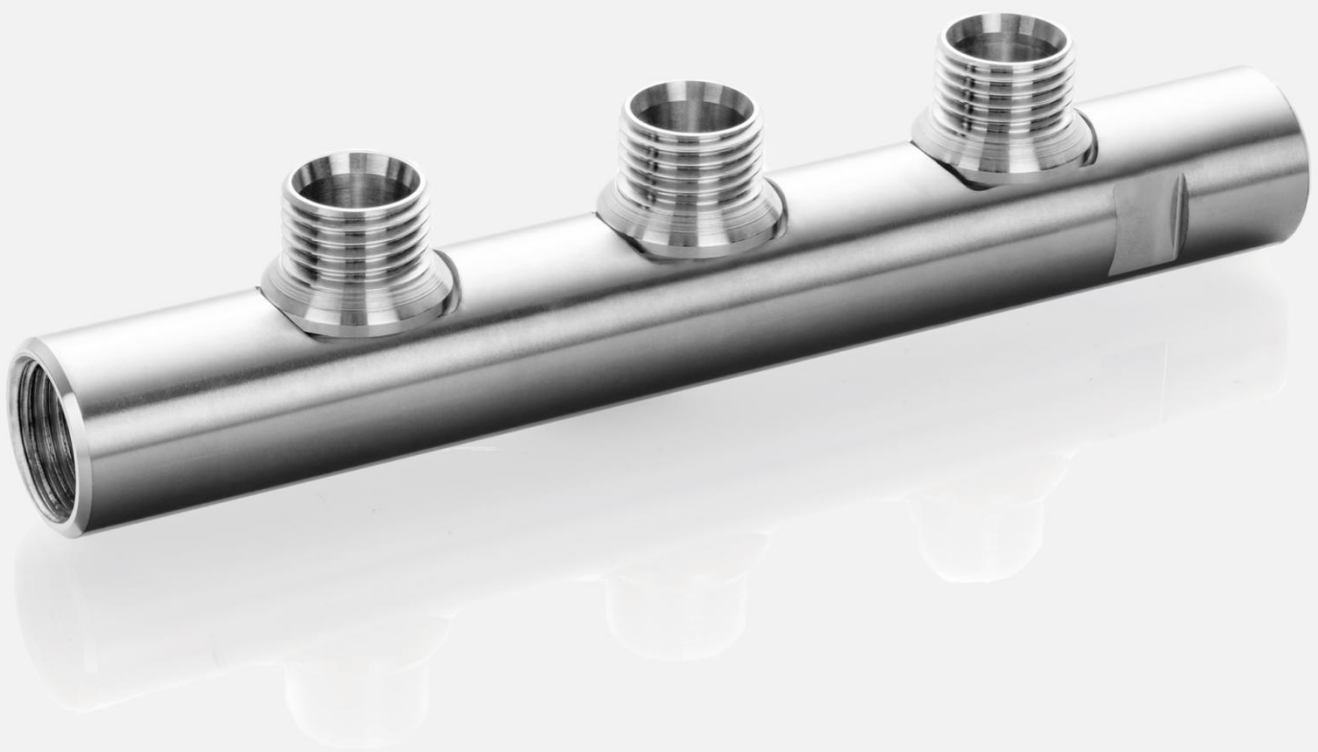
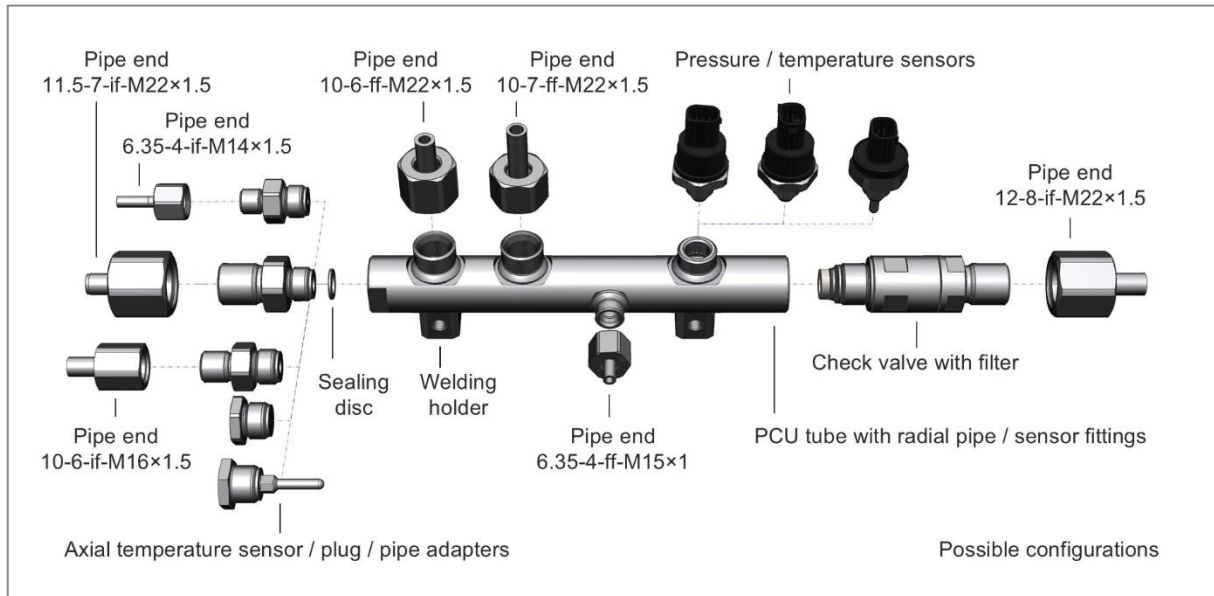


Product data sheet



TOPAQ Parallel Charging Unit (PCU)

Product specification



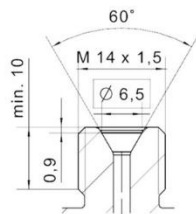
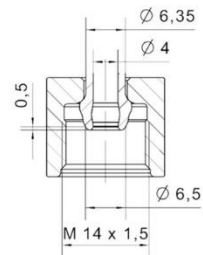
P+P's Parallel Charging Unit (PCU) is used for the homogeneous distribution of hydrogen within a storage and distribution system of vehicles or stationary applications, e.g. during the simultaneous fueling of several gas storage tanks.

By varying the PCU dimensions and numbers and positions of the pipe fittings, it is possible to meet the customer's specifications and installation space requirements in the best possible way.

Axial pipe interfaces

Integrated female interface

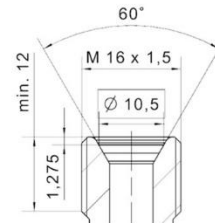
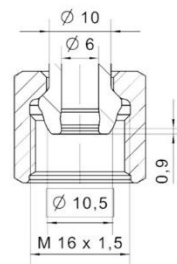
016584



022038

Integrated female interface

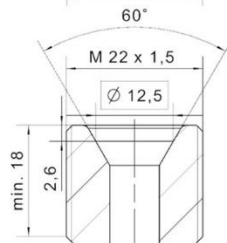
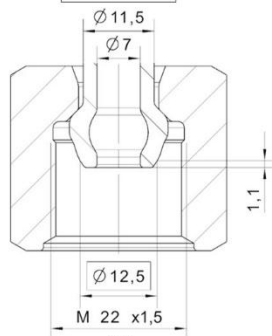
020542



018786

Integrated female interface

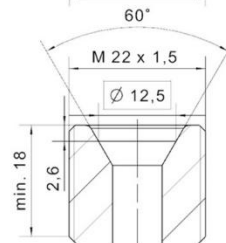
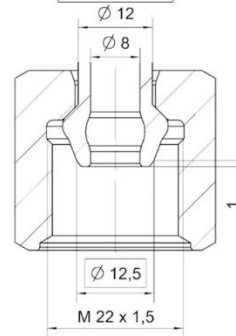
026526



022790

Integrated female interface

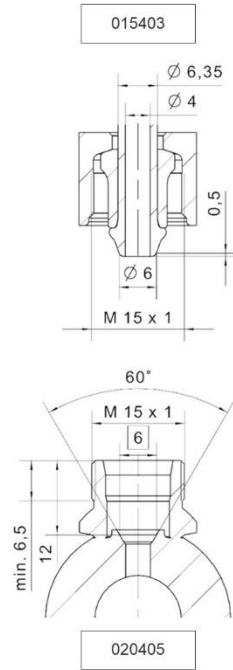
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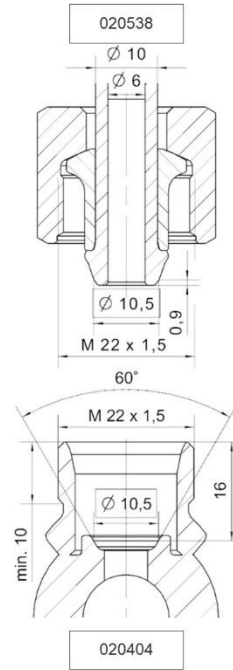
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Radial pipe interfaces

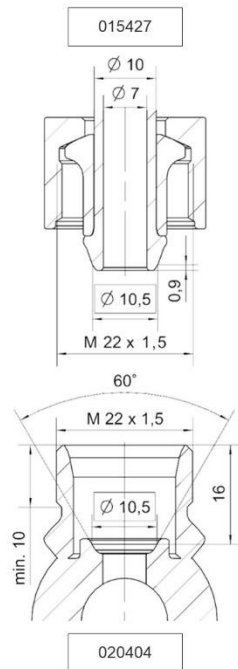
Fabricated female interface



Fabricated female interface



Fabricated female interface



Technical features

The following variants are currently under validation at P+P:

Parallel Charging Unit (PCU)	
Technical data	
Inner PCU tube diameter (ID)	14 mm
Outer PCU tube diameter (OD)	30 mm
Length PCU	up to 1000 mm
Max. number of interfaces in longitudinal axis	20 @ 1000 mm PCU length (min. distance of 45 mm between interfaces)
Material	PPH2 ¹⁾
Surface protection	Zn-Ni
Sealing type	Metal-to-metal, O-ring (depending on configuration)
Interfaces Attachment parts	
Radial pipe interfaces	Pipe OD 6.35 mm / 10 mm
Axial pipe interfaces (via adapter)	Pipe OD 6.35 mm / 10 mm / 11.5 mm / 12 mm
Temperature and pressor sensor	configurable
Check valve and filter	configurable
Welding holder	configurable
Operating conditions	
Operating temperature	-60 to +120 °C (depending on configuration)
Nominal working pressure	350 or 700 bar (depending on configuration)
Medium	Hydrogen
Leakage rate	<10 Ncm ³ /h

1) PPH2 is a protected designation of the Poppe + Potthoff Präzisionsstahlrohre GmbH

Standards & safety information

The product may only be used after installation by qualified personnel according to the corresponding installation guide. A general reliability of the component is given by tests according to the following standards. Suitability for special applications may require more specific tests. Storage concept and period must be agreed between P+P and end customer.

NOTE

Only to use with dry hydrogen according to DIN EN 17124 (3.7 or higher). Under all circumstances avoid contact with moist and/or water on the inner surface due to the risk of corrosive effects.

Acc. to ISO 19887 resistance to galvanic corrosion shall be taken under consideration when joining components containing dissimilar materials.

Make sure to not combine any materials that pose a risk of contact corrosion according to the galvanic series. If possible, only combine materials of the same type. For further information contact the manufacturer and define risk assessment.

Standards

Global

ISO 19887:2024

Tests on request

Europe

EC 79/2009 / EU406/2010

Certified resp. tests passed²⁾

2) Certified for 6.35×4 and 10×7 PPH2 pipes, tests passed for 10×6 PPH2 pipes as the possibility for EC 79/2009 / EU406/2010 certification expired July 2022. Interface design for other pipe dimensions according to P+P design guidelines, which have been approved by selected and successfully tested interfaces in accordance with the referenced standards.

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TOPAQ is a Poppe + Potthoff brand

