












iM-TM H

iMTM H Turbine meters are designed for custody transfer applications, they are mainly used for high-pressure transmission systems, power plants, heavy industry and for medium-low pressure gas distribution networks. This device is suitable for **100% hydrogen applications**. It is the natural evolution of the Pietro Fiorentini know-how and experience in the gas industry.



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|------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------|-------------------------|
|  | Compression / booster stations |  | Gas reverse-flow |  | District stations |
|  | H ₂ liquefaction |  | Power generation |  | Medium / small industry |
|  | H ₂ storage |  | Heavy industry |  | Commercial users |
|  | City Gates |  | Regasification | | |

Features	Values
Flow rates*	from 8 m ³ /h to 6500 m ³ /h from 282 cfm to 229 545 cfm
Design pressure*	up to 10 MPa up to 100 barg
Ambient temperature*	from -40 °C to +65 °C from -40 °F to 145 °F
Gas temperature range*	from -25 °C to +55 °C from -13 °F to 131 °F
Accuracy	$Q_{min} \leq Q < Q_t \pm 2\%$ & $Q_t \leq Q \leq Q_{max} \pm 1\%$ (Q_t according to EN12261)
Rangeability	up to 1:20
Repeatability	better than 0.1%
Index Protection	IP 67
Applicable metrology standards	MID 2014/32/EU
Index & pulse out	<ul style="list-style-type: none"> 8 digits 2x low frequency pulse out (NO reed contact) 1x anti fraude out (NC reed contact)
Hazardous area certification	ATEX II 2 G Ex h IIC T6 Gb
Accessories	<ul style="list-style-type: none"> high frequency sensors
Nominal dimensions DN	Aluminium body from DN 50 to DN 200 Carbon steel body from DN 50 to DN 300
Connections*	ANSI 150/300/600 according to ASME B16.5 From PN 16 to PN100 according to EN 1092-1

(*) REMARK: 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
Body	Hard anodized aluminium alloy or carbon steel
Rotor	Aluminium alloy
Shaft & Bearings	Stainless steel
Gears	Technopolymer
Index enclosure	UV resistant aluminium case suitable for outdoor installation

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

Table 2 Materials

iM-TM H turbine meters are designed to meet EN 12261 and 2014/32/EU (MID) requirements.



EN 12261



MID

The product is certified according to European Directive 2014/68/EU (PED), 2014/34/EU (ATEX).



PED



ATEX

iM-TM H competitive advantages



Removable metrological cartridge assembly



High performance aluminium alloy turbine wheel



Optimized bearing construction



Multi-stage integrated flow conditioners



Simplified maintenance and repair



Multi-functional Index



Lightweight aluminum bodies



Axial Load Compensation (ALC)



Suitable for 100% Hydrogen