



# Certificate of Compliance

Certificate: 70084034

Master Contract: 174285 (058996\_0\_000)

Project: 70084034

Date Issued: 2016-12-12

Issued to: **Blain Hydraulics GmbH**  
Pfaffenstrasse 1  
Heilbronn, 74078, 74078  
GERMANY

Attention: Frank Pausder

*with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only. The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



Issued by: Susanne Dormann  
*Susanne Dormann*

ASME A17.1/CSA B44

## PRODUCTS

CLASS - C322105 - HYDRAULIC CONTROL VALVES-ELEVATING DEVICES

CLASS - C322185 - HYDRAULIC CONTROL VALVES-ELEVATING DEVICES- Certified to US Standards

Class - C3221 05 HYDRAULIC CONTROL VALVES ELEVATING DEVICES

C3221 85 HYDRAULIC CONTROL VALVES ELEVATING DEVICES- Certified to US Standards

Hydraulic elevator control valve with solenoids, rated:

| Model | Pressure Range           | Connection Size, in. | Flow Rate (Max.)                |
|-------|--------------------------|----------------------|---------------------------------|
| EV0   | 8-100 Bar (116-1500 psi) | 3/4"                 | 10-125 l/min (2-33 US gpm)      |
|       | 8-70 Bar (116-1030 psi)  | 1-1/2"               | 30-400 l/min (8-106 US gpm)     |
|       | 8-70 Bar (116-1030 psi)  | 2"                   | 30-800 l/min (8-208 US gpm)     |
|       | 8-47 Bar (116-690 psi)   | 2-1/2"               | 500-1530 l/min (130-400 US gpm) |
| EV1   | 8-100 Bar (116-1500 psi) | 3/4"                 | 10-125 l/min (2-33 US gpm)      |
|       | 8-70 Bar (116-1030 psi)  | 1-1/2"               | 30-400 l/min (8-106 US gpm)     |



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|       |                               |                          |  |
|-------|-------------------------------|--------------------------|--|
|       | 8-70 Bar (116-1030 psi)       | 2"                       | 30-800 l/min (8-208 US gpm)  |
|       | 8-47 Bar (116-690 psi)        | 2-1/2"                   | 500-1530 l/min (130-400 US gpm)  |
| EV10  | 8-100 Bar (116-1500 psi)      | 3/4"                     | 10-125 l/min (2-33 US gpm)   |
|       | 8-70 Bar (116-1030 psi)       | 1-1/2"                   | 30-400 l/min (8-106 US gpm)  |
|       | 8-70 Bar (116-1030 psi)       | 2"                       | 30-800 l/min (8-208 US gpm)  |
|       | 8-47 Bar (116-690 psi)        | 2-1/2"                   | 500-1530 l/min (130-400 US gpm)  |
|       | 8-100 Bar (116-1500 psi)      | 3/4"                     | 10-125 l/min (2-33 US gpm)   |
| EV100 | 8-70 Bar (116-1030 psi)       | 1-1/2"                   | 30-400 l/min (8-106 US gpm)  |
|       | 8-70 Bar (116-1030 psi)       | 2"                       | 30-800 l/min (8-208 US gpm)  |
|       | 8-47 Bar (116-690 psi)        | 2-1/2"                   | 500-1530 l/min (130-400 US gpm)  |
|       | 8-55 Bar (117-797 psi)        | 3/4"                     | 10-125 l/min (2-33 US gpm)   |
| EV4   | 8-55 Bar (117-797 psi)        | 1-1/2"                   | 30-400 l/min (8-106 US gpm)  |
|       | 8-55 Bar (117-797 psi)        | 2"                       | 30-800 l/min (8-208 US gpm)  |
|       | 8-55 Bar (117-797 psi)        | 2-1/2"                   | 500-1530 l/min (130-400 US gpm)  |
|       | 9-70 Bar (130-1050 psi)       | 1"                       | 40-180 l/min (10-46 gpm)   |
| SEV   | 9-70 Bar (130-1050 psi)       | 1-1/2"                   | 181-440 l/min (47-114 gpm)   |
|       | 9-70 Bar (130-1050 psi)       | 2"                       | 441-600 l/min (115-156 gpm)  |
|       | 9-47 Bar (130-690 psi)        | 2-1/2"                   | <12 Bar-1000 l/min (<170 psi-260 gpm)<br>>12 Bar-1200 l/min (>170 psi-317 gpm) |
|       | KV1-P, KV1-S,<br>KV2-P, KV2-S | 8-100 Bar (116-1500 psi) | 1/2"   |

Solenoids AC: 24V/1.8A, 42V/1.0A, 110V/0.43A, 230V/0.18A, 50/60 Hz.

Solenoids DC: 12V/2.0A, 24V/1.1A, 42V/0.5A, 48V/0.6A, 80V/0.3A, 110V/0.25A, 196V/0.14A

**Notes:**

1. Maximum oil temperature: 70°C (158°F)
2. These valves are intended for use with ISO Grade 46 hydraulic fluid.
3. These valves are intended for an operating oil temperature range of +10° (300 cSt.) to 70°C (20 cSt)
4. The valves have been subjected to an endurance test of 500,000 operations for elevator controls.

**APPLICABLE REQUIREMENTS**

CSA Standard C22.2 No. 139-13 Electrically Operated Valves  
 ASME A17.1-2013/CSA B44-13 Safety Code for Elevators and Escalators



## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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| <b>Project</b> | <b>Date</b> | <b>Description</b>  |
|----------------|-------------|---|
| 70084034       | 2016-12-12  | Update to report LR 58996-3 to latest version of the standard – CSA No. 139. Also create an electronic copy of the report. Testing will be required as per std. 139. Addition of new valves- EV4 and SEV. |
| LR 58996-4     | 1995-05-04  | Update to report LR 58996-3 to cover addition of 3/4” and 2-1/2” EV series hydraulic elevator control valves.   |
| LR 58996-3     | 1994-09-22  | Original certification of hydraulic elevator control valve: KVH, KV1-P, KV2-P, K2-S, and KVL series: 2” EV100, EV0, EV1, EV10, 1.1/2”EV series.   |