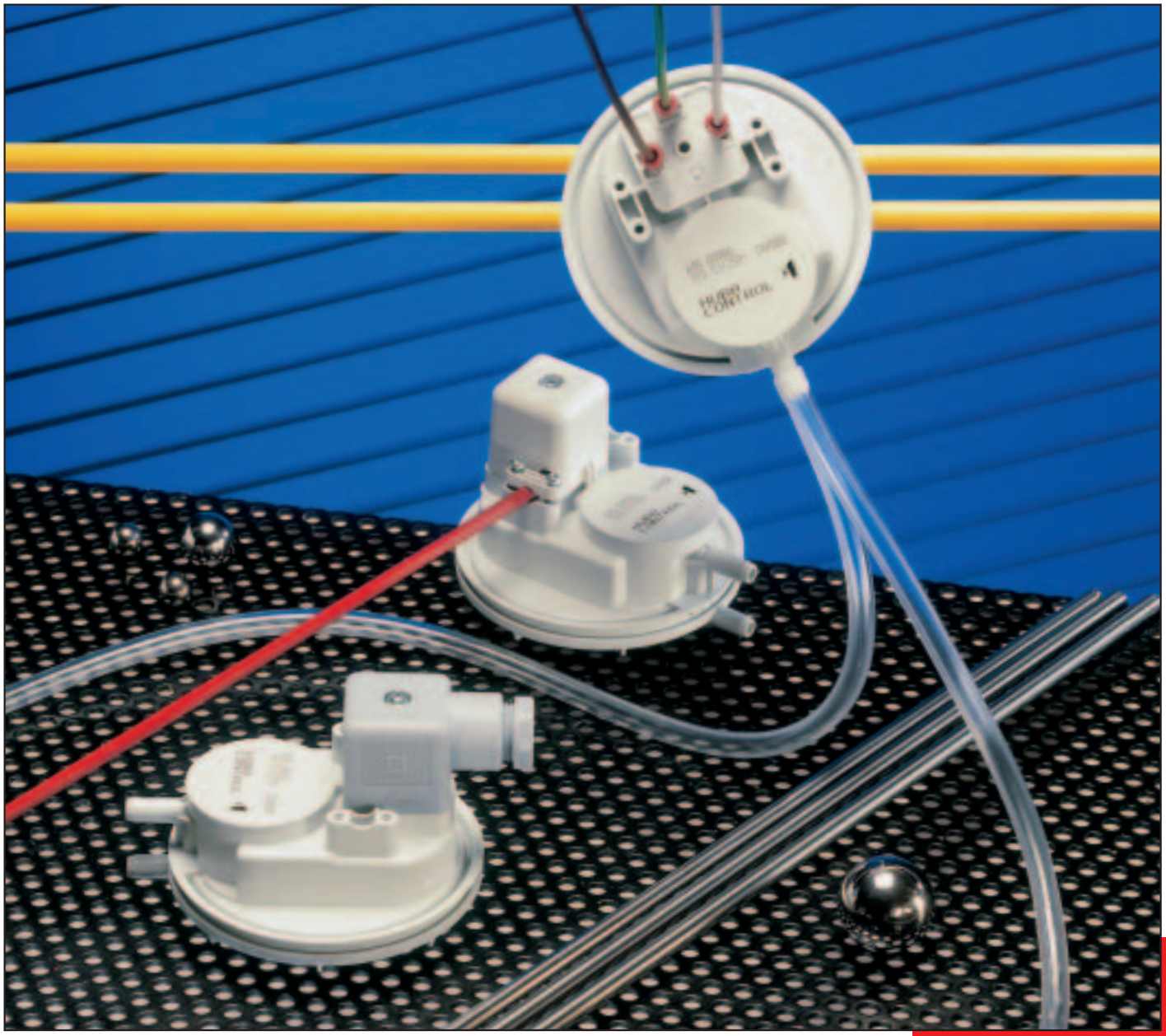
605

Differential pressure, vaccum, overpressure switch 20 – 400 pascal



EDITION 12/2002

Huba Control

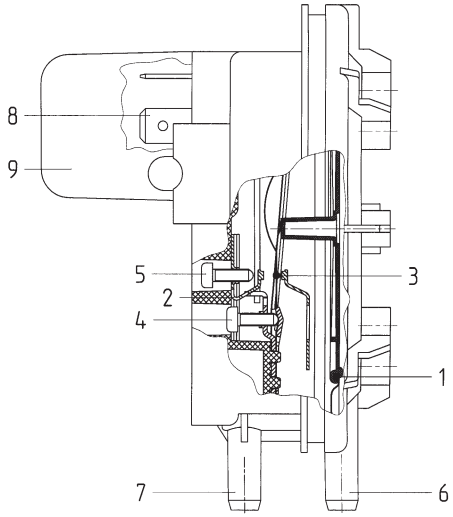
FOR FINE PRESSURE AND FLOW MEASUREMENT

EDITION 12/2002

Technical overview

The differential pressure switches of type series 605 are specially designed for control and monitoring applications in gasfired boilers.

- **Form of diaphragm and material**
  - Through use of 2-component silicon longer long-time stability
  - Through new trapezoid diaphragm enlargement exact transfer of contact release and therefore exact switching points



Legend to cross-section drawing

1 Diaphragm
2 Contact system
3 Combi-contact
4 Switching point setting (only possible by the manufacturer)
5 Switching difference setting (only possible by the manufacturer)
6 P1 Connection of higher pressure or lower vacuum)
7 P2 Connection of lower pressure or higher vacuum
8 AMP Connectors
9 Contact safety guard

Pressure range / Medium

20 to 400 pascal
(Higher pressures on request)
For air or not aggressive gases

Maximum overpressure

< 85 °C: P. permissible = 5000 pascal
<110 °C: P. permissible = 1500 pascal

Lowest turn-on pressure

20 pascal
Smallest switching difference
8 pascal at a turn-on pressure of 20 pascal

Reproducibility

Switching point < +/– 1 pascal

Temperature range

Medium and ambient temperature –30 ... +110 °C
Higher temperatures on request

Protection class II (EN 60335-1)

Storage temperature –30 ... +110 °C

The distinct advantages

- **Fitting of the switch**
  - Fast mounting with snapping bracket system
- **Adjusting security**
  - Switchingpoint- and switching difference adjusting screw are secured after factory calibration through covering
  - No false manipulation through mounting or service personel
- **High contact strength (10 cN typical)**
  - Essentially less susceptibility to polution of contact
- **Roll operation of contact surface**
  - Less sensitive to contact polution through self cleaning effect

Case construction

Main case:
fiberglass-reinforced plastic
Cover: plastic

Weight

60 grams (without accessories)

Installation arrangement

With turn-on point below 30 pascal, diaphragm vertical or horizontal with electrical connections facing downward.
Always indicate installation arrangement

Pressure connections

Pipe Ø 6.2 mm
Orifice installed for damping pulsating pressure at P2 (option)

Diaphragm

Silicon (LSR)

Electrical connections

AMP connectors 6.3 mm or 4.8 mm according to DIN 46244 (in connector arrangement DIN 43650)

Contact system

Changeover switch
Short circuit resistant with fuse protection ≤ 3.15 A according to DIN 41662, slow-acting

Contact material / Loading

See graphic.
RC contact cleaner for very small contact loads 22 Ω, 1 µF

Tests

CE-0085 AP0974

Protection class

IP 00 without cover
IP 30 with contact safety guard
IP 54 with cover, with PG9/11
IP 65 with cover, with PG9/11 and seal
IP 65 with DIN connector 43650

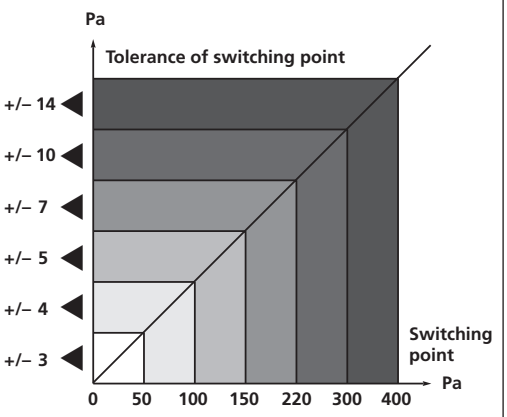
Service life

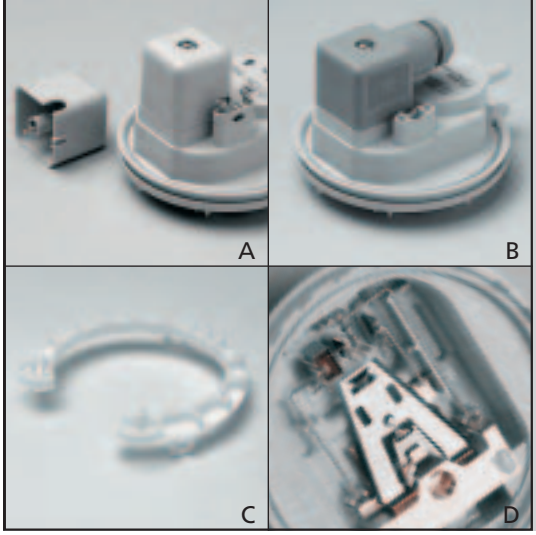
> 10^6 switching cycles

Accessories

- Fasten clip
- Mounting bracket A
- Mounting bracket B
- Contact safety guard
- Cover PG9/11 IP 54*
- Cover PG9/11 IP 65* (with seal)
- DIN connector 43650, Pg9/11*
- Orifice for damping pulsating pressure at P1

Accessories can only be supplied loose (non-assembled).
* with PT screw Ø 3x30





A – Contact safety guard

B – Cover with/ without seal

C – Fastening clip

D – RC contact cleaner

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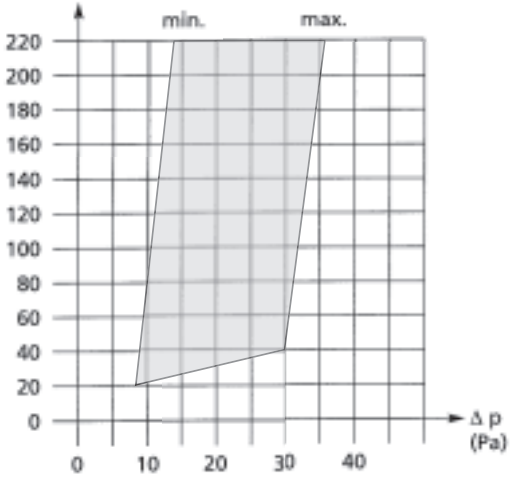
Adjustable switching differences 20 – 220 Pa

Switching point above (Pa)



Switching difference adjustment only inside shaded area:

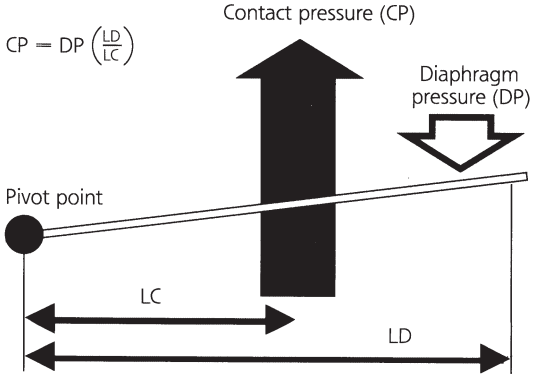
Example: Upper switching point 220 pascal. Switching difference between 14 and 36 pascal.

Example: Upper switching point 40 pascal. Switching difference between 9 and 30 pascal.

Example: Upper switching point 20 pascal, smallest switching difference 8 pascal.

The prinicple of high contact pressure

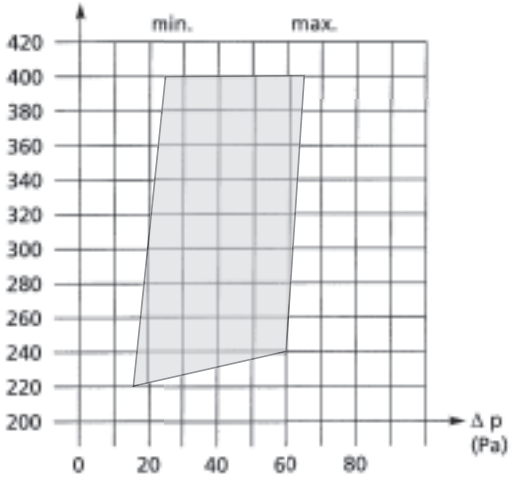
Simplified representation of the new 605 contact system. The high contact pressure results form the optimized length ratios of LC and LD.



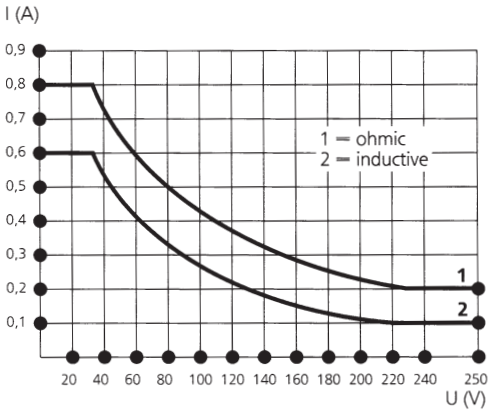
LC = Length of contact lever
LD = Length of diaphragm lever

Adjustable switching differences 220 – 400 Pa

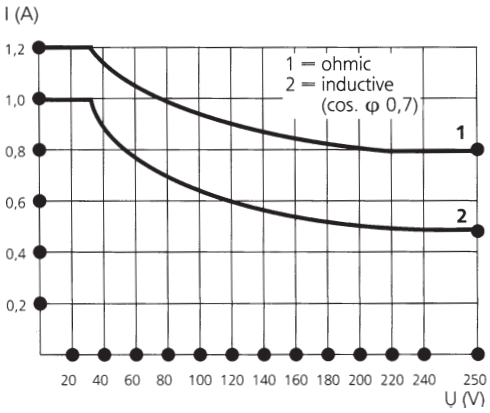
Switching point above (Pa)



Nominal DC loading limits



Nominal AC loading limits



Can also be operated with TTL-load.

Dimensions en mm / electrical connections

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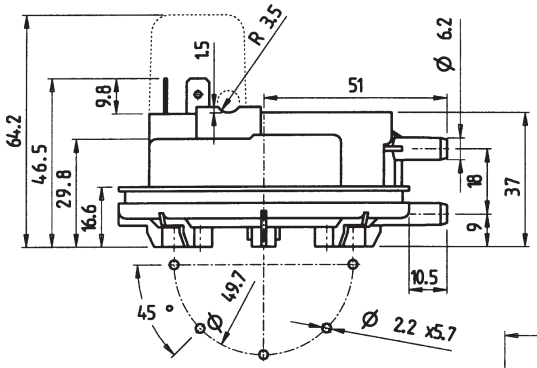
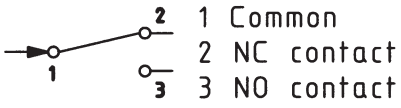
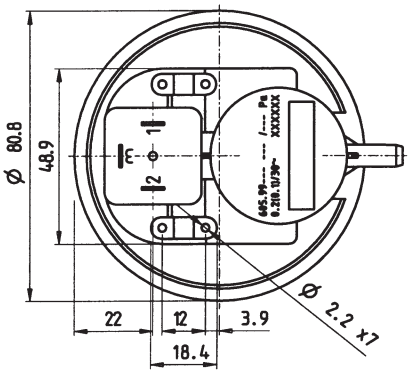
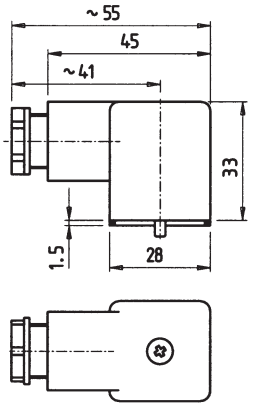
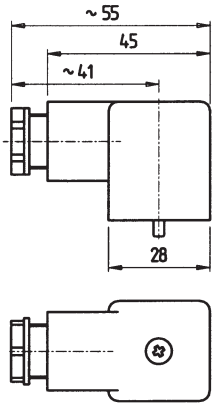




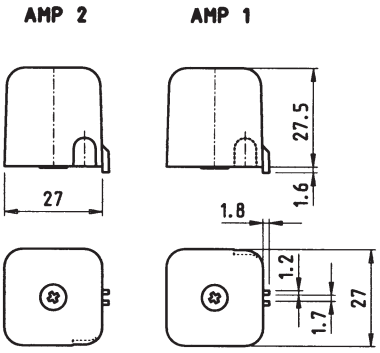




Cover with seal
and PT screw
Order no. 100306



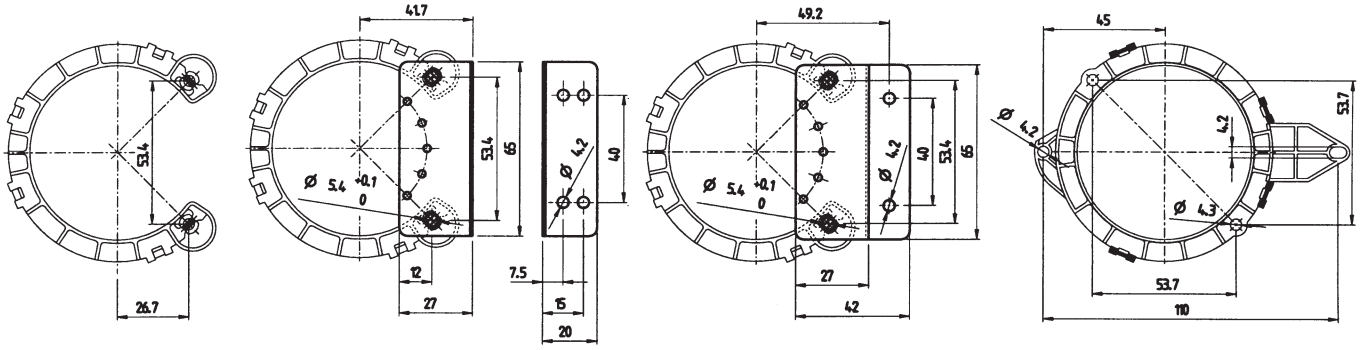
Cover without seal
with PT screw
Order no. 100307



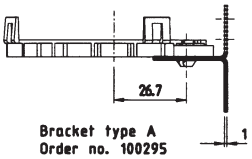
Contact safety guard
with PT screw

Cable exit AMP2
Order no. 100309

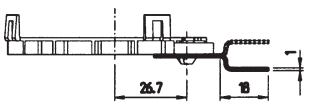
Cable exit AMP1
Order no. 100308



Fastening clip
Order no. 100294 s=0.8-1.1
Order no. 100293 s=1.8-2.1



Bracket type A
Order no. 100295



Bracket type B
Order no. 100296

Fastening clip
Order no. 106790

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Technical data subjects to change.

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