

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Herose GmbH Armaturen und Metalle
Address	Elly-Heuss-Knapp-Str. 12, Bad Oldesloe, 23843, Germany
Type	Valves - General
Description	Strainer, check valves and divertor valves for cryogenic service made of materials stainless steel or bronze with soft seals, welded, flanged or threaded connection types available. Types 08416, 08432, 08716, 08717, 08732 – Strainer, 05417, 05419, 05714, 05717, 05719 – Check valves, 06520, 06521, 06530, 06531 – Divertor valves
Trade Name	Cryogenic-Strainer, Check Valves and Divertor Valves
Application	LNG and cryogenic service on board of ships classed or intended for classification with Lloyd's Register.
Specified Standard	Lloyd's Register's Rules and Regulations for the Classification of Ships, 2019; Lloyd's Register's Rules and Regulations for the Construction and Classification of for the Carriage of Liquefied Gases in Bulk, 2019; BS 6364

71 Fenchurch Street, London, EC3M 4BS,
United Kingdom

Torsten Schroeder

Senior Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Type Approval Certificate

Ratings	see Appendix
Other Conditions	Not to be used for emergency shut down or terminal (end of pipe) applications for flammable fluids. The manufacturer's operating and maintenance instructions are to be sought.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document No. HTS/ENS 33076-15, Issue No. 1 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS,
United Kingdom

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Appendix

RATINGS:	Type:	Size:	Pressure:	Connection:
	Strainer			
	08416	DN10-DN50	PN50	threaded
	08432	DN15-DN150	PN40 / Class300	flanged
	08716	DN10-DN50	PN50	threaded
	08717	DN10-DN150	PN40 / Class300	butt and socket welded
	08732	DN15-DN150	PN40 / Class300	
	Check valves			
	05417	DN10-DN50	PN50	threaded
	05419	DN15-DN150	PN40 / Class300	flanged
	05714	DN10-DN150	PN50; DN150 PN40	butt and socket welded
	05717	DN10-DN50	PN50	threaded
	05719	DN15-DN150	PN40 / Class300	flanged
	Divertor valves			
	06520	DN20	PN50	threaded
	06521	DN20	PN50	threaded
	06530	DN20	PN50	threaded
	06531	DN20	PN50	threaded

*) maximum set pressures only for small sizes, pressure reduction for upper size range as per manufacturers data sheets

Temperature range: -196°C to +120°C for valves/strainers of 1.4308,
 -255°C to +120°C for valves /strainers of 1.4409