



Surface Applied
Door Closer and
Coordinator System

DORMA GSR



The TS93 GSR in Contur Design combines exceptionally smooth, efficient door control with proper sequential closing for pairs of doors equipped with astragals or exit devices.

The GSR Series Coordinator System provides function which ordinarily requires two or more hardware components. Twin **TS93** closers feature DORMA's unique cam and roller mechanism which makes door opening both smoother and easier than is possible with traditional rack and pinion closers. A highly efficient GSR coordinator housed in the track unit provides dependable sequential closing of doors. The TS93-1 closers comply with barrier-free requirements.

Specification:

DORMA TS93 GSR Series with two TS93 surface closers and a GSR mechanism. Each closer will consist of a steel cam, roller, and adjustable spring incorporating a track arm assembly. Closers will have two separate temperature-compensating, noncritical adjustment valves to control sweep and latch closing speeds. Adjustable hydraulic backcheck will be effective from approximately 65°. Delayed action range will be effective from approximately 125° to 70°. TS93 closers with field-adjustable spring power sizes 1-5 will meet 5 lb interior barrier-free opening force requirements. Maximum opening range will be approximately 175°, conditions permitting. The GSR coordinator mechanism will control sequential closing for pairs of doors. The TS93 GSR is non-handed. Install TS93 closers on the pull side of the door. Install the GSR coordinator mechanism and slide track assembly on the pull side frame face.

Optional Specifications:

TS93 GSR shall have optional (EMF 1I) mechanism to provide an electrically held selective single-point hold open function for the inactive door from approximately 80° to 130°. GSR coordinator will hold active door when inactive door is held open. Closing of inactive door will trigger the coordinator and sequentially close the active door.

TS93 GSR shall have optional (EMF 1A) mechanism to provide an electrically held selective single-point hold open function for the active door from approximately 80° to 130°. The active door will hold open at a preselected point when the inactive door is closed.

TS93 GSR shall have optional (EMF 2) mechanism to provide an electrically held selective single-point hold open function for the active and inactive doors from approximately 80° to 130°. The active door can be held open when the inactive door is closed, or both doors can be held open together.

Certification:

The DORMA TS93 GSR coordinator system is listed by U.L. and C.U.L. under their continuing reinspection programs. Meets the requirements UL10C and UBC 7.2 (1997) for positive pressure. The TS93 door closers are certified to conform to the requirements of ANSI A156.4 Grade 1. The TS93-1 version door closer meets the requirements of ANSI A117.1 and ADA for barrier-free accessibility. California State Fire Marshall (CSFM) approved.



The quality management system at the Reamstown, PA facility is certified to ISO-9001:2008.*



*DORMA Door Controls Inc., dba: DORMA Architectural Hardware

Technical Details:

- TS93-1 closers meet barrier-free requirements (adjustable size 1–5).
- TS93-5 closers for heavy or wider doors (adjustable size 5–6 +50%).
- Fits openings 53" to 98".
- Minimum door width 15".
- Active door field-selectable.
- Coordinator operates only when inactive door is opened.
- Coordinator fits on 1-1/2" frame face.
- Optional electrical hold open available for inactive door (EMF 1I), active door (EMF 1A), or both doors (EMF 2).
- Backcheck and delayed action standard.
- Sex nuts supplied standard for 1-3/4" door thickness.
- Coordinator installs on frame; closers install on doors.
- Coordinator and door closers are nonhanded for versatility when selecting the active and inactive door.
- Easy installation.
- Quiet operation.
- Safety override.
- MK-397 optional carry bars available for doors up to 3'-6".
- MK-398 optional carry bars available for doors over 3'-6".
- Auxiliary stop by others required at field-selected degree of hold open to prevent possible damage to TS93 GSR mechanism.

REDUCED OPENING FORCE INSTALLATIONS CAUTION:

Manual door closers, including closers certified to conform to BHMA/ANSI Standard A156.4, when installed and adjusted to conform to ADA or other reduced opening force requirements, may not provide sufficient power to reliably close and latch a door.

Refer to catalog for information on ED800 Low Energy Operator to meet reduced opening force requirements without affecting closing power.

Electrical Specifications:**Operating Voltage:**

24 VDC +10% –15%.

Power Input:

EMF 1I: .067 A (1.6 W).

EMF 1A: .067 A (1.6 W).

EMF 2: .134 A (3.2 W).

Power Supply Recommendations:

DORMA 502RF (1 A), 531RF (1.5 A), 532RF (2 A), 524RF (4 A), or 536RF (6 A).

Specify power supply per total amperage required.

Finishes**Standard Sprayed Finishes:**

Aluminum: 689.

Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic).

Gold: 696.

Black: 693.

Optional DORMA Custom Color or Designer Color Finishes:

Contact Customer Service.

Optional Plated Finishes:

Brass: 605 (Bright) or 606 (Satin).

Bronze: 612 (Satin).

Chrome: 625 (Bright).

Stainless: 630 (Satin).

NOTE: Closer main arm and cover only. Frame mounted GSR portion not available plated. The TS93 closers are supplied with plated covers and complementing colored end caps.

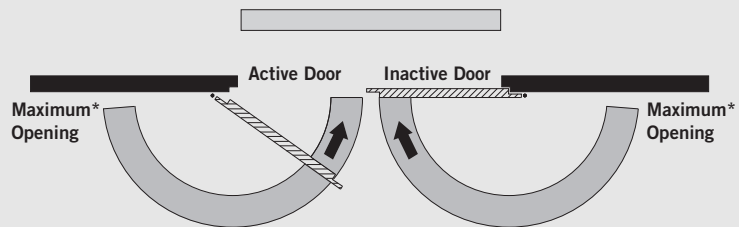
Warranty:

Closer and Coordinator Mechanism: 25 Years.

Electrical Components: 2 Years.

GSR

- For use on pairs of labeled doors with astragals, exit devices, or other hardware requiring sequential closing.
- Twin closers assure self-closing of doors.
- GSR mechanism coordinates sequential closing of doors.
- GSR holds active door open until inactive door triggers release.
- GSR operates only when inactive door is opened.

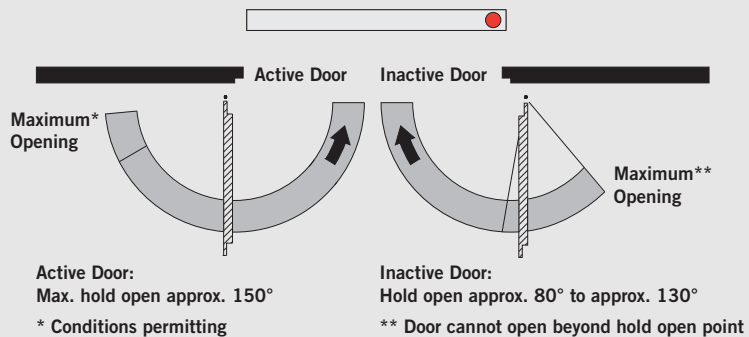


Both Doors:
Maximum opening 175°

*Conditions permitting

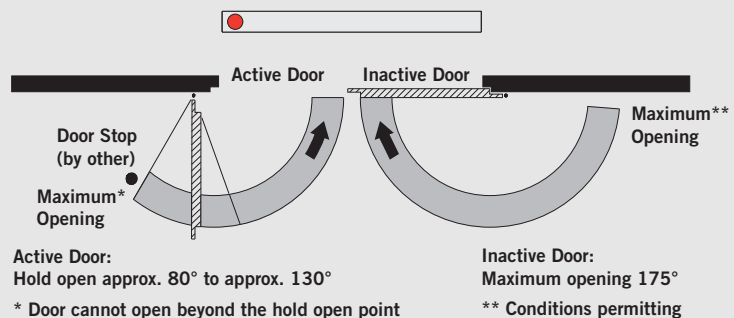
GSR EMF 1I

- Same as GSR with added hold open feature.
- Selective electrical single-point holder-release mechanism at inactive door.
- Integrates with new or existing detectors or fire/smoke control systems.
- GSR coordinator holds active door open when inactive door is electrically held open.
- Actuation of fire system, remote detector, or loss of power initiates release and sequential closing.



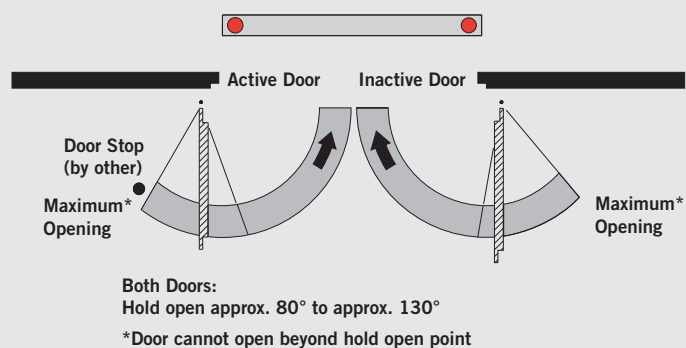
GSR EMF 1A

- Same as GSR EMF 1I above, but holder-release device located at active door only.
- Permits electric hold open of active door when inactive door is closed.



GSR EMF 2

- Combines function of GSR EMF 1I and EMF 1A.
- Electromagnetic hold open solenoids at both doors.
- GSR coordinator holds active door open when inactive door is held open.
- Active door can be electrically held open when inactive door is closed.



TS93 GSR/EMF 1I/EMF 1A/EMF 2

TS93-1 (shown)
 Minimum door rail for closer 2-1/2".
 Minimum frame face for coordinator 1-1/2".
 Minimum ceiling clearance for coordinator 1-5/8".

TS93-5
 Minimum door rail for closer 3".
 Minimum frame face for coordinator 1-1/2".
 Minimum ceiling clearance for coordinator 1-5/8".

Size Selection Chart

CLOSER	INTERIOR/ EXTERIOR	DOOR WIDTH						
		1'-3" min.	2'-6" max.	3'-0" max.	3'-6" max.	4'-0" max.	4'-6" max.	5'-0" max.
TS93-1	INTERIOR	•	•	♿	♿	♿	N/A	N/A
TS93-5	INTERIOR	N/A	N/A	N/A	N/A	•	•	•

- – Recommended application
- N/A – Not applicable/application not recommended
- ♿ – Opening force 5 lb or less on interior doors; 8.5 lb or less on exterior doors where door without closer attached requires 1 lb opening force or less.

How to Order GSR Series			Example
Closer Size	TS93-1 TS93-5	Adjustable sizes 1–5 (see size selection chart) Adjustable sizes 5–6 with 50% additional closing power over size 6 (see size selection chart)	TS93-1 TS93-5
Function	GSR GSR EMF 1I GSR EMF 1A GSR EMF 2	Coordinator system Coordinator system with electric hold open for inactive door Coordinator system with electric hold open for active door Coordinator system with electric hold open for inactive and active door	TS93-1 GSR TS93-1 GSR EMF 1I TS93-1 GSR EMF 1A TS93-1 GSR EMF 2
Accessories	MK-397 MK-398 GSR EXT KIT	Carry bar for doors less than 3'-6" wide Carry bar for doors 3'-6" wide and greater Cover and connecting rod extension kit for openings over 98" wide	TS93-1 GSR × MK-397 TS93-1 GSR × MK-398 TS93-1 GSR × GSR EXT KIT
Finish		See DORMA finish chart or finish information in this brochure. Example: 689 – Aluminum	TS93-1 GSR 689



DORMA Americas
www.dorma-usa.com

DORMA Architectural Hardware
DORMA Drive, Drawer AC
Reamstown, PA 17567-0411
Telephone: (800) 523-8483
Facsimile: (800) 274-9724
E-mail: archdw@dorma-usa.com

DORMA Canada
1680 Courtney Park Drive, Unit 13
Mississauga, Ontario L5T 1R4
Telephone:(800) 387-4938
Facsimile: (905) 670-5850
E-mail: sales@dormacanada.com

DORMA Mexico, S. de R.L. de C.V.
Astrónomos 28, Col. Escandón
México, D.F. 11800
Del. Miguel Hidalgo
Telephone: (52+55) 5272-6937
Facsimile: (52+55) 5272-6948
E-mail: operacion@dorma.com.mx