

- Smoke dampers
- Rectangular
- Rf 2h



Smoke evacuation damper type MARKAGE MB

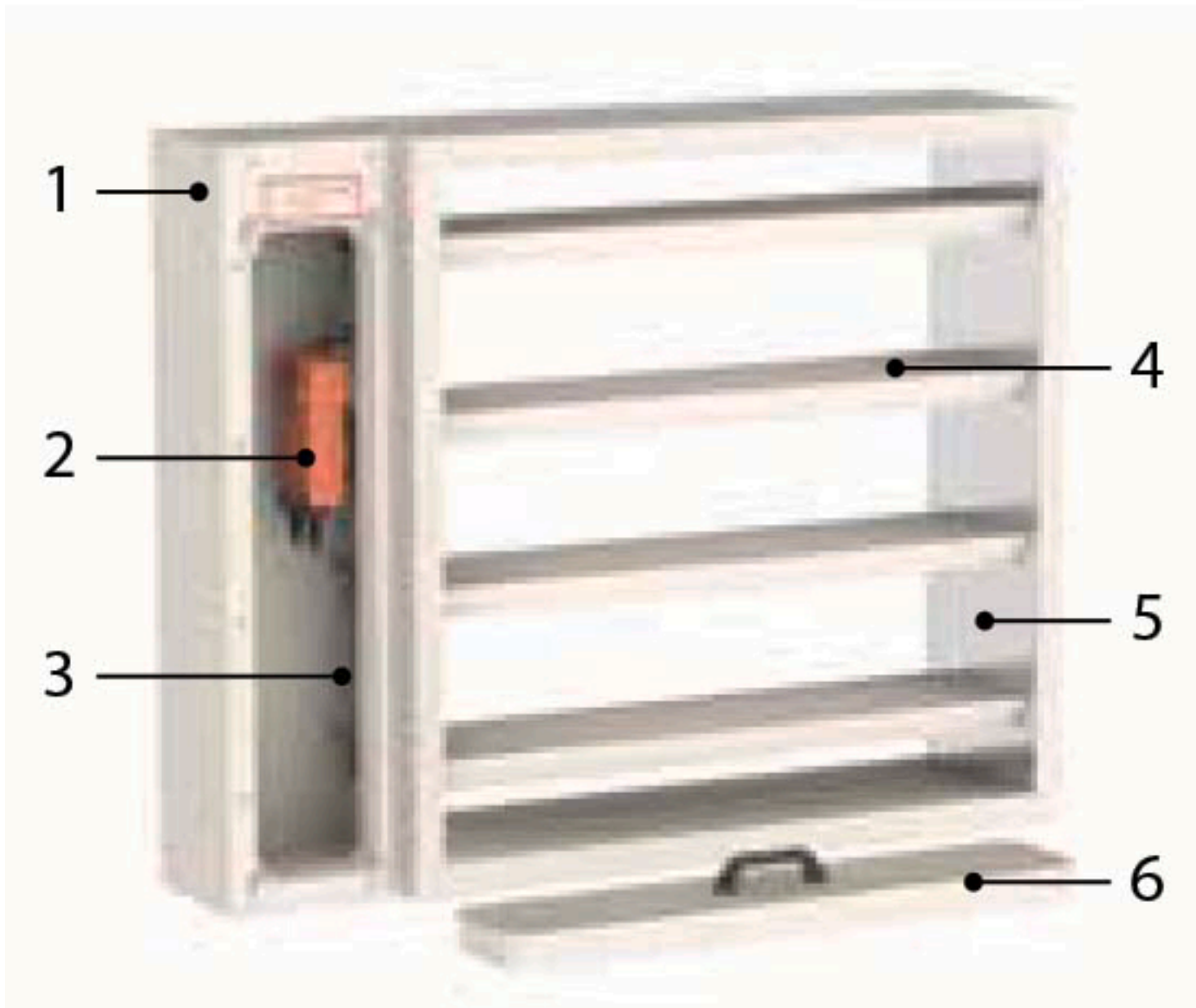
Application

- The MARKAGE MB rectangular smoke control damper is suitable for installation in a wall or a refractory duct and has a fire resistance of 90 or 120 minutes, depending on the application and installation. The damper is available in a wide range of dimensions
- The MARKAGE MB smoke control damper has an MA and HOT400/30 classification which ensures that in the event of a fire, the damper blades can still change position during the first 30 minutes. In this way, smoke control can be adjusted during or after a fire
- Smoke control shutters and dampers are suitable for use in ventilating protected lobbies, venting to shafts either naturally or mechanically. They open to evacuate smoke in emergency situations whilst maintaining fire resistant integrity in standby position

Characteristics

- can be activated with a bus communication module
- large dimensions
- superior air tightness (tested at 1500 Pa)

Construction



- 1. actuator compartment (+ communication module)
- 2. actuator
- 3. damper blade mechanism
- 4. damper blade
- 5. damper housing
- 6. access hatch

Mounting

- large number of installation options
- version available for dry installation
- for indoor use

Certification

- compliant with EN 12101-8
- tested according to EN 1366-10 and EN 1366-2

Mechanism

■ **IXI-R1:** Universal field module to control and monitor motorised fire or smoke extraction dampers through a Modbus, BACnet or analog connection. The field module is supplied mounted on the fire damper

Accessories

- **KITS BP FM** - Base plate for a bus communication module
- **VS** - Mounting brackets for vertical suspension
- **HS** - Mounting brackets for horizontal suspension
- **JK BAT** - Mounting hardware for combining multiple dampers into a battery

(W x H) mm	Dimensions	
	≥	≤
	200x200	1000x1600

Order example

MARKAGE MB 350x200 BEN24 PG30 PG30 BP FM 1S

Explanation:

MARKAGE MB = product

350 = width

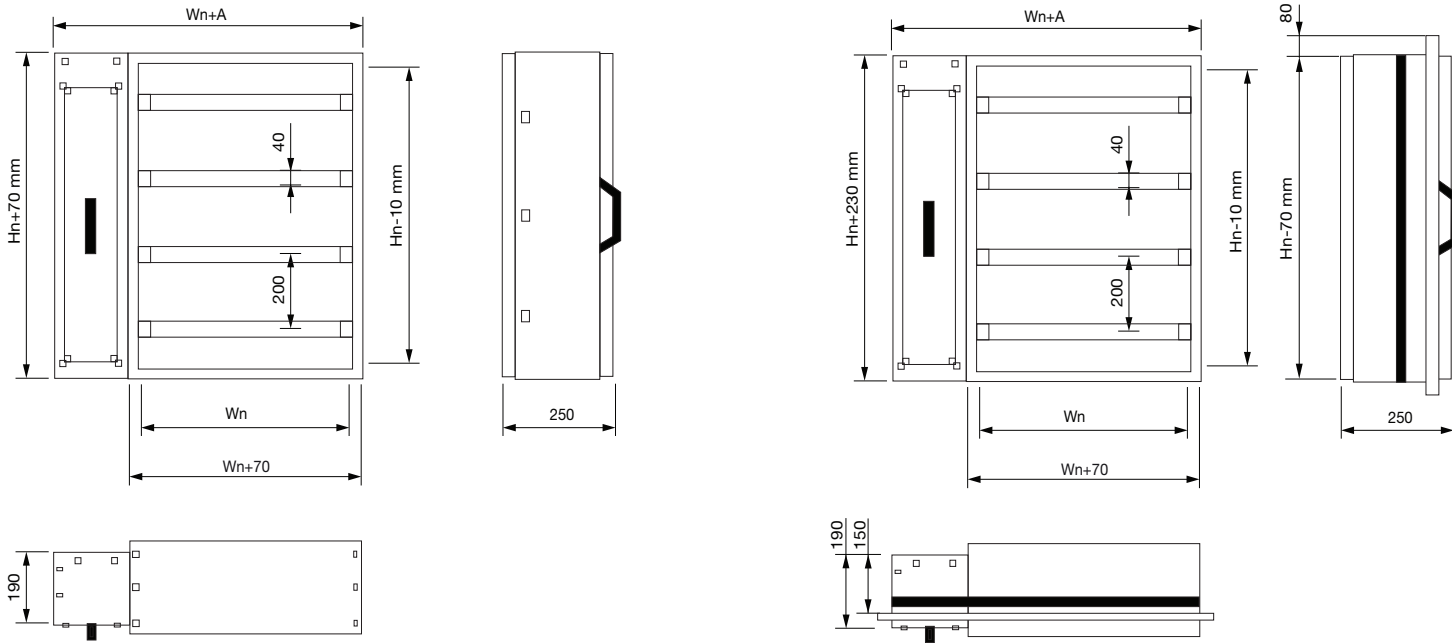
200 = height

BEN24 = servomotor type

PG30 = connection flange on the side of the access hatch

PG30 = connection flange on the opposite side of the access hatch

FM = option



■ **Markage MB / Markage MB + BP FM / IXI-R1**

- **MARKAGE MB** - for dimensions (Wn x Hn) from 200 x 200 to 1000 x 1600, A=295mm
- **MARKAGE MB + BP FM / IXI-R1** - for dimensions (Wn x Hn) from 200 x 200 to 1000 x 1600, A=295mm
- **MARKAGE MB-1S** - for dimensions (Wn x Hn) from 200 x 200 mm to 1000 x 1600 mm, A = 455 mm
- **MARKAGE MB-1S + BP FM / IXI-R1** - for dimensions (Wn x Hn) from 200 x 200 mm to 1000 x 400 mm, A = 625 instead of 455 mm

■ **Markage MB -1S / Markage MB-1S + BP FM / IXI-R1**

Selection data																		
$\Delta p = 0,6 \cdot v^2 \cdot \zeta$																		
Hn/Wn [mm]		200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
200	$\zeta [-]$	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41	0.4	0.4	0.4	0.4	0.4	0.4	0.39	0.39	0.39
400	$\zeta [-]$	0.37	0.36	0.34	0.33	0.32	0.31	0.3	0.29	0.28	0.28	0.28	0.28	0.27	0.27	0.27	0.27	0.27
600	$\zeta [-]$	0.33	0.32	0.31	0.3	0.29	0.28	0.27	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
800	$\zeta [-]$	0.32	0.31	0.3	0.29	0.28	0.27	0.26	0.25	0.23	0.23	0.23	0.23	0.23	0.23	0.22	0.22	0.22
1000	$\zeta [-]$	0.31	0.3	0.29	0.29	0.27	0.26	0.25	0.24	0.23	0.22	0.22	0.22	0.22	0.22	0.21	0.21	0.21
1200	$\zeta [-]$	0.3	0.29	0.29	0.28	0.27	0.26	0.25	0.23	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.21
1400	$\zeta [-]$	0.3	0.29	0.29	0.28	0.27	0.26	0.24	0.23	0.22	0.22	0.21	0.21	0.21	0.21	0.21	0.21	0.2
1600	$\zeta [-]$	0.29	0.3	0.3	0.28	0.3	0.3	0.2	0.2	0.21	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Free air passage																		
Hn/Wn [mm]		200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
200	Sn [m²]	0.03	0.0375	0.045	0.0525	0.06	0.0675	0.075	0.0825	0.09	0.0975	0.105	0.1125	0.12	0.1275	0.135	0.1425	0.15
400	Sn [m²]	0.062	0.0775	0.093	0.1085	0.124	0.1395	0.155	0.1705	0.186	0.2015	0.217	0.2325	0.248	0.2635	0.279	0.2945	0.31
600	Sn [m²]	0.094	0.1175	0.141	0.1645	0.188	0.2115	0.235	0.2585	0.282	0.3055	0.329	0.3525	0.376	0.3995	0.423	0.4465	0.47
800	Sn [m²]	0.126	0.1575	0.189	0.2205	0.252	0.2835	0.315	0.3465	0.378	0.4095	0.441	0.4725	0.504	0.5355	0.567	0.5985	0.63
1000	Sn [m²]	0.158	0.1975	0.237	0.2765	0.316	0.3555	0.395	0.4345	0.474	0.5135	0.553	0.5925	0.632	0.6715	0.711	0.7505	0.79
1200	Sn [m²]	0.19	0.2375	0.285	0.3325	0.38	0.4275	0.475	0.5225	0.57	0.6175	0.665	0.7125	0.76	0.8075	0.855	0.9025	0.95
1400	Sn [m²]	0.222	0.2775	0.333	0.3885	0.444	0.4995	0.555	0.6105	0.666	0.7215	0.777	0.8325	0.888	0.9435	0.999	1.0545	1.11
1600	Sn [m²]	0.254	0.3175	0.381	0.4445	0.508	0.5715	0.635	0.6985	0.762	0.8255	0.889	0.9525	1.016	1.0795	1.143	1.2065	1.27