

This document defines the MA series manual actuators designed for the operation of ¼ turn valves by mounting plate ISO 5211.

Applications:

Building,
General circuits for Industry.

General features

The range of MA series manual actuators developed and manufactured by KSB-AMRI covers output torque values up to 250 Nm. The MA series actuators, with hypocycloïdal gear train kinematics, have been specially designed for the operation of centred disc butterfly valves mainly used in the H.V.A.C industry.

Mounting plate according to ISO 5211 standard.

Equipped with an interchangeable insert, they can be easily fitted on different valve shaft end (square end, flat end, key,..).

These actuators are supplied with a handwheel and a visual pointer. Factory lubricated, they do not need any maintenance.

Protection :

They are hose and fine dust proof (protection degree: IP 65).

External coating :

Polyurethane paint (colour black RAL 9011, 80 µ thickness).

Working temperature range :

From -20° C to +80° C.

Production range

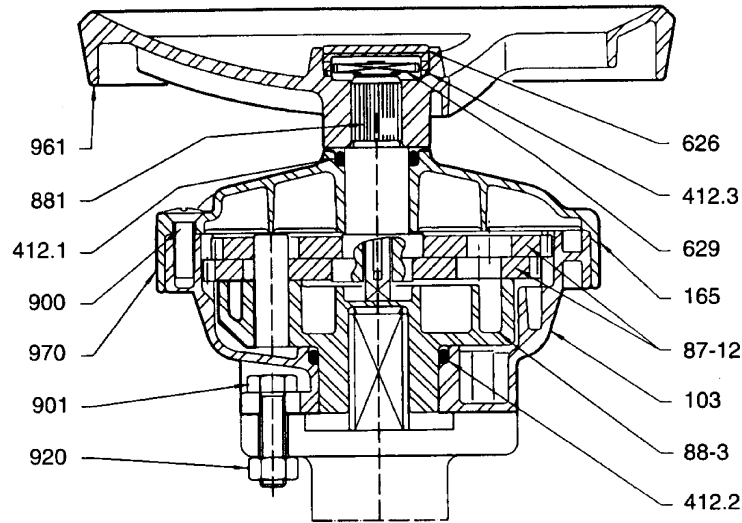
Type	Maximum output torque (Nm)	Maximum input torque (Nm)	Number of turn Handwheel	ISO 5211 mounting plate*	Maximal allowable dimensions for the shaft			
					hauteur	Driving by square	Driving by Flat	Driving by key
MA 12	125	23	8	F04, F05	25	17	17	18
MA 25	250	40	8	F07, F10	30	22	22	28

* Direct adaptation onto identical mounting plate.

Adaptation by intermediate flange onto different plate (different size or shape).

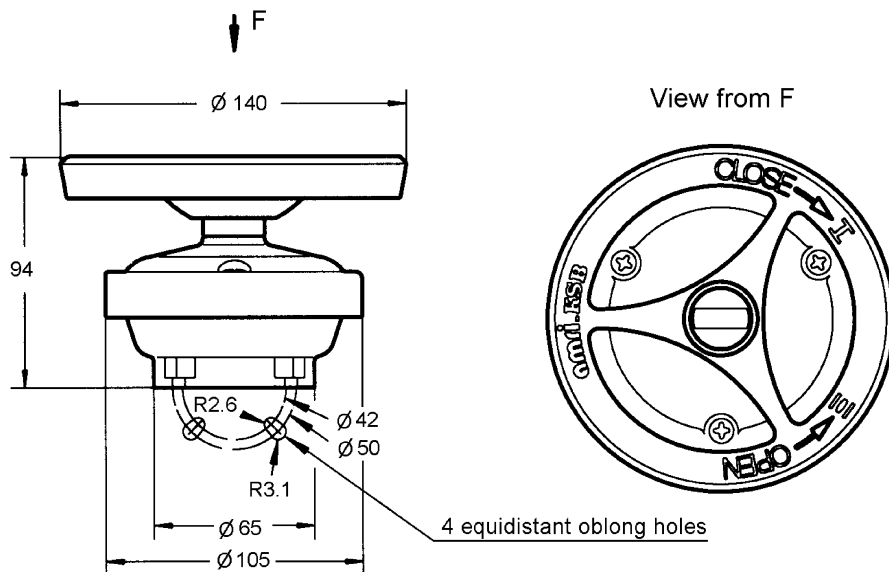
MA 12 actuator

Construction

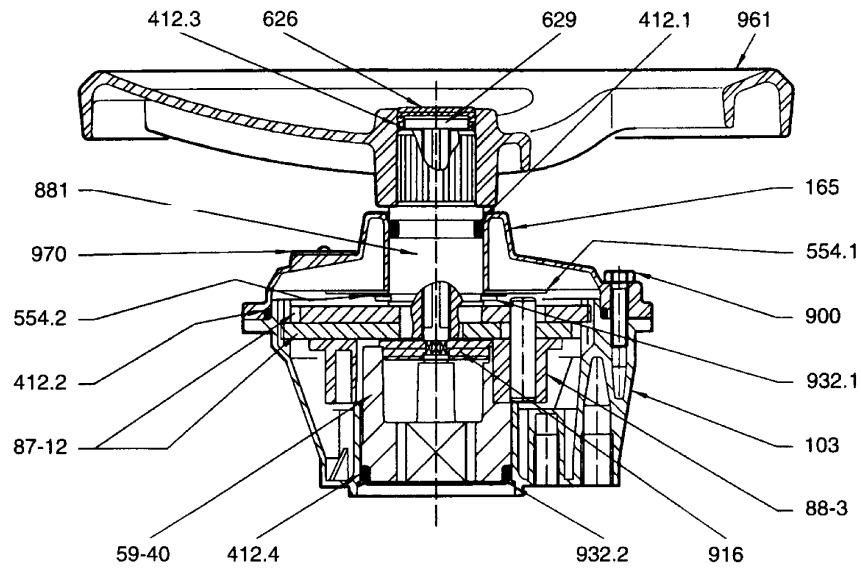


Item	Designation	Materials
103	Gear casing	Zinc-Aluminium alloy
165	Bonnet	Zinc-Aluminium alloy
412.1	O-ring	Nitrile
412.2	O-ring	Nitrile
412.3	O-ring	Nitrile
626	Transparent cap	Polycarbonate
629	Pointer	Polypropylene
87 - 12	Satellite gear	Steel
881	Eccentric shaft	Phosphated steel
88 - 3	Leading unit	Zinc-Aluminium alloy
900	Self cutting screw	Zinc coated steel
901	Hexagon head screw	Zinc coated steel
920	Hexagon nut	Zinc coated steel
961	Handwheel	Zinc-Aluminium alloy
970	Identity plate	Adhesive polyester coated

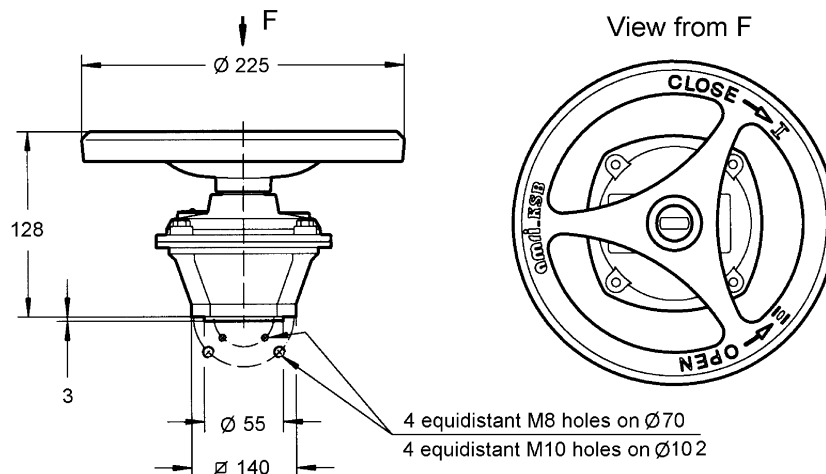
Overall dimensions (mm)



Weight : 1,5 kg

MA 25 actuator
Construction


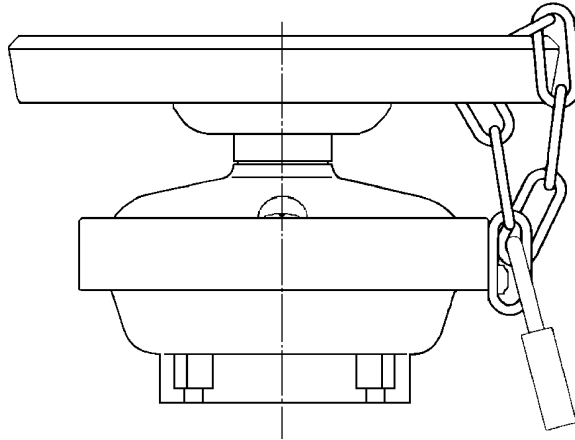
Item	Designation	Materials
103	Gear casing	Zinc-aluminium alloy
165	Bonnet	Zinc-aluminium alloy
412.1	O-ring	Nitrile
412.2	O-ring	Nitrile
412.3	O-ring	Nitrile
412.4	O-ring	Nitrile
554.1	Plain washer	Zinc coated steel
554.2	Spring washer	Zinc coated steel
59-40	Chuck	Zinc alloy
626	Transparent cap	Polycarbonate
629	Pointer	Polypropylene
87 - 12	Satellite gear	Steel
881	Eccentric shaft	Treated steel
88 - 3	Leading unit	Zinc-aluminium alloy and steel
900	Self cutting screw	Zinc coated steel
916	Plug	Nitrile
932.1	Spring retaining ring	Steel
932.2	Spring retaining ring	Steel
961	Handwheel	Zinc-aluminium alloy
970	Identity plate	Stainless steel

Overall dimensions (mm)

Weight : 3 kg

Options

• Locking by chain

The MA series actuators can be supplied with a locking by chain (padlock not supplied by AMRI).



• Limit switch indication

The MA series actuators can be equipped with an electric limit switchbox.

This switchbox is fitted between the valve mounting plate and the actuator and can house upto two switches (one switch on open position, one switch on closed position or one switch on open and closed positions).

The switches can be :

- standard or explosion proof electric microswitches,
- standard proximity detector or in accordance with NAMUR standards.

The connection is either made by cable gland or by a special connector.

In standard construction, the protection degree is IP 65.

