


**FIO**Net™

# Pilot series 300/MP



The **pilot series 300/MP** is an electro-mechanical device which enables remote setpoint modifications of pilot operated gas pressure regulators. Furthermore, the pilot optimizes the accuracy and lock-up performances thanks to real-time pulse width modulation control. It is suitable with Aperval and Aperflux 851 regulators and, upon request, it can be used with any brand with the same working principle.

Gas compression /  
booster stations

City gates



Gas reverse-flow




Gas storage



Power generation



District stations

Features	Values					
Design pressure* (PS <sup>1</sup> / DP <sup>2</sup> )	up to 10.2 MPa up to 102 bar					
Ambient temperature* (TS <sup>1</sup> )	from -20 °C to +60 °C from -4 °F to +140 °F					
Inlet gas temperature*	from -20 °C to +60 °C from -4 °F to +140 °F					
Inlet pressure (MAOP / p <sub>umax</sub> <sup>1</sup> )	from 0.05 to 10 MPa from 0.5 to 100 bar (Depending on the model)					
Range of downstream pressure (Wd <sup>1</sup> )	from 0.5 kPa to 4.3 MPa from 5 mbarg to 43 bar (Depending on the model)					
Maximum power consumption	30 W					
PWM input signal	0 – 10 V or 4-20 mA upon request					
ATEX Certification	CE  II 2/- G Ex h IIC T5 Gb					
IECEX Certification	(in progress)					
Models	301/MP + Prereducer (AR100)	301/MP/TR + Prereducer (AR100)	302/MP + Prereducer (AR100)	304/MP + Prereducer (AR100)	304/MPH + Prereducer (AR100)	
Minimum set-point P <sub>ds min</sub>	0.5 kPa 5 mbarg	10 kPa 100 mbarg	80 kPa 0.8 barg	0.7 MPa 7 barg	0.7 MPa 7 barg	
Maximum set-point P <sub>ds max</sub>	10 kPa 100 mbarg	0.2 MPa 2 barg	0.95 MPa 9.5 barg	4.3 MPa 43 barg	4.3 MPa 43 barg	
Maximum setpoint variation ΔP With failover to maximum setpoint (decrease version)	Up to 16 kPa Up to 160 mbarg	Up to 26 kPa Up to 260 mbarg	Up to 47 kPa Up to 470 mbarg	Up to 0.12 MPa Up to 1.2 barg	Up to 0.4 MPa Up to 4 barg	
Maximum setpoint variation ΔP With failover to minimum setpoint (increase version)	Up to 16 kPa Up to 160 mbarg	Up to 19 kPa Up to 190 mbarg	Up to 36 kPa Up to 360 mbarg	Up to 90 kPa Up to 900 mbarg	Up to 0.28 MPa Up to 2.8 barg	
Accuracy class (AC <sup>1</sup> )	up to 1 (depending on working conditions)					
Lock-up pressure class (SG <sup>1</sup> )	up to 1 (depending on working conditions)					
Pneumatic connections*	1/4" RP - UNI EN ISO 226 1/4" NPT - ANSI B 1.20.1					

(<sup>1</sup>) according to EN334 standard

(<sup>2</sup>) according to ISO 23555-1 standard

(\*) NOTE: Different functional features and/or extended temperature ranges may be available on request. Stated inlet gas temperature range is the maximum for which the equipment's full performance, including accuracy is guaranteed. Product may have a different pressure or temperature ranges according to the version and/or installed accessories.

**Table 1** Features

## Materials and Approvals

Part	Material
Body	Aluminium
Cover	Aluminium
Plug	NBR
Seat	Stainless Steel
Diaphragms	Nitrile Rubber
Sealing rings	NBR

**NOTE:** The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.

**Table 2** Materials

The **Pilot series 300/MP** is designed according to the EN334 where applicable. The device meets the requirements of Directive 2014/34/EU (ATEX). Directive 2014/68/EU (PED) is not applicable due to Article 4 paragraph 3 of the Directive.



EN 334



ATEX



IECEX

## Pilot series 300/MP competitive advantages



Compact and simple design



Remote set-point variation



High accuracy



Failover to max or min mechanical set-point



Multi brand compatibility\*  
\*To be verified on a case-by-case basis



Easy maintenance



Pulse Width Modulation (PWM) control



No vent