

MARSH

Made With World Class Technology
from Germany

Also Available in
Flame / Explosion Proof Version
in Gas Groups I, IIA, IIB, IIC
as per IS 2148-1981.



Regelitek®

Regeltek Electric Actuators are manufactured with German Technology. These units are most suitable for control/regulating duty applications of various types of valves such as Globe, V-notch ball, butterfly, diaphragm and single/multi louver dampers.

The actuators are supplied with various types of accessories & can directly work on the control signal of 4-20 mA & also give feed back signal of 4-20 mA with respect to the actual mechanical position of the final control element.

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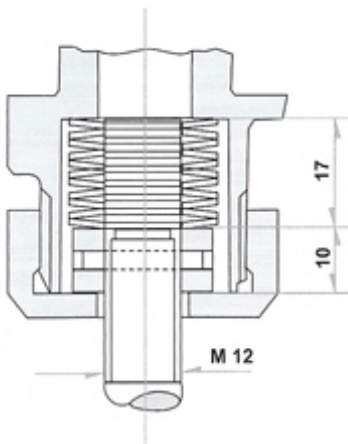
Linear Electric Actuators Model ST 5102 / 5103

Technical Data & Specifications

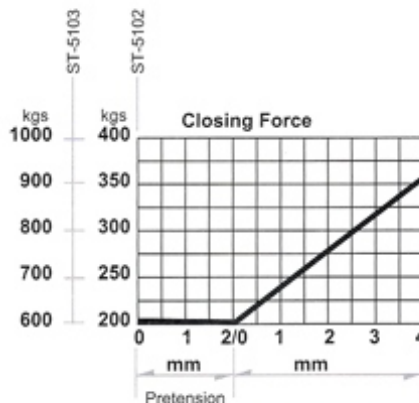
Model	Stroke Length mm	Operating Speed mm/sec	Rated Actuating force kgs.	Max Closing force kgs.	Switching frequency Operations / Hour		Motor Details					Degree of Protection	Weight kgs.
					Short time	Normal	Supply	Out Put Watt	Nominal Current mA (220V)	Class of Insulation	Amb. Temp °C		
ST-5102-32	40	0.26	200	350	7000	1800	220/110 VAC 50/60 HZ	3.14	40.5	B	45	IP55	4.5
ST-5102-33	40	0.52	200	300									
ST-5102-34	60	0.52	200	300									
ST-5102-35	40/60	2	75	100									
ST-5103-61	60	0.45	600	900									
ST-5103-76	60/75	0.8	600	750									

Accessories

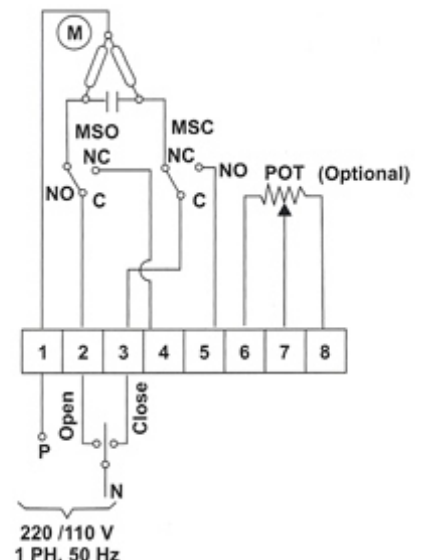
- i) Standard
 - Travel limit switches (1 NO. + 1 NC) --2 Nos., Hand wheel, Local position indicator
- ii) Optional
 - Auxilliary limit switches (1 NO. + 1 NC) -- 2 Nos.
 - Feed back potentiometer -- 2 Nos.(Max)
 - Valve positioner - field/panel mounted Input:- 4-20 mA / 0-10 V.D.C. Output:- Proportional
 - Two wire transmitter - field/panel mounted Input :- From potentiometer in the actuator. Output:- 4-20 mA
 - Remote position indicator with Power source -- Analogue/Digital
 - Space heater
 - Linkages to operate dampers or butterfly valves.
 - Special accessories on request.



Out-put Coupling Arrangement



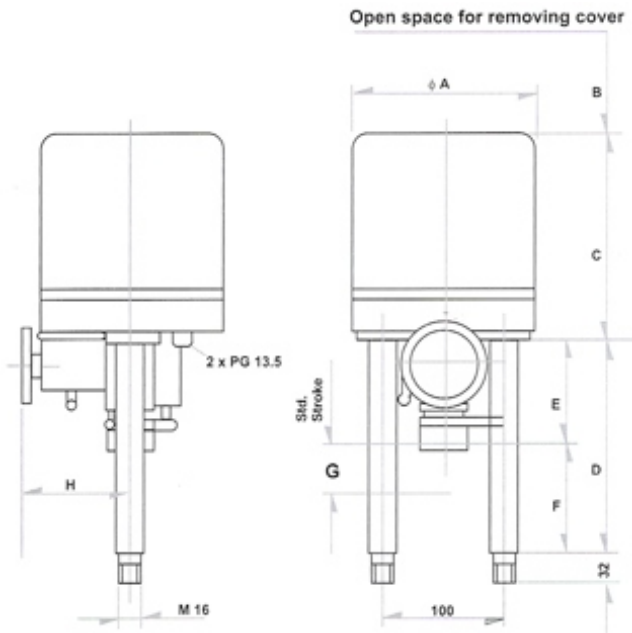
Actuating Force



Connection Diagram

220 /110 V
1 PH. 50 Hz

Dimensional Drawing

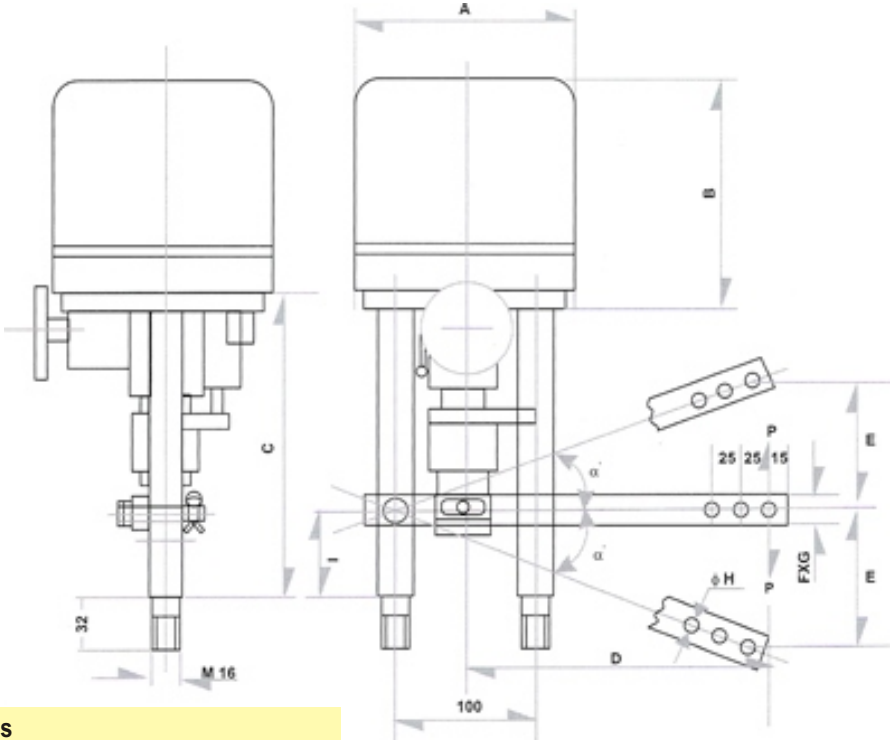


Dimensional Details								
Model	Dimensions							
	A	B	C	D	E	F	G	H
ST-5102	150	120	162	200	98	102	40	90
ST-5103	205	200	225	238	118	120	60	133

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Damper Actuators Model ST-5102D / 5103D

Dimensional Drawing



Type	Dimensional Details									
	Dimensions									
	A	B	C	D	E	F	G	H	I	ce max
ST-5102-D-32	150	162	245	200	90	20	6	10	95	20
ST-5102-D-33	150	162	245	200	90	20	6	10	95	20
ST-5103-D-61	205	225	330	300	180	30	10	15	108	30
ST-5103-D-76	205	225	330	300	180	30	10	15	108	30

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Technical Data & Specifications

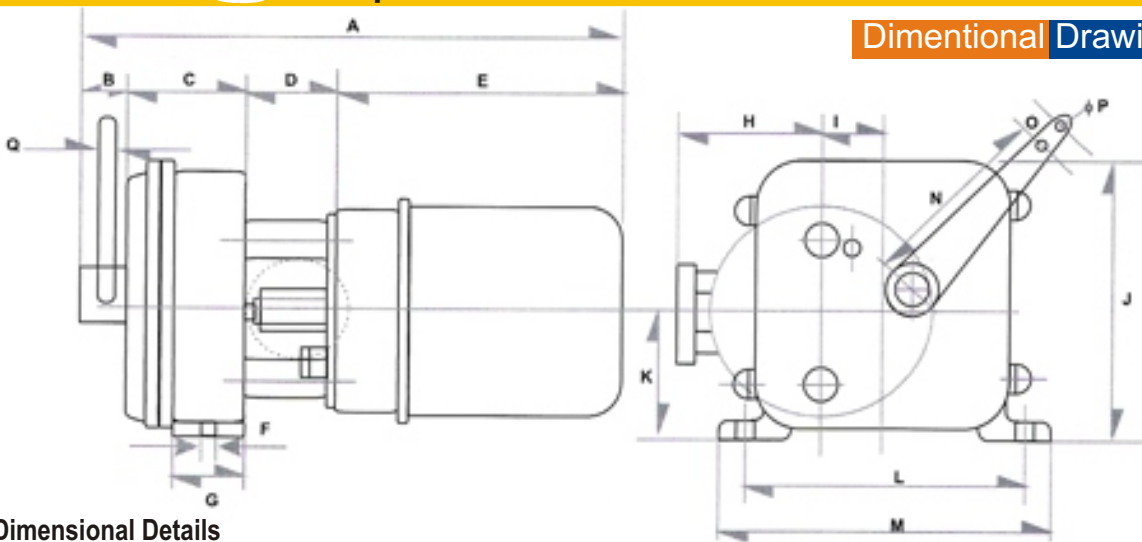
Model	ST-5102 D-32	ST-5102 D-33	ST-5103 D-61	ST-5103 D-76
Input Supply	220/110V 50Hz. AC	220/110V 50Hz. AC	220/110V 50Hz. AC	220/110V 50Hz. AC
Output force 'P' (kgm.)	40	40	85	65
Actuating Closing	60	60	130	100
Output Torque (kgm.)	8	8	25	20
Actuating Closing	12	12	37.5	30
Stroke (mm) (max.) (2E)	180	180	360	360
Time of Operation (minutes) (for max. stroke)	2.4	1.2	2.2	1.2

Note- for other details refer basic model specification.

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Damper Actuators Model RTD 5102 / RTD 5103

Dimensional Drawing



Dimensional Details

Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
RTD 5102	333	30	75	60	168	14	48	90	41	192	90	180	210	125	25	10	6
RTD* 5103	465	30	90	120	225	14	54	140	53	212	103	205	235	125	25	15	10

*Provisional

Model	RTD 5102	RTD 5103*
Input Supply	220/110 V AC 50/60 Hz. 1Ph	220/110 V AC 50/60 Hz. 1Ph
Output force Kgs. - Actuating Closing	40 60	75 110
Output torque Kgm. Actuating Closing	6 8	11 16
Angle of rotation	adjustable 10° to 340°	
Time of operation Sec/90°	45	45

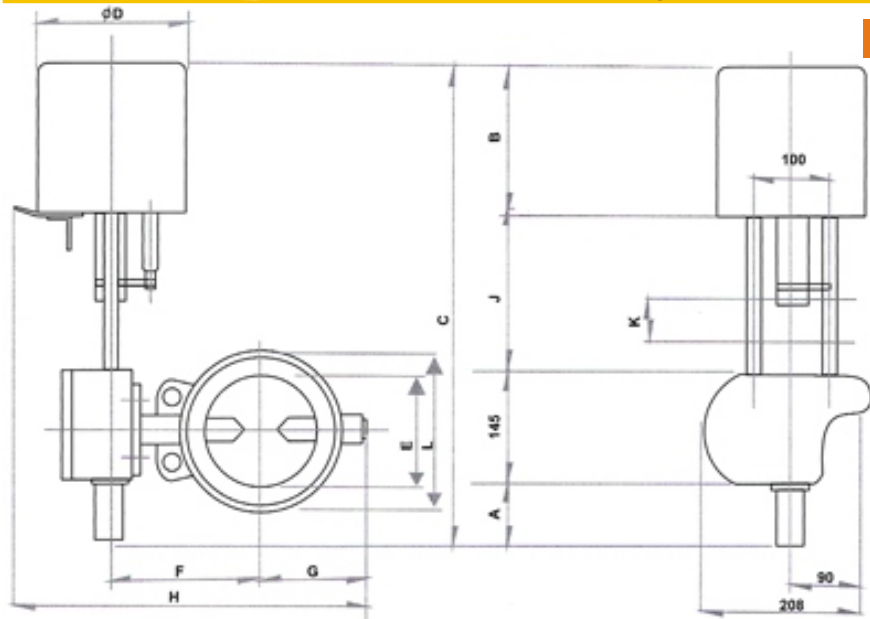
Technical Data & Specifications

Note - For other details refer basic model specification.

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Actuators on Butterfly / Ball Valve Model QST 5102/5103

Dimensional Drawing



Valve Size*	Actuator Model	Dimensions										
		A	B	C	D	øE	F	G	H	J	K	L
100	QST 5102	52	162	565	150	100	161	103	354	200	32	160
300	QST 5103	80	225	688	205	300	280	122	535	238	60	380

Regeltek Quarter-turn Electric Actuators For control Application

*Typical

Technical Data & Specifications

Description	Model	
	QST - 5102	QST - 5103
Rated actuating torque Kgm.	4	22.5
Max. closing torque Kgm.	7	34
Time of operation - Sec/90	120	130
Switching Frequency		
Operations/hour - Short time	7000	7000
- Normal	1800	1800
Degree of protection	IP 55	IP55
Supply	220/110 V AC - 50/60 Hz 1 Phase	
Motor Type	Non blocking A. C. Motor	
Out put power Watt	3.14	16.5
Nominal current at 220 V-mA	40.5	133
Class of insulation	B	E
Ambient temp °C	45	45
Weight kgs	8.3	14.7

Note-For standard and optional accessories Refer data given under Regeltek Linear Electric Actuators.

Regeltek Actuators for Diaphragm Valves

Regeltek series actuators can be used for Diaphragm valves for ON/OFF and Regulating duty. These can be directly mounted, as shown in the photograph, so as to give linear motion to the valve stem. Following table can be used as a guide line for the actuator selection; however, it is advisable to confirm the exact requirement of thrust values from the valve manufacturers for the proper selection of the actuators.

Actuator selection chart-Diaphragm Valve-Line Pressure: 10 BAR

S.N.	Valve Size NB	Actuator Model	Power Supply
1	15	ST-5102-32	220/110 V AC 50/60 Hz, 1 Phase
2	25		
3	40		
4	50		
5	65	ST-5103-61	220/110 V AC 50/60 Hz, 1 Phase
6	80		
7	100		

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Accessories for Regeltek Actuators

Following optional extra accessories available in all the models of Regeltek actuators.



Travel Limit Switches:

Two additional travel limit switches with 1 NO + 1 NC changeover potential free contacts can be provided.

Feed back Potentiometer:

Maximum two feed back potentiometers can be provided to give the out put of change in resistance with respect to the mechanical movement of the actuator out put shaft.

Position Transmitter -Model PPT-200:

This unit converts resistance out put from the Potentiometers into the control signal of 4-20 mA thru a two wire system. This is an actuator mounted instrument having a facility of SPAN/ZERO adjustment. This requires external power supply of 12 to 36 V D C.

Electronic Positioner - Model PP500 :

This unit helps in achieving the exact mechanical position of the actuator out put spindle with respect to the incoming control signal of 4-20 mA or 0-1 0 V D C. The unit has facilities for SPAN/ZERO and Dead band adjustments and LED indications for Open/Close functions & fault operations.

The unit is available in field /mounted and Panel mounted versions.



Control Panel cum Positioner - Model PP500:

This unit has an inbuilt Positioner PP300 with all its normal and following additional features:

- Auto-Manual selector switch - In Auto mode the actuator operates as per the incoming control command and in Manual mode it can be operated manually by switch.
- Digital Indicator: - (3/1/2 Digit) This Indicates the percentage opening of the final control element.
- LED indications for opened/closed, power-on, Fuse blown.
- 4-20 mA output for customer use.



Manual Loader:

This is a simple control panel having an Auto Manual selector switch, Open/Close push buttons, opened/closed LED indications, and percentage opening digital indicator.



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