



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 ¹ / DP ²)	up to 10.2 MPa up to 1479 psig				
Ambient temperature* (TS ¹)	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 _{umax} ¹)	from 0.05 to 10 MPa from 7.25 to 1450 psig (Depending on the model)				
Range of downstream pressure (Wd ¹)	from 0.5 kPa to 4.3 MPa from 2" w.c. to 623 psig (Depending on the model)				
Power supply	24 VDC				
PWM input signal	0 – 10 V or 4-20 mA upon request				
ATEX Certification	CE Ex II 2/- G Ex h IIC T2 Gb				
IECEX Certification	(in progress)				
Models	301/MP + Prereducer (AR100)	301/MP/TR + Prereducer (AR100)	302/MP + Prereducer (AR100)	304/MP + Prereducer (AR100)	304/MP/HP + Prereducer (AR100)
Minimum set-point P _{ds min}	0.5 kPa 2" w.c.	10 kPa 1.45 psig	80 kPa 11.6 psig	0.7 MPa 101 psig	0.7 MPa 101 psig
Maximum set-point P _{ds max}	10 kPa 1.45 psig	0.2 MPa 29 psig	0.95 MPa 137 psig	4.3 MPa 623 psig	4.3 MPa 623 psig
Maximum set-point variation ΔP _{s max} <small>(Depending on the selected magnet motor, the downstream pressure increases or decreases from the pneumatic set-point)</small>	Up to 16 kPa Up to 2.3 psig	Up to 26 kPa Up to 3.8 psig	Up to 47 kPa Up to 6.8 psig	Up to 0.12 MPa Up to 17 psig	Up to 0.6 MPa Up to 87 psig
Accuracy class (AC ¹)	up to 1 (depending on working conditions)				
Lock-up pressure class (SG ¹)	up to 1 (depending on working conditions)				
Pneumatic connections*	1/4" RP - UNI EN ISO 226 1/4" NPT - ANSI B 1.20.1				

(¹) according to EN334 standard

(²) 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	Aluminum
Cover	Aluminum
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