



## Data Sheet | Refueling Nozzle | HG-008 | 35 MPa NF

The WALTHER high pressure refueling system of the HG series is developed for safe and fast refueling with gaseous hydrogen. The usual application is the refueling of hydrogen driven vehicles up to an operating pressure of 87.5 MPa / 12,688 psi. The refueling nozzles are tested and validated

according to SAE J2600 and ISO 17268, the worldwide standards for refueling interfaces. Since 2006 WALTHER-PRÄZISION has significantly contributed to set the standards for high-pressure hydrogen technology, offering today validated systems for the mobility of the future.

### Refueling Nozzle HG-008

for gaseous hydrogen according to SAE J2600, ISO 19880, ISO 17268 and HGV 4.1; normal flow (NF)



up to 35 MPa

-40° C up to 85° C

#### Characteristics:

- Double locking technology
- Pressure-active locking system (form fit)
- IR module exchangeable on-site
- Ergonomic design with push-pull technology
- Correctly coupled indication

#### Benefits:

- Locking before valve opens
- Disconnecting under pressure safely prevented
- Maintenance and service friendly = low service costs
- Simple and reliable operation = high customer acceptance
- Visual check "safely connected"

#### Complementary equipment:

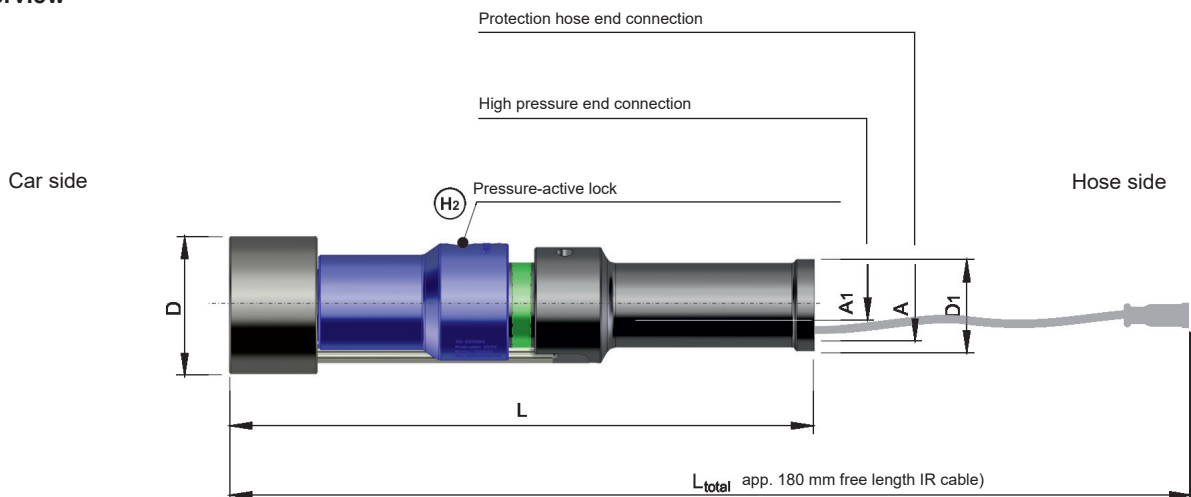
- Hose set
- Parking station
- Breakaway coupling
- Service tools



## Technical Data | Refueling Nozzle | HG-008 | 35 MPa NF

Properties	Detailed information	Standard variant	Special variants	
Technical features	Type	HG-008-0-XX005-NBAA-Y016-BB-S035	see „Variants available“	
	Nominal diameter	8 mm		
	Nominal working pressure	35 MPa (acc. to ISO 19880)		
	Maximum allowable operating pressure	43,8 MPa (acc. to ISO 19880)		
	Maximum allowable working pressure	48,12 MPa (acc. to ISO 19880)		
	Temperature range	-40° C up to 85° C		
	Cv-Value	0,55		
	Volume	22 cm <sup>3</sup>		
	Dead space volume	3 cm <sup>3</sup>		
	Volume flow	0,132 l/min		
	Mass flow	30 g/s		
	IR-Module	With ATEX / NEC certificate cable length 500 mm		<ul style="list-style-type: none"> <li>• Without IR device</li> <li>• With KTL certificate, cable length 500 mm</li> <li>• With KTL certificat, cable length 6000 mm</li> <li>• With CCC certificate, cable length 500 mm</li> </ul>
	Elektrical resistance	< 1000 Ohm acc. to ISO 17268		
	Leakage rate	< 1 x 10 <sup>-4</sup> mbar <sup>3</sup> /l/s (He)		
Coupling type	Type C acc. to SAE J2600 / ISO17268			
Materials	Pressure bearing parts	1.4404 / 1.4571 / 1.4980 or equivalent		
	Sealing	PEEK / TPU		
	Housing	POM		
	Other parts	1.4301 / 2.0966 / 2.4610 / 3.4365		
Dimensions	Length / Diameter	320 mm x Ø 75 mm		
Lubricants	for sealings	Barrierta L 25 DL		
Connections	Process line	9/16"-18 UNF; 37° outside sealing	9/16"-18 UNF; 60° inside sealing 7/16"-20 UNF; 37° outside sealing	
	Protection hose	M40 x 1,5		
	Electrical connection for IR-Module	M12 x 1; 4 pins - axial		
	Flushing connection	No	4 mm fast coupling for compressed air hose	
Certificates standards	Certificates	Manufacturer certificate ISO 10204-3.1 declaration of conformity PED		
	Standards	SAE J2600, SAE J2799, ISO 17268, ISO 19880, HGV 4.1		
Maintenance	Interval	2 years or 10.000 cycles		

### Overview





## Variants available | Refueling Nozzle | HG-008 | 35 MPa NF

Product type	A	A1	D / D <sub>1</sub> [mm]	L / L <sub>total</sub> [mm]	Nominal / maximal- pressure [MPa]	Weight [kg]	ID	Part number	Cable length [mm]
35 MPa - NF* Refueling Nozzle (ATEX, NEC)	M40 x 1,5	9/16-18 UNF with sealing cone 60°	75 / 50	600	35 / 43,8	1,82	227979	HG-008-0-XX002- NBAA-Y016-BB-S035	500
35 MPa - NF* Refueling Nozzle (ATEX, NEC)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,82	237912	HG-008-0-XX005- NBAA-Y016-BB-S035	500
35 MPa - NF* Refueling Nozzle (ATEX, NEC)	M40 x 1,5	7/16-20 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,82	238811	HG-008-0-XX010- NBAA-Y016-BB-S035	500
35 MPa - NF* Refueling Nozzle (KTL)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,82	237783	HG-008-0-XX005- NBAA-Y016-BB- A0086-S035	500
35 MPa - NF* Refueling Nozzle (KTL)	M40 x 1,5	7/16-20 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,82	238813	HG-008-0-XX010- NBAA-Y016-BB- A0086-S035	500
35 MPa - NF* Refueling Nozzle (KTL)	M40 x 1,5	7/16-20 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,88	238814	HG-008-0-XX010- NBAA-Y019-BB- A0086-S035	6000
35 MPa - NF* Refueling Nozzle (CCC)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,82	238272	HG-008-0-XX005- NBAA-Y016-BB- A0151-S035	500
35 MPa - NF* Refueling Nozzle (CCC)	M40 x 1,5	7/16-20 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,82	238815	HG-008-0-XX010- NBAA-Y016-BB- A0151-S035	500
35 MPa - NF* Refueling Nozzle (without IR Module)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,72	238271	HG-008-0-XX005- NBAA-Y017-BB-S035	500
35 MPa - NF* Refueling Nozzle (without IR Module)	M40 x 1,5	7/16-20 UNF with sealing cone 37°	75 / 50	600	35 / 43,8	1,72	238812	HG-008-0-XX010- NBAA-Y017-BB-S035	500

\* NF = Normal flow / HF = High flow | Standard  

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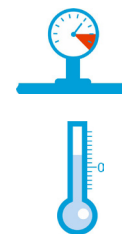
# Data Sheet | Refueling Nozzle | HG-008 | 35 MPa HF

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## Refueling Nozzle HG-008

for gaseous hydrogen according to SAE J2600, ISO 19880, ISO 17268 and HGV 4.1; high flow (HF)



up to 35 MPa

-40° C up to 85° C

### Characteristics:

- Double locking technology
- Pressure-active locking system (form fit)
- IR module exchangeable on-site
- Ergonomic design with push-pull technology
- Correctly coupled indication

### Benefits:

- Locking before valve opens
- Disconnecting under pressure safely prevented
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### Complementary equipment:

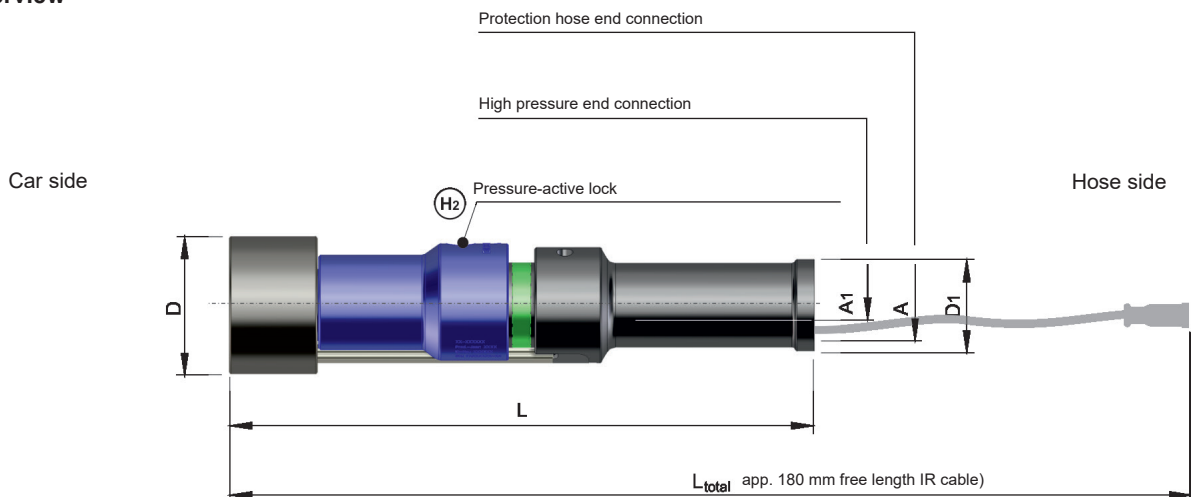
- Hose set
- Parking station
- Breakaway coupling
- Service tools



## Technical Data | Refueling Nozzle | HG-008 | 35 MPa HF

Properties	Detailed information	Standard variant	Special variants	
Technical features	Type	HG-008-0-XX005-NBAA-Y016-BB-THF-S035	see „Variants available“	
	Nominal diameter	8 mm		
	Nominal working pressure	35 MPa (acc. to ISO 19880)		
	Maximum allowable operating pressure	43,8 MPa (acc. to ISO 19880)		
	Maximum allowable working pressure	48,12 MPa (acc. to ISO 19880)		
	Temperature range	-40° C up to 85 °C		
	Cv-Value	0,55		
	Volume	22 cm <sup>3</sup>		
	Dead space volume	3 cm <sup>3</sup>		
	Volume flow	0,528 l/min		
	Mass flow	120 g/s		
	IR-Module	With ATEX / NEC certificate cable length 500 mm		<ul style="list-style-type: none"> <li>• Without IR device</li> <li>• With KTL certificate, cable length 500 mm</li> <li>• With KTL certificat, cable length 6000 mm</li> <li>• With CCC certificate, cable length 500 mm</li> </ul>
	Elektrical resistance	< 1000 Ohm acc. to ISO 17268		
Leakage rate	< 1 x 10 <sup>-4</sup> mbar*l/s (He)			
Coupling type	Type C acc. to SAE J2600 / ISO17268			
Materials	Pressure bearing parts	1.4404 / 1.4571 / 1.4980 or equivalent		
	Sealing	PEEK / TPU		
	Housing	POM		
	Other parts	1.4301 / 2.0966 / 2.4610 / 3.4365		
Dimensions	Length / Diameter	320 mm x Ø 75 mm		
Lubricants	for sealings	Barrierta L 25 DL		
Connections	Process line	3/4"-16 UNF; 37° outside sealing	9/16"-18 UNF; 60° inside sealing 9/16"-18UNF; 37° outside sealing	
	Protection hose	M40 x 1,5		
	Electrical connection for IR-Module	M12 x 1; 4 pins - axial		
	Flushing connection	No	4 mm fast coupling for compressed air hose	
Certificates standards	Certificates	Manufacturer certificate ISO 10204-3.1 declaration of conformity PED		
	Standards	SAE J2600, SAE J2799, ISO 17268, ISO 19880, HGV 4.1		
Maintenance	Interval	2 years or 10.000 cycles		

### Overview





## Variants available | Refueling Nozzle | HG-008 | 35 MPa HF

NB	Product type	A	A <sub>1</sub>	D / D <sub>1</sub> [mm]	L [mm]	Nominal / maximal- pressure [MPa]	Weight [kg]	ID	Part number	Cable length [mm]
8	35 MPa - HF* Refueling Nozzle (ATEX, NEC)	M40 x 1,5	9/16-18 UNF with sealing cone 60°	75 / 50	319	35 / 43,8	1,82	233430	HG-008-0-XX005- NBAA-Y016-BB- THF-S035	500
8	35 MPa - HF* Refueling Nozzle (ATEX, NEC)	M40 x 1,5	3/4-16 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,82	238817	HG-008-0-XX012- NBAA-Y016-BB- THF-S035	500
8	35 MPa - HF* Refueling Nozzle (KTL)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,82	238274	HG-008-0-XX005- NBAA-Y016-BB- THF-A0086-S035	500
8	35 MPa - HF* Refueling Nozzle (KTL)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,88	238275	HG-008-0-XX005- NBAA-Y019-BB- THF-A0086-S035	6000
8	35 MPa - HF* Refueling Nozzle (KTL)	M40 x 1,5	3/4-16 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,88	238819	HG-008-0-XX012- NBAA-Y016-BB- THF-A0086-S035	500
8	35 MPa - HF* Refueling Nozzle (KTL)	M40 x 1,5	3/4-16 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,88	238820	HG-008-0-XX012- NBAA-Y019-BB- THF-A0086-S035	6000
8	35 MPa - HF* Refueling Nozzle (CCC)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,82	238276	HG-008-0-XX005- NBAA-Y016-BB- THF-A0151-S035	500
8	35 MPa - HF* Refueling Nozzle (CCC)	M40 x 1,5	3/4-16 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,82	238821	HG-008-0-XX012- NBAA-Y016-BB- THF-A0151-S035	500
8	35 MPa - HF* Refueling Nozzle (without IR Module)	M40 x 1,5	9/16-18 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,72	238273	HG-008-0-XX005- NBAA-Y017-BB- THF-S035	500
8	35 MPa - HF* Refueling Nozzle (without IR Module)	M40 x 1,5	3/4-16 UNF with sealing cone 37°	75 / 50	319	35 / 43,8	1,72	238818	HG-008-0-XX012- NBAA-Y017-BB- THF-S035	500

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