



gas flow solutions



Electric Setting Element

# Remote Setpoint Control

## Electric Multi-Turn Actuator

- ▶ Modular and Compact Design
- ▶ Flexible Operation
- ▶ Remote line Switch-Over
- ▶ Low Temperature Option
- ▶ Explosion-Proof
- ▶ Broad Range of Control
- ▶ Accurate and Robust

## Main Features

The setpoint of the pilot operated pressure regulator REGES® can be changed remotely by an **electric multi-turn actuator** connected to the set screw of the pilot controller PIGES®. The motor receives a control signal and turns the pilot set screw to a desired position.

Apart from being able to generate a variable output pressure for the consumer, remote setpoint control of a regulator in a gas pressure reducing station can also allow a user to remotely switch operation from one run to another (eg. active to standby). Furthermore, it allows flow distribution between the various lines of the station depending on season or consumption.

The actuator is connected to the PIGES® Pilot controller via a gearbox, which enables local set-point changes without disassembly of the actuator from the pilot controller. The pilot set screw is accessible from the bottom of the gearbox.

## Technical Features

- Supply voltage: 24 Vdc (230 Vac optional)
- ATEX Ex-d IIC T5 Gb ; Ta -25 °C / 55 °C (Low Temperature -50°C optional)
- Protection Class: IP66/IP67
- Control Input: 4-20 mA (Other Control optional)
- 3 Programmable Relays (6 Relays optional)
- Parameter Setting with PC (eg. Failure Action, Position Switches, etc.)

Please contact GFS™ or local sales representative for more actuator features. (eg. Voltage Control, Inching Control, MODBUS or PROFIBUS control board, etc.)

For technical details and overview of the PIGES® Pilot Controller the PIGES® documentation can be consulted.

## Ranges

Pilot Set Range (bar)		Remote Set-Point Shift Range $\Delta p_2$ (bar)		
		Gear 15	Gear 30	Gear 50
<b>W2:</b>	<b>2 - 5</b>	1,1	0,5	0,3
<b>W3:</b>	<b>4 - 10</b>	2,2	1,1	0,6
<b>W4:</b>	<b>8 - 18</b>	4	2	1,2
<b>W5:</b>	<b>16 - 32</b>	8	4	2
<b>W6:</b>	<b>28 - 42</b>	11	5	3
<b>W7:</b>	<b>38 - 52</b>	18	9	5

Table 1 Shift Range PIGES® Remote Control

Table 1 points out the possible set point shifts per pilot set range and gear. Shifting outside of the pilot set range "W" is not possible.

Eg. W6: 28 – 42 bar; Gear 30.

$\Delta p_2 = 5\text{bar}$

$p_{20} = 28\text{ bar until } 37\text{ bar}$

Possible Set Point Shift across the 4-20 mA Control Range

Possible Set Points at 4 mA

With

$p_{20} = 28\text{ bar} \rightarrow p_{21} = 33\text{ bar}$       Set Point at: 4 mA  $\rightarrow$  20 mA

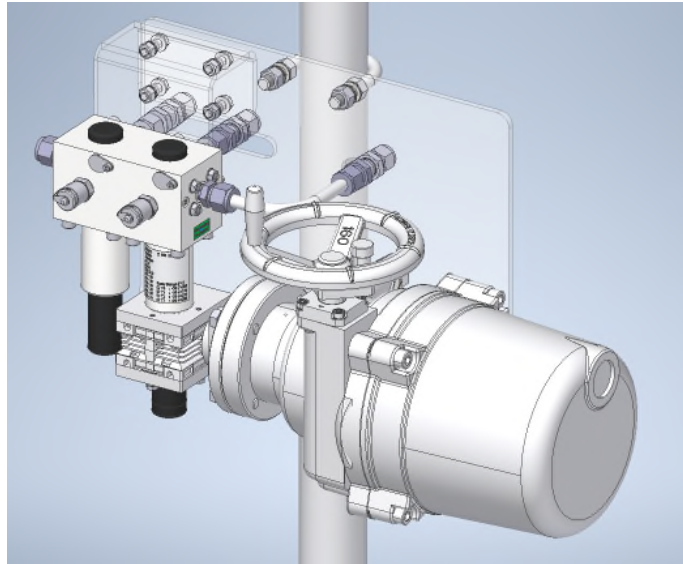
$p_{21} = 37\text{ bar} \rightarrow p_{21} = 42\text{ bar}$       Set Point at: 4 mA  $\rightarrow$  20 mA

$p_{20}$  can be changed across the range by turning the pilot set screw.

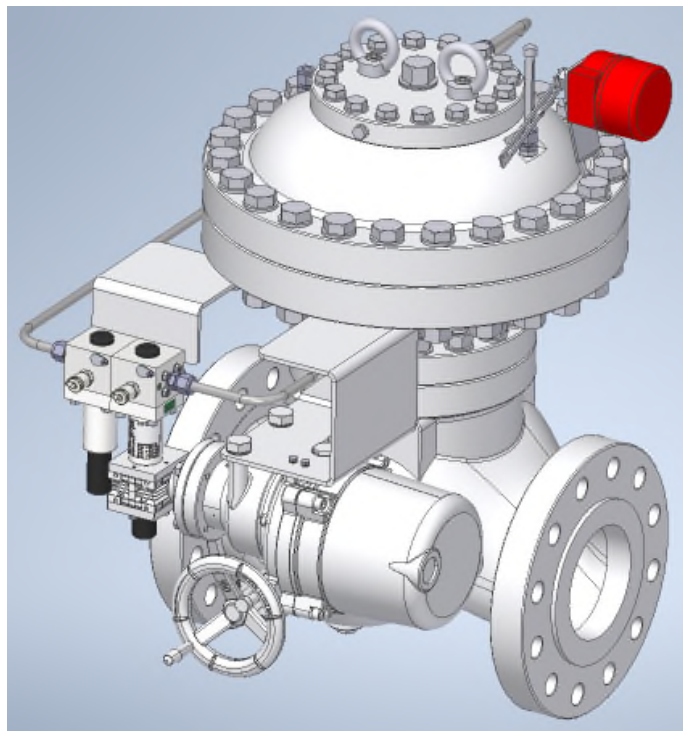
**For other ranges or help with selection, please contact your GFS™ or local representative.**

## Mounting

The pilot and electric actuator assembly can be bracket/standpipe mount or mounted directly onto the Regulator REGES®.

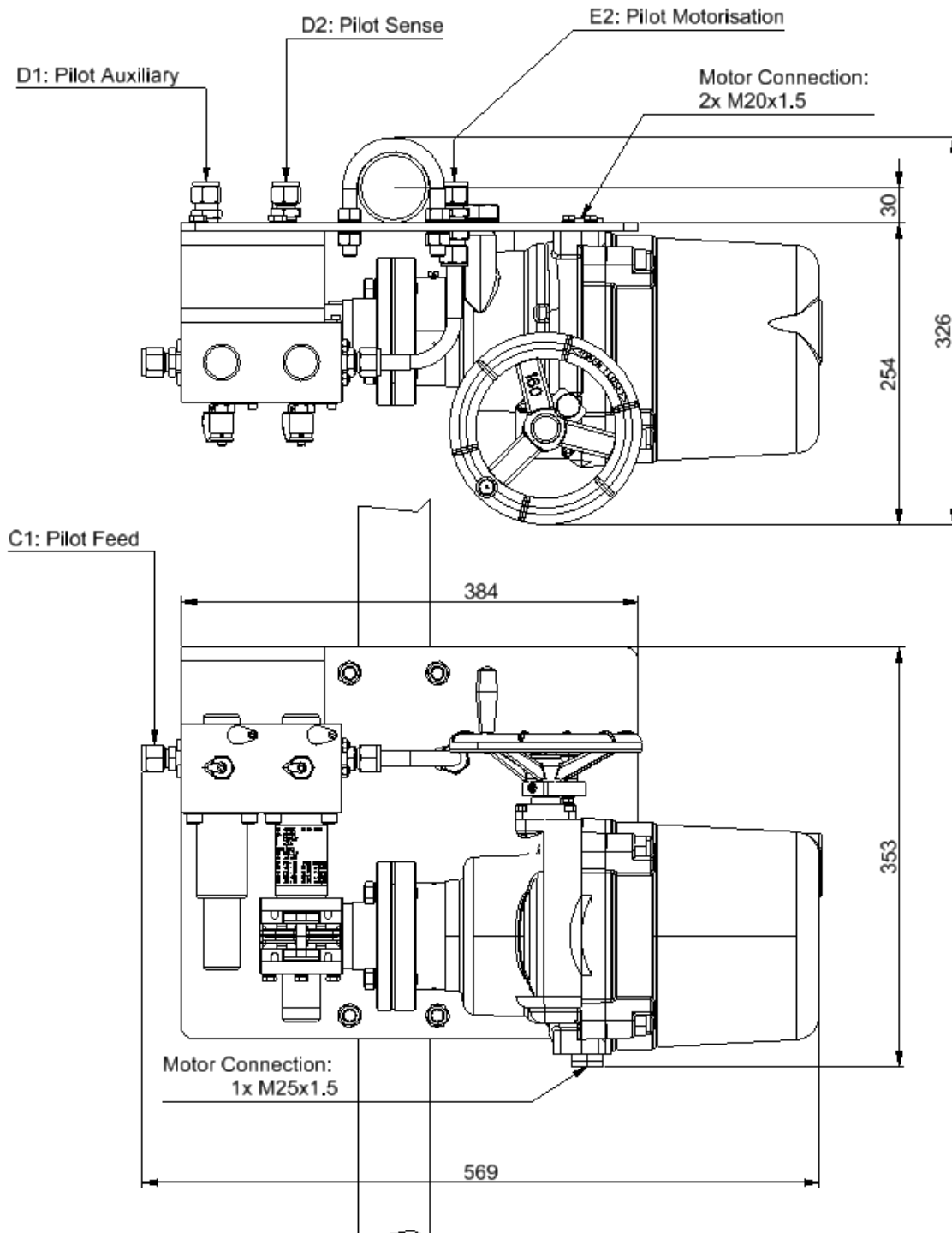


*Figure 1 Mounted on a bracket with a 2" standpipe connection*



*Figure 2 Mounted on a bracket directly to the regulator (only >3")*

## Dimensions



## Connection Scheme – Wiring Diagram Actuator

