



techhose

QUALITY CONNECTIONS

Hydraulics

Pneumatics
& Vacuum

Industrial

Compressed Air
& Ring Main

Process &
Instrumentation

Monitor & Test

Temperature & Pressure Switches

**Digital Flow & Pressure
Sensor PR03**



See section 4
page 420

**Plastic Push-in Fittings
55000 & 56000 Series**



See section 6
pages 817-820

**Metal Push-in Fittings
50000, 55000 58000
& 89000**



See section 6
pages 852-861

**316 Stainless Steel
Push-in Fittings**



See section 6
pages 878-879

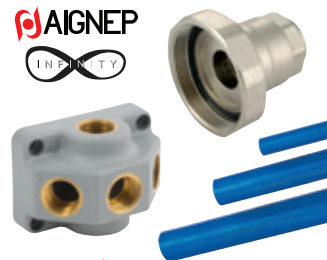
**Gas Mini Ball Valves,
Brass**



See section 7
page 942

AIGNEP

**Aluminium Ring
Main System**



See section 8
pages 1082-1084

**EXCELLENT SOLUTIONS
IN FLUID TECHNOLOGY**



DIGITAL FLOW & PRESSURE SENSOR PR03



Pressure Switches

The PR03 sensor is available in different sizes, from 1/4" to 3/4", to suit the different flow rates required in the various industrial applications in which it can be used. The largest size allows measurements up to a maximum of 2000 l/min.

The new digital flowmeter offers the following advantage

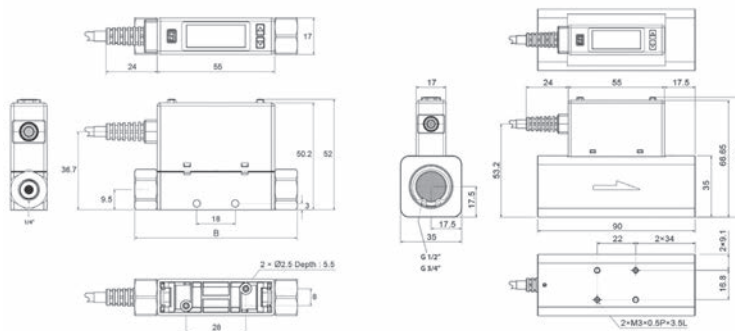
- **Easily display** the status of the accumulated flow rat .
- **Monitor air flow** in real time.
- **Detect momentary changes** in fluid statu .



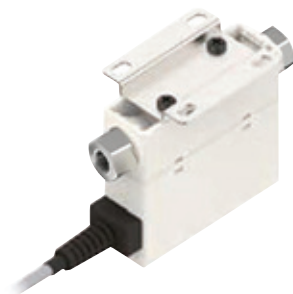
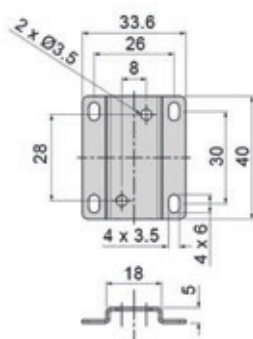
Series PR03

9025	Regulation Range	Thread	Output
PR030103P1	0-100 l/min	1/4"	PNP + Analog Output (1-5V)
PR030203P1	0-200 l/min	1/4"	PNP + Analog Output (1-5V)
PR030505P1	0-500 l/min	1/2"	PNP + Analog Output (1-5V)
PR032007P1	0-2000 l/min	3/4"	PNP + Analog Output (1-5V)
PR030103P2	0-100 l/min	1/4"	PNP + Analog Output (4-20mA)
PR030203P2	0-200 l/min	1/4"	PNP + Analog Output (4-20mA)
PR030505P2	0-500 l/min	1/2"	PNP + Analog Output (4-20mA)
PR032007P2	0-2000 l/min	3/4"	PNP + Analog Output (4-20mA)

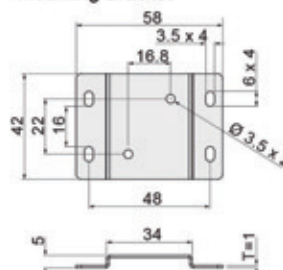
Tech Sheet 71761



Digital Flow & Pressure Sensor PR03



Mounting Bracket



Mounting Bracket

9025	
PR03B01	For 100-200 l/min

Tech Sheet 71761

Mounting Bracket

9025	
PR03B05	For 500 l/min
PR03B20	For 2000 l/min

Tech Sheet 71761

TEMPERATURE SWITCHES



TBF Series, Push-on Terminal DIN 46248 Normally Closed

° Maximum Working Temperature:
+125°C

° Maximum Static Pressure:
200 bar

Economic range
Material: Brass



Fixed Set Point, 3/8" BSPP Male

9025	Set Temperature °C
TBF-EV025-C38	25
TBF-EV035-C38	35
TBF-EV045-C38	45
TBF-EV050-C38	50
TBF-EV055-C38	55
TBF-EV060-C38	60
TBF-EV065-C38	65
TBF-EV070-C38	70
TBF-EV075-C38	75
TBF-EV080-C38	80
TBF-EV085-C38	85
TBF-EV090-C38	90
TBF-EV095-C38	95
TBF-EV100-C38	100
TBF-EV105-C38	105
TBF-EV110-C38	110
TBF-EV125-C38	125

Tech Sheet 68798

Fixed Set Point, 1/2" BSPP Male

9025	Set Temperature °C
TBF-EV025-C12	25
TBF-EV035-C12	35
TBF-EV045-C12	45
TBF-EV050-C12	50
TBF-EV055-C12	55
TBF-EV060-C12	60
TBF-EV065-C12	65
TBF-EV070-C12	70
TBF-EV075-C12	75
TBF-EV080-C12	80
TBF-EV085-C12	85
TBF-EV090-C12	90
TBF-EV095-C12	95
TBF-EV100-C12	100
TBF-EV105-C12	105
TBF-EV110-C12	110
TBF-EV125-C12	125

Tech Sheet 68798

EBC Series, PG 09 DIN 43650 Connector SPDT IP65

° Maximum Working Temperature:
+80°C

° Maximum Static Pressure:
200 bar

Material: Brass



Fixed Set Point, 1/2" BSPP Male

9025	Set Temperature °C
EBC50C	50
EBC60C	60
EBC70C	70

Tech Sheet 110835

Fixed Set Point, 3/8" BSPP Male

9025	Set Temperature °C
EBC50B	50
EBC60B	60
EBC70B	70

Tech Sheet 110835

NTB Series, PG 09 DIN 43650 Connector Normally Open IP65

° Maximum Working Temperature:
+120°C

° Maximum Static Pressure:
200 bar

Material:
Anodised aluminium



Fixed Set Point with 360° Rotating Head, 1/2" BSPP Male

9025	Set Temperature °C
NTB25CA	25
NTB31CA	31
NTB38CA	38
NTB47CA	47
NTB60CA	60
NTB70CA	70
NTB80CA	80
NTB90CA	90
NTB100CA	100
NTB105CA	105

Tech Sheet 68797

Fixed Set Point with 360° Rotating Head, 3/8" BSPP Male

9025	Set Temperature °C
NTB25BA	25
NTB31BA	31
NTB38BA	38
NTB47BA	47
NTB60BA	60
NTB70BA	70
NTB80BA	80
NTB90BA	90
NTB100BA	100
NTB105BA	105

Tech Sheet 68797

PRESSURE TRANSDUCERS

Material: AISI 316

Working Temperature:
-25°C to +100°C

stainless
steel



PG 09 DIN 43650 Connector IP65

0-10V Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-VMDMR14	-1 to 4	4
PTE2GA-VMDMR14	0-2	4
PTE4GA-VMDMR14	-1 to 9	10
PTE5GA-VMDMR14	0-5	10
PTE10GA-VMDMR14	0-10	15
PTE20GA-VMDMR14	0-20	35
PTE50GA-VMDMR14	0-50	100
PTE100GA-VMDMR14	0-100	150
PTE200GA-VMDMR14	0-200	300
PTE400GA-VMDMR14	0-400	500

Tech Sheet 110836

4-20mA Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-IMDMR14	-1 to 4	4
PTE2GA-IMDMR14	0-2	4
PTE4GA-IMDMR14	-1 to 9	10
PTE5GA-IMDMR14	0-5	10
PTE10GA-IMDMR14	0-10	15
PTE20GA-IMDMR14	0-20	35
PTE50GA-IMDMR14	0-50	100
PTE100GA-IMDMR14	0-100	150
PTE200GA-IMDMR14	0-200	300
PTE400GA-IMDMR14	0-400	500

Tech Sheet 110836

M12 x 1.5 Pole Male Connector IP67

0-10V Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-VMR14	-1 to 4	4
PTE2GA-VMR14	0-2	4
PTE4GA-VMR14	-1 to 9	10
PTE5GA-VMR14	0-5	10
PTE10GA-VMR14	0-10	15
PTE20GA-VMR14	0-20	35
PTE50GA-VMR14	0-50	100
PTE100GA-VMR14	0-100	150
PTE200GA-VMR14	0-200	300
PTE400GA-VMR14	0-400	500

Tech Sheet 110836

4-20mA Output, 1/4" BSPP Male

9025	Pressure Range Bar	Max Pressure Bar
PTE1GA-IMR14	-1 to 4	4
PTE2GA-IMR14	0-2	4
PTE4GA-IMR14	-1 to 9	10
PTE5GA-IMR14	0-5	10
PTE10GA-IMR14	0-10	15
PTE20GA-IMR14	0-20	35
PTE50GA-IMR14	0-50	100
PTE100GA-IMR14	0-100	150
PTE200GA-IMR14	0-200	300
PTE400GA-IMR14	0-400	500

Tech Sheet 110836

FT PRO

For Wired Plugs
see page 1043



ADJUSTABLE PRESSURE SWITCHES



PMN Series, Normally Closed, DIN 462488

Seal: Nitrile

° Working Temperature:
-5°C to +60°C



Push-on 6.3 x 0.8,
1/4" BSPT Male, Brass

9025	Pressure Range Bar	Max Pressure Bar
PMN1C-BN14K	0.1-1	300
PMN2C-BN14K	0.15-2	300
PMN5C-BN14K	1-5	300
PMN10C-BN14K	2-10	300
PMN20C-BN14K	10-20	300
PMN50C-BN14K	20-50	300
PMN80C-BN14K	50-80	300

Tech Sheet 68789

Push-on 6.3 x 0.8, 1/4" BSPT Male,
Zinc Plated Steel

9025	Pressure Range Bar	Max Pressure Bar
PMN150C-FN14K	50-150	300
PMN250C-FN14K	100-250	600
PMN300C-FN14K	50-300	600

Tech Sheet 68789

PMN Series, Normally Open

Seal: Nitrile

° Working Temperature:
-5°C to +60°C



Push-on 6.3 x 0.8,
1/4" BSPT Male, Brass

9025	Pressure Range Bar	Max Pressure Bar
PMN1A-BN14K	0.1-1	300
PMN5A-BN14K	1-5	600
PMN2A-BN14K	0.15-2	300
PMN10A-BN14K	2-10	300
PMN50A-BN14K	20-50	300
PMN80A-BN14K	50-80	300

Tech Sheet 68789

Push-on 6.3 x 0.8, 1/4" BSPT Male,
Zinc Plated Steel

9025	Pressure Range Bar	Max Pressure Bar
PMN150A-FN14K	50-150	300
PMN250A-FN14K	100-250	600
PMN300A-FN14K	50-300	600

Tech Sheet 68789

PMC Series, PG 09 DIN 43650, SPDT Contacts

Seal: Nitrile

° Working Temperature:
-5°C to +90°C



1/8" BSPT Male, Anodised Aluminium

9025	Pressure Range Bar	Max Pressure Bar
PMC2	0.15-2	30
PMC5	0.2-5	60
PMC10	0.5-10	100
PMC25	10-25	100
PMC80	25-80	150

Tech Sheet 68791

PPC Series, PG 90 DIN 43650, SPDT Contacts

Seal: Nitrile

° Working Temperature:
-5°C to +90°C

Maximum Static Pressure: 600 bar



1/4" BSPT Male, Anodised Aluminium

9025	Pressure Range Bar
PPC150	30-150
PPC300	150-300

Tech Sheet 68791

PPCF Series, PG 09 DIN 43650, SPDT Contacts

Seal: Nitrile

° Working Temperature:
-5°C to +90°C

Maximum Static Pressure: 600 bar



1/4" BSPT Female, Anodised Aluminium

9025	Pressure Range Bar
PPCF150	30-150
PPCF300	150-300

Tech Sheet 68791

PSK Series, PG 09 DIN 43650 with Graduated Knobs

Seal: Nitrile

° Working Temperature:
-5°C to +90°C



1/4" BSPP Female, Yellow Anodised Aluminium

9025	Pressure Range Bar	Max Pressure Bar
PSK10	1-10	30
PSK100	10-100	300
PSK360	100-300	600

Tech Sheet 38793

PRESSURE SWITCHES



High Temperature MS Series, PG 09 DIN 43650, SPDT IP65

Material: Brass
Seal: High temperature nitrile

Working Temperature:
-25°C to +140°C

Maximum Static Pressure:
300 bar



Push-on 6.3 x 0.8, 1/4" BSPT Male

9025	Pressure Range Bar
MS2SC-BNT14K	0.2-2
MS10SC-BNT14K	1-10
MS50SC-BNT14K	10-50
MS100SC-BNT14K	10-100

Tech Sheet 110833

High Temperature PS Series, PG 09 DIN 43650, SPDT IP65

Material: Steel
Seal: High temperature nitrile

Working Temperature:
-25°C to +140°C

Maximum Static Pressure:
600 bar



Push-on 6.3 x 0.8, 1/4" BSPT Male

9025	Pressure Range Bar
PS150SC-FNT14K	30-150
PS300SC-FNT14K	50-300

Tech Sheet 110833

Adjustable Hysteresis PSM Series, PG 09 DIN 43650, SPDT IP65

Material: Brass
Adjustable hysteresis 10% - 30% of set-point

Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
300 bar



1/4" BSPT Male

9025	Pressure Range Bar
PSM2-BN14K	0.2-2
PSM5-BN14K	1-5
PSM10-BN14K	1-10
PSM50-BN14K	10-50
PSM100-BN14K	10-100

Tech Sheet 110834

Adjustable Hysteresis PSP Series, PG 09 DIN 43650, SPDT IP65

Material: Zinc plated steel
Adjustable hysteresis: 10% to 30% of set-point

Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
600 bar



1/4" BSPT Male

9025	Pressure Range Bar
PSP150-FN14K	30-150
PSP300-FN14K	50-300

Tech Sheet 110834

You may also be interested in...
Adjustable Pressure Switches
...see page 423



VACUUM SWITCHES



VCN Series, Push-on Terminal DIN 46248, Normally Closed

Material: Brass

Seal: Nitrile

Working Temperature:
-5°C to +60°C

Maximum Static Pressure:
20 bar

1/4" BSPT Male

9025	Pressure Range Bar
VCN2C-BN14K	-0.2 to -0.9
Tech Sheet 38794	



VCN Series, Push-on Terminal DIN 46248, Normally Open

1/4" BSPT Male, Brass

9025	Pressure Range Bar
VCN2A-BN14K	-0.2 to -0.9
Tech Sheet 38794	

VMC Series, PG 09 DIN 43650, SPDT IP65

Material: Anodised aluminium

Seal: Nitrile

Working Temperature:
-5°C to +90°C

Maximum Static Pressure:
20 bar

Fixed Hysteresis, 1/8" BSPT Male, Anodised Aluminium

9025	Pressure Range Bar
VMC1N	-0.2 to -0.5
Tech Sheet 38794	



VSM Series, PG 09 DIN 43650, SPDT IP65

Material: Brass

Seal: Nitrile

Working Temperature:
-5°C to +90°C

Maximum Static Pressure: 20 bar

Adjustable Hysteresis, 1/4" BSPP Male, Brass

9025	Pressure Range Bar
VSM1-BNR14	-0.1 to -0.5
VSM2-BNR14	-0.5 to -0.9
Tech Sheet 38794	



Switch Protection

IP54, Cap 1

9025	To Suit Series
CAP54-1	VCN, VCM, PMN, PMM, PM250



IP54, Cap 10

9025	To Suit Series
CAP54-10	VCN, VCM, PMN, PMM



IP54, Cap 12

9025	To Suit Series
CAP54-12	VSM, PSM, PSP



IP54, Cap 16

9025	To Suit Series
CAP54-16	VS, MS, PS



IP65, Cap 3

9025	To Suit Series
CAP65-3	VCM, PMN, PMM, PM250



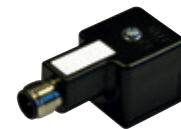
IP65, Cap 13

9025	To Suit Series
CAP65-13	VS, MS, PS



IP67, Cap M12

9025	To Suit Series
CAP67-M12	VSM, NMC, MS, PS, PSM, PSP, PMC, PPC, PPCF, PMC, PPC, PPL, PSK, MPS



New:
cylinder sensor SDBT-SMX

The first self-learning sensor

FESTO

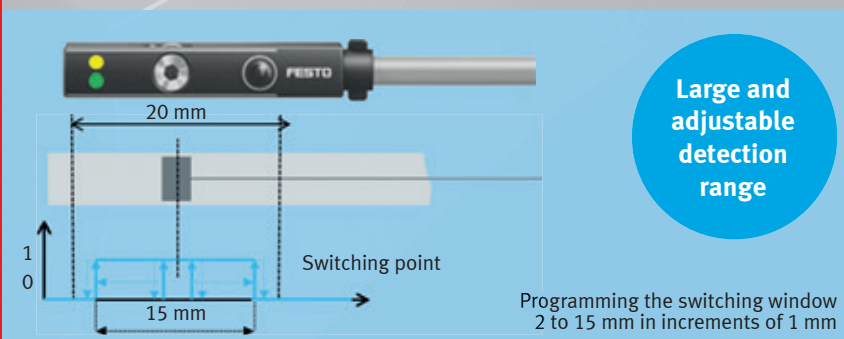
The cylinder sensor detects the piston and automatically learns the switching point during commissioning.



Automatically set without any hassle



Just one type for all switching outputs



Large and adjustable detection range

Programming the switching window 2 to 15 mm in increments of 1 mm

The benefits of SDBT-SMX:

Auto teach-in

The switching point is taught in automatically, so there no longer is a need for precision adjustment.

- Fit, connect - ready!
- Several cylinders at the same time

Touch button

Programming button for the switching functions NPN/PNP, NO/NC and the switching window.

- Just one type for all switching functions

Programmable switching window



Setting the switching signal between 2 and 15 mm, for example for early detection of high speeds.

- Flexible position detection

SFAB SERIES, FLOW SENSORS

FESTO

Airflow Sensor

-  **Ambient Temperature:**
 - 0°C to +50°C
 -  **Working Pressure:**
 - 0 to 10 bar
- Freely selectable pulse output for consumption measurement
 - Analogue filter for setting the rise time
 - Digital filter for smoothing the display values



4-20mA, H Rail Mounted Push-in with M12 x 1, 5 Pin Plug

0010	OD mm	Maximum LPM	Manufacturer's Code
565401	10	600	SFAB-600U-HQ10-2SA-M12
565405	10	1000	SFAB-1000U-HQ10-2SA-M12
Tech Sheet 71588			


0-10V, H Rail Mounted Push-in with M12 x 1, 5 Pin Plug

0010	OD mm	Maximum LPM	Manufacturer's Code
565402	10	600	SFAB-600U-HQ10-2SV-M12
565406	10	1000	SFAB-1000U-HQ10-2SV-M12
Tech Sheet 71589			

SFAM SERIES, FLOW SENSORS

FESTO

Airflow Sensor

-  **Ambient Temperature:**
 - 0°C to +50°C
 -  **Working Pressure:**
 - 0 to 16 bar
- Freely selectable pulse output for consumption measurement
 - Analogue filter for setting the rise time
 - Digital filter for smoothing the display values



4-20mA, Manifold Assembly

0010	LPM	Manufacturer's Code
564930	1000	SFAM-62-1000L-M-2SA-M12
564934	3000	SFAM-62-3000L-M-2SA-M12
564938	5000	SFAM-62-5000L-M-2SA-M12
573346	5000	SFAM-90-5000L-M-2SA-M12
573348	10000	SFAM-90-10000L-M-2SA-M12
573350	15000	SFAM-90-15000L-M-2SA-M12
Tech Sheet 71590		

0-10V, Manifold Assembly

0010	LPM	Manufacturer's Code
564932	1000	SFAM-62-1000L-M-2SV-M12
564936	3000	SFAM-62-3000L-M-2SV-M12
564940	5000	SFAM-62-5000L-M-2SV-M12
573347	5000	SFAM-90-5000L-M-2SV-M12
573349	10000	SFAM-90-10000L-M-2SV-M12
573351	15000	SFAM-90-15000L-M-2SV-M12
Tech Sheet 71591		

PRESSURE SENSORS

SPAN Series with Display

- For network monitoring, regulator monitoring, leak test and object detection
- For monitoring compressed air and non corrosive gases
- Relative measurement method based on a piezo-resistive measuring cell
- Serial communication integrated using IO-Link® 1.1
- Compact design
- High-contrast, blue backlit display



 **Ambient Temperature:**
0°C to +50°C

Male Thread, BSPP with PNP or NPN Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035544	1/8"	0 to 10	SPAN-P10R-G18M-PN-PN-L1
Tech Sheet 70713			

Male Thread, BSPT with PNP or NPN Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035547	1/8"	0 to 10	SPAN-P10R-R18M-PN-PN-L1
Tech Sheet 70715			

Male Thread, BSPP with PNP, NPN or IO-Link Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035533	1/8"	0 to 10	SPAN-P10R-G18M-PNLK-PNVBA-L1
Tech Sheet 70714			

Male Thread, BSPT with PNP, NPN or IO-Link Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035536	1/8"	0 to 10	SPAN-P10R-R18M-PNLK-PNVBA-L1
Tech Sheet 70716			



Female Thread, Metric & BSPP with PNP, NPN or IO-Link Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035539	M5	0 to 10	SPAN-P10R-M5F-PNLK-PNVBA-L1
Tech Sheet 70712			

Female Thread, Metric & BSPP with PNP or NPN Output

0009	Thread	Pressure Range Bar	Manufacturer's Code
8035550	M5	0 to 10	SPAN-P10R-M5F-PN-PN-L1
Tech Sheet 70711			

4mm Push-in Connector with PNP, NPN or IO-Link Output

0009	Pressure Range Bar	Manufacturer's Code
8035541	0 to 10	SPAN-P10R-Q4-PNLK-PNVBA-L1
Tech Sheet 70718		

4mm Push-in Connector with PNP or NPN Output

0009	Pressure Range Bar	Manufacturer's Code
8035552	0 to 10	SPAN-P10R-Q4-PN-PN-L1
Tech Sheet 70717		

FESTO



Accessories

Mounting Brackets, PU

0010	Manufacturer's Code
8003354	SAMH-PU-A
Tech Sheet 71593	

Accessory to: SPAN



Wall Mounting Brackets, PN

0009	Manufacturer's Code
8035563	SAMH-PN-W
Tech Sheet 71594	

Accessory to: SPAN, SCDN



NEBS Series, Connecting Cables For Sensors



4 Pin PCB Plug Connector x 4 Wire Open End with Label Holder

0009	Cable Length Metres	Connection Angle	Manufacturer's Code
572576	2.5	Straight	NEBS-L1G4-K-2.5-LE4
572577	5	Straight	NEBS-L1G4-K-5-LE4
Tech Sheet 70286			

Accessories to: SPAN, SFAH, SCDN sensors

PRESSURE SWITCHES



Electro-Mechanical Pressure Switch

- Gold-plated contacts
- High cycle life
- Vibration resistant to 15g

° Working Temperature:
-10°C to +85°C



18D Pneumatic

0036	Thread	Switching Pressure Difference
0880600000000000	1/4"	1,00 to 5,00 bar
0880160000000000	1/4"	0.15 to 0.18 bar
0880260000000000	1/4"	0.2 to 0.35 bar
0880460000000000	1/4"	0.40 to 1,20

Tech Sheet 71726

Electronic Pressure Sensor Digital

- Compact, robust and light weight
- Pressure display colour change configurable
- High overpressure and vacuum resistance
- Housing: Stainless steel (1.4404 / 316L)

° Working Temperature:
0°C to +70°C



54D Pneumatic

0036	Thread	Working Pressure
54D-V101G-DD0-AA	1/8"	-1 to 1
54D-V110G-DD0-AA	1/8"	-1 to 10
54D-P016G-DD0-AA	1/8"	0 to 16
54D-V101G-DA1-AA	1/8"	-1 to 1
54D-V110G-DA1-AA	1/8"	-1 to 10
54D-P016G-DA1-AA	1/8"	0 to 16
0523449000000000	1.5m Cable, 4-pin	-
0523447000000000	5m Cable, 4-pin	-

Tech Sheet 71728

Electro-Mechanical Pressure Switch, Digital

- Multicolour 4-digit display
- Upper body can be rotated 345° relative to the process connection for easy alignment of the display
- Suitable for harsh industrial and process control environments
- Housing: Stainless steel (1.4404 / 316L)

° Working Temperature:
-25°C to +80°C



34D Pneumatic/Hydraulic/Allfluid

0036	Thread	Working Pressure
34D-V101G-DD1-AA	1/4	-1 to 1
34D-V110G-DD1-AA	1/4	-1 to 10
34D-P016G-DD1-AA	1/4	0 to 16
34D-V101G-DA1-AA	1/4	-1 to 1
34D-V110G-DA1-AA	1/4	-1 to 10
34D-P016G-DA1-AA	1/4	0 to 16
34D-BRKT-ANGLED	Wall mounting kit	-
0523058000000000	1.5m Cable, 4-pin	-
0523053000000000	5m Cable, 4-pin	-

Tech Sheet 71727

Electronic Pressure Switch with IO-Link

- IO-Link output option
- Set points parameters set via software
- Robust pressure sensor
- Excellent long life
- Suitable for harsh industrial environments
- High over pressure resistance

° Working Temperature:
-40°C to +90°C



60D Pneumatic/Hydraulic/Allfluid

0036	Thread	Working Pressure
60D-V110G-DD1-AA	1/4	-1 to 1
60D-P100G-DD1-AA	1/4	0 to 100

Tech Sheet 71729

Electronic Pressure Sensor

- Robust pressure sensor
- Excellent long life
- Suitable for harsh industrial environments
- High over pressure resistance

° Working Temperature:
-40°C to +90°C



60S Pneumatic/Hydraulic/Allfluid

0036	Thread	Working Pressure
60S-V110G-A42-AA	1/4	-1 to 1
60S-P010G-A42-AA	1/4	-1 to 10
60S-P016G-A42-AA	1/4	0 to 16

Tech Sheet 71730