

# Dynamic 400 – 404

Operator systems for Roller Shutters

Technical data operator systems Dynamic 400 – 404

Electrical data	Dynamic 400	Dynamic 401	Dynamic 402	Dynamic 403	Dynamic 404	
Version					-9 -11 -17	
Nominal voltage	400/3	400/3	400/3	400/3	400/3	V/PH
Nominal frequency	50	50	50	50	50	Hz
Current input	1,2	2	2,6	3,8	6 7,5 8,2	A
Motor power output	0,37	0,55	0,75	1,1	1,5 2,2 3,0	KW
Duty cycle	60	60	60	60	60	%
Control unit control voltage	24	24	24	24	24	V DC
Protection category Motor unit	IP 54	IP 54	IP 54	IP 54	IP 54	
Control unit	IP 65	IP 65	IP 65	IP 65	IP 65	

Mechanical data	Dynamic 400	Dynamic 401	Dynamic 402	Dynamic 403	Dynamic 404	
Version					-9 -11 -17	
Drive torque	100	170	220	420	1000 900 850	Nm
Output speed	17	12	12	12	9 11 17	min <sup>-1</sup>
Diameter of motor shaft	30	30	30	40	50	mm
Max. catch torque	1188	1188	1188	1627	5599	Nm
Driving torque	259	259	259	432	1113	Nm

General data	Dynamic 400	Dynamic 401	Dynamic 402	Dynamic 403	Dynamic 404	
Measurements	385 x 126 x 262	402,5 x 126 x 262	402,5 x 126 x 262	505 x 140 x 283	696 x 174 x 399	mm
Weight	21,5	22,0	22,5	35,0	67,0	kg

### Basic Package „Dead-man's mode“

Direct drive operator for roller shutters with flexible fixing incl. 2 operational and 2 safety limit switches.

1 limit switch for the closing edge safety device to cut out the reversing function.

Hand crank for emergency operation

Separate control unit Control 70 with additional safety contactor

Cable set 5500 mm

precabled



### Basic Package „Press-and-release“

Direct drive operator for roller shutters with flexible fixing incl. 2 operational and 2 safety limit switches.

1 limit switch for the closing edge safety device to cut out the reversing function.

Hand crank for emergency operation

Separate control unit Control 70 with additional safety contactor

Cable set 5500 mm

Extension module for control unit

Optosensor for closing edge safety device

precabled



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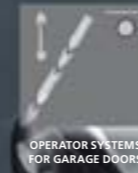
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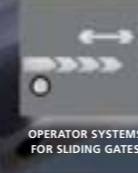
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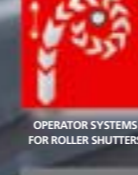
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OPERATOR SYSTEMS FOR HINGED GATES



OPERATOR SYSTEMS FOR ROLLER SHUTTERS



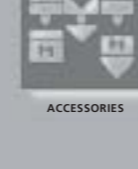
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ACCESSORIES

Energy, safety and staying power

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## The Idea

**Dynamic is the name for operator systems for industrial doors and gates.**

„Dynamic“ means internal energy, safety and staying power – all qualities that are important for the automation of industrial door and gate systems. Marantec operator systems for industrial use are called Dynamic and with this name they document the extraordinary requirements they will meet.

**Dynamic 400 – the operator series for industrially used roller shutters.**

With the Dynamic series 400, 401, 402, 403 and 404 Marantec offers a complete range for special automation of industrial roller shutters. Doors with a tube diameter up to 324 mm or curtain weights up to 820 kg can be equipped with automatic drives, safely and comfortably.

### Dynamic series 400 – 404: Special product features.

A safety brake feature that is independent of position and speed is integrated in the operator motor. The operator system includes 2 operational and 2 safety limit switches for the door OPEN and CLOSE directions. There is also a limit for the closing edge safety device to cut out the reversing function shortly before the end position CLOSE is reached. The standard supply package contains a hand crank for emergency operation. For Dynamic 400–403 a conversion to emergency hand chain operation is possible (factory option only).

### Control 70: The perfect control unit for roller shutters.

The Control 70 in its basic format is an inversion contactor control unit with mechanical interlocking and a third safety contactor – and can be converted to a comfort control unit with connections for RC remote control, safety devices, automatic timer function and traffic control. You have the choice between a standard module and a Control 71/72 extension module with the possibility to connect a roll up safety device.

Electrical accessories	„Dead-man's mode“	„press-and-release“
Control 71 extension module for control unit Control 70		x
Control 72 extension module for control unit Control 70 to connect a roll up safety device		x
Optosensor for closing edge safety device, right-hand or left-hand mounting		x
Roll up safety protection roller shutters / roller grilles		x
Control 220 automatic timer function		x
Control 230 automatic timer function and week timer		x
Control 313 signal light connection with traffic control		x
Control 401 inductive loop detector		x
Relay circuit board for door position indication	x	x
Special 613 reflection photocell		x
Special 614 one-way photocell		x
Retrofit-kit profile cylinder, lockable	x	x
Lockable main switch, installed in the control unit housing	x	x
Command 311 key switch (external), recess-mounted	x	x
Command 411 key switch (external), surface-mounted	x	x
Command 312 key switch in post	x	x
Digital 163 electronic aerial module, 868 MHz		x
Digital 302 mini hand transmitter, 2-channel, 868 MHz		x
Digital 304 mini hand transmitter, 4-channel, 868 MHz		x

**Dynamic 400 – Basic packages.**

Choosing the correct operator system is easy. There are two basic packages: „Dead-man's mode“ and „Press-and-release“ that can be individually extended by a large range of accessories. The operator systems are controlled by the extendable Control 70.

### Basic package „Dead-man's mode“: The most cost-effective automation.

The basic package „Dead-man's mode“ of the Dynamic series 400 – 404 is the simplest and most cost-effective kind of automation. Ideal for the control of roller shutters and grilles. The door travels by „Press-and-release“ in the OPEN direction and in „Dead-man's mode“ in the CLOSE direction. The operator system contains the control unit Control 70 that can be extended at any time.

**Special requirements call for special operator solutions.**

Marantec develops individual solutions for special requirements, for example chain drives for extreme heavy roller shutters. We even offer a large range of accessories for these special applications.

### Basic package „Press-and-release“: The convenient kind of automation.

The convenient solution for automation is called „Press-and-release“, ideal for the control of frequently used doors. The package contains a Control 71 extension module for the Control 70, which includes an optosensor for the closing edge safety device. The door travels with „Press-and-release“ in the OPEN and CLOSE directions, simply by impulse control. In special cases, e.g. parking garages, an additional roll up safety device can be connected by means of the Control 72 extension module.

Mechanical accessories	Dynamic 400	Dynamic 401	Dynamic 402	Dynamic 403	Dynamic 404
Motor support bracket	x	x	x	x	
Pedestal bearing Ø 30 mm	x	x	x		
Pedestal bearing Ø 40 mm				x	
Pedestal bearing Ø 50 mm					x
Emergency hand chain operation	x	x	x	x	

	Tube diameter in mm										
	101,6	108,0	133,0	159,0	177,8	193,7	219,1	244,5	273,0	298,5	323,9
	x 3,6	x 3,6	x 4,0	x 4,5	x 5,0	x 5,4	x 5,9	x 6,3	x 6,3	x 7,1	x 7,1
Operator systems	Max. curtain weight in kg										
Dynamic 400	160	147	120	100	86						
Dynamic 401	225	215	180	155	140						
Dynamic 402	330	310	250	210	195	175					
Dynamic 403	690	650	535	450	400	370	320	285			
Dynamic 404 -9					820	760	681	617	559	515	477
Dynamic 404 -11					738	684	601	530	490	450	410
Dynamic 404 -17				637	586	538	483	435	395	362	
	Max. curtain weight in kg at 100% duty cycle										
Dynamic 401	135	129	108	93	84						
Dynamic 402	210	198	162	138	123	111					
Dynamic 403	414	392	321	270	240	222	192	171			

The values take 20 % friction and a profile thickness of 25 mm into consideration. In unfavorable circumstances, like for additional door seals and double-skinned profiles, this friction may be greater. The values must be corrected accordingly. In high frequency applications select an operator system with 100 % duty cycle.

➤ Extensive Dynamic range for automation of roller shutters

➤ Individual operator solutions for special requirements

➤ Large range of accessories and extensions

➤ Standard extension module or roll up safety device

➤ Two Dynamic basic packages for easy orders, „Dead-man's mode“ and „Press-and-release“

➤ The complete Dynamic package is precabled

➤ Extendable basic control unit

➤ Emergency operation with hand crank or emergency hand chain