

# DA99 Servo Actuator for Spot Welding

SPECIFICATION





# DA99 Technical specifications

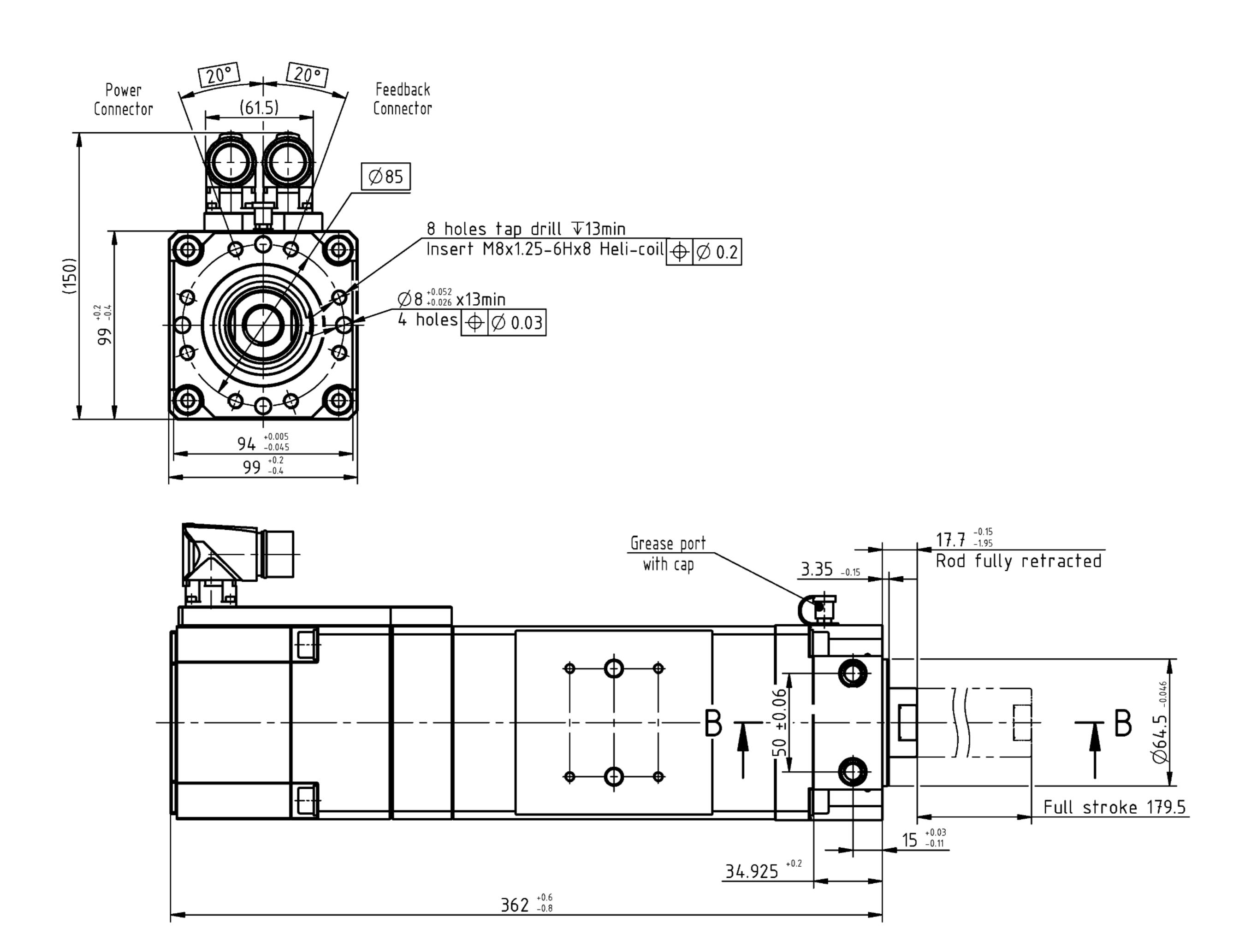
Parameters	Units	DA99-W25	DA99-W212	
Peak force	N	22 000	10 000	
Max. speed	mm/sec	300	750	
Stroke	mm	170 (option 240)		
Screw lead	mm/rev	5	12.5	
Dynamic load rating	N	56 000	30 000	
Basic dimensions	mm	99x99 (cross section), 362 (length)	99x99 (cross section), 362 (length)	
Force repeatability	%	±3%		
Base weight	kg	12.2		
Protection level	N	IP65		
Ambience temperature range	°C	0 to +50°C		
Service life		25+ million weld cycles		
Maintenance		grease adding once in 15 million cycles		
Mounting		front flange / trunnions / side mounting		
Feedback sensor		depends on robot type: resolver or absolute encoder		
Voltage		230V or 400V		

# DA99 Brake specifications

Parameters	Units	Value	
Power	W	8.7 (for 24V), 8.5 (for 90V)	
Holding Torque	N·m	1.5	
Voltage	V <sub>dc</sub>	24/90	
Brake holding force	N	2350 (for screw lead 5 mm/rev) 1175 (for screw lead 10 mm/rev)	



# DA99 Dimensioned Drawing



## DA99 Advantages

### 1. High performance & welding quality

High speed and acceleration of Diakont electric actuators allow to reduce the time of welding gun opening and closing. A specially designed 10-pole synchronous motor allows performing more welding spots without overheating compared with competitors. DA99 Diakont actuator can make 30 welds/minute at high force without need for additional cooling.

### 2. Robust design and reliability

The special in-house design and manufacturing of Diakont actuators and its components, from roller-screw to the housing allows to keep the quality at high level ensuring stable operation even at stressful requirements.

### 3. Best-in-class lifetime

Integrated and robust design of Diakont roller-screws and special know-how technologies of metal hardening provide our products with exquisite lifetime characteristics capable of bearing over 30 million weld cycles.

### 4. Simple maintenance

Diakont servo actuators save time on maintenance not only because of their high quality and reliability. Such a simple procedure as grease adding can also be done very easy through a zerk on the housing and requires to be done only once in 15 million cycles.



# DA99 Robot Compatibility

Robot type	Robot controller supply voltage	Robot Controller model	Robot Control Software
ABB	400 VAC	IRC 5	Robot Ware, Robot Ware 6 Robot Studio
FANUC	230 VAC (40A or 80A drive)	R-30iA R-30iB R-30iB Plus	Manual tuning is available (contact Diakont) from V8.20P/43 from V9.10P/16
KUKA	400 VAC  KSP/KPP 40A  (for other voltages contact  Diakont)	KR C4	KSS 8.3 and higher Add-ons: Torque Control 4.1 and ServoGunBasic 1.0 / 3.0 / 3.1
Yaskawa	230 VAC	YRC-1000 DX200	from YAS2.71.00A from DN2.08.00A
Kawasaki	230 VAC	E52G-A021, E42 (series E2X, E3X, E4X, E5X)	
Comau	400 VAC	C5G C5G Plus	Motor file is avaliable (contact Diakont) from 4.11.007
Nachi	230 VAC	FD11 controller with ROX xx2x drive (any ROX drive with third digit = "2")	
Hyundai	230 VAC	Hi5a-S	