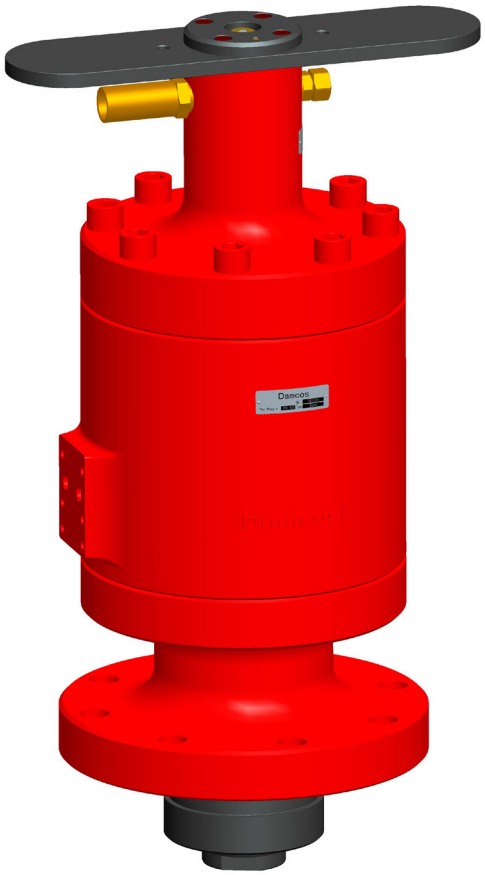
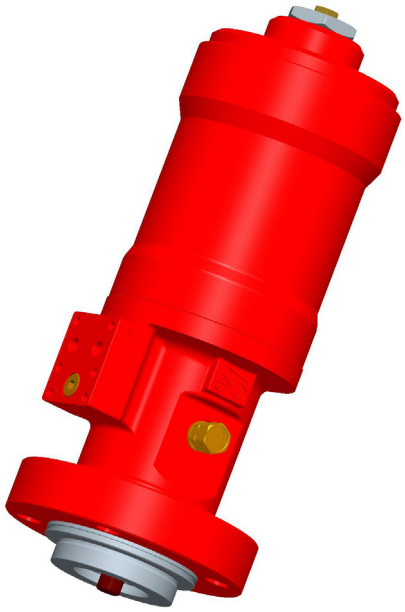
Product Data Sheet
November 2014
SD 1100-3E06

Damcos™ KC

Hydraulic linear double-acting actuator



KC600



KC65, KC125, KC250, KC325 and KC400

Damcos™

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Process Management

KC Hydraulic Linear Double-Acting Actuator

The KC converts hydraulic energy into linear motion with thrust proportional to the applied pressure. The KC has no external moving parts during operation and has a builtin device for maintaining pressure at temperature variations. The KC is designed with built-in crossover valve and is equipped with a direct visual position indicator.

The KC can be operated in any kind of environment and can easily be adapted to all well-known globe valves, and all models are prepared for direct built-on modular control functions.

Standard Optionals

The KC actuator for intermediate positions and fail set operation of globe valves comprehends:

- Unique and simple design with built-in crossover valve
- Easy installation on intermediate flange at globe valve
- Same unit for several valve sizes
- Operates in sea air as well as in sea water
- No external moving parts during operation
- Prepared for direct built-on modular control functions or LPU
- Built-in hydraulic emergency operation for KFR
- Direct visual position indication
- Electrical on/off or continuous position indication
- IP 68
- Connection block with e.g. filter
- Throttle valve
- Quick connection for emergency operation with portable hand pump
- LPU mounting
- Epoxy coating
- Upon request specific features such as:
  - Flushing valve built into the connection block
  - Possibility to flush the system without disconnection of pipes

Technical Data

Working pressure	135 bar
Test pressure	1,5 x working pressure
Burst test	min. 675 bar
Closing thrust at 135 bar	17 000 - 290 000 N
Viscosity of hydraulic oil	15 to 200 cSt

Main Specification

Temperature range	-20°C to +80°C
Housing	GGG40
Piston	GGG40
Output spindle*	AISI 329
Indicator housing	Brass MS 58
Coating	Primer: Min 40 µm, type Hempel EE 13140 Top coat: min 25 µm alkyd, red no. 51320

*) Only applicable for KC 600

Actuator type	Closing thrust at 135 bar (N)	Maxi-mum Stroke (mm)	Total dry weight (kg)	Oil dis-placement at full stroke (l)	Dimensions bottom view (mm)						Dimensions front view (mm)							
					ØA	ØB	C	D	E	F	G	H	ØI	J	K	L	M	ØO
KC 65	17000	16.25	4.5	0.021	62	9	80	48	-	-	35	36	76	17	15	-	157	80
KC 125	35000	31.25	7.0	0.082	75	9	76	50	52	72	42.5	42	90	17	20	189	202	98
KC 250	92500	62.50	24.0	0.428	118	14	70	78	77	72	72.5	72	140	23	35	300	343	150
KC 325	127000	81.25	54	0.793	165	21	70	103.5	-	-	96	105	205	30	42	428	468	175
KC 400	220000	104	87	1.7	165	21	70	103,5	-	-	115	105	205	30	42	467	520	226
KC 600	290000	150	150	3.36	254	24	68	146	-	-	193.5	130*	300	71	42	601	612	264

*) KC 600 has no external thread and the H dimension is the bushing diameter (internal thread M48x2).
For the KC 65 to KC 400 the H dimension is referring to a metric external thread.

Manufacture

The KC actuators are manufactured in accordance with the guidelines for quality system stated in the American standard ANSI/ASQC Z-1.15.

After assembly each actuator is flushed to NAS 1638/10 – ISO 4406 21/19/16 standard and plugged.

Flushing to NAS 1638/7 – ISO 4406 18/16/13 standard can be performed on request.

Operation Restrictions

Please observe specific rules and demands from classification societies and authorities concerning operation pressure and temperature range.

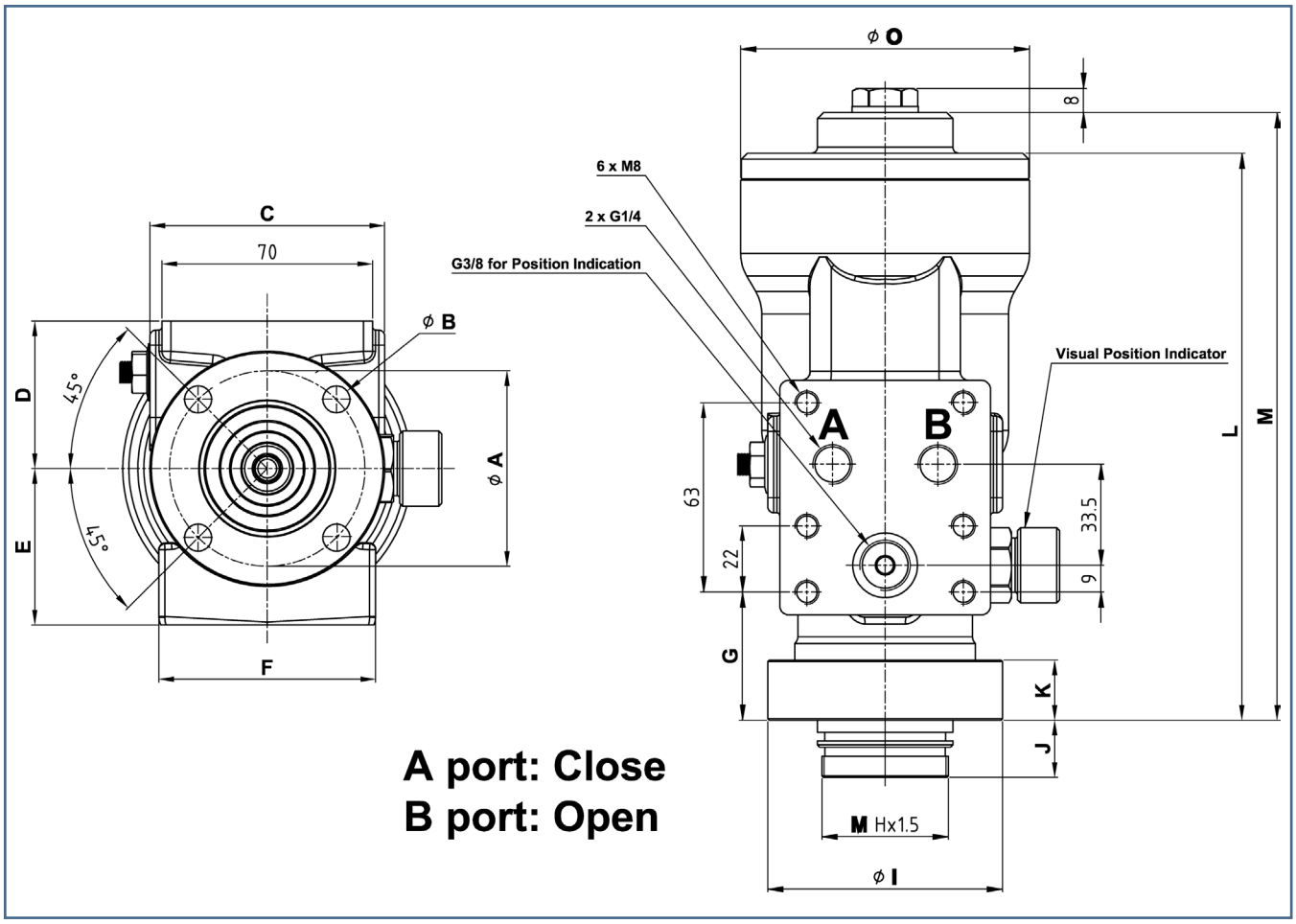
(Example - ABS: Max. operating pressure = 20% of burst pressure.)

Control Equipment

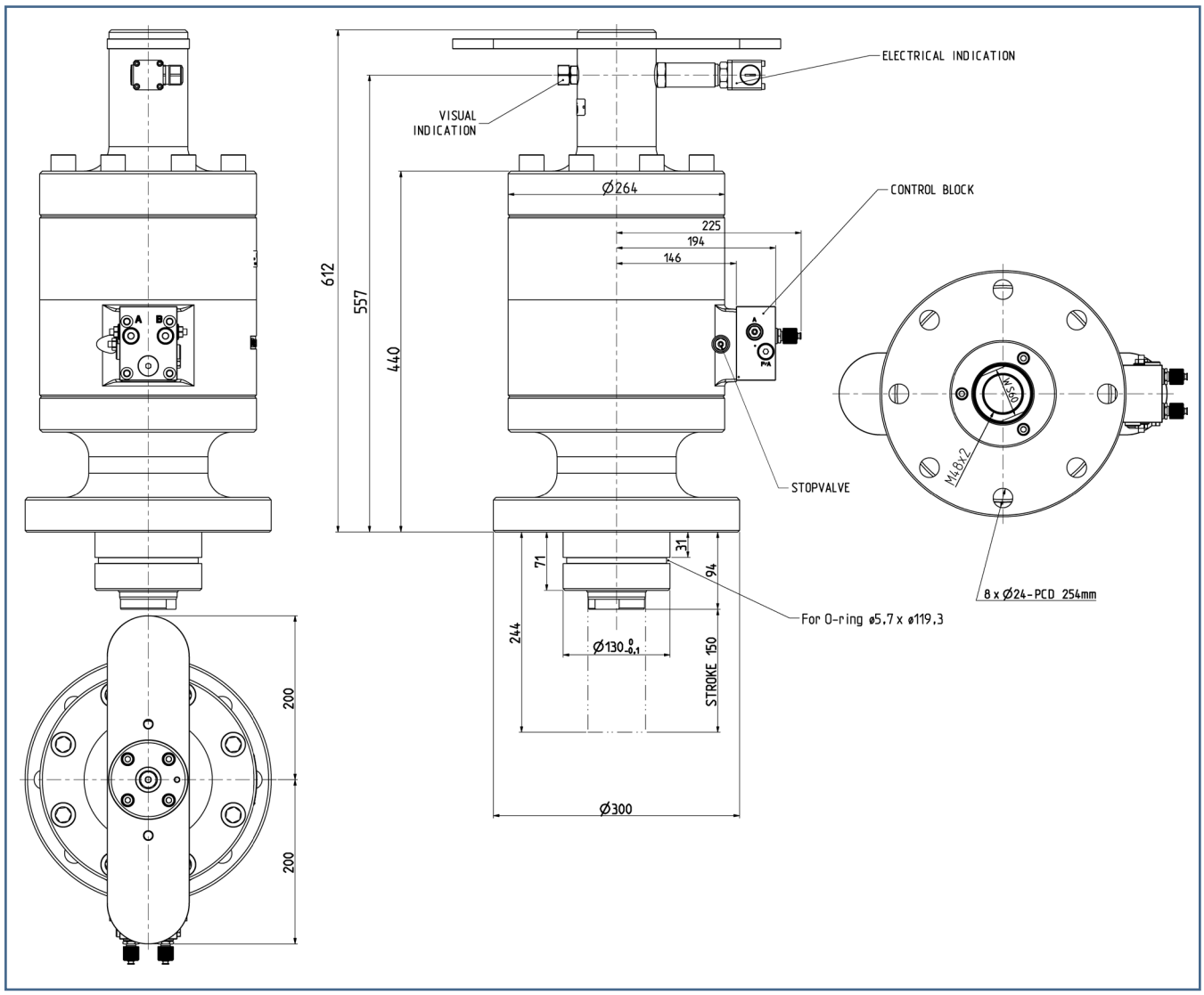
The actuators are designed for pipe connection to the G 1/4 actuator port or actuator mounted control equipment.

For further information please see separate data sheets for the whole range of blocks and other actuator mounted control equipment.

Main Dimensions KC65, KC125, KC250, KC325 and KC400



Main Dimensions KC600



Classification

Meets the requirements from the major classification and approval authorities like:

- Det Norske Veritas
- Lloyd's Register of Shipping
- American Bureau of Shipping
- Rina
- Russian register of Shipping
- Bureau Veritas
- Germanischer Lloyd
- U.S. Coast Guard

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