Advantages of Air ventilation elements

- Prevention of condensate water while preserving the high protection class IP65
- High air exchange rate
- 100% pressure compensation
- Foreign object protection
- Maintenance-free

The patented Air Ventilation elements avoid condensate water while preserving the high protection class IP65. Occurring condensate is transported out of the enclosure immediately via air exchange.

The continuous and high air exchange allows the interior air to mix constantly with the environmental air and transports the moisture outward.

Even environments with nearly constant humidity and temperature possess air exchange, since the air on the interior of the enclosure warms due to the fittings. The individual components of the ventilation elements mainly consist of the rotating cover (rear side of box) and the 10µm filter element integrated on the inside of the box.

Combination flange / flange end wall (sold separately, see page 8)

Insert the flange from the outside. Insert the flange connector into the side guide rails and push down. The locking mechanisms grip into the flange and the flange connector latches in place.
For installation devices sizes 1 to 3 and special designs.

Prevention of condensate water while preserving protection class IP65.

Top/bottom ends supplied open and are closed with flange system end walls (see page 8).

Installation outside of sealing area suitable for systems featuring a maximum measured insulation voltage of 1,000V AC / 1,500V DC.

Offers plenty of space for wiring.

With ergonomically shaped grips for simple opening. Hinge side easily changed.

Easily lateral combination via optional M50 combination connectors.

Installation via external mounting tabs.

Installation outside of sealing area suitable for systems featuring a maximum measured insulation voltage of 1,000V AC / 1,500V DC.

Easy installation via keyhole mounting.

Resistance against stable/barn air for minimum 20 years.

One distribution board for every application.

Highly flame-retardant.

Free of halogen, PVC and silicone.
**Cat No. 733-514**  
**AK-F 14**  

**Description**  
Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 1 row, 14 modules with pre-installed height adjustable DIN rail. Integrated ventilation elements included to reduce condensation. Labeling strips included.

**Knockouts on each side:**  
2x M40/50  
1x M20

**Rear Knockouts:**  
2x M32/40  
4x M20/25

**Dimensions:**  
315 x 300 x 155 mm  
(12.4 x 11.8 x 6.1 in)

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**Cat No. 733-528**  
**AK-F 28**  

**Description**  
Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 2 rows, 28 modules with pre-installed height adjustable DIN rails. Integrated ventilation elements included to reduce condensation. Labeling strips included.

**Knockouts on each side:**  
2 x M40/50  
2 x M20/25  
2 x M20

**Rear Knockouts:**  
2 x M32/40  
6 x M20/25

**Dimensions:**  
315 x 450 x 155 mm  
(12.4 x 17.7 x 6.1 in)

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Flange end walls sold separately see page 8.
**Cat No. 733-542**  
**AK-F 42**

**Description**
Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 3 rows, 42 modules with pre-installed height adjustable DIN rails. Integrated ventilation elements included to reduce condensation. Labeling strips included.

- Knockouts on each side:
  - 2 x M40/50
  - 4 x M20/25
  - 3 x M20

- Rear Knockouts:
  - 2 x M32/40
  - 8 x M20/25

**Cat No. 733-556**  
**AK-F 56**

**Description**
Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 4 rows, 56 modules with pre-installed height adjustable DIN rails. Integrated ventilation elements included to reduce condensation. Labeling strips included.

- Knockouts on each side:
  - 2 x M40/50
  - 6 x M20/25
  - 4 x M20

- Rear Knockouts:
  - 2 x M32/40
  - 6 x M20/25

Flange end walls sold separately see page 8.
**Cat No. 733-714**

**AK-F 14 Plus**

**Description**

Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 1 row, 14 modules with pre-installed height adjustable DIN rail. Integrated ventilation elements included to reduce condensation. Labeling strips included. Additional connection space has standard 35 mm DIN rail installed.

Knockouts on each side:
- 2 x M40/50
- 2 x M20/25
- 2 x M20

Rear Knockouts:
- 2 x M32/40
- 6 x M20/25

**Dimensions**

315 x 450 x 155 mm
(12.4 x 17.7 x 6.1 in)

**Protection**

IP65

**UL Type**

3R, 12, 12K

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**Cat No. 733-728**

**AK-F 28 Plus**

**Description**

Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 2 rows, 28 modules with pre-installed height adjustable DIN rails. Integrated ventilation elements included to reduce condensation. Labeling strips included. Additional connection space has standard 35 mm DIN rail installed.

Knockouts on each side:
- 2 x M40/50
- 4 x M20/25
- 3 x M20

Rear Knockouts:
- 2 x M32/40
- 8 x M20/25

**Dimensions**

315 x 600 x 155 mm
(12.4 x 23.6 x 6.1 in)

**Protection**

IP65

**UL Type**

3R, 12, 12K

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Flange end walls sold separately see page 8.
**Cat No. 733-742**

**AK-F 42 Plus**

**Description**

Distribution box - Industrial Quality -, flange type, with open top and bottom, for use with various flanges or to combine multiple AK-F - distribution boxes with combination flange, 3 rows, 42 modules with pre-installed height adjustable DIN rails. Integrated ventilation elements included to reduce condensation. Labeling strips included. Additional connection space has standard 35 mm DIN rail installed.

**Knockouts on each side:**
- 2 x M40/50
- 6 x M20/25/
- 4 x M20

**Rear Knockouts:**
- 2 x M32/40
- 10 x M20/25

**Dimensions:**
- 315 x 750 x 155 mm
  - (12.4 x 29.5 x 6.1 in)

**Protection:**
- IP65
- UL TYPE 3R, 12, 12K

Flange end walls sold separately see page 8.
Flanges / End Walls

All AK-F enclosures must be closed with flanges on the top/bottom end. Altech offers a wide selection of different flanges. Two AK-F enclosures can be combined using the combination flange at the top/bottom end.

**Combination flange / flange end wall**

![Insert the flange from the outside.](image1)

![Insert the flange connector into the side guide rails and push down.](image2)

![The locking mechanisms grip into the flange and the flange connector latches in place.](image3)

**Cat No. 733-820**  
**AK3 FL00**  
**Description**  
Enclosure wall including flange connector for sealing the top or bottom of AK-F enclosures, without knockouts.

**Cat No. 733-821**  
**AK3 FL01**  
**Description**  
Enclosure wall including flange connector for sealing the top or bottom of AK-F enclosures, with knockouts: 1 x M50/M40, 2 x M40/32, 2 x M20.

**Cat No. 733-822**  
**AK3 FL02**  
**Description**  
Enclosure wall including flange connector for sealing the top or bottom of AK-F enclosures, with knockouts: 5 x M25/M20, 4 x M20, 2 x M16.

**Cat No. 733-829**  
**AK3 KFL**  
**Description**  
Combination flange including flange connector for the top or bottom connection to combine two AK-F enclosures.
Other Accessories

Cat No. 733-831
AK3 KBL
**Description**
Cable cover for the attachment to AK-F 14/28/42/56 housings, as well as Plus types. Can be retroactively mounted on the end.

Cat No. 733-833
AK3 ABL-ES
**Description**
Stainless steel external mounting tabs, suitable for enclosure AK-F 14/28/42/56, as well as Plus types, 1 set= 4 pcs.

Cat No. 733-830
AK3 KS MSO
**Description**
Combination gland M50 for the lateral connection of housings AK-F 14/28/42/56, as well as Plus types.

Cat No. 733-812
AK3 NS35-14
**Description**
Standard DIN rail 35 x 7.5 mm, including height adjustable DIN rail mount for all AK-F 14/28/42/56, as well as Plus types.

Cat No. 733-813
AK3 NS35-275
**Description**
DIN rail 35 x 7.5 mm, length 275 mm, including universal floor fixing mounts for all AK-F 14/28/42/56, as well as Plus types.

Cat No. 733-832
AK31 TW
**Description**
Divider made of plastic, suitable for the interior subdivision of AK-F 14/28/42/56 housings, as well as Plus types, with knockouts for cables.

Cat No. 263-440
BEL AIR M40
**Description**
Air Ventilation elements for use in enclosures without vent system. Mounts in M40 knockout. Set of 2.
Standard Terms and Conditions of Sale

TITLE - Title to the products of ALTECH shall remain with ALTECH until payment is made in full by Customer. Such reservation of title is for the purpose of securing the purchase price and shall not relieve Customer of the duty to inspect the products upon receipt, to notify ALTECH of any deficiencies or defects, and to exercise due care in the use, installation, operation, and maintenance of the products when on the premise of the Customer or under the control of the Customer. Notwithstanding any reservation of title by ALTECH, risk of loss shall pass to customer at any time of shipment.

SHIPMENT AND DELIVERY - All orders for destination in the mainland United States (less Hawaii, Alaska and non-continental United States possessions) will be shipped F.O.B. Flemington, N.J. All destination, shipping and other charges shall be paid by the Customer in accordance with ALTECH's then current shipping and billing practices.

Delivery dates given in the acceptance of any order are approximate. ALTECH shall not be liable for delays in delivery or in performance due to causes beyond its reasonable control including acts of God, acts of Customer, acts of civil or military authority, fires, strikes or other labor disturbances, war, riot or delays in transportation. In the event of such delay, the date of delivery or performance shall be extended for a period equal to the time lost by reason of the delay.

PRICE - PRICES in any ALTECH publication are subject to change without prior notification. Catalog prices are based on prices published in the current price list. All written quotations are valid for thirty (30) days from the date of quotation. Customer shall pay all sales, use, excise or similar taxes whenever ALTECH must itself pay and/or collect such tax from Customer arising out of the sale.

PAYMENT - Customer agrees to make payment within thirty (30) days of date of invoice from ALTECH. Customer agrees to pay a late payment charge of one and one-half percent (1.5% per month, or the maximum late payment charge permitted by applicable law, whichever is less, on any unpaid amount for each calendar month (or fraction thereof) that such payment is in default. Orders amounting to less than $100.00 will be billed at $100.00 plus freight. Full carton purchases are required. In the event of referral to an attorney for collection, reasonable attorney's fees for collection of the overdue amount shall be paid by Customer. In the event payment is not received within 30 days from the date of invoice, any discount shall be canceled and the full list price will be due.

LIMITED WARRANTY - ALTECH warrants to Customer that the equipment purchases shall be free from defects in material and workmanship under normal use and service for a period of one year from shipment. Written notice as an explanation of the circumstances of any claim that the equipment has proved defective in material or workmanship shall be given promptly by the Customer to ALTECH.

ALTECH will not be liable for any misuse, improper operations, improper installation, improper maintenance, alteration, modification, accident or unusual degradation of the equipment or parts due to an unsuitable installation environment. No representation of other affirmation of facts, including but not limited to statements regarding capacity, suitability for use or performance of the equipment, shall be or be deemed to be a warranty or representation by ALTECH for any purpose, nor give rise to any liability or obligation of ALTECH whatsoever.

Customer's sole and exclusive remedy in the event of breach of warranty, as set forth herein, is expressly limited to (1) the correction of the defect by adjustment, repair, modification, or replacement, or (2) issuance of a credit or refund of the purchase price for the defective equipment at ALTECH's election and sole expense. EXCEPT AS SPECIFICALLY PROVIDED IN THIS AGREEMENT, THERE ARE NO OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY EXTENDS ONLY TO THE CUSTOMER FROM ALTECH OR ITS AUTHORIZED DISTRIBUTOR.

LIMITATION OF LIABILITY - IN NO EVENT, SHALL ALTECH BE LIABLE FOR LOSS OF PROFITS, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER SIMILAR DAMAGES ARISING OUT OF ANY BREACH OF OR OBLIGATIONS UNDER THE AGREEMENT. ALTECH SHALL NOT BE LIABLE FOR ANY DAMAGES CAUSED BY DELAY IN SHIPMENT, INSTALLATION OR FURNISHING OF EQUIPMENT OR SERVICES UNDER THIS AGREEMENT. No action arising out of any claimed breach of this Agreement may be brought by either party more than two (2) years after the cause of action has accrued.

PATENT INDEMNITY - ALTECH shall defend or settle any suit or proceeding brought against Customer based on a claim that any equipment made to ALTECH design and furnished hereunder constitutes an infringement of any existing United States patent, provided (ALTECH is notified promptly in writing and is given complete authorization and information required for the defense, and ALTECH shall pay all damages and costs awarded against Customer, but shall not be responsible for any costs, expense or compromise incurred or made by Customer without ALTECH's prior written consent. If any equipment is in ALTECH's opinion likely to or does become the subject of a claim for patent infringement, ALTECH may at its option and expense procure for Customer the right to continue using the device, modify it to become non-infringing, but in the event ALTECH is not reasonably able to modify, substitute, or otherwise procure for the Customer the right to continue using it, ALTECH will remove such equipment and refund to Customer the amount paid in excess of a reasonable rental for past use.

ALTECH shall not be liable for any infringement or claim based upon use of the equipment in combination with other equipment not supplied by ALTECH or with modifications made by Customer.

The foregoing states the entire liability of ALTECH to Customer arising from patent infringement.

SELLER’S REMEDIES - Should Customer fail to make any payment within ten (10) days of its due date, or fail to perform any other of the Customer’s obligation hereunder upon thirty (30) days written notice, or should Customer be or become insolvent or be party to any bankruptcy receivership proceeding prior to full payment of all amounts payable hereunder, ALTECH may: (a) with or without demand or notice to customer declare the entire amount unpaid immediately due and payable; (b) enter upon the premises where the equipment may be found and remove it (Customer shall assemble the equipment and make it available to ALTECH at a place reasonably convenient to both parties and shall permit and assist ALTECH in effecting the retaking and removal of the equipment); and (c) sell any or all the equipment as permitted under applicable law, applying the proceeds of the sale to payment of the expenses of retaking, repairing and selling the equipment, reasonable attorney fees and to the satisfaction of all indebtedness then due and unpaid under this Agreement. Any surplus shall be paid to Customer and any deficiency shall be paid to ALTECH by Customer.

The remedies provided herein shall be cumulative and in addition to all other remedies provided by law or equity or under the Uniform Commercial Code.

GOVERNING LAW - This agreement will be governed by the Laws of the State of New Jersey.

GENERAL - This Agreement shall only become effective and binding when either (a) it has been accepted and executed by an authorized representative of ALTECH, or (b) the equipment has been shipped to Customer, with or without acceptance in writing hereon. Notice of acceptance is hereby waived by Customer. Customer hereby acknowledges receipt of a true and complete copy hereof.

No addition to or modification of any of the Terms and Conditions of Sale as they appear herein shall be binding upon ALTECH unless signed in writing by duly authorized representative of ALTECH in Flemington, N.J.

Typographical and clerical errors in quotations, orders and acknowledgments are subject to correction.

This Agreement is not assignable without the prior written consent of ALTECH. Any assignment without the prior written consent of ALTECH is void.

If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability, of the remaining provisions shall not in any way be affected or impaired thereby.

ALTECH is not responsible for failure to fulfill its obligation under this Agreement due to causes beyond its control, or except as agreed herein.

THE CUSTOMER ACKNOWLEDGES THAT HE HAS READ THE AGREEMENT, UNDERSTANDS IT, AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS. FURTHERMORE, THE CUSTOMER AGREES THAT IT IS THE COMPLETE AND EXCLUSIVE STATEMENT OF THE AGREEMENT BETWEEN THE PARTIES, WHICH SUPERSEDES ALL PROPOSALS OR PRIOR AGREEMENTS, ORAL OR WRITTEN, EXPRESSED OR IMPLIED, AND ALL OTHER COMMUNICATIONS BETWEEN THE PARTIES RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT.
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