Automatic change-over switching stations with empty indication permit continuous and uninterrupted operation and greatly increase operational convenience and safety to a huge extent.

The change-over switching station consists of two central pressure regulators, a change-over unit with solenoid valves, flashback valves and a pressure control. All components are fixed on a wall bracket. Also included is the electronic control box which is yet supplied separately. The control may also be installed outside the gas room; this is obligatory for fuel gases.

The electronic control permits different checks and settings, i.e.

- manual choice of the desired cylinder battery side / cylinder rack side
- closing and opening contacts for external alarm (visual and/or acoustic)
- setting the original state after a power failure or a turning off of the plant

The automatic change-over switching stations are suitable for all non aggressive, technical gases. For fuel gases all components must be protected against explosion. As an alternative the solenoid valves are also available in version "de-energised open", permitting uninterrupted operation in case of power failure.

Automatic change-over switching station with central pressure regulators ZD 79, outlet pressure 10 bar, inlet

(left and right) : gas specific

outlet : soldering nipple for tube with outer diameter 12 mm.

Version for inlet pressure 300 bar

Version for inlet pressure 200 bar

Art.7982-300-KM

Art.7982-KM

As an alternative also available with working pressure up to 20 or 30 bar.



In addition to the standard version, i.e. solenoid valves ,de-energised closed' and change-over pressure max. 10 bar, the following versions are available as options :

- 1 standard
- 2 protected against explosion, max.change-over pressure 1,5 bar, for acetylene
- 3 protected against explosion
- 4 solenoid valves ,de-energised open'
- 5 solenoid valves ,de-energised open', protected against explosion
- 6 solenoid valves ,de-energised open', protected against explosion, max. change-over pressure 1,5 bar, for acetylene
- 7 max. change-over pressure 20 bar
- 8 max. change-over pressure 20 bar, protected against explosion
- 9 solenoid valves ,de-energised open', max. change-over pressure 20 bar
- 10 solenoid valves ,de-energised open', max. change-over pressure 20 bar, protected against explosion
- 11 max. change-over pressure 40 bar( ZD 51) or 30 bar (ZD 79)

## Mode of operation of the basic version with one contact gauge

The desired pipeline pressure is preset in the low pressure part on the contact gauge which is mounted on the change-over unit. On falling below this pressure, the contact gauge gives a signal to the electronic control which activates the solenoid valves and thus switches over to the stand-by side. The alarm is given visually on the electronic control. After the replacement of the empty cylinders, the reception of the empty indication is confirmed with the reset button and the light goes off.

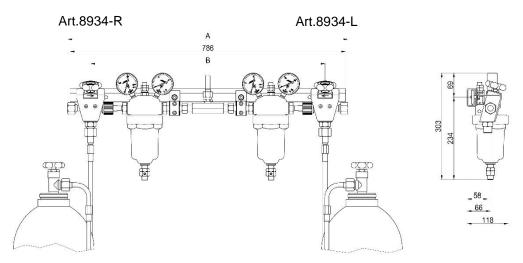
## Version with two contact gauges in the high pressure part

This version is in particular sensible for higher pipeline pressure (30 bar), and is also recommended when a large-scale pipeline net has to be supplied with a corresponding volume of gas. The system gets less dependent on any rear pressure increase respectively pressure drop. When ordering this version, please indicate the addition 2KM. Moreover with this version there is a two step alarm when the cylinders are empty. On falling below the preset pressure, also here the contact gauge gives a signal to the electronic control which activates the solenoid valves and thus switches over to the other side.

The alarm is also given here visually on the electronic control. After the confirmation of the empty indication, the red light stops flashing but continues to be on until the contact gauge is again under pressure, i.e. the empty cylinders have been replaced.



## Dimensions Art.7981-300



Dimensions of the manual and automatic change-over switching station with ZD79: A = 800mmB = 670mm Dimensions of the manual and automatic change-over switching station with ZD51: A = 840mmB = 710mm

