

KRDP



Fire protection pressure control valve

CONTENTS

Safety requirements.....	2
Purpose.....	3
Delivery set.....	3
Designation key.....	3
Technical data.....	3
Unit design and operating principle.....	5
Installation and set-up.....	5
Technical maintenance.....	5
Storage and transportation regulations.....	5
Manufacturer's warranty.....	6
Certificate of acceptance.....	7
Seller information.....	7
Installation certificate.....	7
Warranty card.....	7

This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the KRDP unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

SAFETY REQUIREMENTS

Follow general and special safety regulations during preparation for operation and operation of the valve.

Only persons who have studied the device and have been instructed in safety regulations are allowed to install and operate the valve.



THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.

DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE

PURPOSE

The valve is intended for use in ventilation and air conditioning systems in public and industrial buildings, in emergency smoke ventilation systems to ensure evacuation of people from premises at the initial stage of a fire.

The valve automatically opens at the required pressure difference (design pressure difference) to allow air to flow freely from the space where the air is pressurised (e.g. stairwell or elevator shaft) to the space where the pressure is lower (e.g. hall, room).

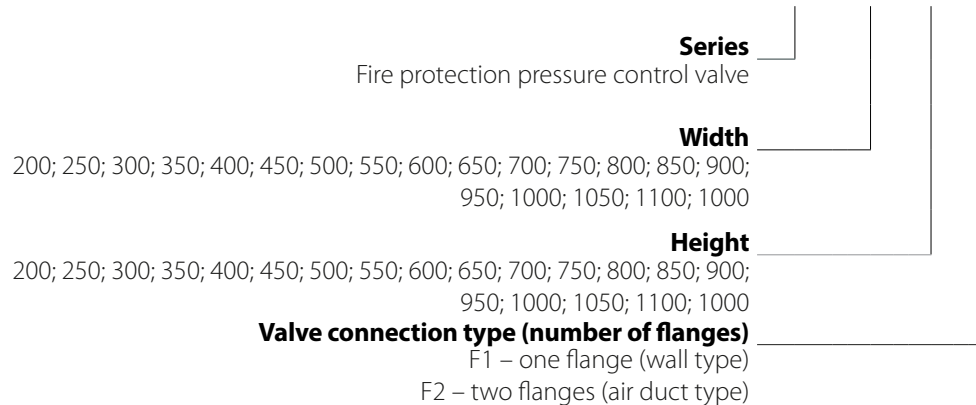
In case of fire, the valve cuts off the release of excess pressure from the protected area.

DELIVERY SET

NAME	NUMBER
Valve	1 pc.
User's manual	1 pc.
Packing box	1 pc.

DESIGNATION KEY

Designation example: **KRDP - 400x400 - F2**



TECHNICAL DATA

Pressure control range [Pa]	20–150
Minimum air flow rate [m/s]	not less than 2
Operating temperature [°C]	-5...+40
Valve actuation temperature	+72 ± 2

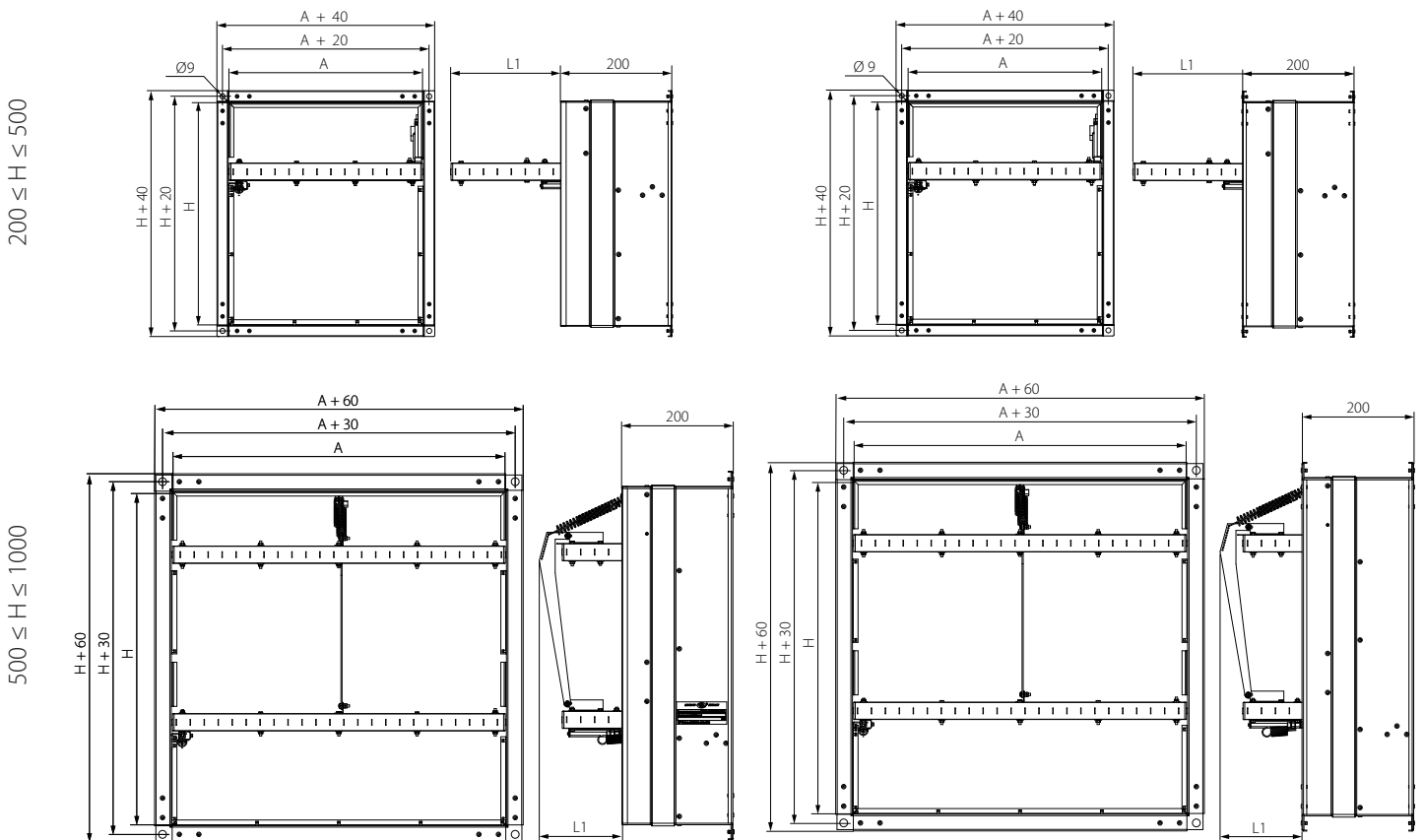
Cross-sectional area [m²]

H \ A	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
200	0,034	0,044	0,054	0,064	0,074	0,078	0,088	0,098	0,108	0,118	0,128	0,138	0,148	0,152	0,162	0,172	0,182
250	0,0425	0,055	0,0675	0,08	0,0925	0,0975	0,11	0,1225	0,135	0,1475	0,16	0,1725	0,185	0,19	0,2025	0,215	0,2275
300	0,051	0,066	0,081	0,096	0,111	0,117	0,132	0,147	0,162	0,177	0,192	0,207	0,222	0,228	0,243	0,258	0,273
350	0,0595	0,077	0,0945	0,112	0,1295	0,1365	0,154	0,1715	0,189	0,2065	0,224	0,2415	0,259	0,266	0,2835	0,301	0,3185
400	0,068	0,088	0,108	0,128	0,148	0,156	0,176	0,196	0,216	0,236	0,256	0,276	0,296	0,304	0,324	0,344	0,364
450	0,0765	0,099	0,1215	0,144	0,1665	0,1755	0,198	0,2205	0,243	0,2655	0,288	0,3105	0,333	0,342	0,3645	0,387	0,4095
500	0,085	0,11	0,135	0,16	0,185	0,195	0,22	0,245	0,27	0,295	0,32	0,345	0,37	0,38	0,405	0,43	0,455
550	0,0935	0,121	0,1485	0,176	0,2035	0,2145	0,242	0,2695	0,297	0,3245	0,352	0,3795	0,407	0,418	0,4455	0,473	0,5005
600	0,102	0,132	0,162	0,192	0,222	0,234	0,264	0,294	0,324	0,354	0,384	0,414	0,444	0,456	0,486	0,516	0,546
650	0,1105	0,143	0,1755	0,208	0,2405	0,2535	0,286	0,3185	0,351	0,3835	0,416	0,4485	0,481	0,494	0,5265	0,559	0,5915
700	0,119	0,154	0,189	0,224	0,259	0,273	0,308	0,343	0,378	0,413	0,448	0,483	0,518	0,532	0,567	0,602	0,637
750	0,1275	0,165	0,2025	0,24	0,2775	0,2925	0,33	0,3675	0,405	0,4425	0,48	0,5175	0,555	0,57	0,6075	0,645	0,6825
800	0,136	0,176	0,216	0,256	0,296	0,312	0,352	0,392	0,432	0,472	0,512	0,552	0,592	0,608	0,648	0,688	0,728
850	0,1445	0,187	0,2295	0,272	0,3145	0,3315	0,374	0,4165	0,459	0,5015	0,544	0,5865	0,629	0,646	0,6885	0,731	0,7735
900	0,153	0,198	0,243	0,288	0,333	0,351	0,396	0,441	0,486	0,531	0,576	0,621	0,666	0,684	0,729	0,774	0,819
950	0,1615	0,209	0,2565	0,304	0,3515	0,3705	0,418	0,4655	0,513	0,5605	0,608	0,6555	0,703	0,722	0,7695	0,817	0,8645
1000	0,17	0,22	0,27	0,32	0,37	0,39	0,44	0,49	0,54	0,59	0,64	0,69	0,74	0,76	0,81	0,86	0,91

$L1 = H/n - 150$ — blade overhang size beyond the body dimension (mm), where:
 H – height of the valve [mm];
 n – number of blades.

KRDP ... F1

KRDP ... F2

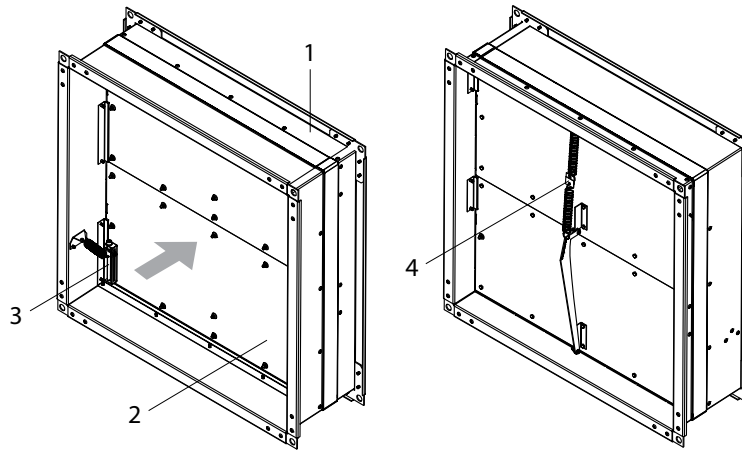


200 ≤ H = 400 – 1 blade;
 400 < H = 800 – 2 blades;
 800 < H – 3 blades.

UNIT DESIGN AND OPERATING PRINCIPLE

The valve consists of a rectangular galvanized steel mounting casing (1). Inside the casing there is one or more flaps made of heat-resistant material (2) of rotary type, a spring mechanism (3) for adjusting the valve opening start. The adjustment is performed during commissioning.

In case of a fire, the valve design ensures that the blade is automatically locked at the stops by melting the fusible link (4). The valve's tightness in case of fire is ensured by a tape that is fixed around the perimeter of the blade and expands at high temperatures.



INSTALLATION AND SET-UP

The valve is installed vertically only (in vestibules or lift shaft enclosures, walls and ceilings with standardised fire resistance limits) and with due regard for the horizontal direction of air flow.

Visually inspect the valve before installing it.

Repair any damage or dents caused by improper transportation or storage.

The valves should be configured to the required working pressure after their installation during the adjustment (commissioning) of the pressure generation ventilation system.

TECHNICAL MAINTENANCE

Maintenance of the valve involves checking its serviceability: free (without jamming) rotation of the flaps; reliability of installation. The valve maintenance intervals should correspond to the established maintenance periods for the fire protection equipment complex of the operated facility.

The fusible link triggering mechanism is restored by replacing the fusible link (in the absence of fire impact).

STORAGE AND TRANSPORTATION REGULATIONS

- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. Avoid sharp blows, scratches, or rough handling during loading and unloading.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above.

The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase. The unit model must comply with the one stated in the user's manual. Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.



FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT



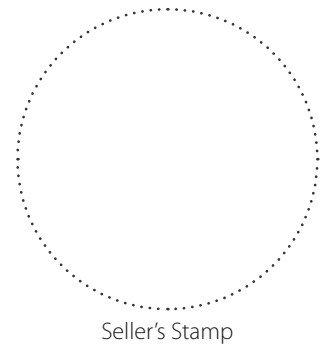
USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP

CERTIFICATE OF ACCEPTANCE

Unit Type	Fire protection pressure control valve
Model	
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

SELLER INFORMATION

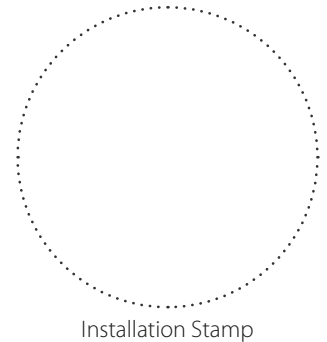
Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	



INSTALLATION CERTIFICATE

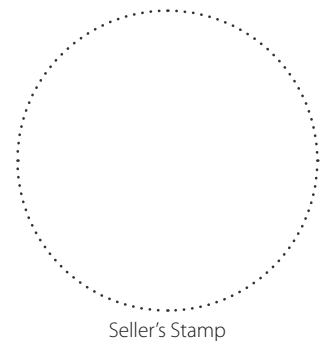
The _____ unit is installed pursuant to the requirements stated in the present user's manual.

Company name	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
Signature:	



WARRANTY CARD

Unit Type	Fire protection pressure control valve
Model	
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	





VENTS

