



Hydrogen Refueling System



Series HG



The WALTHER **high pressure refueling systems of the HG series** were developed for safe and fast refueling with gaseous hydrogen. The usual application is the refueling of vehicles with fuel cell drive up to an operating pressure of 875 bar. The refueling nozzles are tested and validated to SAE J2600 - 70 MPa, the worldwide standard of the refueling interface. WALTHER PRÄZISION has significantly contributed to the achievement of the standard and thus set the standard of high-pressure sealing in 2006. We are now offering a tried and tested technology for the mobility of the future.



Hydrogen Refueling System

Product Finder

Image	Discription	Features + options	Max. perm. stat. pressure* [bar]	Standard temperature** [°C]	Part number	Page
	Parking Station / Holster with integrated purging system "dry Connect", stainless steel plate version	Simple and safe parking of the nozzle, Actuation system to detect the correct parking		-40 to +85	HG-004-B-...-Y08/Y14	4
	Refueling Nozzle for gaseous hydrogen acc. to SAE J2600 70 Mpa with or without infrared module	Simple and reliable operation in push-pull technology, highest safety through pressure-active unlocking protection	875	-40 to +85	HG-004-0-...-Y16/Y17	6
	Emergency release coupler, shut-off valves, connection to hose set and dispenser	Non-destructive emergency separation at approx. 600 N, safe pressure reduction by using the venting tool	875	-40 to +85	HG-006-...-Y06	8
	Hose set for a reliable connection between the refueling nozzle and the emergency release coupling, length= 4,000 mm	Consisting of HD hose 70 MPa, IR cable with E-plug and protective hose	875	-40 to +50	95721-B-0007-AAAC	10
	Venting tool for the emergency release nipple for a safe pressure relief after separation	Easy operation by connecting to the emergency relase nipple and venting by turning the screw with suitable tools	875	-40 to +50	HG-006-B-...-Y01	11
	Refueling Receptacle for gaseous hydrogen acc. to SAE J2600, 70 MPa, connection inner thread 9/16-18 UNF 2B	Robust and reliable design for bulkhead connection and dust cap with tab	875	-40 to +85	HG-004-9-...-Y07	12

* The max. permissible static pressure depends on the chosen technical version.

** The suitability for temperature depends on the medium, operating pressure and the quick coupling materials used.

We would be happy to provide you with support and advice. Please contact us:



+49 (0) 2129 / 567-405



info@walther-praezision.de



Parking station/Holster HG-004



Characteristics	Benefits
Integrated purging system for nitrogen or dry air	A freezing of the refueling nozzle is thus safely prevented
High operating comfort and safe locking system	Misuse is impossible
Robust mechanical actuation to detect the correct parking of the nozzle	Simple and reliable proximity switch on customer side
Reliable protection of the refueling nozzle with front-side sealing	Damage is avoided, low service costs. Penetration of air, water or pollution is prevented.
Multiple mounting angles are possible	Adaptable design of the petrol station/dispenser



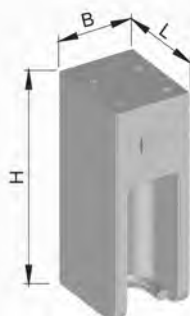
Parking station/Holster HG-004

Feature chart | Quick coupling systems

	Technical feature	WEDISO	Additional options
Standard	End connection G 1/4 female thread as interface to connect gas supply with nitrogen or dry control air Actuator system "fuelling coupling parked" for detection by customer-provided initiator Easy assembly via a provided mounting plate which can also be used as a template Mounting angle arbitrary	Material AAAT: aluminium, POM-C, black AAAV: stainless steel, POM-C, black Seals FKM	Individual choice of colours possible
Optional	Alternatively we offer a parking station made of high quality aluminium full material design	Other material on request	

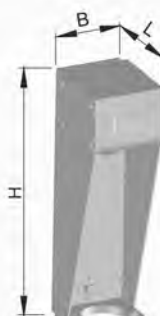
HG-004-B-Y08

Full material aluminium housing



HG-004-B-Y14

Stainless steel plate housing



Product chart | Quick coupling systems

NB	Product type	A	B	H	L	ID-nr.	Part number
	Parking station	BSPP 1/4	110	305	135	115782	HG-004-B-00004-AAAT-Y08
	Parking station	BSPP 1/4	92	306	109	146061	HG-004-B-00006-AAAV-Y14

NB - Nominal bore [mm] A - Connection for gas supply B - Width [mm] H - High [mm] L - Length [mm]



Refuelling nozzle HG-004



Characteristics	Benefits
Double locking technology	Ensurance of a high level of safety due to reliable lock
Pressure-active release lock (form fit)	Disconnecting under pressure is safely prevented
Infrared module can be exchanged locally	Maintenance and service friendly = low service costs
Scraper ring at the front removes moisture and dirt between connecting	Penetration of dirt and moisture is prevented
Ergonomic design with push/pull technology	Simple and reliable operation = high customer acceptance



Refuelling nozzle HG-004

Feature chart | Quick coupling systems

	Technical feature	WEDISO	Additional options
Standard	High protection by dual locking technology and pressure-active safety lock Suitable for Ultracoldfill until -40° C gas temperature Designed with and without IR technology according to SAE J2601 and ATEX conformity End connection 9/16-18 UNF male thread for HD hose	Material Stainless steel , POM-C black/blue, special Seals H₂ resistant	BB = manufacturing according to DIN EN 10204-3.1 Y16 = with infrared interface Y17 = without infrared interface
Optional	IR module can be exchanged on the spot Fully-developed technology applied since 2003 Tested and validated according to SAE J2600-2002	Other materials on request	

HG-004-0-Y16/Y17

High pressure refuelling nozzle



Product chart | Quick coupling systems

NB	Product type	A	D	D1	L	ID-nr.	Part number
4	Refueling nozzle	9/16-18 UNF with sealing cone	65	50	319	160627	HG-004-0-XX004-AABA-Y16-BB
4	Refueling nozzle	9/16-18 UNF with sealing cone	65	50	319	160886	HG-004-0-XX004-AABA-Y17-BB

NB - Nominal bore [mm] A - Connection D/D1 - Diameter [mm] L - Length [mm]



Emergency-release coupling HG-006



Characteristics	Benefits
Unique and IP protected system with integrated pressure compensation	Blow-back proven design and close to power-neutral emergency release
Large deflection in all directions due to rope suspension	Reliable initiation of the necessary emergency release forces
Non-destructive emergency release, without breaking	Quick and easy restoring of the operational readiness
Venting with special utility tool	Highest level of security at emergency release



Emergency-release coupling HG-006

Feature chart | Quick coupling systems

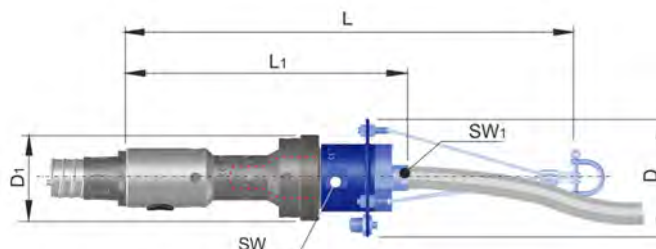
	Technical feature	WEDISO	Additional options
Standard	Suitable for Ultracoldfill until -40° C gas temperature Reception for emergency separation e-plug IR signals Impact protection Consistent emergency separation force by unique design principle Connectable with venting tool for safe ventilation after an emergency separation	Material Stainless steel, PUR, special Seals H ₂ resistant	BB = manufacturing according to DIN EN 10204-3.1
Optional	After an emergency separation, simple recovery of availability by manual connection Safe initiation of emergency separation force by reliable deviation of suspension	Other materials on request	

IR cable L = 5 m for connection at fuelling station

HG-006-2-XX002-AAAL-Y06-BB: emergency separation coupling, adaptor side, shutting off for connection to the hose package, type 95721

HG-006-0-XX004-AAAK-Y06-BB: emergency separation coupling, shutting off for connection to the fuelling station (flexible connecting line provided by customer)

HG-006-B-0002-AAAD-Y01-BB: venting tool for safe ventilation via the emergency separation coupling, adaptor side, connectable with HG-006-2-..Y..



Fueling connection

Product chart | Quick coupling systems

NB	Product type	A	SW	SW1	D	D1	L	L1	ID-nr.	Part number
6	Emergency-release female side	HP end connection female thread with sealing cone, 9/16-18 UNF-2B Nova Swiss 3/8"	60	21	110		417	260	144413	HG-006-0-XX004-AAAK-Y06-BB
6	Emergency-release male side	9/16-18 UNF with sealing cone (HD hose), M40 x 1,5 mm (protection hose)				80	417	260	144414	HG-006-2-XX002-AAAL-Y06-BB

NB - Nominal bore [mm] A - Connection SW/SW1 - Wrench size [mm] D/D1 - Diameter [mm] L/L1 - Length [mm]

Hose package 95721

Feature chart | Quick coupling systems



Technical features	Hose set L = 4,000 mm for connection of refueling nozzle with emergency release coupling Protection hose is pricked so that condensation water can run off
WEDISO standard	Protection hose made of high-quality PUR, HD hose - plastic with stainless steel wire reinforcement, discharge capable, metal seal HD hose
WEDISO optional	Other materials on request
Additional options	BB = manufacturing according to DIN EN 10204-3.1



Product chart | Quick coupling systems

NB	Product type	A	L	ID-nr.	Part number
4	Hose lines	HD hose: 9/16-18 UNF M-Swivel protection hose: M40 x 1,5, cable 5-way double- sided M12 E-plug / emergency separation plug	4000	121137	95721-B-00007- AAAC

NB - Nominal bore [mm] A - Connection L - Length [mm]



Venting tool HG-006

Feature chart | Quick coupling systems



Technical features	Safe ventilation of emergency separation coupling (hose side) after an emergency separation
WEDISO standard	Material Stainless steel, bronze
WEDISO optional	Other materials on request
Additional options	BB = manufacturing according to DIN EN 10204-3.1

Product chart | Quick coupling systems

NB	Product type	A	ID-nr.	Part number
	Tool		85108	HG-006-B-00002-AAAD-Y01-BB



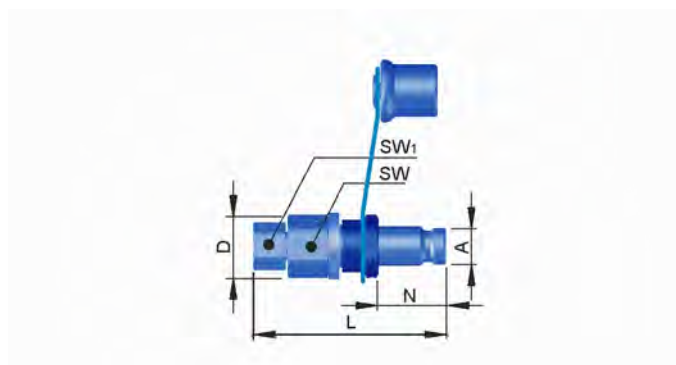
Refueling Receptacle HG-004

Feature chart | Quick coupling systems



Technical features	Suitable for Ultracoldfill until -40° C gas temperature Interfaces to the vehicle for bulkhead 2 - 4 mm and reception IR transmitter Available with different high pressure end connections No maintenance necessary due to high-quality materials including dust cap made of PUR Successfully tested according to: TRANS/WP.29/GRPE/2004/3 Part 1 resp. EIHP 12B; SAE J2600-2002/70 MPa
WEDISO standard	Material Stainless steel, PUR Special seals H₂ resistant
WEDISO optional	Other materials on request
Additional options	BB = manufacturing according to DIN EN 10204-3.1

High pressure refueling receptacle, SAE J2600, 70 MPa



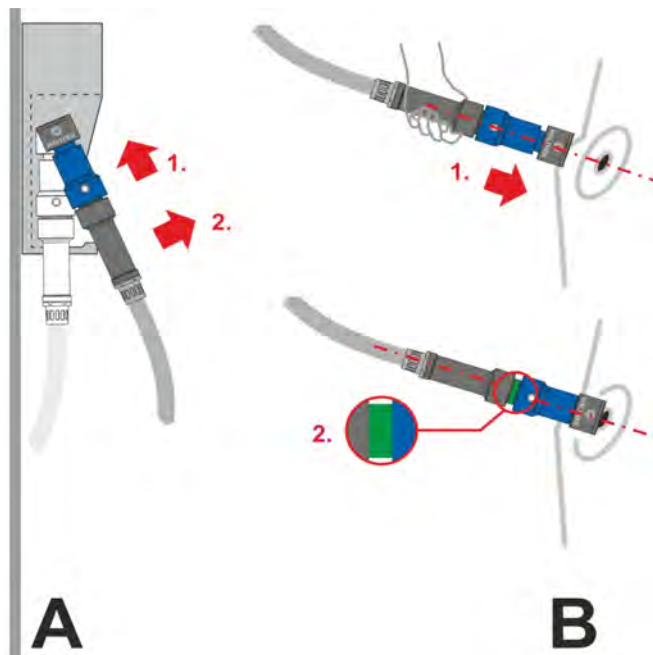
Product chart | Quick coupling systems

NB	Product type	A	SW	SW1	D	L	N	ID-nr.	Part number
4	Refuelling Receptacle	23 mm	36	32	42	121	40	98432	HG-004-9-SA514-AAAL-Y07-BB

NB - Nominal bore [mm] **A** - Connection **SW/SW1** - Wrench size [mm] **D** - Diameter [mm] **L** - Length [mm] **N** - Adaptor length [mm]



Description of the refueling process

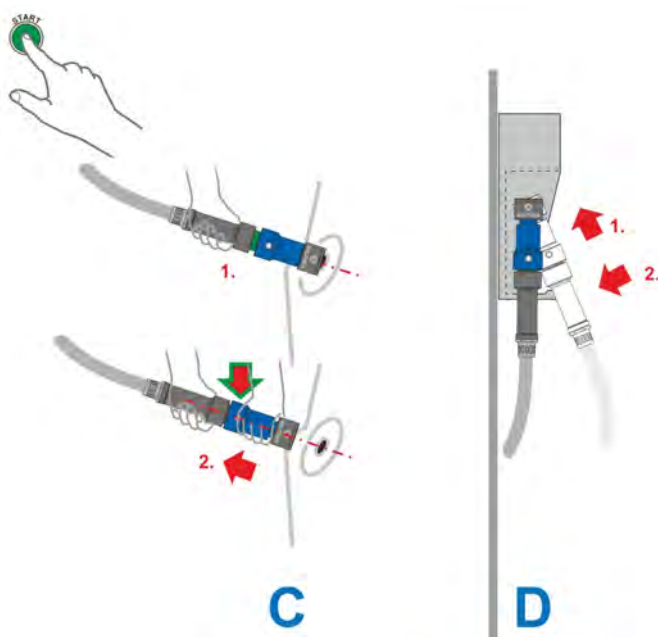


Step A - Start refueling process

1. Hold on to the black grip and push the nozzle upwards
2. Remove the nozzle out of the parking station

Step B - Engage nozzle with receptacle

1. To connect push the nozzle straight onto the receptacle
 2. A green ring signals a successful lock on
- The nozzle is ready for refueling!



Step C - Start refueling

Start the refueling process at the dispenser and wait 3-5 minutes for a full load of Hydrogen (70 Mpa) □

Step D - Disengage nozzle from receptacle

1. Hold on to the black grip
2. Push the white button and pull the blue sleeve backwards over the green ring with the free hand



Worldwide in operation for our customers



Austria

France

Korea

Canada

Germany

Netherlands

Denmark

Japan

Singapore

USA



Safety instructions and liability



Liability

WALTHER-PRÄZISION assumes no liability and makes no guarantees for the completeness, accuracy and topicality of the information made available in its print media, Internet presence and operating manuals. All specifications in the catalogue are subject to change. Changes and errors excepted. The same applies to images.

Due to the different working modes and the versatile applications of quick coupling systems, WALTHER-PRÄZISION cannot guarantee with its dealership network that a particular quick coupling system is suitable for each specific application. Not all technical details to be considered during the selection of a quick coupling system are analysed. The user is personally responsible for the following after conducting their own analyses.

- For the safe operation and the observance of maintenance and servicing.
- The selection of their quick coupling system.
- Meeting the end user requirements.
- The safety precautions that are necessary during the use of quick coupling systems to prevent personal injury and property damage.
- Independent technical alterations.

Safety instructions

Our extensive safety instructions can be found on our website under "Service" or by using the provided QR code.



Pressure Equipment Directive

In accordance with the Pressure Equipment Directive 2014/68/EU of the European Union can the series HG be classified as pressure-maintaining component. The series HG is conform according to the classification of the Pressure Equipment Directive and is delivered with CE mark.



© WALTHER-PRÄZISION
Subject to modifications, errors excepted
1043 / D / 200

WALTHER-PRÄZISION

Carl Kurt Walther GmbH & Co. KG

Hausadresse / Head office:

Westfalenstrasse 2
42781 Haan, Germany

T +49 (0) 21 29 / 567-0
F +49 (0) 21 29 / 567-450

Postadresse / Postal address:

PF / P.O. Box 420444
42404 Haan, Germany

E info@walther-praezision.de
W www.walther-praezision.de



Choose the Original
Choose Success!

