

ENGINEERED TO MOVE

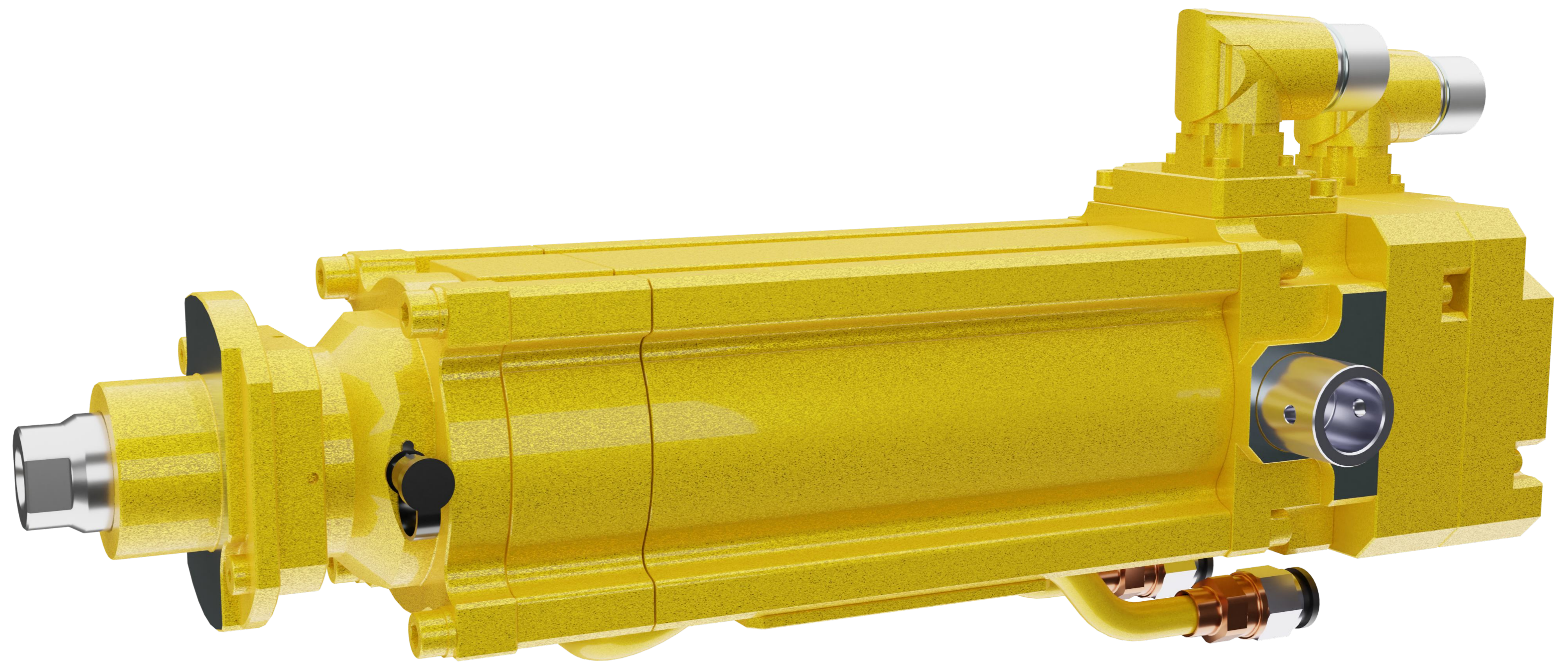


DIAKONT

DA78 Servo Actuator for Spot Welding

SPECIFICATION

SPOT WELDING



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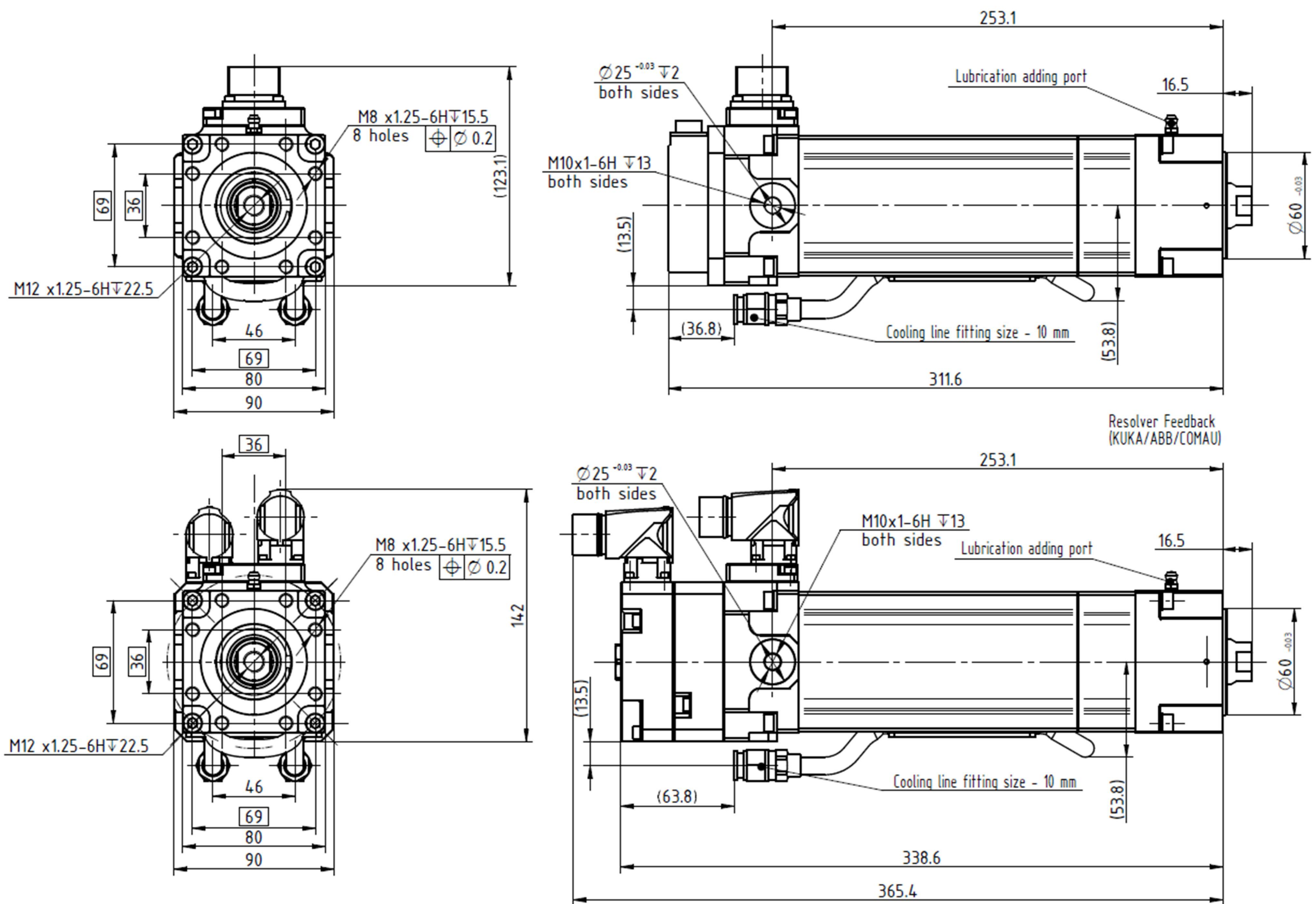
DA78 Technical specifications

Parameters	Units	DA78-A35	DA78-A310
Peak force	N	13 000	7 000
Max. speed	mm/sec	325	650
Stroke	mm	150	150
Screw lead	mm/rev	5	10
Dynamic load rating	N	35 300	20 000
Basic dimensions	mm	78x78 (cross section), 320 (length)	78x78 (cross section), 320 (length)
Force repeatability	%	±3%	
Base weight	kg	7.2 (Resolver Feedback) 6.1 (Fanuc Alpha iAR128/iA1000 Feedback)	
Protection level	N	IP65	
Ambience temperature range	°C	0 to +50°C	
Service life	—	20+ 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	

DA78 Brake specifications

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

DA78 Dimensioned Drawing



DA78 Advantages

1. Simple maintenance

Easy access to the lubrication adding port without dismounting or disassembly. Grease adding once in 15 million weld cycles

2. Compact design

Lightest model of DA78 weighs just 6.1kg

3. Water ingress protection

Triple sealing and smooth rod allow to keep IP65 level of protection and operate safely even when vertically mounted

4. Optional water cooling

Allows to operate in high forces applications with good performance

DA78 Robot Compatibility

Robot type	Robot controller supply voltage	Robot Controller model	Robot Control Software
ABB	400 VAC	IRC 5	Manual tuning is available (<i>contact Diakont</i>). <i>Including in ABB motor list can be done upon request</i>
FANUC	230 VAC (40A or 80A drive)	R-30iA R-30iB R-30iB Plus	Motor is chosen by motor ID in Fanuc robot software or manually tuning is available.
KUKA	KSP/KPP 40A (for other voltages contact <i>Diakont</i>)	KR C4	ServoGunBasic available for KSS 8.3 and higher (<i>contact Diakont</i>)
Yaskawa	230 VAC	YRC-1000	<i>Including in Yaskawa motor list can be done upon request</i>
Kawasaki	230 VAC	E52G-A021, E42 (series E2X, E3X, E4X, E5X)	<i>Including in Kawasaki motor list can be done upon request</i>
Comau	400 VAC	C5G C5G Plus	<i>Including in Comau motor list can be done upon request</i>
Nachi	230 VAC	FD11 controller with ROX xx2x drive (any ROX drive with third digit = "2")	<i>Including in Nachi motor list can be done upon request</i>
Hyundai	230 VAC	Hi5a-S	<i>Including in Hyundai motor list can be done upon request</i>