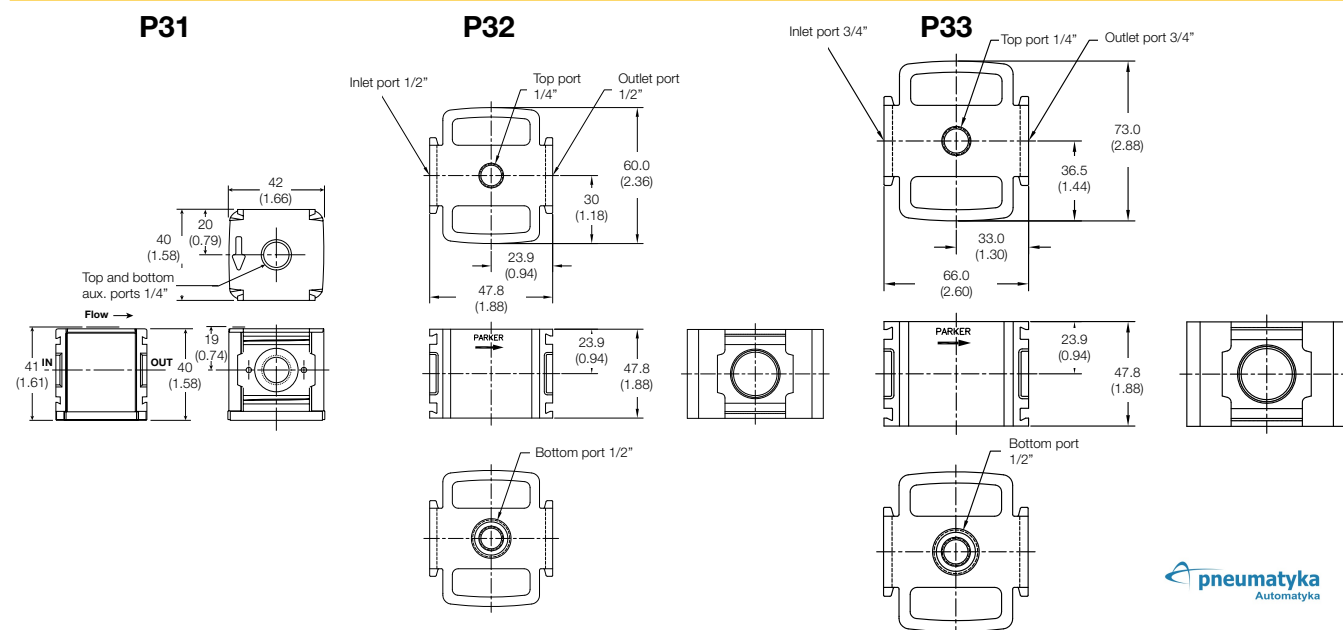
Specifications

Max Operating Temperature	65.5°C (150°F)
Max Supply Pressure	20.7 bar (300 psi)
Weight	P31: 0.19 kg (0.42 lbs) P32: 0.30 kg (0.66 lbs) P32MD: 0.14 kg (0.31 lbs) P33: 0.34 kg (0.75 lbs)

Branch Manifold Dimensions - P32



Manifold Block - Dimensions



Pressure Sensors
MPS-34, 2-Colour Panel Mount

- Sensor output:
PNP Open collector
Transistor output, 30VDC, 125mA with Analog output,
4 to 20mA
- Output response time less than 2.0 milliseconds
- RoHS
- Air and non-corrosive gases
- Sensor face includes icons to show sensor programming
status



Red ↔ Green Display

Programming options

Outputs change N.O. / N.C.	✓
Units of measure change	✓
Hysteresis mode	✓
Window comparator mode	✓
Auto teach mode	✓
Output response time	✓
Lockout option	✓
Password lockout	—
Max. value display	✓
Min. value display	✓
Zero reset	✓
Red / Green LED display options	✓
Error output mode	✓

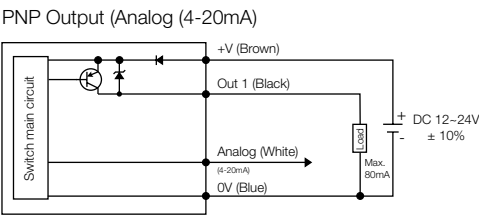
MPS-34 Sensor Only Ordering Numbers

Pressure range	Electrical output	Electrical connection	Order code	
			1/8 NPSF male	1/8 BSPP male
0-30 inHg	(1) PNP with (1) 4-20ma	M8, 4 Pin	MPS-V34N-PCI	MPS-V34G-PCI
0-145 PSI	(1) PNP with (1) 4-20ma	M8, 4 Pin	MPS-P34N-PCI	MPS-P34G-PCI

MPS-34 Accessories

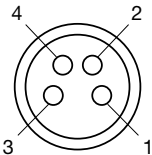
Description	Order code
M8, 4-pin, 2 meter cable	CB-M8-4P-2M-PUR
M8, 4-pin, 5 meter cable	CB-M8-4P-5M-PUR

Internal circuit for open collector
and analog output wiring



Sensor pin out with analog output

- Pin #
- 1 Brown: 24VDC
 - 2 White: 4 to 20mA
 - 3 Blue: 0VDC
 - 4 Black: PNP Open Collector Output 1

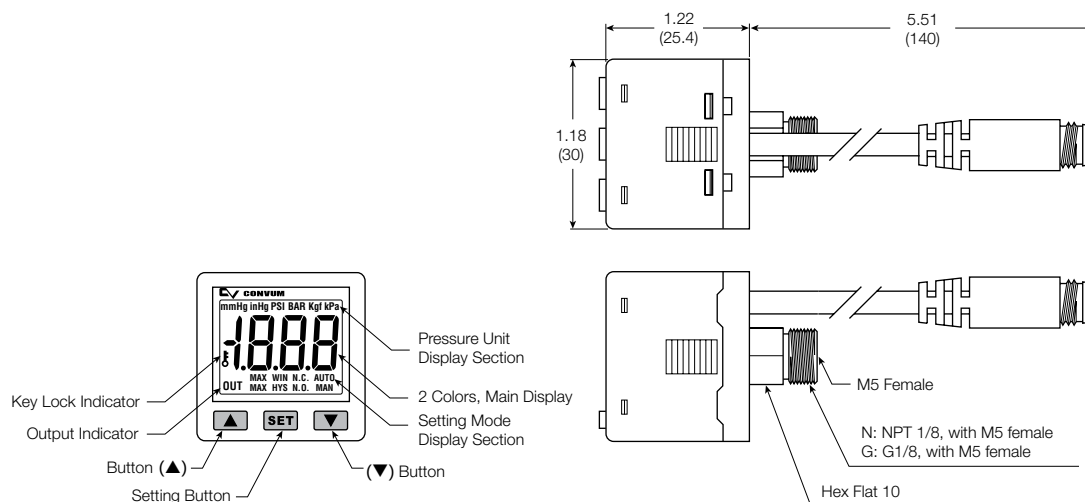


Specifications

	Vacuum (V)	Positive (P)
Pressure range	-101.3 to 0 kPa (-14.5 to 0 PSI)	-0.1 to 1 Mpa (0 to 145 PSI)
Proof pressure	0.3 Mpa (44PSI)	1.5 Mpa (218 PSI)
Display resolution, Units of measure	0.1, kPa 0.001, kgf/cm ² 0.001, bar 0.01, PSI 0.01, inHg 1, mmHg	1, kPa 0.01, kgf/cm ² 0.01, bar 0.1, PSI - -
Media	Air & non-corrosive gases	
Pressure port	(N) 1/8" NPT male, (G) 1/8 BSPP male both with M5 female port	
Operating temperature	32 to 122°F (0 to 50°C)	
Storage temperature	-4 to 140°F (-20 to 60°C)	
Humidity	35 to 85% RH (no condensation)	
Electrical connection	(C) 4-pin, M8 connector on 150mm lead wire	
Power supply	12 to 24VDC ±10%, Ripple (P-P) 10% or less	
Display	3 + 1/2 digit, 2 color, 7-segment RED / GREEN LED	
Display refresh	Timing update : 0.1 ~ 3 sec. (Factory Set Unit: 0.1 sec.)	
Switch output	Output signal, PNP, Normally open or closed, LED indicator, 125 mA max. output load	
Output modes	Hysteresis or Window Comparator	
Response time	≤ 2.5ms (chattering-proof function: 24ms, 250ms, 500ms, 1000ms and 1500ms selections)	
Repeatability	± 0.2% of F.S. ± 1 digit	
Output current	Output current 4 to 20mA; Linearity ±1.0% of F.S.; Maximum load impedance 300Ω at power supply of 12V; 600Ω at power supply of 12V; Minimum load impedance 50Ω	
Thermal error	32 to 122°F (0 to 50°C) 25°C (77°C) + 2% of F.S. or less at range of 32 to 122°F (0 to 50°C)	
General protection	IP40, CE marked, EMC-EN61000-6-2: 2001	
Current consumption	45mA (with no load)	
Vibration resistance	10 to 150Hz, Double amplitude 1.5mm, XYZ, 2 hrs.	
Shock resistance	980 m/s ² (about 10G), 3 times/each directions X, Y, Z	
Noise Resistance	Vp-p400V, 10 ms, 0.5μs noise simulator	
Material	Housing: ABS (gray) , Pressure port: Zinc die-cast, Diaphragm: Silicon	
Mass	1.45 oz. (45g) with M8 connector	

Dimensions

1/8" Male

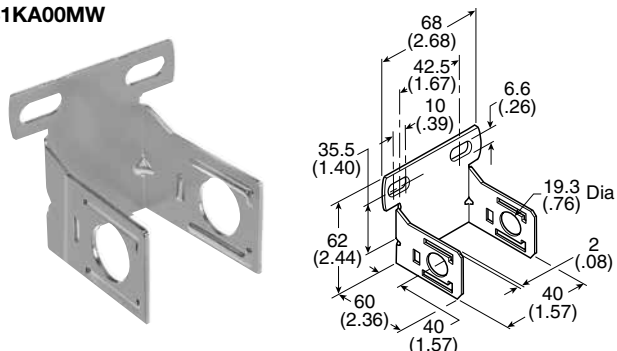


Accessories - P31 Series

C-Bracket

(Fits to filter and lubricator body)

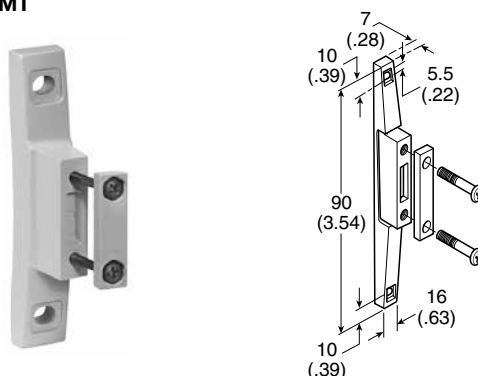
P31KA00MW



T-Bracket w/ Body Connector

(O-ring not shown)

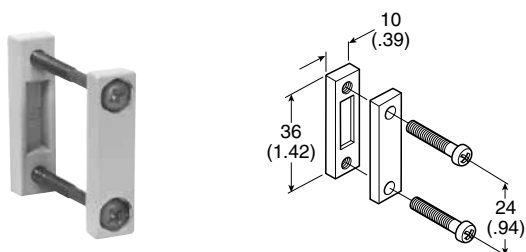
P31KA00MT



Body Connector

(O-ring not shown)

P31KA00CB



Port Block Kit

(O-ring not shown)

1/8 NPT P31KA91CP
1/4 NPT P31KA92CP
3/8 NPT P31KA93CP
1/8 BSPP P31KA11CP
1/4 BSPP P31KA12CP
3/8 BSPP P31KA13CP



Port Block Kit w/ T-Bracket

(O-ring not shown)

1/8 NPT P31KA91CN
1/4 NPT P31KA92CN
3/8 NPT P31KA93CN
1/8 BSPP P31KA11CN
1/4 BSPP P31KA12CN
3/8 BSPP P31KA13CN

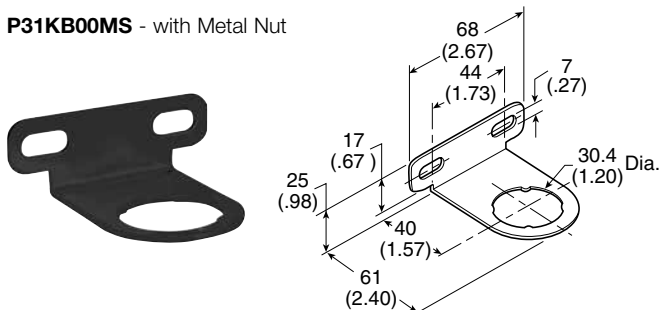


Angle Bracket

(Fits to regulator and filter/regulator body)

P31KB00MR

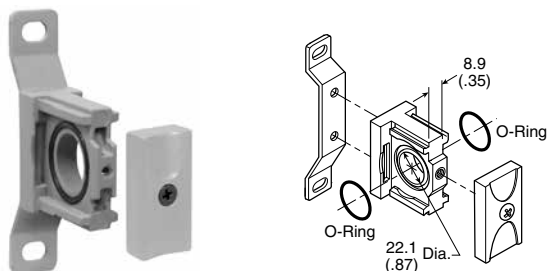
P31KB00MS - with Metal Nut



Accessories - P32 Series

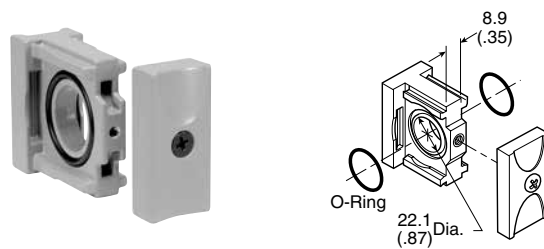
T-Bracket w/ Body Connector

P32KA00MT



Body Connector

P32KA00CB



Port Block Kit

1/4 NPT.....	P32KA92CP
3/8 NPT.....	P32KA93CP
1/2 NPT.....	P32KA94CP
3/4 NPT.....	P32KA96CP
1/4 BSPP	P32KA12CP
3/8 BSPP	P32KA13CP
1/2 BSPP	P32KA14CP
3/4 BSPP	P32KA16CP

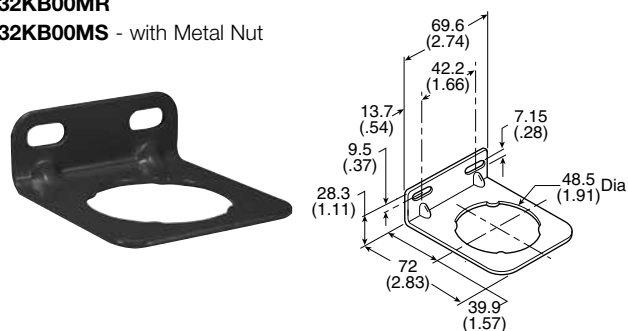


Angle Bracket

(Fits to regulator and filter/regulator bonnet)

P32KB00MR

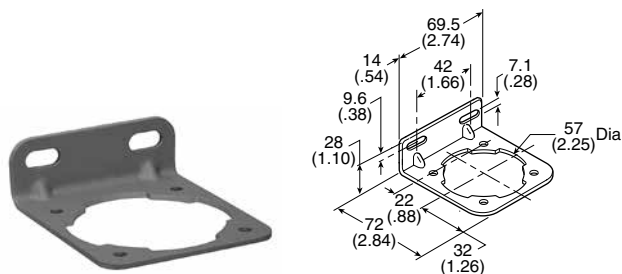
P32KB00MS - with Metal Nut



L-Bracket

(Fits to filter and lubricator body)

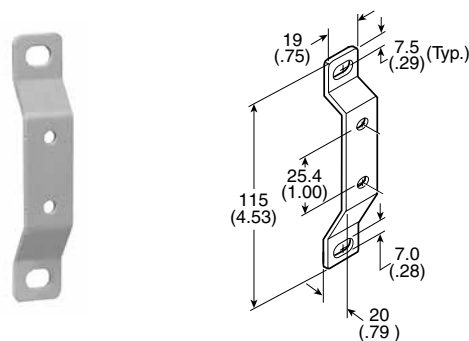
P32KA00ML



T-Bracket

(fits to body connector or port block)

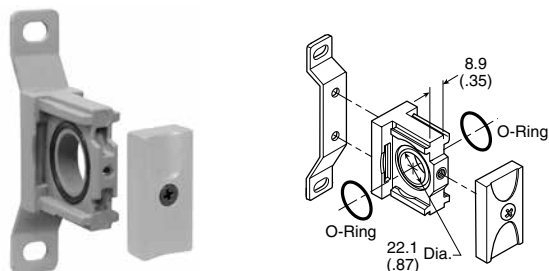
P32KA00MB



Accessories - P33 Series

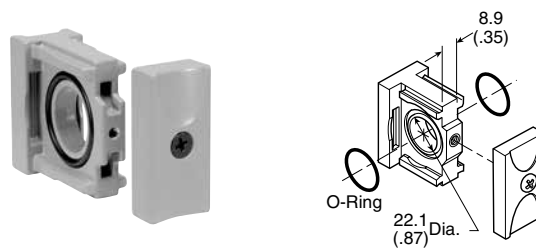
T-Bracket w/ Body Connector

P32KA00MT



Body Connector

P32KA00CB



Port Block Kit

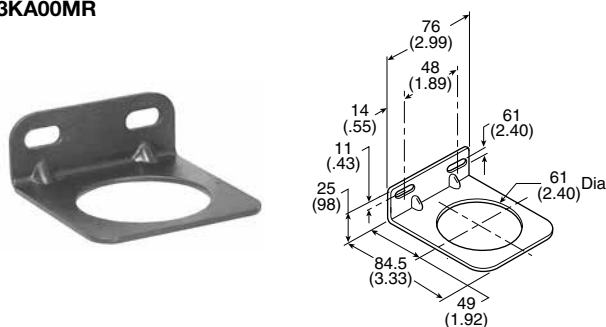
1/4 NPT.....P32KA92CP
3/8 NPT.....P32KA93CP
1/2 NPT.....P32KA94CP
3/4 NPT.....P32KA96CP
1/4 BSPPP32KA12CP
3/8 BSPPP32KA13CP
1/2 BSPPP32KA14CP
3/4 BSPPP32KA16CP



Angle Bracket

(Fits to regulator and filter/regulator bonnet)

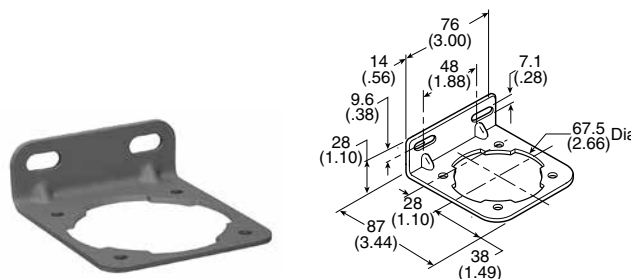
P33KA00MR



L-Bracket

(Fits to filter and lubricator body)

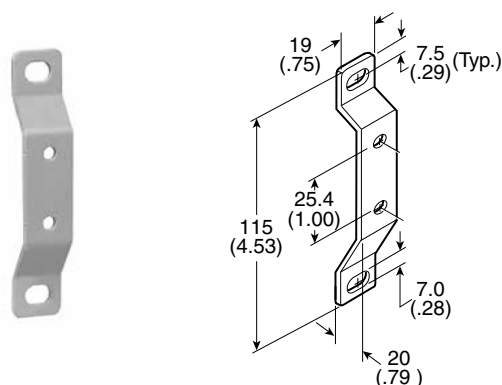
P33KA00ML



T-Bracket

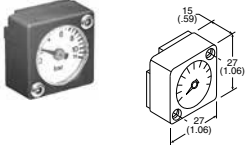
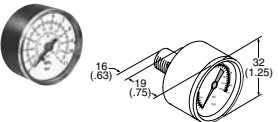
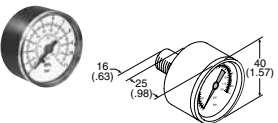
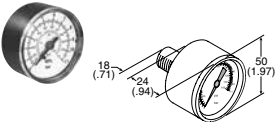
(fits to body connector or port block)

P32KA00MB



Series	Description	Part number	
P31 P32 P33	Panel Mount Nut (Plastic)	P31KA00MP P32KA00MP P33KA00MP	
P31 P32 P33	Panel Mount Nut (Aluminum)	P31KA00MM P32KA00MM P33KA00MM	
P31 P32 P33	5μ Element Kit	P31KA00ESE P32KA00ESE P33KA00ESE	
P31 P32 P33	1μ Element Kit	P31KA00ES9 P32KA00ES9 P33KA00ES9	
P31 P32 P33	0.01μ Element Kit	P31KA00ESC P32KA00ESC P33KA00ESC	
P31 P32 P33	Adsorber Element Kit	P31KA00ESA P32KA00ESA P33KA00ESA	
P32 / P33	Auto Drain Kit	P32KA00DA	
P31 P32 / P33	Differential Pressure Indicator Kit	P31KB00RQ P32KA00RQ	
P31 / P32 / P33	Drip Control Assembly Kit	P32KA00PH	
P31 P32 / P33	Fill Plug Kit	P31KB00RQ P32KA00PL	
P31 P32 P33	Lubricator - Plastic Bowl w/ Bowl Guard No Drain	P31KB00BGN P32KB00BGN P33KA00BGN	

Series	Description	Part number	
P31 P32 P33	Lubricator - Metal Bowl w/o Sight Gauge No Drain	P31KB00BMN P32KB00BMN P33KA00BMN	
P32 P33	Lubricator - Metal Bowl w/ Sight Gauge No Drain	P32KB00BSN P33KA00BSN	
P31 P32 P33	Metal Bowl w/o Sight Gauge & Manual Drain	P31KB00BMM P32KB00BMM P33KA00BMM	
P31	Metal Bowl w/o Sight Gauge & Pulse Drain	P31KB00BMB	
P32 P33	Metal Bowl w/o Sight Gauge & Auto Drain	P32KB00BMA P33KA00BMA	
P32 P33	Metal Bowl w/ Sight Gauge & Manual Drain	P32KB00BSM P33KA00BSM	
P32 P33	Metal Bowl w/ Sight Gauge & Auto Drain	P32KB00BSA P33KA00BSA	
P31 P32 P33	Plastic Bowl w/ Bowl Guard & Manual Drain	P31KB00BGM P32KB00BGM P33KA00BGM	
P31	Plastic Bowl w/ Bowl Guard & Pulse Drain	P31KB00BGB	
P32 P33	Plastic Bowl w/ Bowl Guard & Auto Drain	P32KB00BGA P33KA00BGA	

Series	Description	Connection	Part number	
P31	Square Flush Mounting Gauge Kit	0-4 bar 0-11 bar 0-60 psig 0-160 psig	K4511SCR04B K4511SCR11B K4511SCR060 K4511SCR160	
P31	Square Mounting Gauge with Adapter Kit	0-4 bar 0-11 bar 0-60 psig 0-160 psig	P6G-PR11040 P6G-PR11110 P6G-PR90060 P6G-PR90160	
P31	1" Round Gauge	0-60 psig / 0-4.1 bar 1/8" 0-160 psig / 0-10 bar 1/8"	K4510N18060 K4510N18160	
P31	40mm Round Gauge	0-30 psig / 0-2 bar 1/8" 0-60 psig / 0-4.1 bar 1/8" 0-160 psig / 0-10 bar 1/8"	K4515N18030 K4515N18060 K4515N18160	
P32 / P33	50mm Round Gauge	0-30 psig / 0-2 bar 1/4" 0-60 psig / 0-4.1 bar 1/4" 0-160 psig / 0-10 bar 1/4" 0-300 psig / 0-20 bar 1/4"	K4520N14030 K4520N14060 K4520N14160 K4520N14300	
P31 P32 / P33	Body Connector O-ring (Replacement kit) (Pack of 10)		P31KA00CY P32KA00CY	
P31 P32	Tamperproof Knob Kit		P31KB00AT P32KB00AT	
P31 P32	Tamperproof Lockable Kit		P31KB00AL P32KB00AL	

Plugs to DIN EN 175301-803, Form A, ISO 4400

Standard version



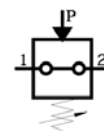
Version with LEDs



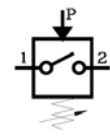
Plugs to DIN EN 175301-803, Form A, ISO 4400

Description	Type	Order code
Standard version	GSD-30DS	KL3349
Version with LEDs 24 V	GSD-30DSL24V	KL3350
Version with LEDs 230 V	GSD-30DSL230V	KL3351

Pressure Switches G1/8", G1/4"



Break contact



Make contact

Characteristics

Safety pressure relief P_{max}	300 bar
Port size	G1/8, G1/4
Medium and ambient T_{max} temperature range	+100 °C
Switch back difference	Max. 5 - 15%
Voltage	Max. 48 V
Current	0.5 A
Degree of protection	IP 65
Switching frequency	Max. 200 s/min

Material

Housing	Passivated steel
Diaphragm	Buna N

Switching function

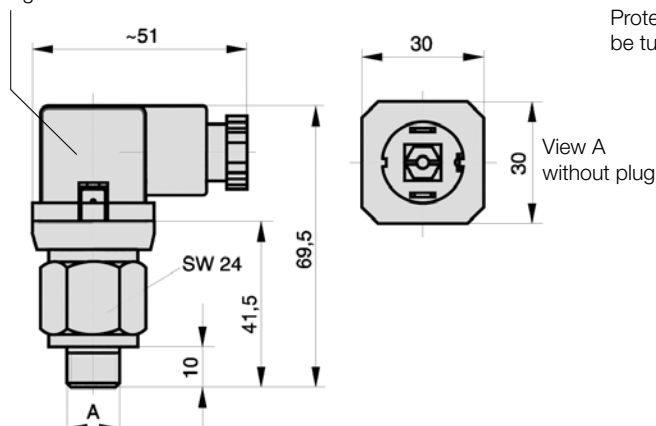
Make contact	Closes the circuit when the set pressure is reached
Break contact	Interrupts the circuit when the set pressure is reached

Dimensions and order instructions

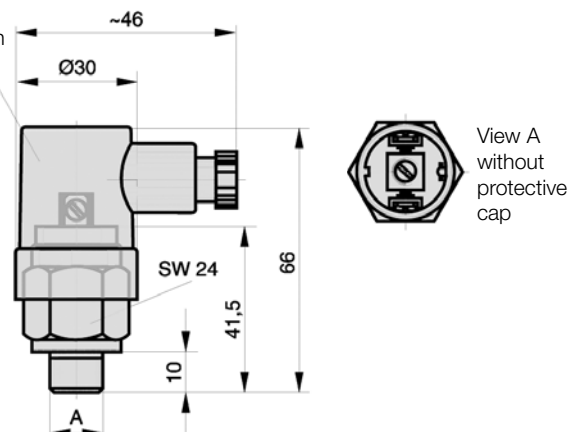
Order instructions Type	Port size A	Function	Setting range (bar)	Order code
PR / 0.1-1 NC ST 1/4 48	G1/4	Break contact	0.1-1	KL3439
PR / 0.1-1 NO ST 1/4 48	G1/4	Make contact	0.1-1	KL3440
PR / 1-10 NC ST 1/8 48	G1/8	Break contact	1-10	KL3437
PR / 1-10 NC ST 1/4 48	G1/4	Break contact	1-10	KL3436
PR / 1-10 NO ST 1/8 48	G1/8	Make contact	1-10	KL3438
PR / 1-10 NO ST 1/4 48	G1/4	Make contact	1-10	KL3435

Order instructions Type	Port size A	Function	Setting range (bar)	Order code
PR / 0.2-1 NO SR 1/4 48	G1/4	Make contact	0.2-1	KL3445
PR / 0.1-1 NC SR 1/4 48	G1/4	Break contact	0.1-1	KL3454
PR / 0.1-1 NO SR 1/4 48	G1/4	Make contact	0.1-1	KL3455
PR / 1-10 NC SR 1/8 48	G1/8	Break contact	1-10	KL3452
PR / 1-10 NC SR 1/4 48	G1/4	Break contact	1-10	KL3451
PR / 1-10 NO SR 1/8 48	G1/8	Make contact	1-10	KL3453
PR / 1-10 NO SR 1/4 48	G1/4	Make contact	1-10	KL3450

Plug can be turned 90°



Protective cap can be turned 6 x 60°



Dimensions in mm