

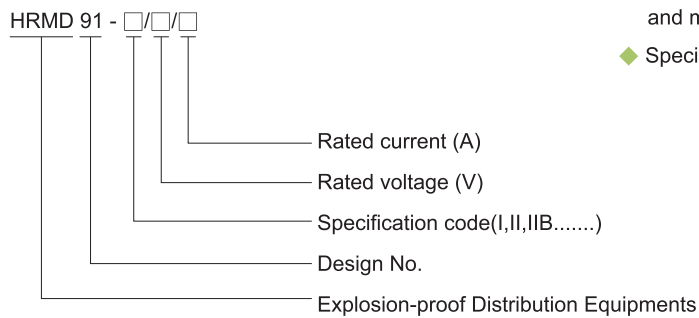
## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Equipments



- ◆ Explosion protection to
  - CENELEC
  - IEC
  - NEC
- ◆ Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- ◆ Flameproof enclosure (Ex d IIB+H2), which can be used as feed distribution equipment in control and distribution system (such as distribution box, switch box of main circuit, control box, terminal box or motor starting box etc.)
- ◆ Copper-free aluminium enclosure, powder coated surface.
- ◆ Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- ◆ The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- ◆ Special requirements on request.

#### ■ Catalogue number logic



# Zones 1 & 2; 21 & 22

## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Equipments

#### Technical data

#### Explosion-proof Distribution Equipments HRMD91-□/□/□

##### Explosion protection

Gas explosion protection

⊕ II 2 G Ex db IIB+H2 T□<sup>1)</sup> Gb

Dust explosion protection

⊕ II 2 D Ex tb IIIC T□<sup>1)</sup> Db IP66

<sup>1)</sup>See Selection table, P6/24

##### Certificates

ATEX and IECEx (applied for)

##### Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

##### Enclosure material

Copper-free aluminium enclosure, powder coated surface, window grey (RAL7040)

##### Exposed fastener

Stainless steel

##### Built-in components

Power circuit breaker

MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker)

Branch switch

MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker)

Terminal

International brand of terminal

Indicator

Red, green, yellow, blue

Pushbutton

Red, green, yellow

Control switch

HK series control switches

AC contactor

International famous brand

Thermal overload relay

International famous brand

PLC programmer

International famous brand

Soft starter

International famous brand

##### Rated voltage

Max. 1000V AC 50/60Hz

##### Rated current

Max. 1200A

##### Degree of protection

IP66

##### Ambient temperature

-60°C ~ +60°C

##### Cable entries

Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT thread can be customized.

##### Cable gland (optional)

DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~27.

##### Entry direction

Bottom

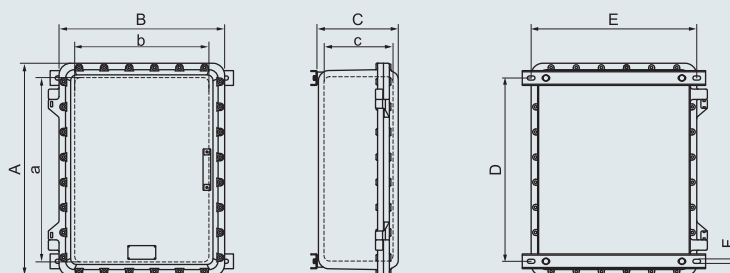
##### Mounting

Surface type (standard)

Pedestal type (optional)



#### Dimension drawings (all dimensions in mm) - subject to alteration



## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Equipments

Selection table of HRMD91 explosion-proof distribution equipment

Version	Max. dissipated power (W)			Max. rated current	External dimension			Internal dimension			Mounting dimension			Weight of enclosure (kg)
	T4/T130°C	T5/T95°C	T6/T80°C		A	B	C	a	b	c	D	E	F	
HRMD91-I	200	120	80	63A	250	200	170	192	142	120	180	130	10	6.70
HRMD91-II	200	120	80	63A	300	200	170	242	142	120	230	130	10	8.00
HRMD91-IIB	240	140	100	100A	350	200	170	292	142	120	280	130	10	9.50
HRMD91-III	290	170	125	160A	350	300	200	292	242	150	280	230	12	14.50
HRMD91-IIIB	350	200	130	200A	350	300	270	292	242	220	280	230	12	17.50
HRMD91-IV	420	230	140	250A	450	350	210	378	278	150	365	265	12	23.00
HRMD91-IVB	500	280	160	320A	450	350	280	378	278	220	365	265	12	27.50
HRMD91-V	520	320	190	400A	560	400	210	488	328	150	475	315	14	34.50
HRMD91-VB	620	350	200	500A	560	400	280	488	328	220	475	315	14	39.50
HRMD91-VI	660	380	220	630A	634	434	265	560	360	205	522	322	14	46.00
HRMD91-VIB	660	380	220	630A	634	434	335	560	360	275	522	322	14	52.00
HRMD91-VII	700	400	250	800A	720	560	275	640	480	215	620	460	14	74.50
HRMD91-VIIB	700	400	250	800A	720	560	345	640	480	285	620	460	14	83.00
HRMD91-VIII	800	500	350	1000A	980	720	325	880	620	240	820	560	18	165.00
HRMD91-VIIIB	800	500	350	1000A	980	720	425	880	620	340	820	560	18	185.00
HRMD91-IX	1000	600	500	1200A	1280	900	350	1180	800	265	1120	740	18	275.00
HRMD91-IXB	1000	700	600	1200A	1280	900	500	1180	800	415	1120	740	18	315.00

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.

2. For cable entries:

- 1). Please specify the direction and size of each cable entry.
- 2). Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended, please see P7/20~27.

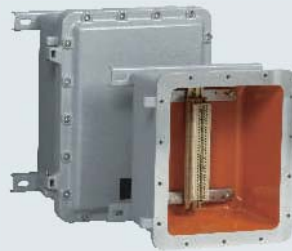


#### HRMD91 Explosion-proof distribution equipment for terminal box use

Suitable for terminal boxes of distribution system

Note: 1. HRMD91 terminal boxes have various different terminal arrangement methods.

2. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The Max. number of terminals and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.
3. This table is only for reference.



#### Illustration of HRMD91 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

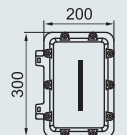
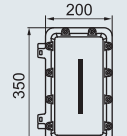
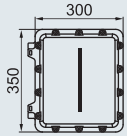
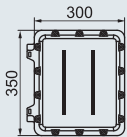
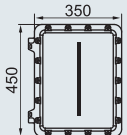
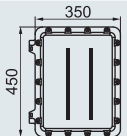
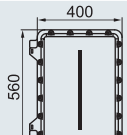
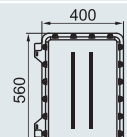
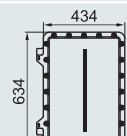
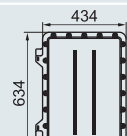
Version	Terminal arrangement	Terminal size(mm <sup>2</sup> )										
		2.5	4	6	10	16	35	70	120	185	240	300
HRMD91-I		18	16	14	11	9	-	-	-	-	-	-

## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Equipments

#### Illustration of HRMD91 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

Version	Terminal arrangement	Terminal size(mm <sup>2</sup> )										
		2.5	4	6	10	16	35	70	120	185	240	300
HRMD91-II		23	21	18	14	12	-	-	-	-	-	-
HRMD91-IIB		31	29	24	19	16	-	-	-	-	-	-
HRMD91-III HRMD91-IIIB		31	29	24	20	16	10	-	-	-	-	-
		62	58	48	-	-	-	-	-	-	-	-
HRMD91-IV HRMD91-IVB		45	40	34	28	24	16	-	-	-	-	-
		90	80	68	56	-	-	-	-	-	-	-
HRMD91-V HRMD91-VB		60	54	48	36	30	20	-	-	-	-	-
		120	108	96	72	60	-	-	-	-	-	-
HRMD91-VI HRMD91-VIB		80	70	60	50	35	25	22	12	8	6	-
		160	140	120	100	70	-	-	-	-	-	-

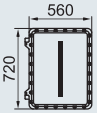
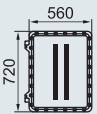
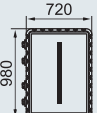
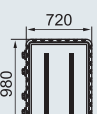
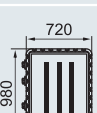
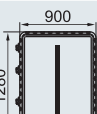
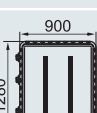
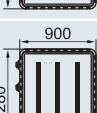


## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Equipments

#### Illustration of HRMD91 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

Version	Terminal arrangement	Terminal size(mm <sup>2</sup> )										
		2.5	4	6	10	16	35	70	120	185	240	300
HRMD91-VII HRMD91-VIIB		90	80	70	60	40	25	25	14	10	8	5
		180	160	140	120	80	-	-	-	-	-	-
HRMD91-VIII HRMD91-VIIIB		132	124	100	80	68	45	36	21	14	12	10
		264	248	200	160	136	90	72	42	-	-	-
		396	372	300	240	204	135	-	-	-	-	-
HRMD91-IX HRMD91-IXB		180	170	136	110	92	62	50	28	20	16	14
		360	340	272	220	184	124	100	56	40	-	-
		540	510	408	330	276	186	-	-	-	-	-



#### HRMD91 Explosion-proof Distribution Equipment for control box use

Suitable for control unit of distribution system

Note: 1. HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc.in HRMD91 control boxes.

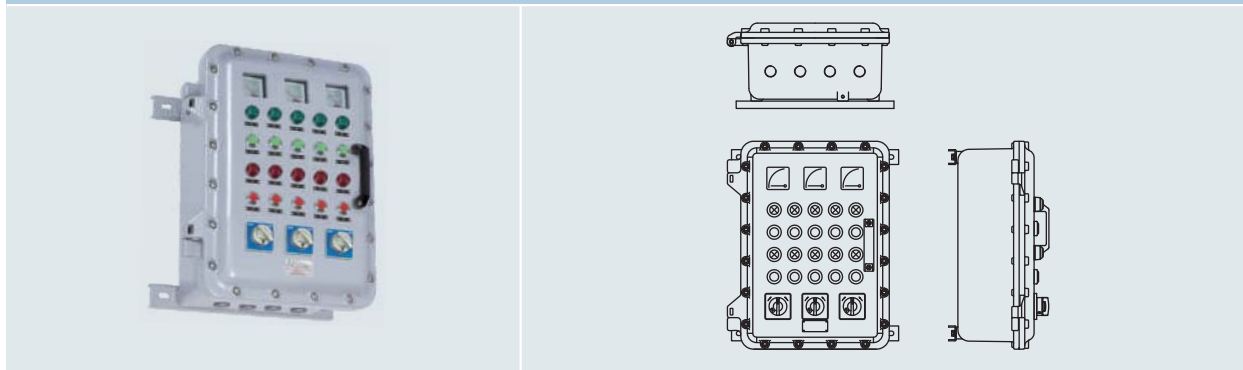
2. HRMD91 control box can be used for on-off operation of circuit. It also can realize the remote control or local control of the start, stop, corotation and inversion of motor. When it is equipped with ammeter, it also can monitor the running of motor and circuit status.

3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

## Distribution Boxes

### HRMD91 Series Explosion-proof Distribution Equipments

#### Example diagram for control box use



#### HRMD91 Explosion-proof distribution equipment for distribution box use

Suitable for power units of distribution system

Note: 1. MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker), AC contactor, thermal overload relay, PLC programmer, soft starter, HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc. in HRMD91 distribution boxes.

- HRMD91 power unit can be used for distribution or on-off of circuit. It also can be used for controlling the start, stop, corotation and inversion of motor and provide comprehensive protection for motor. It can be equipped with two-site control or multi-site control.
- It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

#### Example diagram for distribution box use

