Swing door operator

DORMA CD 80

reddot
design award
winner 2004

Easy installation, aesthetic design, useful special functions!

The CD 80 from DORMA is a swing door operator that can cover both new and established areas of application. The operator has a modern, prize-winning and unobtrusive design as well as being impressively small. The low height of the unit allows it to be optimally combined with standard profile systems. The standard mounting plate provided minimises the work required for either door leaf or lintel/top jamb fixing. After the plate has been fixed, the operator is simply latched onto it; strenuous and exacting installation work is not required. The low weight of the operator (approx. 8.5 kg including the mounting plate) enables the CD 80 to be fitted directly on the door leaf without causing excessive hinge strain.

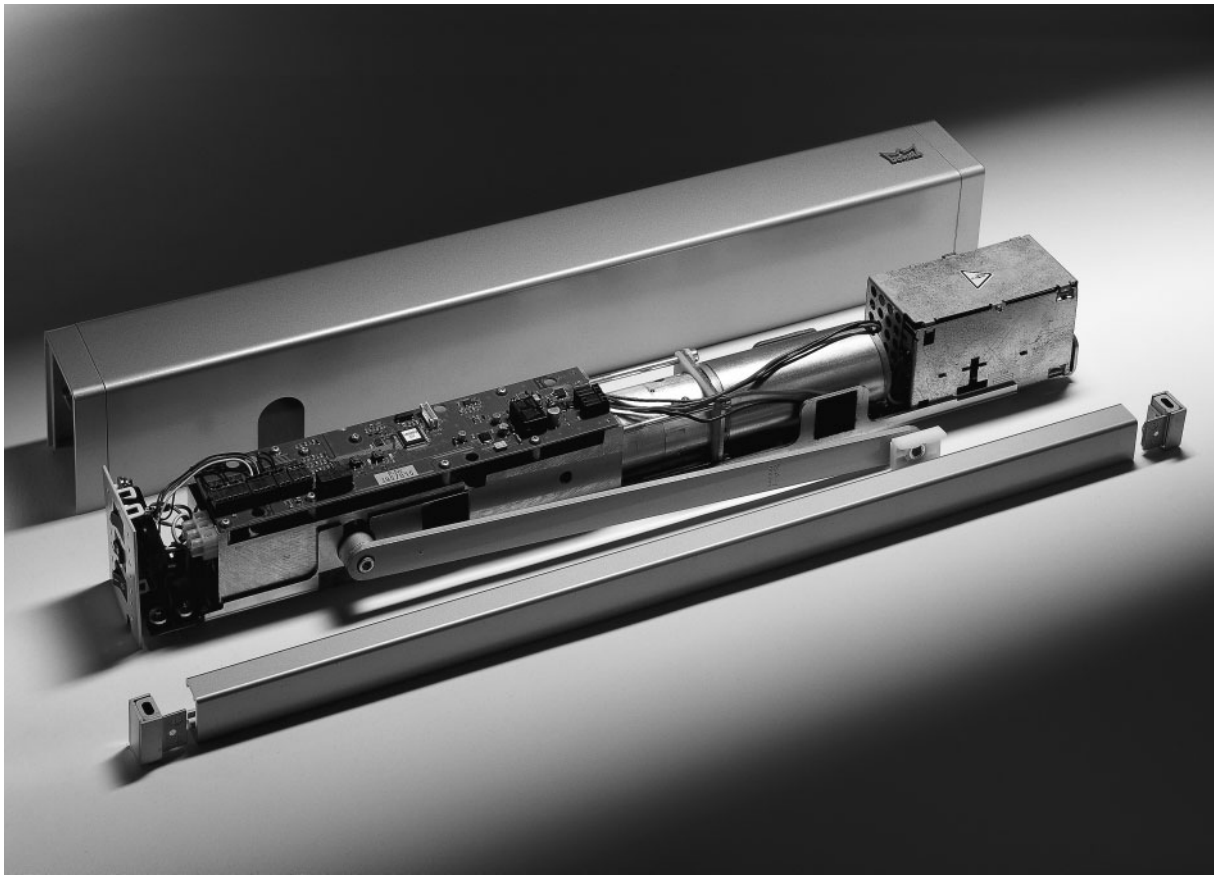
Special functions ensure that the CD 80 has the widest possible range of applications. Push&Go, Power Assist and an extended hold open function all come as standard. The newly developed extended hold open function allows the door to be held open at an individually adjustable opening angle for a defined length of time of either 5 or 10 minutes. This function is particularly well-suited for use during loading and unloading operations or for ventilation purposes.

Optimal cost effectiveness means that the CD 80 can also be used to automate doors where automatic operators were previously outside of budget. The quiet operation of the CD 80 also means that it is ideal for use in noise-sensitive areas (e.g. residential homes, offices and private dwellings).

reddot design award winner 2004

Benefits

- Minimal operator dimensions and weight
- Attractive design
- Quiet operation
- Standard mounting plate for quick and easy installation
- Special functions included as standard
- Great value for money

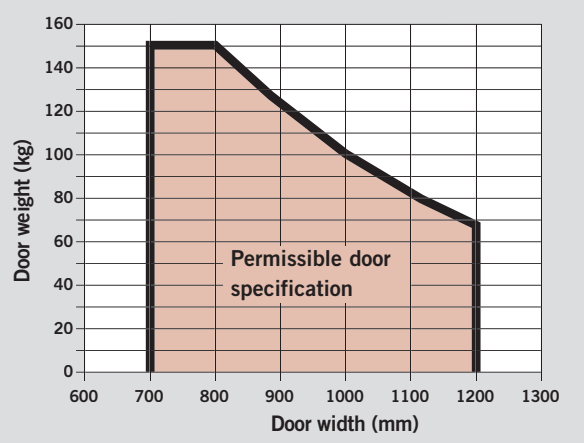


Applications

Single-leaf standard doors Door leaf width	700 to 1200 mm (depending on door weight, see diagram)
Door leaf weight	Up to 150 kg (depending on door width, see diagram)
Fixing positions	Top jamb fixing on the hinge (pull) side (operator variant G)
	Door leaf fixing on the opposite hinge (push) side (operator variant G)
	Top-jamb fixing on the opposite hinge (push) side (operator variant B)
	Door leaf fixing on the hinge (pull) side (operator variant B)
Frame reveal depth	With slide channel (all fixing options): – 30 mm to 30 mm
	With standard arm* (top jamb fixing on the push side): 30 mm to 200 mm

* The standard arm is only provided for top jamb fixing on the opposite hinge (push) side. Application of the standard arm increases the forces of the door so that manual operation is still possible, but not very comfortable. Where a standard arm is to be installed, DORMA recommends use of an appropriate activator rather than the Push & Go function.

Permissible door width and weights



Technical data of the drive unit

Closing force		sim. to EN 4
Dimensions	Height	70 mm
	Width/Length	660 mm
	Depth	90 mm
Weight incl. mounting plate		8,5 kg
Opening angle		At least 100° in any fixing position
Supply voltage		230 V, 50/60 Hz
Power supply for external accessories		24 V DC, 600 mA
Class of protection		IP 20
TÜV type-approved		●
Compliant with the Low Voltage Directive and the EMC Directive		●
Manufactured to ISO 9000		●

Adjustable parameters of the travel path

Opening time adjustable	3 s to 6 s
Closing time adjustable	3 s to 10 s, sim. to a door closer
Hold-open time adjustable	0 s to 30 s
Latching action adjustable	●
Wall blanking adjustable	●
Opening angle adjustable	●
Angle for extended hold open function adjustable	●
Delayed opening for locking mechanism adjustable	●

Standard function programs and special functions

Function programs via the program switch	Off	●
	Automatic	●
	Permanent open	●
Special functions included as standard	Push & Go	●
	Power Assist mode	●
	Extended hold open function	●
Optional special functions (additional accessories required)	Airlock function	○
	Timed airlock function	○
	Flip-flop-function	○
	Night-bank function	○
Door closer function under cut-out conditions		●

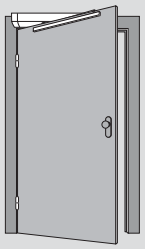
Prepared for connection of the following accessories

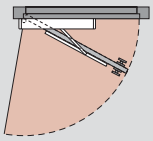
- Softline slide channel
- Standard arm
- DORMA IRS-2-33/70/90/120 infrared sensors
- Door locking devices
- Electric strikes (fail-safe/fail-secure principle)
- DORMA SVP anti-panic motor lock with automatic locking action
- Access control system
- Activator (pushbutton, radar motion detector, DORMA AutoSwitch ...)
- Radio remote control
- External program switch
- Ratchet type hold-open for Softline slide channel when opening the door manually under cut-out conditions

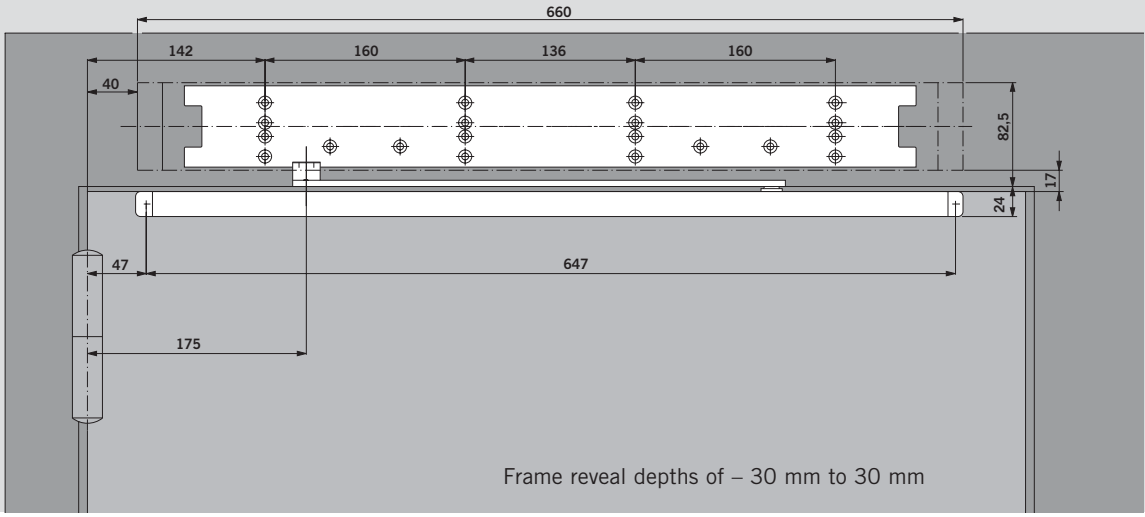
● standard ○ optional

Top jamb fixing on the hinge (pull) side (with slide channel)

LH (ISO 6) and RH (ISO 5) door
(Example:
LH (ISO 6) door)



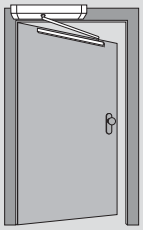


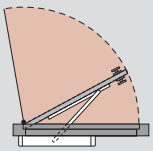


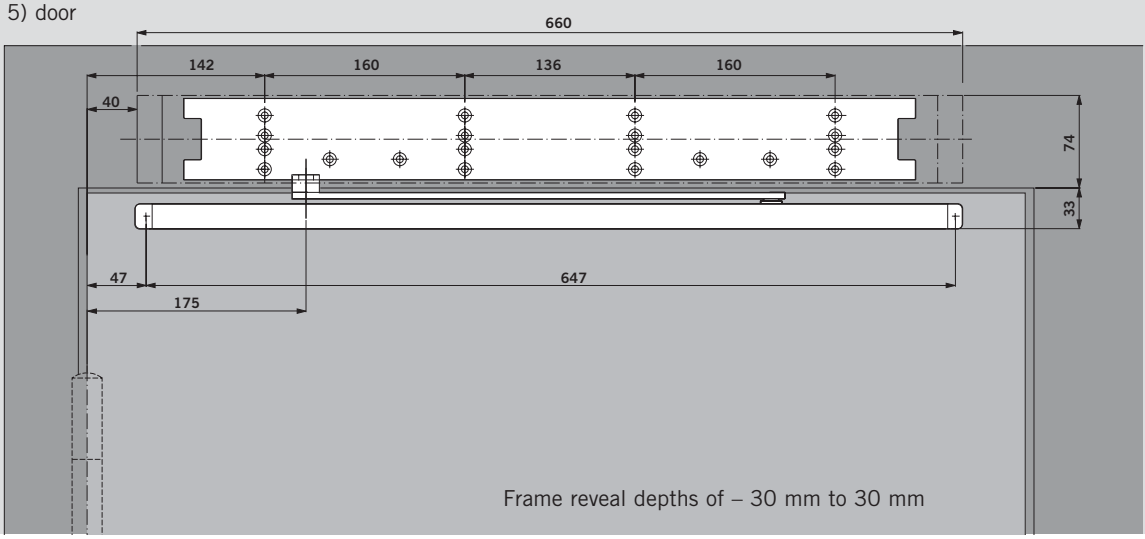
Frame reveal depths of – 30 mm to 30 mm

Top jamb fixing on the opposite hinge (push) side (with slide channel)

LH (ISO 6) and RH (ISO 5) door
(Example:
RH (ISO 5) door)



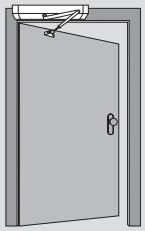


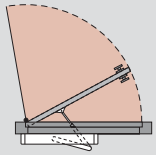


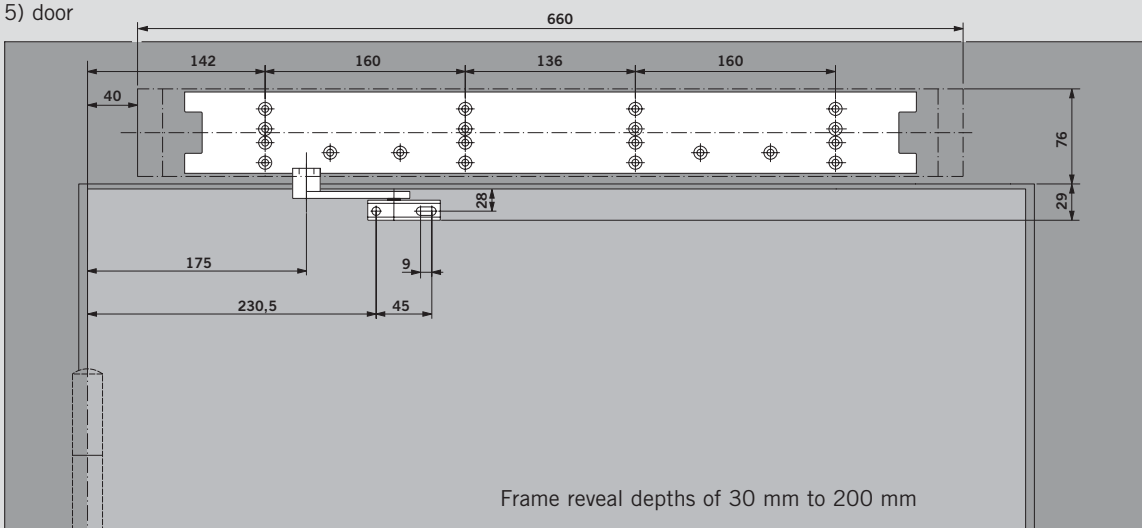
Frame reveal depths of – 30 mm to 30 mm

Top jamb fixing on the opposite hinge (push) side (with standard arm)

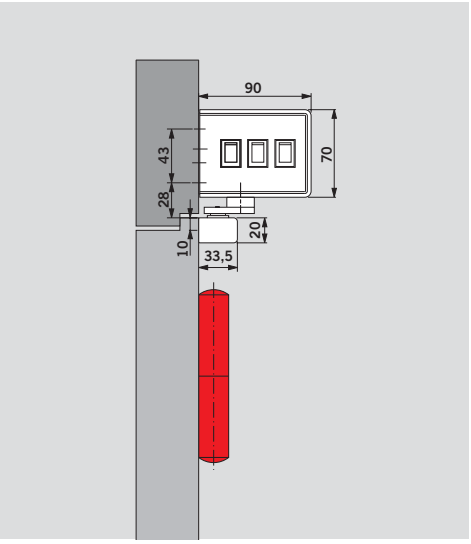
LH (ISO 6) and RH (ISO 5) door
(Example:
RH (ISO 5) door)

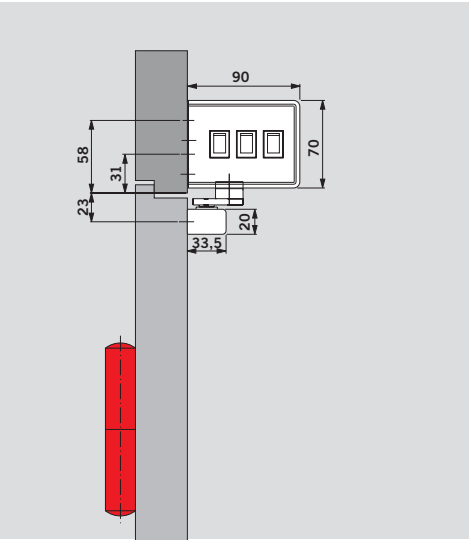


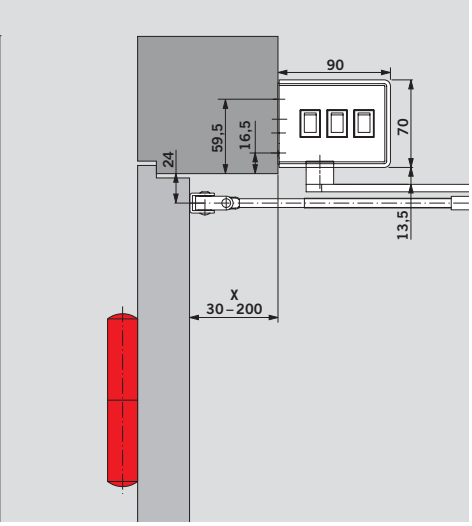




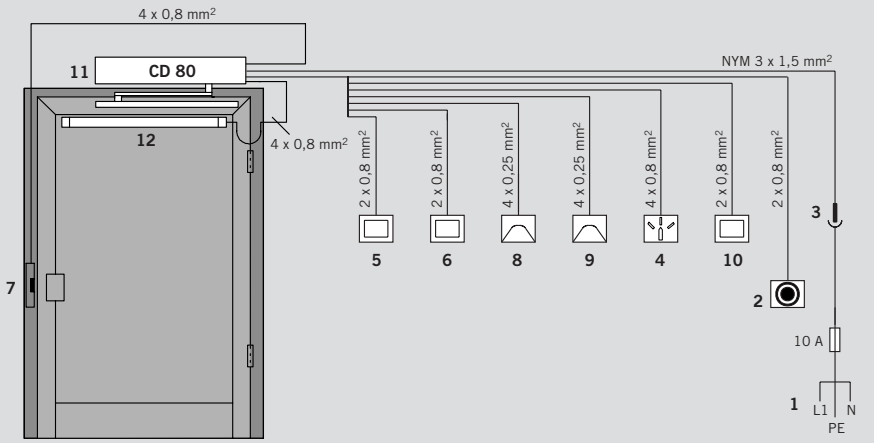
Frame reveal depths of 30 mm to 200 mm





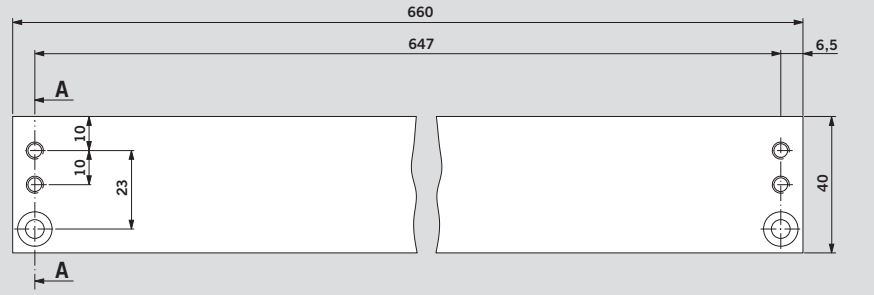


Wiring diagram

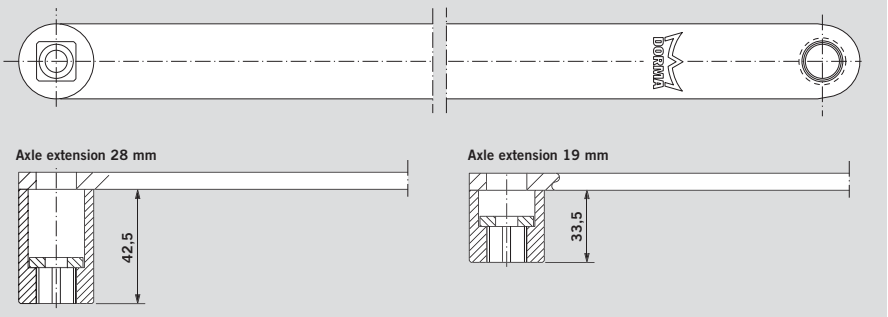


1 Feeder
2 Emergency pushbutton
3 Two-pole-and-earth socket
4 Program switch (external)
5 Pushbutton, internal
6 Pushbutton, external
7 Electric strike
8 Radar, internal
9 Radar, external
10 Extended hold open pushbutton (external)
11 Swing door operator DORMA CD 80
12 Infrared sensor DORMA IRS-2

Mounting plate for the Softline slide channel CD 80

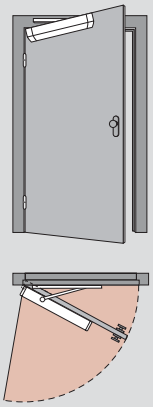


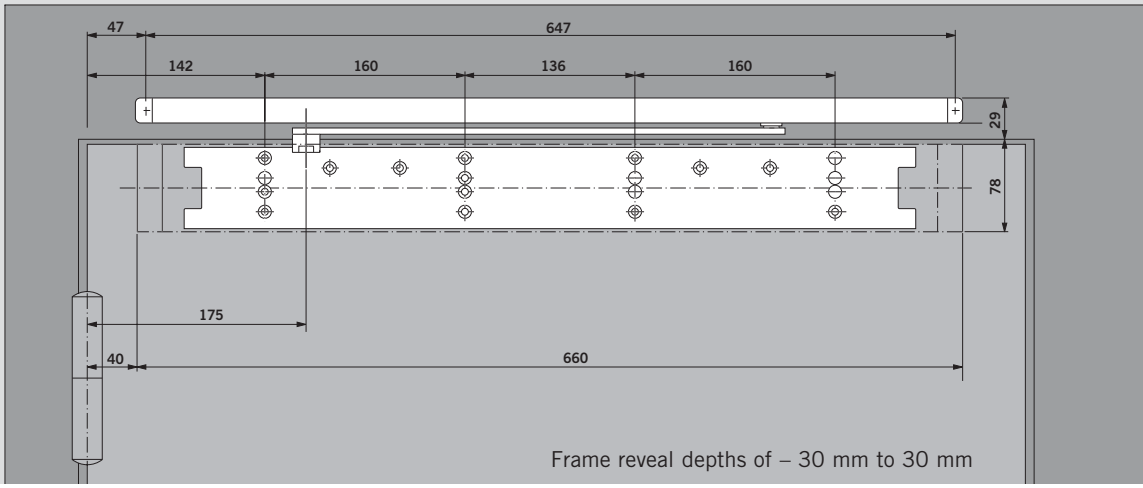
Slide channel arm with additional axle extension 19 / 28 mm



Door leaf fixing on the hinge (pull) side (with slide channel)

LH (ISO 6) and RH (ISO 5) door
(Example:
LH (ISO 6) door)

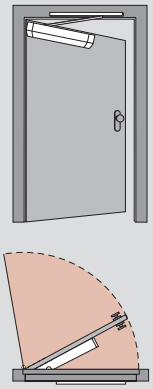


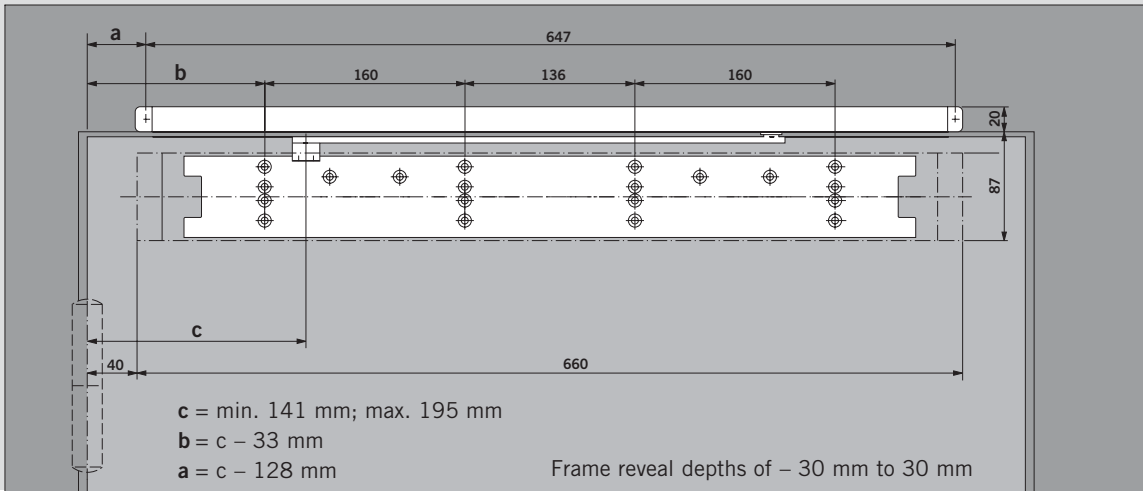


Frame reveal depths of – 30 mm to 30 mm

Door leaf fixing on the opposite hinge (push) side (with slide channel)

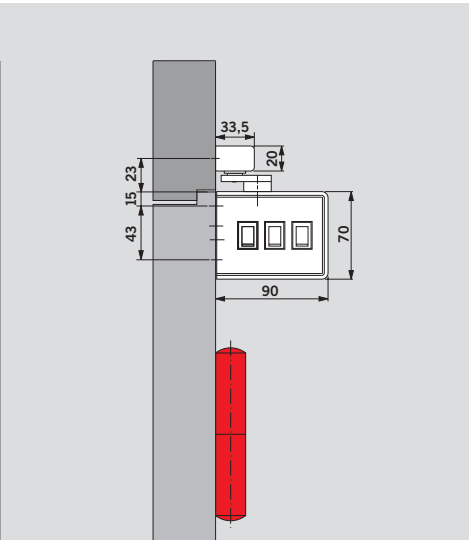
LH (ISO 6) and RH (ISO 5) door
(Example:
RH (ISO 5) door)

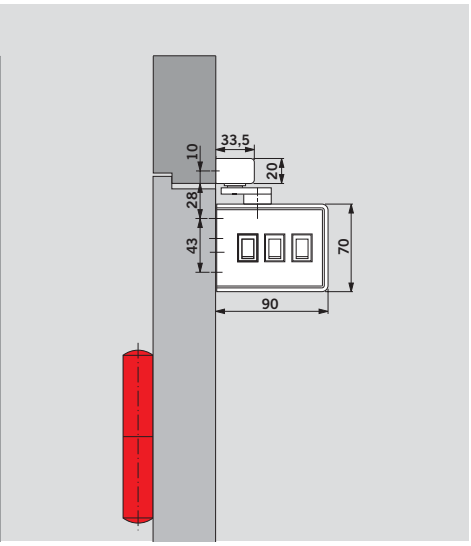




c = min. 141 mm; max. 195 mm
b = c – 33 mm
a = c – 128 mm

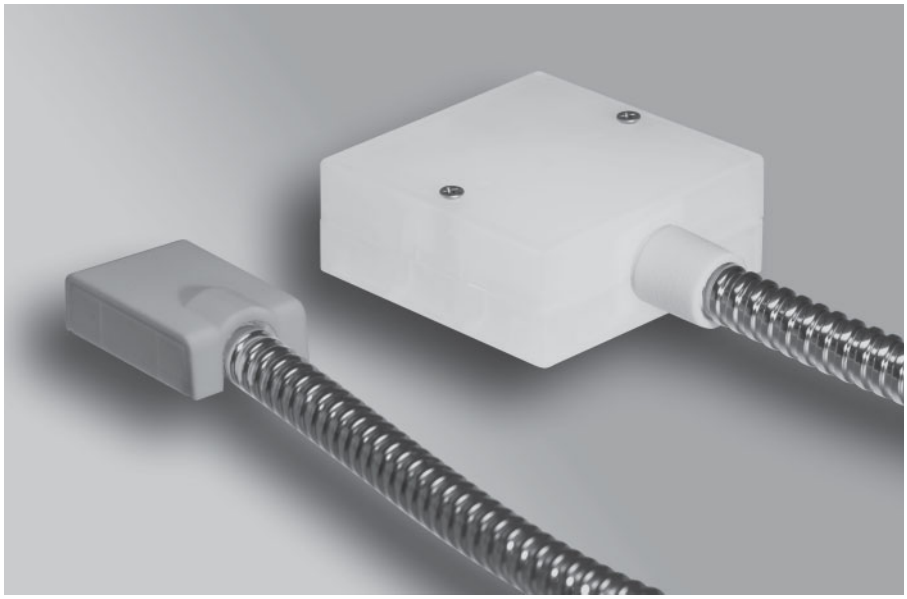
Frame reveal depths of – 30 mm to 30 mm



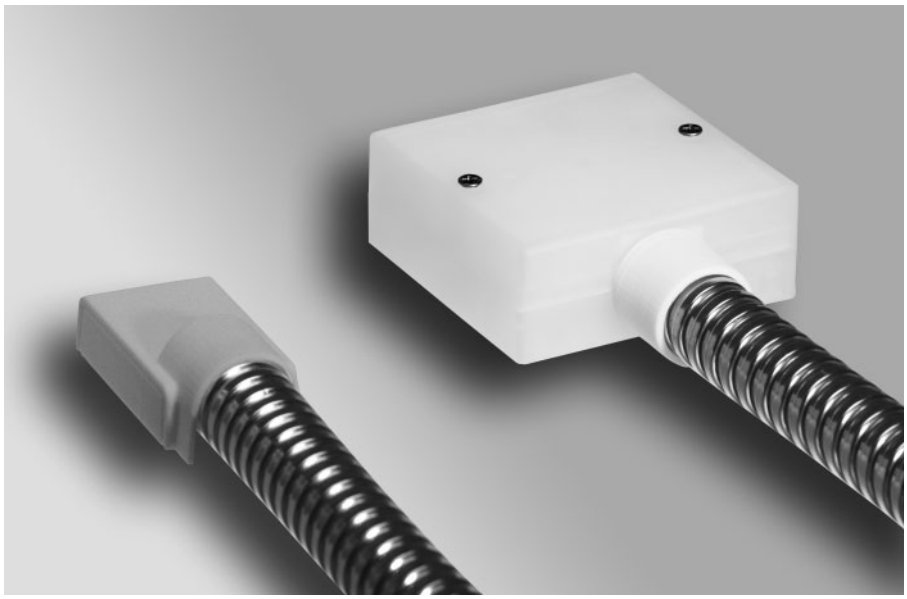


Cable loop KÜ-CD

To assist in the installation of the cabling necessary for the door leaf fixing options, DORMA is also able to offer a special cable loop KÜ-CD for the CD 80 operator. This also enhances the visual elegance of the overall solution.



Cable loop KÜ-CD, inner diameter 12 mm



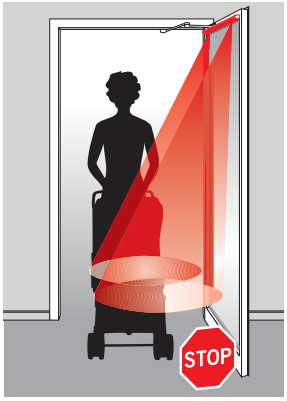
Cable loop KÜ-CD, inner diameter 20 mm

Infrared safety sensors DORMA IRS-2

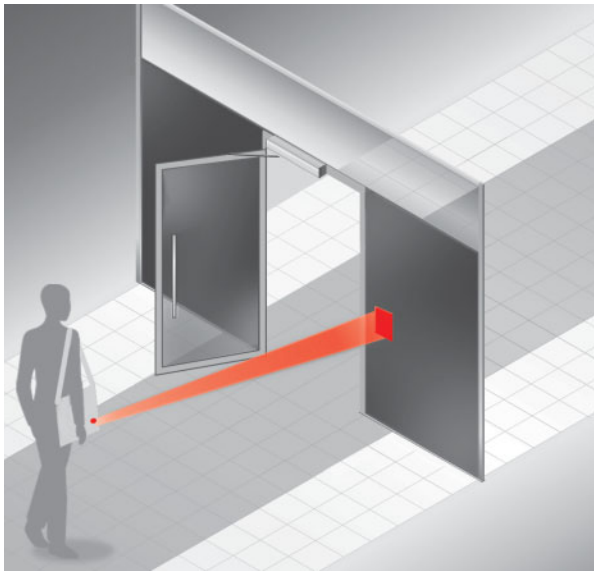
DORMA ISR-2 infrared safety sensors for safeguarding the sweep range of the door. Standard lengths 330, 700, 900 and 1200 mm.

- Technical system of the DORMA IRS-2 safety sensor
- Background filtering function

- Sensor width setting from 1500 mm to 2500 mm
- Operating temperature from –20 °C to +60 °C



DORMA AutoSwitch



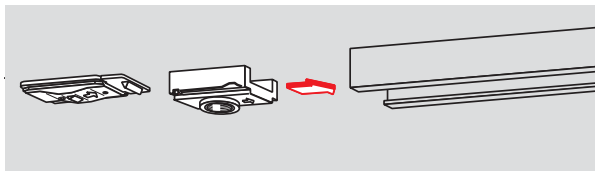
The DORMA AutoSwitch system enables automatic doors to be activated on a hands-free basis. The control unit detects the presence of the AutoSwitch transponder-key from a distance of up to 3 m and emits a signal to activate the operator. The system also offers an access control capability where entry is limited to transponder holders only.

Components of the AutoSwitch hands-free door activating and access control system:

Control unit mounted close to the door, standard transponder-key for door activation and programming-transponder-key.

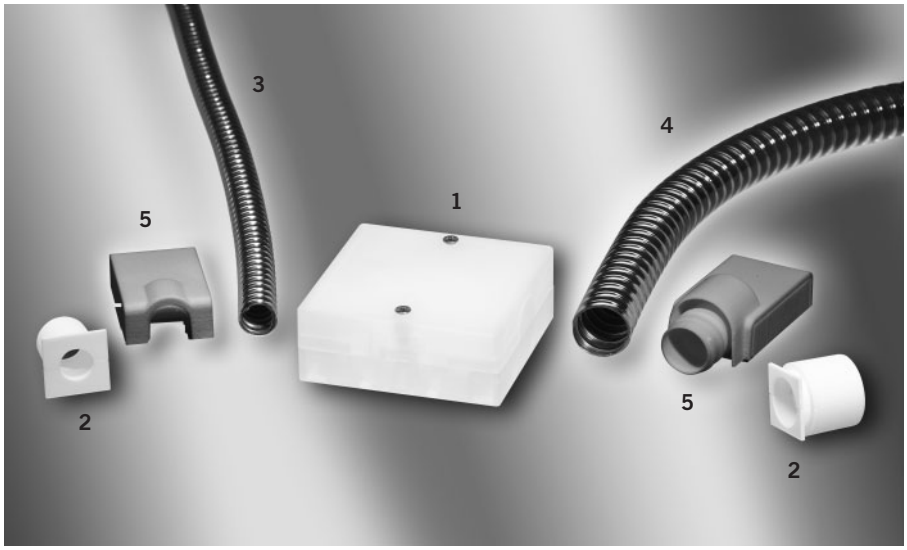
Ratched type hold-open

The hold-open unit enables doors to be held at a specific angle even when the power is switched off. It can be mechanically activated and deactivated as required and the pull-off force can be adjusted to suit each individual door situation.



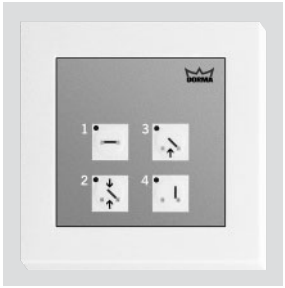
Cable loop KÜ-CD

The DORMA KÜ-CD cable loop offers the ideal solution for the door leaf fixing options of the CD operator. The combination of
– Junction box **(1)**
– Junction box accessories **(2)**
– Cable loop (inner diameter 12 mm) **(3)**
– Cable loop (inner diameter 20 mm) **(4)**
– Adapter-unit **(5)**
enables elegant concealment of all the requisite cabling connecting the operator to the supply.



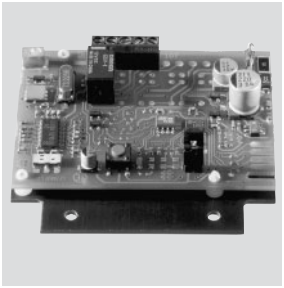
System accessories

"Merkur" radar motion detector



Electronic program switch EPS-D for swing door operators

Wireless transmitter RC-T HandHeld



Wireless receiver RC-R

Large-area pushbutton, surface or flush mounted, with or without "Tür auf" wording (also available as radio remote control surface-mounted variant)

System 55

Specification texts

Full automatic electrohydraulic swing door operator CD 80, compliant with the most recent versions of guidelines for powered doors, windows and gates, German code BGR 232 (former ZH 1/494), Accident prevention regulations, EMC directive (CE symbol), VDE regulations. Forces adjustable according to prEN 12650/DIN V 18650. Quality-assured manufacture to ISO 9000.

Door parameters:

- Door width: from 700 mm to 1200 mm (depending on door weight)
- Door leaf weight: up to 150 kg (depending on door width)
- Lintel depths: from -30 mm to 30 mm with slide channel system, from 30 mm to 200 mm with standard arm
- Opening angle: at least 100° possible for all installations
- Opening time adjustable 3 s to 6 s
- Closing time adjustable 3 s to 10 s (analog door closer)
- Hold-open time adjustable 0 s to 30 s
- Door closer function under cut-out conditions
- Closing force similar EN 4 in accordance with EN 1154
- Operator dimensions (height x depth x width/length) 70 mm x 90 mm x 660 mm
- Functions programs: OFF – AUTOMATIC – PERMANENT OPEN
- Standard special functions: Push & Go – Power Assist – Extended hold open function
- Power supply data: 230 V AC, 50/60 Hz
- Power supply for external accessories: 24 V DC, 0,6 A
- Installation on the hinge/pull side and opposite hinge/push side, door leaf and lintel
- Power transmission using slide channel system and standard arm

Operator colour Standard: ( ) Silver ( ) RAL 9016
Special colours: ( ) RAL required: .....

Way of installation Hinge/pull side
Lintel: ( ) Operator type G
Door leaf: ( ) Operator type B
Opposite hinge/push side
Lintel: ( ) Operator type B
Door leaf: ( ) Operator type G
additionally ( ) Standard arm
(slide channel system in series)

Program switch (standard integrated program switch, 3-positions)
additionally [ ] external program switch

Activator [ ] Pushbutton ..... nos.
[ ] Radar movement detector ..... nos.

Safety (Safety sensors to safeguard the door sweep in accordance with BGR 232)
Safety sensors for usage on hinge/pull side and opposite hinge/push side
( ) Length 330 mm ..... nos.
( ) Length 700 mm ..... nos.
( ) Length 900 mm ..... nos.
( ) Length 1200 mm ..... nos.

Emergency pushbutton fitted close to the door in accordance with DIN VDE
Variant ( ) concealed mounting
( ) surface mounting

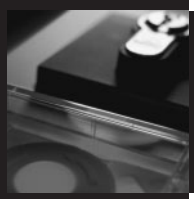
Services [ ] Installation
[ ] Commissioning
[ ] Maintenance contract

www.dorma.com

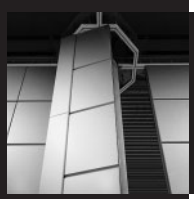
Door Control

Automatic

Glass Fittings and Accessories



Security/ Time and Access (STA)



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