

0110/0112/0114/0116/0118/0122/0124

Diaphragm pressure switches with integrated connector

- Setting ranges to up to 725 psi (50 bar) (higher settings refer to page 26)
- NC or NO, maximum voltage 42 V
- Zinc-plated steel (Cr VI-free)
- Overpressure safety up to 4,350 psi (300 bar)

Plug-in types for diaphragm pressure switches

Deutsch DT04-2P	0110 - XXX XX - X - XXX	0110 - XXX XX - X - XXX
AMP Superseal 1.5°	0112 - XXX XX - X - XXX	0112 - XXX XX - X - XXX
Packard MetriPack 280°	0114 - XXX XX - X - XXX	0114 - XXX XX - X - XXX
Deutsch DT04-3P (A+B)	0116 - XXX XX - X - XXX	0116 - XXX XX - X - XXX
AMP Junior Timer°	0118 - XXX XX - X - XXX	0118 - XXX XX - X - XXX
M12x1 DIN EN 61076-2-101-A (PIN 1+3)	0122 - XXX XX - X - XXX	0122 - XXX XX - X - XXX
M12x1 DIN EN 60947-5-2 (PIN 1+2 / PIN 1+4)	0124 - XXX XX - X - XXX	0124 - XXX XX - X - XXX

Adjustment range tolerance at room temperature	Male thread	Order number NO → :	Order number NC → :
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Diaphragm pressure switches with integrated connector

1.45 - 14.5 ± 2.90 psi (0.1 - 1 ± 0.2 bar)	M 10x1 taper	XXXX - 403 01 - X - 009	XXXX - 404 01 - X - 013
	M 12x1.5 cyl.	XXXX - 423 02 - X - 010	XXXX - 404 02 - X - 013
	1/4" BSPP	XXXX - 403 03 - X - 011	XXXX - 404 03 - X - 015
	1/8" BSPP	XXXX - 403 28 - X - 603	XXXX - 404 28 - X - 604
	1/4" NPT	XXXX - 403 09 - X - 345	XXXX - 404 09 - X - 346
	1/8" NPT	XXXX - 403 04 - X - 012	XXXX - 404 04 - X - 016
	7/16 - 20 UNF	XXXX - 403 20 - X - 305	XXXX - 404 20 - X - 307
	9/16 - 18 UNF	XXXX - 403 21 - X - 306	XXXX - 404 21 - X - 308

7.25 - 43.5 ± 4.35 psi (0.5 - 3 ± 0.3 bar)	M 10x1 taper	XXXX - 423 01 - X - 070	XXXX - 424 01 - X - 070
	M 12x1.5 cyl.	XXXX - 423 02 - X - 070	XXXX - 424 02 - X - 070
	1/4" BSPP	XXXX - 423 03 - X - 070	XXXX - 424 03 - X - 070
	1/8" BSPP	XXXX - 423 28 - X - 070	XXXX - 424 28 - X - 070
	1/4" NPT	XXXX - 423 09 - X - 070	XXXX - 424 09 - X - 070
	1/8" NPT	XXXX - 423 04 - X - 070	XXXX - 424 04 - X - 070
	7/16 - 20 UNF	XXXX - 423 20 - X - 070	XXXX - 424 20 - X - 070
	9/16 - 18 UNF	XXXX - 423 21 - X - 070	XXXX - 424 21 - X - 070

14.5 - 145 ± 7.25 psi (1 - 10 ± 0.5 bar)	M 10x1 taper	XXXX - 407 01 - X - 025	XXXX - 408 01 - X - 029
	M 12x1.5 cyl.	XXXX - 407 02 - X - 026	XXXX - 408 02 - X - 030
	1/4" BSPP	XXXX - 407 03 - X - 027	XXXX - 408 03 - X - 031
	1/8" BSPP	XXXX - 407 28 - X - 607	XXXX - 408 28 - X - 608
	1/4" NPT	XXXX - 407 09 - X - 349	XXXX - 408 09 - X - 350
	1/8" NPT	XXXX - 407 04 - X - 028	XXXX - 408 04 - X - 032
	7/16 - 20 UNF	XXXX - 407 20 - X - 313	XXXX - 408 20 - X - 315
	9/16 - 18 UNF	XXXX - 407 21 - X - 314	XXXX - 408 21 - X - 316

Seal material – Application areas

NBR (BunaN)	Hydraulic/machine oil, heating oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM (Viton®)	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc	3
FFKM	Hot water, chemical acids, diluted alkalis, ketones, esters, alcohols	6
HNBR	Hydraulic/machine oil, ester-based bio-oils	9

Refer to page 24 for the temperature range and application thresholds of sealing materials

Your order number:

01XX - XXX XX - X - XXX

M.1

hex 24 integrated



¹⁾ Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.

M.1

hex 24 integrated

0110/0112/0114/0116/0118/0122/0124

Diaphragm pressure switches with integrated connector

- Setting ranges up to 725 psi (50 bar) (lower settings refer to page 25)
- NC or NO, maximum operating voltage up to 42 V
- Zinc-plated steel (Cr VI-free)
- Overpressure safety up to 4,350 psi (300 bar)¹⁾



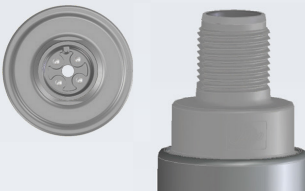
0122 Coding: PIN 1+3



0124 Coding: PIN 1+4 (NO)



0124 Coding: PIN 1+2 (NC)



Plug-in types for diaphragm pressure switches

Deutsch DT04-2P	0110 - XXX XX - X - XXX	0110 - XXX XX - X - XXX
AMP Superseal 1.5°	0112 - XXX XX - X - XXX	0112 - XXX XX - X - XXX
Packard MetriPack 280°	0114 - XXX XX - X - XXX	0114 - XXX XX - X - XXX
Deutsch DT04-3P (A+B)	0116 - XXX XX - X - XXX	0116 - XXX XX - X - XXX
AMP Junior Timer°	0118 - XXX XX - X - XXX	0118 - XXX XX - X - XXX
M12x1 DIN EN 61076-2-101-A (PIN 1+3)	0122 - XXX XX - X - XXX	0122 - XXX XX - X - XXX
M12x1 DIN EN 60947-5-2 (PIN 1+2 / PIN 1+4)	0124 - XXX XX - X - XXX	0124 - XXX XX - X - XXX

Adjustment range tolerance at room temperature	Male thread	Order number NO → :	Order number NC → :
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Diaphragm pressure switches with integrated connector

145 - 290 ± 14.50 psi (10 - 20 ± 1.0 bar)	M 10x1 taper	XXXX - 411 01 - X - 041	XXXX - 412 01 - X - 045
	M 12x1.5 cyl.	XXXX - 411 02 - X - 042	XXXX - 412 02 - X - 046
	1/4" BSPP	XXXX - 411 03 - X - 043	XXXX - 412 03 - X - 047
	1/8" BSPP	XXXX - 411 28 - X - 611	XXXX - 412 28 - X - 612
	1/4" NPT	XXXX - 411 09 - X - 353	XXXX - 412 09 - X - 354
	1/8" NPT	XXXX - 411 04 - X - 044	XXXX - 412 04 - X - 048
	7/16-20 UNF	XXXX - 411 20 - X - 321	XXXX - 412 20 - X - 323
9/16-18 UNF	XXXX - 411 21 - X - 322	XXXX - 412 21 - X - 324	

290 - 725 ± 29.00 psi (20 - 50 ± 2.0 bar)	M 10x1 taper	XXXX - 415 01 - X - 057	XXXX - 416 01 - X - 061
	M 12x1.5 cyl.	XXXX - 415 02 - X - 058	XXXX - 416 02 - X - 062
	1/4" BSPP	XXXX - 415 03 - X - 059	XXXX - 416 03 - X - 063
	1/8" BSPP	XXXX - 415 28 - X - 615	XXXX - 416 28 - X - 616
	1/4" NPT	XXXX - 415 09 - X - 357	XXXX - 416 09 - X - 358
	1/8" NPT	XXXX - 415 04 - X - 060	XXXX - 416 04 - X - 064
	7/16-20 UNF	XXXX - 415 20 - X - 329	XXXX - 416 20 - X - 331
9/16-18 UNF	XXXX - 415 21 - X - 330	XXXX - 416 21 - X - 332	

Seal material – Application areas

NBR (BunaN)	Hydraulic/machine oil, heating oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM (Viton®)	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
FFKM	FFKM Hot water, chemical acids, diluted alkalis, ketones, esters, alcohols	6
HNBR	Hydraulic/machine oil, ester-based bio-oils	9

Refer to page 24 for the temperature range and application thresholds of sealing materials.

Your order number:

01XX - XXX XX - X - XXX

¹⁾ Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.

0111 / 0113 / 0115 / 0117 / 0119 / 0123 / 0125

Piston pressure switches with integrated connector

- Setting range up to 2,175 psi (150 bar)
- NC or NO, maximum operating voltage up to 42 V
- Zinc-plated steel (Cr VI-free)
- Overpressure safety up to 8,700 psi (600 bar)¹⁾

Plug-in types for piston pressure switches

Deutsch DT04-2P	0111 - XXX XX - X - XXX	0111 - XXX XX - X - XXX
AMP Superseal 1.5°	0113 - XXX XX - X - XXX	0113 - XXX XX - X - XXX
Packard MetriPack 280°	0115 - XXX XX - X - XXX	0115 - XXX XX - X - XXX
Deutsch DT04-3P (A+B)	0117 - XXX XX - X - XXX	0117 - XXX XX - X - XXX
AMP Junior Timer®	0119 - XXX XX - X - XXX	0119 - XXX XX - X - XXX
M12x1 DIN EN 61076-2-101-A (PIN 1+3)	0123 - XXX XX - X - XXX	0123 - XXX XX - X - XXX
M12x1 DIN EN 60947-5-2 (PIN 1+2 / PIN 1+4)	0125 - XXX XX - X - XXX	0125 - XXX XX - X - XXX

Adjustment range tolerance at room temperature	Male thread	Order number NO → :	Order number NC → :
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Piston pressure switches with integrated connector

725 - 2,175±72.5 psi (50 - 150 ± 5 bar)	M 10x1 taper	XXXX - 419 01 - X - 009	XXXX - 420 01 - X - 013
	M 12x1.5 cyl.	XXXX - 419 02 - X - 010	XXXX - 420 02 - X - 014
	1/4" BSPP	XXXX - 419 03 - X - 011	XXXX - 420 03 - X - 015
	1/8" BSPP	XXXX - 419 28 - X - 603	XXXX - 420 28 - X - 604
	1/4" NPT	XXXX - 419 09 - X - 311	XXXX - 420 09 - X - 312
	1/8" NPT	XXXX - 419 04 - X - 012	XXXX - 420 04 - X - 016
	7/16-20 UNF	XXXX - 419 20 - X - 305	XXXX - 420 20 - X - 307
	9/16-18 UNF	XXXX - 419 21 - X - 306	XXXX - 420 21 - X - 308

1,450 - 2,900 ±72.5 psi (100 - 200 ± 5 bar)	G 1/4 DIN 3852-2-A	XXXX - 493 60 - X - 011	XXXX - 494-60- X - 015
	M 12x1.5 DIN 3852-1-A	XXXX - 493 68 - X - 010	XXXX - 494-68- X - 014

Seal material – Application areas

NBR (BunaN)	Hydraulic/machine oil, heating oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
HNBR	Hydraulic/machine oil, ester-based bio-oils	9

Refer to page 24 for the temperature range and application thresholds of sealing materials.

Your order number: 01XX - XXX XX - X - XXX

M.1

hex 24 integrated

See table
for plug-in
types
page 23



0123 Coding: PIN 1+3



Coding: PIN 1+4 (NO)



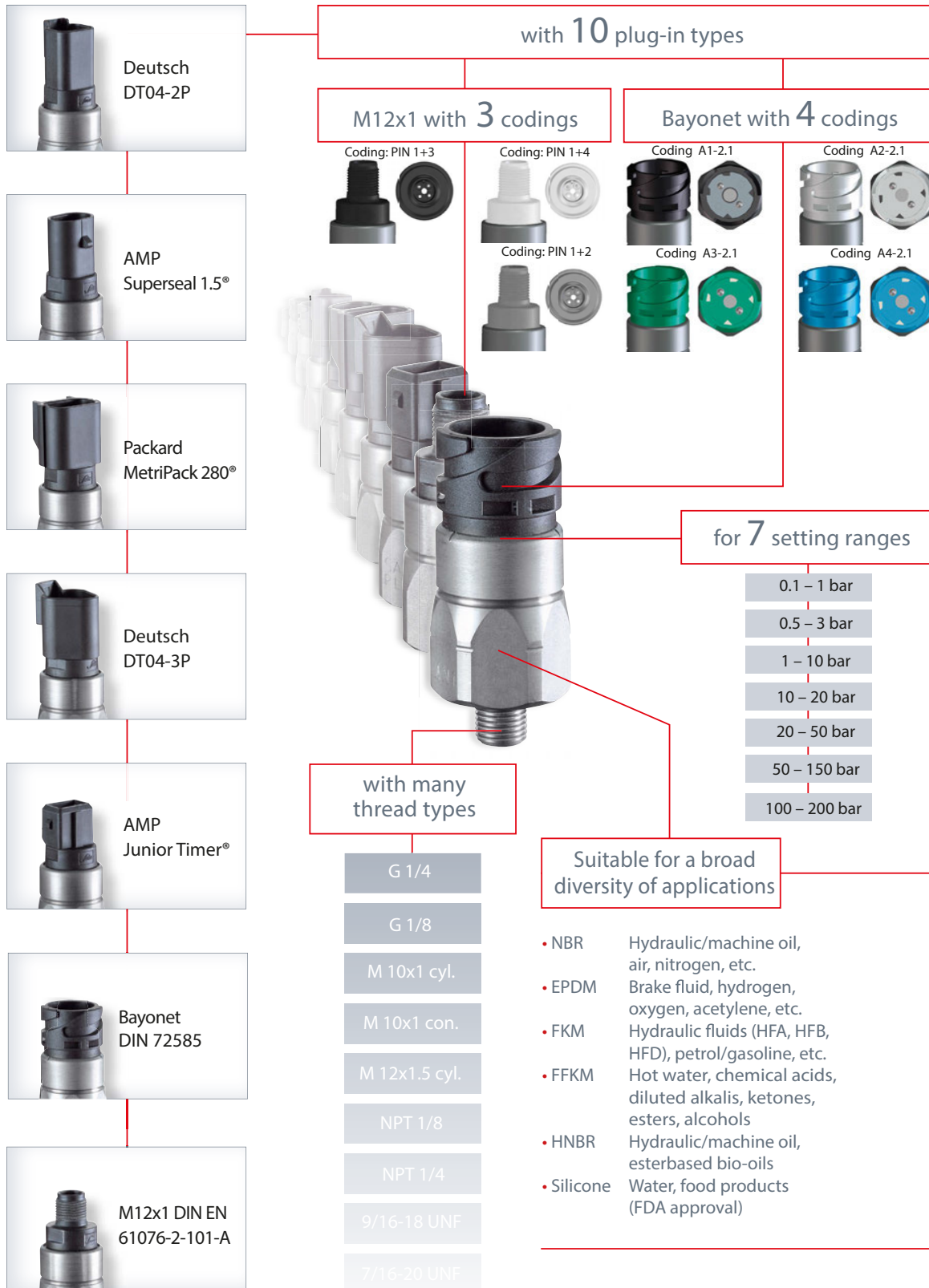
Coding: PIN 1+2 (NC)



¹⁾ Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.

The all-rounder with the broad selection of options

NC or NO, maximum operating voltage up to 42 V



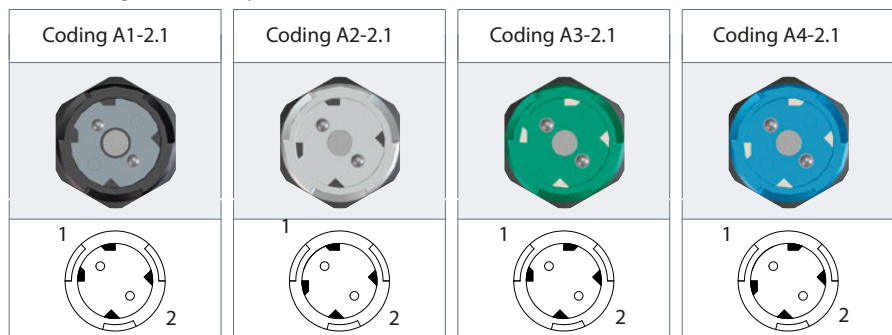
Pressure switches hex 24 with integrated connector

Technical details

	0110 / 0111 Deutsch DT04-2P IP67, IP6K9K
	0112 / 0113 AMP Superseal 1.5° IP67
	0114 / 0115 Packard MetriPack 280° IP67
	0116 / 0117 Deutsch DT04-3P IP67, IP6K9K
	0118 / 0119 AMP Junior Timer® IP65, IPx4K
	0120 / 0121 Bayonet DIN 72585 IP67, IP6K9K
	0122 / 0123 M12x1 DIN EN 61076-2-101-A IP67
	0124 / 0125 M12x1 DIN EN 60947-5-2 IP67

Rated working voltage:	10 ... 42 VAC/DC	
Rated current range (resistive load, DC12 / AC12):	10 mA ... 4 A	
Switching power DC12 / AC12:	100 W / 100 VA	
Temperature resistance of sealing materials:	NBR (diaphragm pressure switch)	-40 °F ... +212 °F (-40 °C ... +100 °C)
	NBR (piston pressure switch)	-22 °F ... +212 °F (-30 °C ... +100 °C)
	EPDM	-22 °F ... +248 °F (-30 °C ... +120 °C)
	FKM (diaphragm pressure switch)	+23 °F ... +248 °F (-5 °C ... +120 °C)
	FKM (piston pressure switch)	+5 °F ... +248 °F (-15 °C ... +120 °C)
	FFKM	-4 °F ... +248 °F (-20 °C ... +120 °C)
	Silicone	-40 °F ... +248 °F (-40 °C ... +120 °C)
HNBR	-22 °F ... +248 °F (-30 °C ... +120 °C)	
Burst pressure (diaphragm pressure switch):	400 bar	
Burst pressure (piston pressure switch)	700 bar (for threads M10, G 1/8, R 1/8 and NPT 1/8 up to max. 600 bar)	
Switching frequency:	200 / min	
Mechanical life expectancy:	1,000,000 cycles (for diaphragm pressure switches, life expectancy value only applies for switching pressures to max. 50 bar)	
Pressure rise rate:	≤ 1,000 bar/s	
Hysteresis:	Average value 5...30 % depending on type, not adjustable	
Vibration resistance:	10 g; 5...200 Hz sine wave, DIN EN 60068-2-6	
Shock resistance:	294 m/s²; 14 ms half sine wave; DIN EN 60068-2-27	
Protection class:	Up to IP67 / IP6K9K according to manufacturer's specifications for the respective plug-in system only when plugged in, otherwise IP00	
Weight:	approx. 90 g	

Contact assignment for bayonet connectors






Technical details, contact assignment and accessories

for hex 24 pressure switches with integrated connector

Please note:
Mating plugs are not included in the delivery and can be ordered separately.

Mating plug accessories

Mating plug type	Deutsch DT04-2P (for DT06-2S)	AMP Superseal 1.5®	Packard MetriPack 280®
Including 2 m cable			
Cable cross-section	2 x 0,5 mm ² Radox cables	2 x 0,5 mm ² Radox cables	2 x 0,5 mm ² Radox cables
Protection class	IP65	IP65	IP65
Article number	1-1-10-653-118	1-1-12-653-113	1-1-14-653-114

Plug-in types for hex 24 diaphragm and piston pressure switches

Model / Type	0110 / 0111	0112 / 0113	0114 / 0115
			
Connector	Deutsch DT04-2P	AMP Superseal 1.5®	Packard MetriPack 280®
Protection class	IP67, IP6K9K	IP67	IP67
Overall height	H ≈ 61 mm	H ≈ 61 mm	H ≈ 62 mm
Contact assignment			

Deutsch DT04-3P (for DT04-3P)	AMP Junior Timer®	Bayonet DIN 72585/ISO 15170 A1 -2.1	M12x1 DIN EN 61076-2-101-LF
2 x 0,5 mm ² PUR cables	2 x 0,5 mm ² Radox cables	2 x 0,5 mm ² Radox cables	4 x 0.34 mm ² PUR cables
IP67	IP65	IP65	IP67
1-1-36-653-160	1-1-18-653-116	1-1-20-653-112	1-1-00-653-162

0116 / 0117	0118 / 0119	0120 / 0121	0122 / 0123	0124 / 0125
Deutsch DT04-3P	AMP Junior Timer®	Bayonet DIN 72585/ISO 15170	M12x1 DIN EN 61076-2-101-A	M12x1 DIN EN 60947-5-2
IP67, IP6K9K	IP65, IPx4K	IP67, IP6K9K	IP67	IP67
H ≈ 63 mm	H ≈ 54 mm	H ≈ 49 mm	H ≈ 51 mm	H ≈ 51 mm
		 Coding: A1-2.1	 NO / NC (black) 1: brown 3: blue	 NO (light grey) NC (dark grey) 1: brown 2: black 4: white

Pressure switches hex 24 with integrated connector

NC or NO, maximum operating voltage up to 42 V



- Large selection of electrical plug-in types for quick attachment and reliable connection
- High protection class (to IP67 or IP6K9K)
- Compact and rugged design in industrial environments like construction and agricultural machinery or commercial vehicles
- Switching point can be set on site with adjusting screw in the connector¹⁾
- High overpressure resistance, compact, small switches, available as normally open or normally closed
- Vacuum switches with integrated connector available on request

¹⁾ Pressure switches can also be supplied preset at factory.
The switching point is embossed onto pressure switches preset at factory.