

Hydrogen Mechanical Pressure Switches

Series 0H64, 0H69, 0H86, 0H87, 0H96, 0H97, 0H83

Temperature range	EPDM -22 °F ... +248 °F (EPDM -30 °C ...+120 °C)
Burst pressure 0H64, 0H69	10,152 psi (700 bar)
Burst pressure 0H86, 0H96	10,152 psi (700 bar)
Burst pressure 0H87, 0H97, 0H83	14,503 psi (1,000 bar)
Switching frequency	200 / min
Mechanical lifetime	1.000.000 switching cycles (for diaphragm pressure switches, the service life applies only to switching pressures up to max. 50 bar)
Rate of pressure rise	≤ 1.000 bar/s
Hysteresis 0H64, 0H69	Not adjustable
Hysteresis (only adjustable in the factory)	Adjustable average value 10 ... 30% depending on type
Vibration resistance	10 g; 5 ... 200 Hz Sinus; DIN EN 60068-2-6
Shock resistance	294 m/s ² ; 14 ms Semi-sinus; DIN EN 60068-2-27, DIN EN 60068-2-27
Protection class	IIP65 with attached cable plug, terminals IP00
Weight 0H64, 0H69	appr. 90 g
Weight 0H86 / 0H87, 0H96 / 0H97, 0H83	appr.100 g

Overview switching capacity and materials

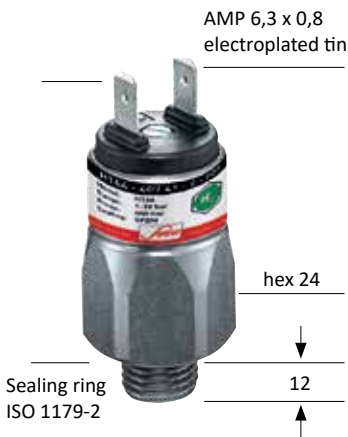
Type	0H64	0H69	0H86 / 0H87	0H96 / 0H97	0H83
5 ... 24 VDC				•	
10 ... 42 VAC/DC	•	•			
10 ... 250 VAC/DC			•		•
3 ... 50 mA				•	
10 mA ... 4 A	•	•	•		•
Gold contacts				•	
Silver contacts	•	•	•		•
Adjustable hysteresis			•	•	•
Stainless steel 1.4404 (AISI 316L)	•	•	•	•	•

Hydrogen Mechanical Pressure Switches

OH64 hex 24

Diaphragm pressure switch up to max. 42 V with stainless steel housing for hydrogen applications

- Setting range: 1.4 - 725 psi (0.1 - 50 bar)
- Overpressure-proof up to 8,700 psi (600 bar)
- Normally closed (NC), normally open (NO)
- Housing made of stainless steel 1.4404 (AISI 316L)
- With push-in connection



Setting range (Tolerance for room temperature)	External thread	Part number NO contact → :	Part number NC contact → :
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OH64 Diaphragm pressure switch with stainless steel housing

1.4– 14.5 (±2.9) psi 0.1 – 1 (±0,2) bar	G 1/4-E ISO 1179-2	OH64 - 403 41 - 2 - 080	OH64 - 404 41 - 2 - 080
7.2 – 43.5 (±4.3) psi 0.5 – 3 (±0.3) bar	G 1/4-E ISO 1179-2	OH64 - 423 41 - 2 - 080	OH64 - 424 41 - 2 - 080
14.5 – 145 (± 7.25) psi 1 – 10 (±0,5) bar	G 1/4-E ISO 1179-2	OH64 - 407 41 - 2 - 080	OH64 - 408 41 - 2 - 080
145 – 290 (±14.5) psi 10 – 20 (±1) bar	G 1/4-E ISO 1179-2	OH64 - 411 41 - 2 - 080	OH64 - 412 41 - 2 - 080
290 – 725 (±29) psi 20 – 50 (±2) bar	G 1/4-E ISO 1179-2	OH64 - 415 41 - 2 - 080	OH64 - 416 41 - 2 - 080

Sealing materials - areas of application

EPDM	Hydrogen, oxygen, water, forming gases, all inert and non-toxic gaseous or liquid media **	2
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* Static value. Dynamic value 30 to 50 % lower.

** We offer other seal and material combinations for numerous media.

Hydrogen Mechanical Pressure Switches

OH69

hex 24

Piston pressure switch up to max. 42 V with stainless steel housing for hydrogen applications

- Setting range: 725 - 2,175 psi (50 - 150 bar)
- Overpressure-proof up to 8,700 psi (600 bar)
- Normally closed (NC), normally open (NO)
- Housing made of stainless steel 1.4404 (AISI 316L)
- With push-in connection or screw connection M3



Setting range (Tolerance for room temperature)	External thread	Part number NO contact → :	Part number NC contact → :
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OH69 Piston pressure switch with stainless steel housing

725 – 2,175 (± 72.5) psi 50 – 150 (± 5) bar	G1/4-E ISO 1179-2	OH69 - 419 41 - 2 - 080	OH69 - 420 41 - 2 - 080
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Sealing materials - areas of application

EPDM	Hydrogen, oxygen, water, forming gases, all inert and non-toxic gaseous or liquid media **	2
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* Static value. Dynamic value 30 to 50 % lower.

** We offer other seal and material combinations for numerous media.



Hydrogen Mechanical Pressure Switches

OH86 / OH87

hex 27

Diaphragm or piston pressure switch up to max. 250 V for hydrogen applications

- Series OH86 setting range: 7.2 - 1,450 psi (0.5 - 100 bar)
Series OH87 setting range: 725 - 2,900 psi (50 - 200 bar)
- Overpressure-proof up to 5,800 / 10,152 psi (400 / 700 bar)
- Changeover contact with silver contacts
- Housing made of stainless steel 1.4404 (AISI 316L)
- Hysteresis adjustable at the factory



P _{max}	Setting range	Tolerance at room temperature	External thread	Article number
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OH86 Diaphragm pressure switch with plug-in connection

5,801 psi (400 bar*)	7.2- 72.5 psi (0.5 – 5 bar)	± 4.4 psi (±0.3 bar)	G 1/4-E ISO 1179-2	OH86- 457 41- 2- 080
	14.5- 145 psi (1 – 10 bar)	±72.5 psi (±0.5 bar)		OH86- 458 41- 2- 080
	145 - 725 psi (10 – 50 bar)	±43.5 psi (±3.0 bar)		OH86- 459 41- 2- 080
	145 - 1,450 psi (10 – 100 bar)	±43.5- 72.5 psi (±3.0 – 5.0 bar)		OH86- 461 41- 2- 080

OH87 Piston pressure switch with plug-in connection

10,152 psi (700 bar*)	725 - 2,900 psi (50 – 200 bar)	±72.5 psi (±0.5 bar)	G 1/4-E ISO 1179-2	OH87- 460 41- 2- 080
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Sealing materials - areas of application

EPDM	Hydrogen, oxygen, water, forming gases, all inert and non-toxic gaseous or liquid media **	2
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* Static value. Dynamic value 30 to 50 % lower.

** We offer other seal and material combinations for numerous media.

Hydrogen Mechanical Pressure Switches

OH96 / OH97 hex 27

Diaphragm or piston pressure switch up to max. 24 V for hydrogen applications

- Series OH96 setting range: 7.2 - 1,450 psi (0.5 - 100 bar)
Series OH97 setting range: 725 - 2,900 psi (50 - 200 bar)
- Changeover contacts (CO)
- With gold contacts overpressure safe up to 5,800 / 10,152 psi (400 / 700 bar*)
- Housing made of stainless steel 1.4404 (AISI 316L)
- Hysteresis adjustable at the factory



P _{max}	Setting range	Tolerance at room temperature	External thread	Article number
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OH96 Diaphragm pressure switch with plug-in connection

5,800 psi (400 bar*)	7.2 - 72.5 psi (0.5 - 5 bar)	±4.3 psi (±0.3 bar)	G 1/4-E ISO 1179-2	OH96 - 457 41 - 2 - 080
	14.5 - 145 psi (1 - 10 bar)	±72.5 psi (±0.5 bar)		OH96 - 458 41 - 2 - 080
	145 - 725 psi (10 - 50 bar)	±43.5 psi (±3.0 bar)		OH96 - 459 41 - 2 - 080
	145 - 1,450 psi (10 - 100 bar)	±43.5 - 72.5 psi (±3.0 - 5.0 bar)		OH96 - 461 41 - 2 - 080

OH97 Piston pressure switch with plug-in connection

10,152 psi (700 bar*)	725 - 2,900 psi (50 - 200 bar)	±72.5 psi (±5.0 bar)	G 1/4-E ISO 1179-2	OH97 - 460 41 - 2 - 080
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Sealing materials - areas of application

EPDM	Hydrogen, oxygen, water, forming gases, all inert and non-toxic gaseous or liquid media **	2
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* Static value. Dynamic value 30 to 50 % lower.

** We offer other seal and material combinations for numerous media.

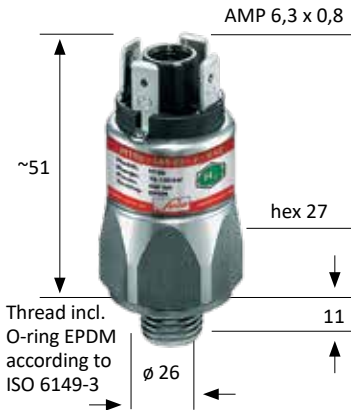
Hydrogen Mechanical Pressure Switches

OH83

hex 27

Piston pressure switch up to max. 250 V for hydrogen applications

- Setting range: 1,450 - 5,800 psi (100 - 400 bar*)
- Changeover with silver contacts
- Overpressure safe up to 8,700 psi (600 bar), hysteresis adjustable at the factory
- Housing made of stainless steel 1.4404 (AISI 316L)
- Overall height only 51 mm



P _{max}	Setting range	Tolerance at room temperature	External thread	Article number
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OH83 Piston pressure switch with plug-in connection

8,702 psi (600 bar*)	1,450 - 4,350 psi (100 - 300 bar)	± 145 psi (±10 bar)	M 14 x 1,5 DIN 6149-3	OH83 - 462 45 - 2 - 080
	2,900 - 5,800 psi (200 - 400 bar)			OH83 - 463 45 - 2 - 080

Sealing materials - areas of application

EPDM	Hydrogen, oxygen, water, forming gases, all inert and non-toxic gaseous or liquid media **	2
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* Static value. Dynamic value 30 to 50 % lower.

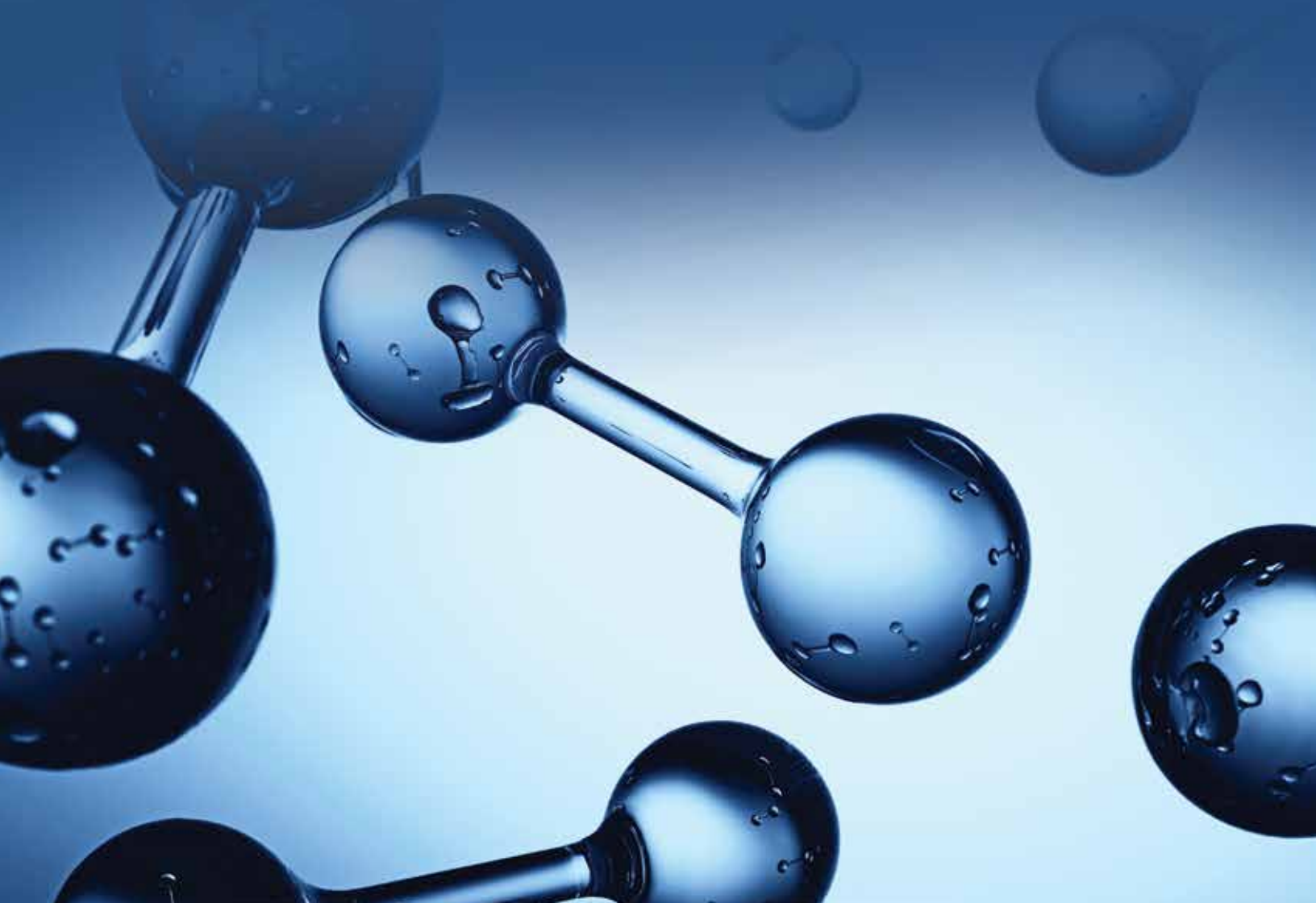
** We offer other seal and material combinations for numerous media.



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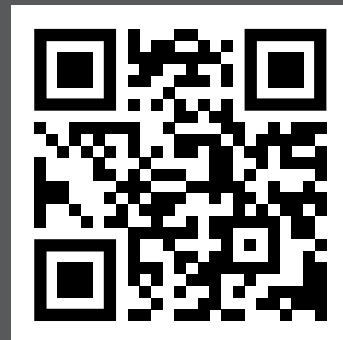
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