




CNG VALVES

DESIGNED    IN ITALY
& MANUFACTURED

CNG VALVES

Tomasetto Achille designs and manufactures valves for CNG automotive systems, with Tomasetto trademark and with the trademarks of some important CNG systems manufactures.

CNG FILLING VALVES

Model

- VM04 Pico**
- VM04 NGV1**
- VM04 Russia**
- VM05**

CNG CYLINDER VALVES

Model

- VM01 Light**
- VM01 Vented**
- VM05 Automatic**





> CNG CYLINDER VALVES

VM01 LIGHT

MANUAL UNVENTED LIGHT VALVE

MAIN FEATURES

- available with integrated safety devices (thermofuse T-PRD + burst disc)
- available with excess flow valve
- extra version with higher flow and larger pipe connections
- Arm version with external threading



STANDARD



EXTRA



ARM

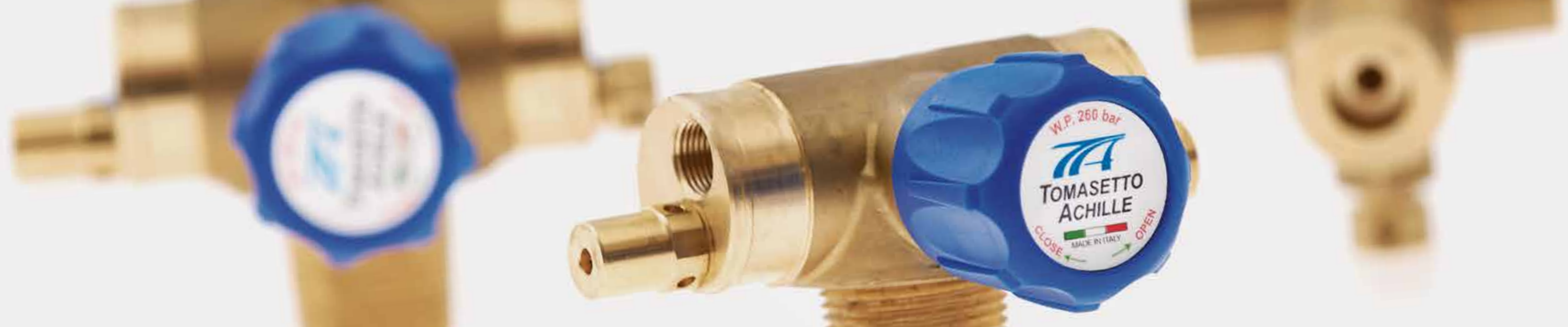
TECHNICAL DATA

	VM01 LIGHT	EXTRA	ARM
Material	Hot forged brass, CNC machined	Hot forged brass, CNC machined	Hot forged brass, CNC machined
Weight	0.35 kg	0.42 kg	0.40 kg
Type of product	Unvented CNG manual valve	Unvented CNG manual valve	Unvented CNG manual valve
Max. working pressure	26.0 MPa	26.0 MPa	26.0 MPa
Test pressure	27.5 MPa with burst disc (33.0 MPa without)	27.5 MPa with burst disc (33.0 MPa without)	27.5 MPa with burst disc (33.0 MPa without)
Hydraulic collapse pressure	→60 MPa	→60 MPa	→60 MPa
Working temperature	-40°C / 85°C	-40°C / 85°C	-40°C / 85°C
T-PRD activation temperature	+108°C ± 6°C	+108°C ± 6°C	+108°C ± 6°C
PRD Min. area of gas flow	28.3 mm ²	28.3 mm ²	28.3 mm ²
T-PRD activation time *	10 sec.	10 sec.	-
Burst disc Min. area of gas flow	33.2 mm ²	33.2 mm ²	33.2 mm ²
Burst pressure (T20°C) **	34 MPa ± 10%	34 MPa ± 10%	34 MPa ± 10%
Manual tap area of gas flow	12.6 mm ²	19.6 mm ²	19.6 mm ²
Manual tap tightening torque at 26MPa	3 ± 0.5 Nm	3 ± 0.5 Nm	3 ± 0.5 Nm
Manual tap opening/closing angle	90° (± 45°)	90° (± 45°)	90° (± 45°)
Excess flow valve - ΔP for activation	0.65 MPa	0.65 MPa	0.65 MPa
Pipe connection	M12x1 or 1/8" NPT	M14x1 or 1/4" NPT	M12x1 or 1/8" NPT
Cylinder thread	DIN, BS, NGT	DIN, BS, NGT	DIN, BS, NGT
External threading	-	-	1/2 GAS

* (with fire directed on PRD valve)
 ** upon request Burst pressure 41 or 30 MPa

HOMOLOGATIONS

E24 110R-000024 ISO15500



> CNG CYLINDER VALVES

VM01 VENTED

CNG CYLINDER MANUAL VENTED VALVE

MAIN FEATURES


- connection for valve ventilation
- 2D version with separated safety devices (thermofuse T-PRD + burst disc)
- 1D version with integrated safety devices
- excess flow valve



TECHNICAL DATA

	MANUAL VENTED
Material	Hot forged brass CNC machined
Weight	0.65 kg
Type of product	Vented CNG manual valve
Max. working pressure	26.0 MPa
Test pressure	27.5 MPa with burst disc (33.0 without)
Hydraulic collapse pressure	→100 MPa
Working temperature	-40°C / 85°C
T-PRD activation temperature	+108 °C ± 6 °C
T-PRD Min. area of gas flow	28.3 mm ²
T-PRD activation time (with directed fire)	10 sec.
Burst disc Min. area of gas flow	33.2 mm ²
Burst disc, Burst pressure (T 20°C) *	34 MPa ± 10%
Manual tap, min. area of gas flow	12.6 mm ²
Manual tap, Tightening torque at 26 MPa	3 ± 0.5 Nm
Manual tap, Opening/closing angle	90° (±45°)
Excess flow valve, ΔP for activation	0.65 MPa
Pipe connection	M12x1 (upon request 1/8" NPT)
Cylinder thread	DIN, BS, NGT

* upon request Burst pressure 41 or 30 MPa

HOMOLOGATIONS  110R-000024 ISO15500

> CNG CYLINDER VALVES

VM05 AUTOMATIC

CNG CYLINDER AUTOMATIC
VENTED VALVE

MAIN FEATURES



- high pressure solenoid valve
- connection for valve ventilation
- 2D version with separated safety devices (thermofuse T-PRD + burst disc)
- 1D version with integrated safety devices
- excess flow valve



TECHNICAL DATA

	AUTOMATIC
Material	Hot forged brass CNC machined
Weight	1.10 kg
Type of product	High pressure CNG cylinder valve
Max. working pressure	26.0 MPa
Test pressure	27,5 MPa with burst disc (33.0 without burst disc)
Hydraulic collapse pressure	→100 MPa
Working temperature	-40°C / +85 °C
T-PRD activation temperature	+108 °C ± 6 °C
T-PRD Min. area of gas flow	28.3 mm ²
T-PRD activation time (with directed fire)	10 sec.
Burst disc Min. area of gas flow	33.2 mm ²
Burst disc, Burst pressure (T 20°C) *	34 MPa ± 10%
Manual tap, min. area of gas flow	12.6 mm ²
Manual tap, Tightening torque at 26 MPa	3 ± 0.5 Nm
Manual tap, Opening/closing angle	90° (±45°)
Excess flow valve, ΔP for activation	0.65 MPa
Pipe connection	M12x1 (upon request 1/8" NPT)
Cylinder thread	DIN, BS, NGT, UNF
Solenoid valve, mi. area of gas flow	21.6 mm ²
Coil voltage	12 V DC (upon request 24 V)
Coil power	15 W
Solenoid valve opening ΔP	26 Mpa @ 8V
Coil connection	Minitimer (upon request amp superseal)

* upon request Burst pressure 41 or 30 MPa

HOMOLOGATIONS  110R-000030  10R-030582 ISO15500



> CNG FILLING VALVES

VM04 PICO

MANUAL FILLING VALVE WITH PICO

MAIN FEATURES

- New Zealand, Argentina, and Brazil Pico available
- provided with manual tap and easy discharge tap



TECHNICAL DATA

	VM04 WITH PICO
Material	Hot forged brass CNC machined
Weight	0.43 kg
Type of product	CNG manual filling valve
Max. working pressure	26.0 MPa
Working temperature	-40°C / 120°C
Manual tap, min. area of gas flow	12.6 mm ²
Manual tap, Tightening torque at 26 MPa	3 ± 0.5 Nm
Manual tap, Opening/closing angle	90° (±45°)
Non return valve	yes
Outlet pipe connection	M12x1 (upon request M14x1, 1/4" NPT, 1/8" NPT)
External pipe connection	1/2 G
Types of PICO	New Zealand, Brazil, Argentina

HOMOLOGATIONS  110R-000028

> CNG FILLING VALVES

VM04 NGV1

CNG FILLING VALVE WITH NGV1 CONNECTOR

MAIN FEATURES

- STANDARD type, with manual tap and non-return valve
- "T-BODY" type, without manual tap, with non-return valve
- available with NGV1 and NGV1 ITALIA connectors



STANDARD




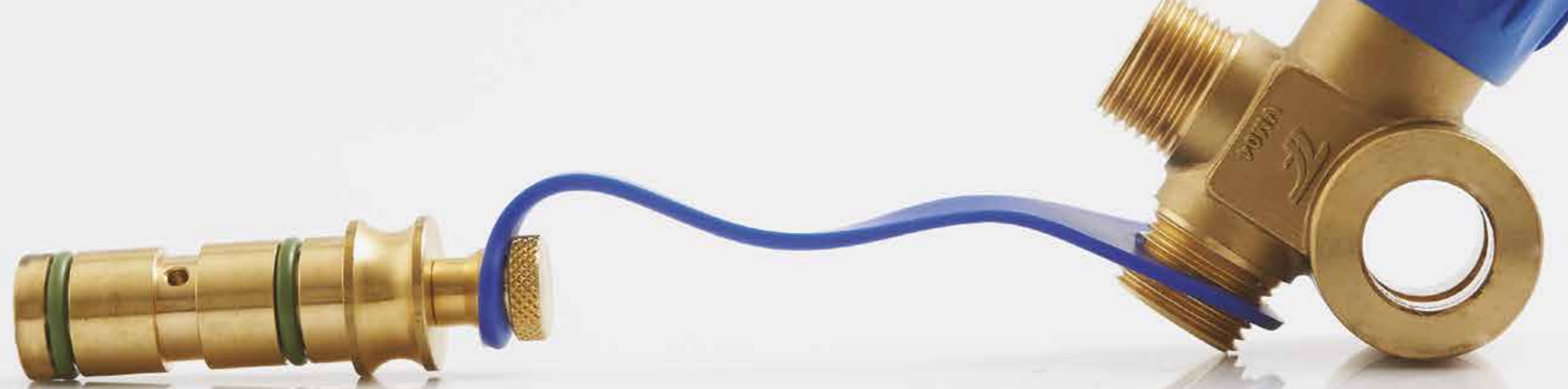
"T-BODY"

TECHNICAL DATA

	STANDARD	"T -BODY"
Material	Hot forged brass CNC machined	Hot forged brass CNC machined
Weight	0.4 kg	0.3 kg
Type of product	CNG manual filling valve	CNG manual filling valve
Max. working pressure	26.0 MPa	26.0 MPa
Working temperature	-40 °C / 120 °C	-40 °C / 120 °C
Manual tap, min. area of gas flow	12.6 mm ²	12.6 mm ²
Manual tap, Tightening torque at 26 MPa	3 ± 0.5 Nm	-
Manual tap, Opening/closing angle	90° (±45°)	-
Non return valve	yes	yes
Outlet pipe connection	M12x1 upon request M14x1, 1/4" NPT, 1/8" NPT	M12x1 (upon request M14x1, 1/4" NPT, 1/8" NPT)
External pipe connection	1/2 G	1/2 G
Types of connection	NGV1, NGV1 ITALIA	NGV1, NGV1 ITALIA

HOMOLOGATIONS

 110R-000028



> CNG FILLING VALVES

VM04 Russia

MAIN FEATURE

→ equipped with manual tap and easy discharge tap

MANUAL FILLING VALVE RUSSIAN TYPE



TECHNICAL DATA

	RUSSIAN TYPE
Material	Hot forged brass CNC machined
Weight	0.60 kg
Type of product	CNG manual filling valve
Max. working pressure	26.0 MPa
Working temperature	-40°C / 120°C
Manual tap, min. area of gas flow	12.6 mm ²
Manual tap, Tightening torque at 26 MPa	3 ± 0.5 Nm
Manual tap, Opening/closing angle	90° (±45°)
Non return valve	no
Outlet pipe connection	M12x1 (upon request M14x1, 1/4" NPT, 1/8" NPT)
External Pipe Connection	1/2" G

HOMOLOGATIONS  110R-000028



> CNG FILLING VALVES

VM05 PICO

CNG AUTOMATIC FILLING VALVE WITH PICO

MAIN FEATURES

- high pressure solenoid valve
- New Zealand, Argentina, and Brazil Pico available



TECHNICAL DATA

Material
Weight
Type of product
Max. working pressure
Working temperature
Manual tap, min. area of gas flow
Manual tap, Tightening torque at 26 MPa
Manual tap, Opening/closing angle
Non return valve
Outlet pipe connection
External pipe connection
Types of PICO
Solenoid valve, mi. area of gas flow
Coil voltage
Coil power
Solenoid valve opening ΔP
Coil connection

VM05 WITH PICO

Hot forged brass CNC machined
1,00 kg
CNG automatic filling valve
26.0 MPa
-40°C / 120°C
12.6 mm²
3 ± 0.5 Nm
900° (±45°)
yes
M12x1
1/2 G
NGV1 New Zealand, Brasile, Argentina
21,6 mm²
12 V DC*
15 W
26 Mpa @ 8V
AMP minitimer

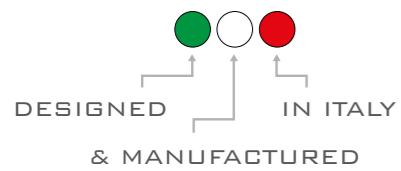
* upon request 24 V DC

HOMOLOGATIONS

Ⓔ24 110R-000030 Ⓔ24 10R-030582 ISO15500



CNG ACCESSORIES



Valves accessories



VM1022

Filling valve & cut-off valve fixing metal shaft



VM1023

CNG cylinder valve fixing accessories bag d.6



VM1024

Filling valve & cut-off valve accessories bag d.6



VM2043

1/2" flat nut



EM14010

Zinc-plated fitting M12x1



RMat3012

Zinc-plated double conical joint Ø6



VM1025

CNG cylinder valve fixing accessories bag d.6 for 2 tanks connection



VM1033

CNG cylinder valve fixing accessories bag d.8



VM1034

CNG cylinder valve fixing accessories bag d.8 for 2 tanks connection



VM2118

Zinc-plated double conical joint d.8

CNG ACCESSORIES

Valves accessories

Valves accessories



VM2084
Fitting for double conical joint d.6



VM2116
Fitting for double conical joint d.8



VM2099
Cap M12x1



VM4511
AMP minitimer wire mt. 4.5



MVAT3513
AMP super-seal solenoid wire mt.6



VM4524
VM01 manual vented and VM05 automatic valve locking wrench



VM2117
Cap M14x1



VM4538
VM01 LIGHT manual unvented valve locking wrench



VM4576
VM01 EXTRA manual unvented valve locking wrench

DESIGNED IN ITALY
& MANUFACTURED

> SOLENOID VALVES

VM05 cut-off

CNG HIGH PRESSURE CUT-OFF VALVE

MAIN FEATURES

- high pressure solenoid valve
- brass body
- comply with the ISO15500 standards



TECHNICAL DATA

	STANDARD	EXTRA
Material	Hot forged brass	Hot forged brass
Weight	0.5 kg	0.5 kg
Max inlet pressure	26 MPa	26 MPa
Working temperature	-40°C/+120°C	-40°C/+120°C
Solenoid voltage	12 V DC *	12 V DC *
Power dissipation	15 W	15 W
Coil connection	Amp Minitimer	Amp Minitimer
Internal connection	M12x1 pipe Ø 6 mm	M14x1 pipe Ø 8 mm
External connection	1/2 G	1/2 G

* 24 V DC upon request

Filter Kit code **VM1035**
Maintenance kit code **RMAT2172**



HOMOLOGATIONS

E24 110R-000030

E24 10R-030582

ISO15500



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