

APPROVAL CERTIFICATE

DNV·GL

This is to certify, that the undernoted products have been approved in accordance with the relevant requirements of the DNV GL Approval System.

Certificate No.	94 895 - 10 HH																																										
Company	Festo AG & Co. KG Ruiter Straße 82 73734 Esslingen, GERMANY																																										
Product	PNEUMATIC COMPONENTS COMPRESSED AIR SERVICE UNITS																																										
Type	PRESSURE REGULATOR LR-...-D-..., BRANCHING MODULE FRM-...-D-..., ON/OFF VALVE HE-...-D-...-24/-110																																										
Technical Data / Application	<table> <thead> <tr> <th>TECHNICAL DATA</th> <th>LR-D</th> <th>FRM-D</th> <th>HE-D</th> </tr> </thead> <tbody> <tr> <td>Type</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Connection</td> <td></td> <td>G1/8 to G1</td> <td></td> </tr> <tr> <td>Press. Range [bar]</td> <td>0.5 to 12 or 7</td> <td>-</td> <td>-</td> </tr> <tr> <td>Supply press. [bar]</td> <td>0 to 16</td> <td>0 to 16</td> <td>0 to 16</td> </tr> <tr> <td>Supply press. MICRO [bar]</td> <td>1 to 10</td> <td>-</td> <td>-</td> </tr> <tr> <td>Temp. Range [°C]</td> <td></td> <td>-10 to 60</td> <td></td> </tr> <tr> <td>Housing</td> <td>die-cast Zn</td> <td>die-cast Al</td> <td>die-cast Al</td> </tr> <tr> <td>Housing MICRO</td> <td>ABS</td> <td>-</td> <td>-</td> </tr> <tr> <td>Seals</td> <td></td> <td>NBR</td> <td></td> </tr> </tbody> </table>			TECHNICAL DATA	LR-D	FRM-D	HE-D	Type				Connection		G1/8 to G1		Press. Range [bar]	0.5 to 12 or 7	-	-	Supply press. [bar]	0 to 16	0 to 16	0 to 16	Supply press. MICRO [bar]	1 to 10	-	-	Temp. Range [°C]		-10 to 60		Housing	die-cast Zn	die-cast Al	die-cast Al	Housing MICRO	ABS	-	-	Seals		NBR	
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Approval Standard	<p>RANGE OF APPLICATION The above mentioned cylinders are approved for compressed air systems belonging to pipe class III under consideration of the GL Rules for Classification and Construction I. Ship Technology, Part 1, Chapter 2, Section 11 as applicable.</p> <ul style="list-style-type: none"> • The selection of the products for the corresponding service and the right installation are to be in accordance with the instructions of the manufacturer. • GL- Rules I-1-2 Machinery Installation, Section 11: 2009, VI-7-8 Test Requirements for Components and Systems of Mechanical Engineering: 2013. 																																										
Documents	<ul style="list-style-type: none"> • Test Report No.: FN 942025-2, dated: 1997-04 • Technical Data and Specifications according to Catalogue FESTO: www.festo.com/cat (catalogue in various languages is constantly updated) • ISO 9001:2008, dated: 2013-11-13 • DNVGL-Ref-No.: 15-003948 																																										
Remarks	<ul style="list-style-type: none"> • None 																																										

Valid until **2020-07-07**

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File No. **XI.B.07**

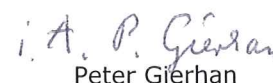
Hamburg, 2015-06-02

DNV GL

www.dnvgl.com

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Olaf Drews

i.A. P. Gierhan

Peter Gierhan