



# Byrnes Entrance Technology

Formerly FRB Industries established 1981

BYRNES ENTRANCE TECHNOLOGY PTY LTD ABN 36 099 717 067

Unit 4, 15 21-Bay Road, TAREN POINT NSW 2229 AUSTRALIA

Tel: (02) 9531 5559 Fax: (02) 9531 5551 Email: [info@byrneset.com.au](mailto:info@byrneset.com.au) Web: [www.byrneset.com.au](http://www.byrneset.com.au)

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• AUTOMATIC DOORS • AUTOMATIC GATES • REVOLVING DOORS • TURNSTILES • BOOMGATES

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## Architectural Specification for Automatic Swing Door Operator Model I Motion 1301

Swing door operator(s) shall be electromechanical programmable microprocessor controlled, heavy duty and high performance type Tormax I Motion 1301, suitable for use with external or internal swing doors, as supplied and installed by Byrnes Entrance Technology Pty Ltd, Tel: 02 9531 5559, Fax: 02 9531 5551, Email: [info@byrneset.com.au](mailto:info@byrneset.com.au).

**Drive system:** Drive system shall comprise of a maintenance free, heavy duty AC permanent magnet synchronous motor, with hypoid gear drive and self learning micro-processor control system which is fully programmable and suitable for 240 Volt AC power without the need for step down transformers or hydraulic drive system. The motor drive system shall drive the doors open and close by integrated closing spring to provide smooth closing action. The Swing Door Operator also to include an integrated hold open function and an integrated "push and go" function. Adjustable door opening speed.

The door operator to operate quietly at all times and the equivalent continuous sound level not to exceed 30dB.

Maximum leaf weight is 400kg for a leaf width of 800mm and 50kg for maximum leaf width of 1500mm.

The swing door operator to include wind load compensation for keeping the door firmly closed under wind pressure.

The swing door operator to incorporate 'safety reversing' function with stop function in opening direction and automatic reversing in closing direction.

The operator when first switched on shall automatically adjust to its required opening and closing positions and door speed via 'the teach' in program - programming of the control system by manually guiding the door through the corresponding operating sequence in the 'teach in' mode. The hold open time is infinitely adjustable between 1 and 120 seconds.

**Fire Alarm/Failsafe Function:** The operator to be supplied with a battery module with internal supervision and signal cable. On fire alarm signal or mains power failure, the operator will open and hold for a predetermined period (approximately 2 hours) and then close and auto-reset upon mains power resumption.

**Power Supply:** Power supply voltage: 240 volt AC, 50Hz, 10 amp circuit power consumption 160W. Supply voltage for all commercially available activators and safety detectors is 24 volt DC. Optional power supply is available for connection of 24 volt DC electromagnetic load on electric strikes. Integrated serial interfaces: RS232, LIN Bus, CAN Bus for integration of the drive system in building facilities management system.

**Door Activation:** When door(s) are manually pushed or pulled, the door will operate from 5 degrees of swing via the integrated "push and go" door operator function. Also select from the following activation options:

Option 1: Surface Mounted Detector – Active Infra-red, modular solid state.

Option 2: Ceiling Mounted Detector – Active Infra-red, modular solid state.

Option 3: Electric Floor Mat Switch - Electric floor mats within the 'sweep- zone' of the door, fully moulded, colour black, exposed area dimensions 700x1000, 700x1400, 900x1000 or 900x1400. Admissible Intermittent Load: 70kgs/cm2.

**Safety:** Select from the following recommend options:

Topscan IR Safety sensors, mounted to the top rails of the door.

Electric floor mats within the 'sweep- zone' of the door, fully moulded, colour black, exposed area dimensions 700x1000, 700x1400, 900x1000 or 900x1400. Admissible Intermittent Load: 70kgs/cm2.

**Control functions:** The Control Panel which can be integrated into the end of the operator or separately surface mounted, includes the operation modes OFF, AUTOMATIC 1, AUTOMATIC 2, EXIT, OPEN, MANUAL OPERATION.

**Installation Details:** Operator mounts to doors either left or right hand, transom or door leaf mounting and suitable for doors opening out by using standard 'push' arm or opening in by using 'slide' arm.

### Technical Data:

Dimensions (mm): 100 high x 135 wide x 640 long.

Power supply: 240VAC 50Hz !0 Amps. Power consumption: 5 ...250W.

Inputs: 8 programmable inputs, of which 4 testable safety features, expandable by modules.

Outputs: 3 programmable, 24VDC, short circuit proof, expandable by modules.

Interfaces: RS232, LIN Bus, CAN Bus.

Protective class (drive): IP22 installed in dry location.

Maximum opening angle: Standard arm: 110°. Sliding arm 100°.

Opening speed: Adjustable up to 45°/secs. Closing speed: Adjustable up to 45°/secs.

Hold open time: 0 ... 60secs; permanently open.

Ambient temperature range: -20 degrees to + 50 degrees.

**Proprietary Item supplied by: Byrnes Entrance Technology Pty Ltd** Email: [info@byrneset.com.au](mailto:info@byrneset.com.au)

**NSW:** Unit 4, 15-21 Bay Road, TAREN POINT, NSW 2229 Tel: 02 9531 5559 Fax: 02 9531 5551

**QLD:** Unit 14, 37 Blanck Street, ORMEAU, QLD 4208 Tel: 07 5549 2236 Fax: 07 5549 2099

**ACT:** PO Box 555, FYSHWICK, ACT 2609 Tel: 0401 142 517