

FE H

The **FE H** is one of the **direct-operated gas pressure regulators** designed and manufactured by Pietro Fiorentini. This device is suitable for **100% hydrogen applications**. It is used for low pressure gas distribution networks, as well as residential and commercial applications. The **FE H** regulator is classified as **Fail Close** (only version with slam-shut device valve for downstream overpressure).



Commercial users



Residential users

Features	Values	
Design pressure (DP)	0.86 MPa 8.6 bar	
Inlet pressure range	0.01 - 0.7 MPa (on request up to 0.86 MPa) 0.1 - 7 bar (on request up to 8.6 bar)	
Regulator capacity	706 - 1765 ft ³ /h 20 - 165 m ³ /h	
Adjustment range of downstream pressure	BP Version	1.3 - 18 kPa 13 - 180 mbar
Accuracy class (AC)	10	
Lock-up over pressure (SG)	20	
Operating ambient temperature*	Standard version	from -20 °C to +60 °C from -4 °F to +140 °F
	Extended temperature version	from -30°C to + 60°C from -22 °F to +140 °F
Permissible gas temperature	Standard version	from -10°C to + 60°C from +14 °F to +140 °F
	Extended temperature version	from -20°C to + 60°C from -4 °F to +140 °F
Inlet connection	G ½" EN ISO 228/1 (modular connections on request)	
Outlet connection	<ul style="list-style-type: none"> In-line outlet: G 1" EN ISO 228/1 Outlet in a square pattern: G ¾" EN ISO 228/1 (modular connections on request)	
Modular connections	<ul style="list-style-type: none"> Gas (as per UNI EN ISO 228-1:2003); Flat swivel joint (as per NF E29-533: 2014 and NF E29-536: 2017); NPT (according to ASME B1.20.1, excluding connections with metal/metal sealing); Special accessories (on request). 	

(* Note: Different functional features and/or extended temperature ranges available on request. Stated temperature ranges are the maximum for which the equipment's full performance, including accuracy, are fulfilled. Standard product may have a narrower range.

Table 1 Features

Materials and Approvals

Part	Material
<ul style="list-style-type: none"> Diaphragm O-rings 	Nitrile rubber
<ul style="list-style-type: none"> Springs 	Steel
<ul style="list-style-type: none"> Body Covers 	Zamak3 (Aluminum on request)

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

Table 2 Materials

The **FE H** regulator is designed in compliance with European standard EN 334. Based on the version/configuration, the FE regulator complies with:



EN 334



UNI 8827



EN 16129



EN 88-2



UNI 11655

FE H competitive advantages



Operates with low differential pressure



Slam-shut valve for overpressure
Slam-shut valve for underpressure



Two-stage regulation with balanced first stage plug



High customisation



Integrated thermal valve option



Built-in filter



Integrated flow limiter valve option



Suitable for outdoor installations



Suitable for 100% Hydrogen