



MILEX

Transit cases

Mission Essential



EDAK, excellence in aluminum

EDAK is a globally active company with manufacturing sites in the US and Switzerland, certified to ISO 9001:2000, with a global sales network. EDAK AG in Switzerland was founded in 1959 and is located in Dachsen, 40 km north of Zurich. EDAK Inc. (US operation) is located in Melbourne, Florida near Cape Canaveral, and was founded in 1986.

With a well-trained and highly productive staff, EDAK designs and manufactures transit and transport cases exclusively in aluminum. All EDAK aluminum cases are engineered to withstand the severity of field operations, military, and commercial transport usage. We design and manufacture both standard and nonstandard aluminum transit cases for rack- and flange-mount electronic equipment needing protection from a variety of elements, such as shock, vibration, water, dust, etc. EDAK also fabricates cases for general transport purposes.

We manufacture all cases to your exact specifications, irrespective of lot size. Since we use an aluminum sheet shell process, we are not restrained by sizing limitations inherent in plastic molds or deep-drawn aluminum cases that use a die process. This advantage is utilized across all EDAK case lines. With EDAK, you will never have to make compromises with case size, and you can achieve the smallest possible footprint with the highest level of protection.

With the MILEX transit case, EDAK prides itself in being the leading manufacturer of custom 19" rack-mount cases for severe transportation use.

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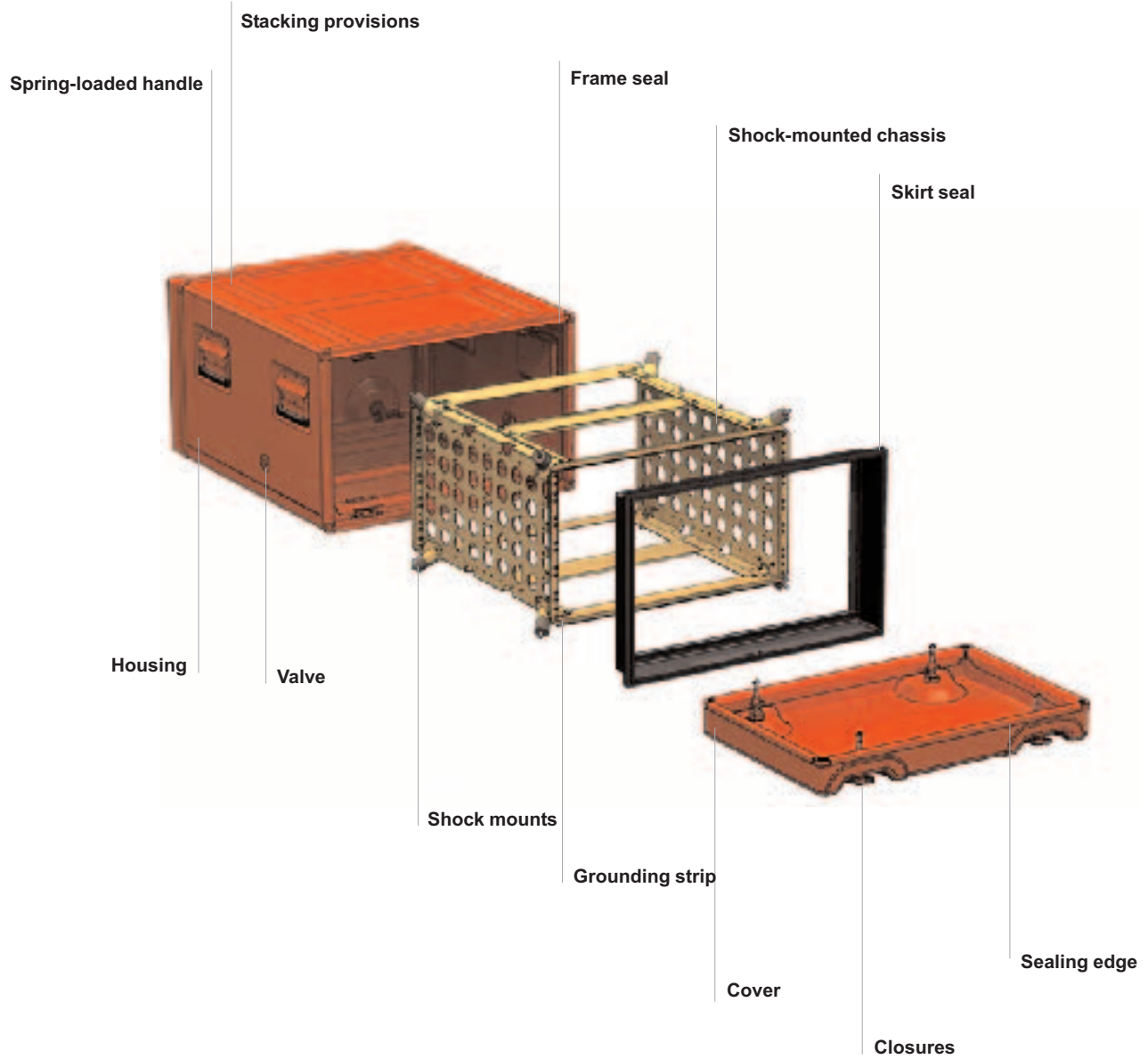


MILEX: protection at all times

The MILEX case is a water- and dust-proofed, shock- and vibration-absorbing transit case for 19" electronics. MILEX transit cases are U.S. Military approved, and are designed to meet the rigid requirements of U.S. MIL Specifications. Together with a large range of accessories such as cooling systems, racks, drawers and slides, MILEX transit cases represent the most comprehensive line available today for the safe packaging of mobile electronics.

MILEX transit cases are made exactly to customers specifications. EDAC has developed a unique expertise in designing and custom manufacturing to deliver quality, on-time solutions that meet your needs.

MILEX aluminum case with 19" shock-mounted chassis



Technical data

Material:

Housing and covers are made of an aluminum alloy that is saltwater-resistant.

Elastomeric shock mounts, stainless steel hardware.

Finish:

Housing and covers natural aluminum finish or painted per FED-STD-595B, or RAL; shock-mounted aluminum chassis treated per MIL-C-5541, Class 1 (Chromate Conversion - Alodine, Irridite).

Weatherproofing:

According to IP 65 as per EN 60529 (MIL-STD-4150, MIL-STD-28800, MIL-STD-810-F).

Dynamic load:

20–100 lb. in standard shock-mount configuration; other payloads on request.

Tests carried out in accordance with MIL-STD-810-F

Vibration:

MIL-STD-810-F, Method 514.5-1 Category 1 basic transportation (EDAK inhouse test procedure as per test curve on next page).

Shock:

MIL-STD-810-F, Method 516.5 Test procedure I.III, 40 g 6–9 ms, (EDAK inhouse test program 4000 pulses, half sinus, saw teeth).

Drop shock:

MIL-STD-810-F, Method 516.5 (Test Procedure IV).

High temperature:

MIL-STD-810-F Method 501.4, held for 48 hours at 160 °F, followed by functional test at 125 °F and at room temperature.

Low temperature:

MIL-STD-810-F, Method 502.4, held for 48 hours at –60 °F, followed by functional test at 35 °F and at room temperature.

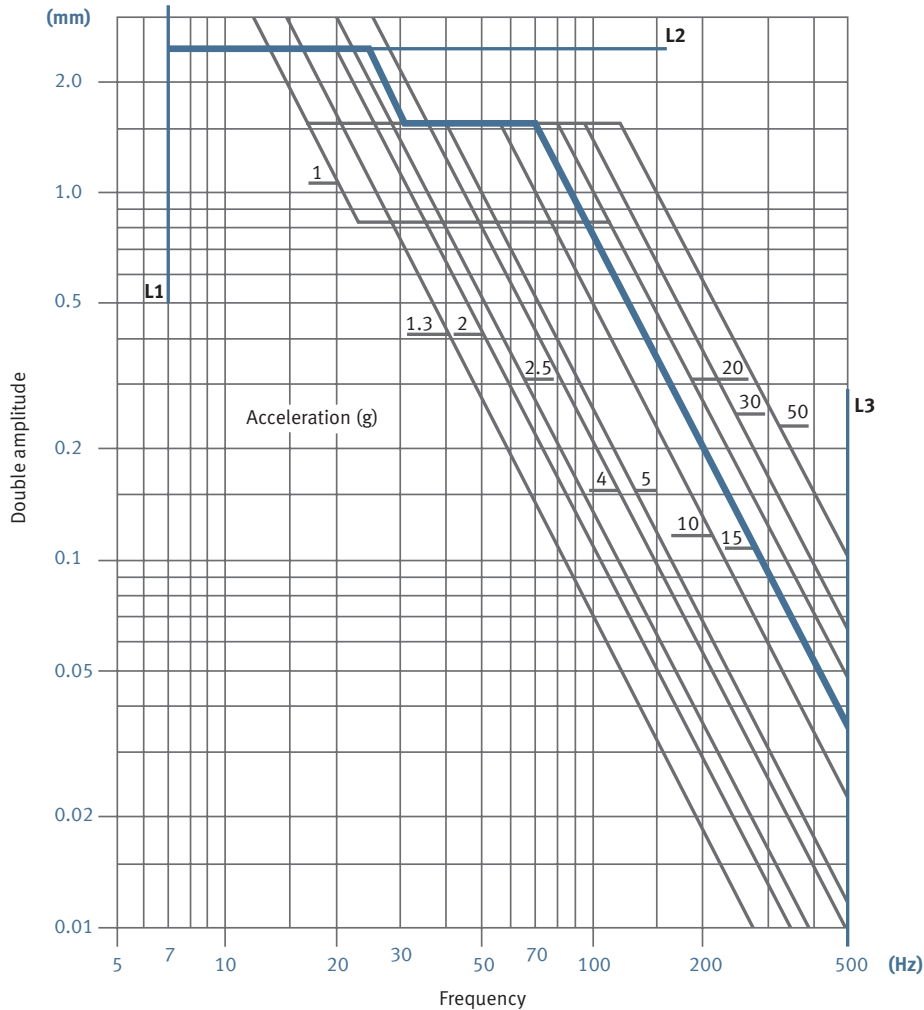
Temperature shock:

MIL-STD-810-F Method 503.4, held for 4 hours at 185 °F, temperature lowered within 5 minutes to –45 °F and held for 4 hours, then raised within 5 minutes to 185 °F; 3 cycles. Satisfactory test at room temperature.

Salt fog test:

MIL-STD-810-F, Method 509.4, held for 96 hours in salt fog atmosphere 5% NaCl, ph-factor 6.5–7.2.

MIL-STD-810-F test diagram



The thin blue lines (L1, L2, L3) show the test limits.
Tests carried out are according to the thick blue line.

The procedure for this test curve is summarized as follows:

1. Vibration frequency is increased from 7 to 24 Hz, with a constant double amplitude of 2.54 mm.
2. Frequency is increased from 24 to 30 Hz with a constant acceleration of 3 g.
3. Frequency is increased from 30 to 70 Hz, with a constant amplitude of 1.6 mm.
4. Frequency is increased from 70 to 500 Hz, with a constant acceleration of 15 g.

The sweep rate is 1 octave/minute.

MILEX advantages for mobile applications

MILEX transit cases are designed to carry and protect electronic and associated equipment in a 19" shock-mounted chassis.

Typical applications are:

- Military and high reliability commercial usage
- Mobile, field equipment exposed to hostile environments
- Airborne equipment
- Shipboard equipment

Protection

- Mechanical stress, such as vibration and shock
- Climatic stress, such as rain, snow, hail, humidity, heat, dust and wind-driven sand according to IP 65 as per EN 60529 (MIL-STD-4150, MIL-STD-28800, MIL-STD-810-F)
- Electronic stress, such as electromagnetic interference (EMI), RFI

Design

- Superior volume/weight ratio compared to plastic, composite or wood cases
- Compact and rugged aluminum construction
- Superior use of space due to tight radius of shell and minimal space between shell and chassis compared to plastic, composite or wood cases
- Recessed handles and closures
- Stacking provisions on all product lines
- Compliant to MIL-STD-4150 and MIL-T-28800
- Calibration of shock mounts corresponding to equipment weight and/or environmental specifications
- Housings and covers are made of a saltwater-resistant aluminum alloy

Sizes

- 2 U to 24 U height (1 U = 1.75 inches)
- 19" chassis and half 19" chassis
- Housing standard depths – 8.6, 13.8, 18.9, 24.0, 30.0 inches
- Covers standard depths – 2.5, 4.0, 6.0 inches
- Other sizes available

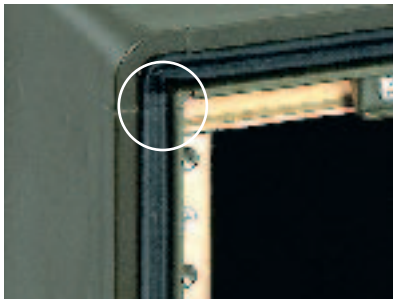
Flexibility

- Components for storage and mounting: drawers and trays with or without telescopic slides
- Covers with pouches, cable coils, windows, louvres or recessed connector trays
- Skirt seal to provide weatherproofing with covers removed
- Racks for case mounting
- Heaters, coolers, air conditioners



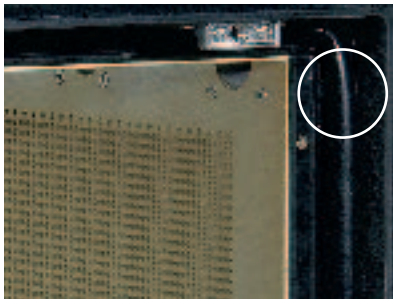
EMI, (RFI) protection

Because the MILEX transit case is made of aluminum as opposed to a non-conducting material such as plastic, composite or wood, it can be constructed to screen the electronics in the housing against the effects of EMI and RFI with the installation of some special features.



EMI gasket

Electrically conductive gasket is installed in the housing to provide electrical contact between covers and housing. This gasket also provides weather protection when covers are mounted.



Conductive skirt seal

To eliminate the risk of water or dust contaminating the interior of the case when the covers are removed, a flexible seal between the support frame and the housing can be fitted. The flexible seal does not affect the anti-vibration characteristics of the case. Sealing of the space between the housing and frame results in IP 65 protection. The skirt seal is electrically conductive.



RFI frame

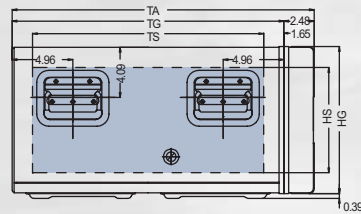
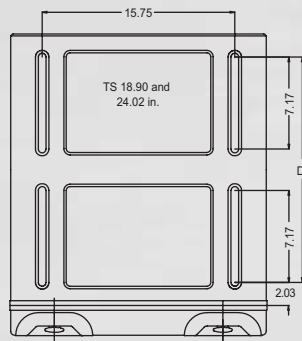
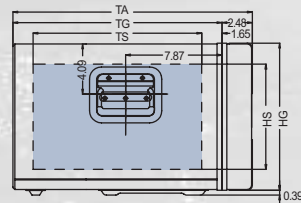
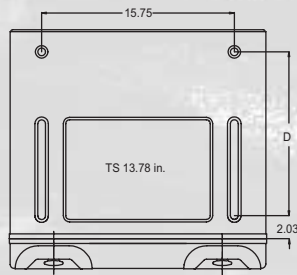
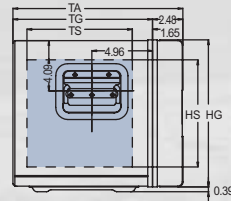
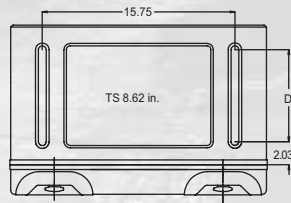
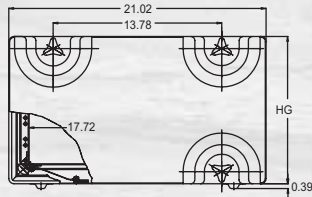
A special RFI tight frame manufactured of aluminum that is Chromate Conversion (Alodine, Iridite) treated. Electronics in the case are thereby screened against RFI. In order to dissipate heat produced by the electronics, the walls of the frame have 3 mm (0.11") holes; average distance between holes is 4 mm (0.15").

Attenuation at various frequencies (MIL-STD-285/IEEE 299)

Frequencies	Average	Screening extreme	
		max.	min.
30–200 MHz	80–90 db	106 db	51 db
200–500 MHz	70–90 db	95 db	50 db
500–1000 MHz	50–60 db	70 db	50 db

19" MILEX-case – 1 cover

Standard Configuration Dimensions in inches



Chassis clearance: 17.72 in.
 Front panel width: 19 in.
 Internal height of chassis: n x 1.75 in.

- U** = nominal height
- HS** = height of chassis
- TS** = depth of chassis
- D** = position of base fasteners
- lb.** = case weight
- TA** = overall depth (covers attached)
- TG** = overall depth (covers removed)
- HG** = overall height (without stacking feet)

Standard weights and dimensions

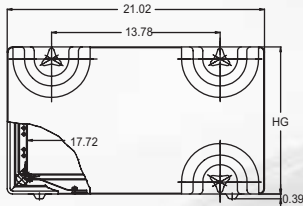
1 U = 1.75 inches

Other sizes upon request

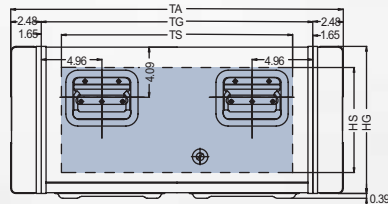
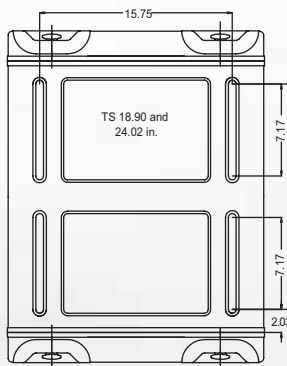
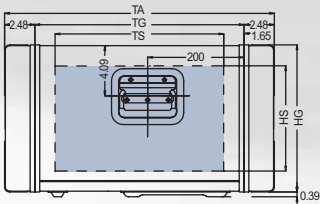
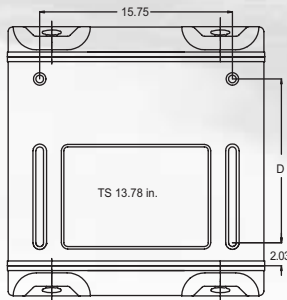
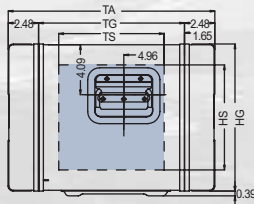
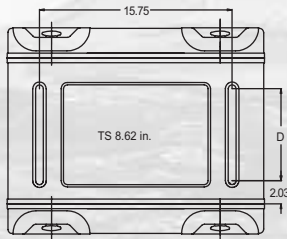
U	HS	TS	D	lb.	TA	TG	HG
2	3.50	8.6	7.2	15	13.9	11.4	6.8
2	3.50	13.8	13.2	19	19.6	17.1	6.8
3	5.25	8.6	7.2	16	13.9	11.4	8.5
3	5.25	13.8	13.2	20	19.6	17.1	8.5
4	7.00	8.6	7.2	17	13.9	11.4	10.3
4	7.00	13.8	13.2	21	19.6	17.1	10.3
5	8.75	8.6	7.2	18	13.9	11.4	12.0
5	8.75	13.8	13.2	22	19.6	17.1	12.0
5	8.75	18.9	18.2	29	24.7	22.2	12.0
6	10.50	8.6	7.2	19	13.9	11.4	13.8
6	10.50	13.8	13.2	23	19.6	17.1	13.8
6	10.50	18.9	18.2	30	24.7	22.2	13.8
7	12.25	8.6	7.2	20	13.9	11.4	15.5
7	12.25	13.8	13.2	24	19.6	17.1	15.5
7	12.25	18.9	18.2	31	24.7	22.2	15.5
8	14.00	8.6	7.2	21	13.9	11.4	17.3
8	14.00	13.8	13.2	25	19.6	17.1	17.3
8	14.00	18.9	18.2	33	24.7	22.2	17.3
9	15.75	8.6	7.2	22	13.9	11.4	19.0
9	15.75	13.8	13.2	27	19.6	17.1	19.0
9	15.75	18.9	18.2	34	24.7	22.2	19.0
10	17.50	8.6	7.2	23	13.9	11.4	20.8
10	17.50	13.8	13.2	28	19.6	17.1	20.8
10	17.50	18.9	18.2	35	24.7	22.2	20.8
11	19.25	8.6	7.2	24	13.9	11.4	22.5
11	19.25	13.8	13.2	29	19.6	17.1	22.5
11	19.25	18.9	18.2	36	24.7	22.2	22.5
12	21.00	8.6	7.2	25	13.9	11.4	24.3
12	21.00	13.8	13.2	30	19.6	17.1	24.3
12	21.00	18.9	18.2	37	24.7	22.2	24.3
13	22.75	8.6	7.2	26	13.9	11.4	26.0
13	22.75	13.8	13.2	31	19.6	17.1	26.0
13	22.75	18.9	18.2	39	24.7	22.2	26.0
14	24.50	8.6	7.2	27	13.9	11.4	27.8
14	24.50	13.8	13.2	33	19.6	17.1	27.8
14	24.50	18.9	18.2	40	24.7	22.2	27.8
15	26.25	8.6	7.2	29	13.9	11.4	29.5
15	26.25	13.8	13.2	34	19.6	17.1	29.5
15	26.25	18.9	18.2	41	24.7	22.2	29.5

19" MILEX-case – 2 cover

Standard Configuration Dimensions in inches



Chassis clearance: 17.72 in.
 Front panel width: 19 in.
 Internal height of chassis: n x 1.75 in.



Standard weights and dimensions

1 U = 1.75 inches

Other sizes upon request

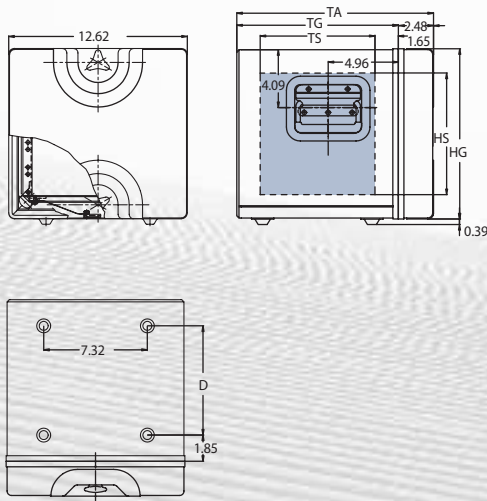
U	HS	TS	D	lb.	TA	TG	HG
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2	3.50	13.8	13.2	22	22.1	17.1	6.8
2	3.50	18.9	18.2	28	27.2	22.2	6.8
2	3.50	24.0	23.3	31	32.3	27.3	6.8
3	5.25	8.6	7.2	20	16.9	11.9	8.5
3	5.25	13.8	13.2	24	22.1	17.1	8.5
3	5.25	18.9	18.2	30	27.2	22.2	8.5
3	5.25	24.0	23.3	33	32.3	27.3	8.5
3	5.25	30.0	29.3	38	38.3	33.3	8.5
4	7.00	8.6	7.2	22	16.9	11.9	10.3
4	7.00	13.8	13.2	25	22.1	17.1	10.3
4	7.00	18.9	18.2	32	27.2	22.2	10.3
4	7.00	24.0	23.3	35	32.3	27.3	10.3
4	7.00	30.0	29.3	40	38.3	33.3	10.3
5	8.75	8.6	7.2	23	16.9	11.9	12.0
5	8.75	13.8	13.2	27	22.1	17.1	12.0
5	8.75	18.9	18.2	33	27.2	22.2	12.0
5	8.75	24.0	23.3	37	32.3	27.3	12.0
5	8.75	30.0	29.3	42	38.3	33.3	12.0
6	10.50	8.6	7.2	24	16.9	11.9	13.8
6	10.50	13.8	13.2	28	22.1	17.1	13.8
6	10.50	18.9	18.2	35	27.2	22.2	13.8
6	10.50	24.0	23.3	39	32.3	27.3	13.8
6	10.50	30.0	29.3	44	38.3	33.3	13.8
7	12.25	8.6	7.2	25	16.9	11.9	15.5
7	12.25	13.8	13.2	29	22.1	17.1	15.5
7	12.25	18.9	18.2	37	27.2	22.2	15.5
7	12.25	24.0	23.3	41	32.3	27.3	15.5
7	12.25	30.0	29.3	46	38.3	33.3	15.5
8	14.00	8.6	7.2	27	16.9	11.9	17.3
8	14.00	13.8	13.2	31	22.1	17.1	17.3
8	14.00	18.9	18.2	38	27.2	22.2	17.3
8	14.00	24.0	23.3	42	32.3	27.3	17.3
8	14.00	30.0	29.3	48	38.3	33.3	17.3
9	15.75	8.6	7.2	28	16.9	11.9	19.0
9	15.75	13.8	13.2	32	22.1	17.1	19.0
9	15.75	18.9	18.2	40	27.2	22.2	19.0
9	15.75	24.0	23.3	44	32.3	27.3	19.0
9	15.75	30.0	29.3	50	38.3	33.3	19.0
10	17.50	8.6	7.2	29	16.9	11.9	20.8
10	17.50	13.8	13.2	34	22.1	17.1	20.8
10	17.50	18.9	18.2	42	27.2	22.2	20.8
10	17.50	24.0	23.3	46	32.3	27.3	20.8
10	17.50	30.0	29.3	52	38.3	33.3	20.8
11	19.25	8.6	7.2	31	16.9	11.9	22.5
11	19.25	13.8	13.2	35	22.1	17.1	22.5
11	19.25	18.9	18.2	43	27.2	22.2	22.5
11	19.25	24.0	23.3	48	32.3	27.3	22.5
11	19.25	30.0	29.3	54	38.3	33.3	22.5
12	21.00	8.6	7.2	32	16.9	11.9	24.3
12	21.00	13.8	13.2	37	22.1	17.1	24.3
12	21.00	18.9	18.2	45	27.2	22.2	24.3
12	21.00	24.0	23.3	50	32.3	27.3	24.3
12	21.00	30.0	29.3	56	38.3	33.3	24.3
13	22.75	8.6	7.2	33	16.9	11.9	26.0
13	22.75	13.8	13.2	38	22.1	17.1	26.0
13	22.75	18.9	18.2	46	27.2	22.2	26.0
13	22.75	24.0	23.3	51	32.3	27.3	26.0
13	22.75	30.0	29.3	58	38.3	33.3	26.0
14	24.50	8.6	7.2	34	16.9	11.9	27.8
14	24.50	13.8	13.2	40	22.1	17.1	27.8
14	24.50	18.9	18.2	48	27.2	22.2	27.8
14	24.50	24.0	23.3	53	32.3	27.3	27.8
14	24.50	30.0	29.3	60	38.3	33.3	27.8
15	26.25	8.6	7.2	36	16.9	11.9	29.5
15	26.25	13.8	13.2	41	22.1	17.1	29.5
15	26.25	18.9	18.2	50	27.2	22.2	29.5
15	26.25	24.0	23.3	55	32.3	27.3	29.5
15	26.25	30.0	29.3	62	38.3	33.3	29.5

1/2 19" MILEX case

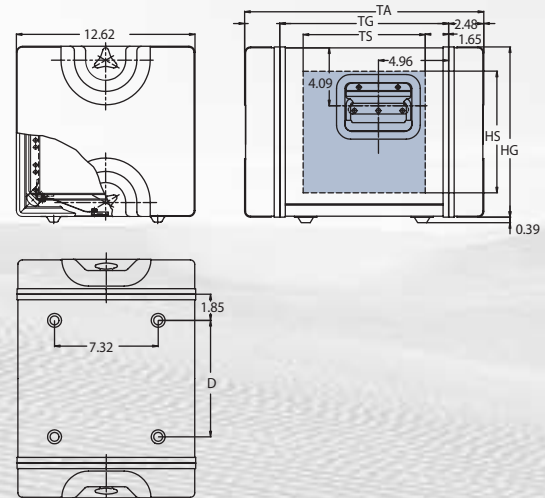
1/2 19" MILEX case is for applications with electronics of half width of the standard 19" dimension. Shock protection is as for the standard 19" case. Dimensions (except for width) are the same as for the standard 19" case, and the case is available with one or two covers.

Standard Configuration Dimensions in inches

1 cover



2 cover



Chassis clearance: 9.3 in.
 Front panel width: 10.6 in.
 Internal height of chassis: n x 1.75 in.

Standard weights and dimensions

1 U = 1.75 inches, other sizes upon request

1 cover

2 cover

U	HS	TS	D	HG	lbs.	TA	TG	lbs.	TA	TG
3	5.25	8.6	8.2	8.5	10	13.9	11.4	13	16.9	11.9
3	5.25	13.8	13.4	8.5	12	19.6	17.1	15	22.1	17.1
3	5.25	18.9	18.5	8.5	16	24.7	22.2	19	27.2	22.2
4	7.00	8.6	8.2	10.3	11	16.9	11.4	14	16.9	11.9
4	7.00	13.8	13.4	10.3	13	22.1	17.1	16	22.1	17.1
4	7.00	18.9	18.5	10.3	17	24.7	22.2	20	27.2	22.2
5	8.75	8.6	8.2	12.0	11	16.9	11.4	15	16.9	11.9
5	8.75	13.8	13.4	12.0	14	22.1	17.1	17	22.1	17.1
5	8.75	18.9	18.5	12.0	18	24.7	22.2	21	27.2	22.2
6	10.50	8.6	8.2	13.8	12	16.9	11.4	16	16.9	11.9
6	10.50	13.8	13.4	13.8	14	22.1	17.1	18	22.1	17.1
6	10.50	18.9	18.5	13.8	19	24.7	22.2	22	27.2	22.2
7	12.25	8.6	8.2	15.5	13	16.9	11.4	17	16.9	11.9
7	12.25	13.8	13.4	15.5	15	22.1	17.1	19	22.1	17.1
7	12.25	18.9	18.5	15.5	20	24.7	22.2	23	27.2	22.2

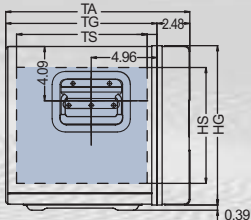
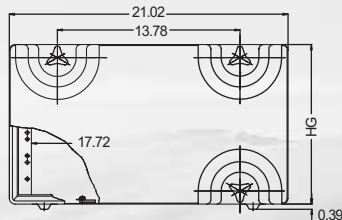
U = nominal height
 HS = height of chassis
 TS = depth of chassis
 D = position of base fasteners
 lbs. = case weight
 TA = overall depth (covers attached)
 TG = overall depth (covers removed)
 HG = overall height (without stacking feet)

MILEX-HM case for stationary applications

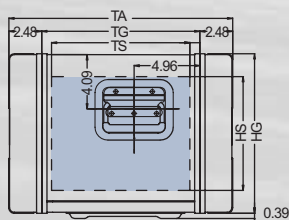
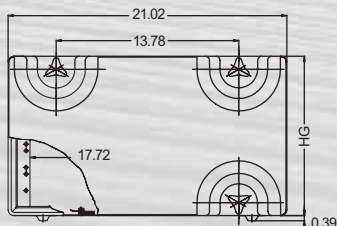
MILEX-HM case is a standard 19" MILEX case without a shock-mounted chassis. It is for applications where shock protection is not critical, but all other levels of protection of the 19" MILEX case are maintained. Outside dimensions are equivalent to the 19" MILEX case.

Standard Configuration Dimensions in inches

1 cover



2 cover



Standard weights and dimensions

1 U = 1.75 inches, other sizes upon request

U	1 cover						2 cover					
	HS	D	HG	lb.	TA	TG	TS	kg	TA	TG	TS	
3	5.25	7.2	8.5	20	13.9	11.4	10.4	20	16.9	11.9	10.4	
3	5.25	13.2	8.5	24	19.6	17.1	15.6	24	22.0	17.1	15.6	
3	5.25	18.2	8.5		NA	NA	NA	30	27.2	22.2	20.7	
3	5.25	23.3	8.5		NA	NA	NA	33	32.3	27.3	25.8	
4	7.00	7.2	10.3	22	13.9	11.4	10.4	22	16.9	11.9	10.4	
4	7.00	13.2	10.3	25	19.6	17.1	15.6	25	22.0	17.1	15.6	
4	7.00	18.2	10.3		NA	NA	NA	32	27.2	22.2	20.7	
4	7.00	23.3	10.3		NA	NA	NA	35	32.3	27.3	25.8	
5	8.75	7.2	12.0	23	13.9	11.4	10.4	23	16.9	11.9	10.4	
5	8.75	13.2	12.0	27	19.6	17.1	15.6	27	22.0	17.1	15.6	
5	8.75	18.2	12.0	33	24.7	22.2	20.7	33	27.2	22.2	20.7	
5	8.75	23.3	12.0		NA	NA	NA	37	32.3	27.3	25.8	
6	10.50	7.2	13.8	24	13.9	11.4	10.4	24	16.9	11.9	10.4	
6	10.50	13.2	13.8	28	19.6	17.1	15.6	28	22.0	17.1	15.6	
6	10.50	18.2	13.8	35	24.7	22.2	20.7	35	27.2	22.2	20.7	
6	10.50	23.3	13.8		NA	NA	NA	39	32.3	27.3	25.8	
7	12.25	7.2	15.5	25	13.9	11.4	10.4	25	16.9	11.9	10.4	
7	12.25	13.2	15.5	29	19.6	17.1	15.6	29	22.0	17.1	15.6	
7	12.25	18.2	15.5	37	24.7	22.2	20.7	37	27.2	22.2	20.7	
7	12.25	23.3	15.5		NA	NA	NA	41	32.3	27.3	25.8	
8	14.00	7.2	17.3	27	13.9	11.4	10.4	27	16.9	11.9	10.4	
8	14.00	13.2	17.3	31	19.6	17.1	15.6	31	22.0	17.1	15.6	
8	14.00	18.2	17.3	38	24.7	22.2	20.7	38	27.2	22.2	20.7	
8	14.00	23.3	17.3		NA	NA	NA	42	32.3	27.3	25.8	
9	15.75	7.2	19.0	28	13.9	11.4	10.4	28	16.9	11.9	10.4	
9	15.75	13.2	19.0	32	19.6	17.1	15.6	32	22.0	17.1	15.6	
9	15.75	18.2	19.0	40	24.7	22.2	20.7	40	27.2	22.2	20.7	
9	15.75	23.3	19.0		NA	NA	NA	44	32.3	27.3	25.8	
10	17.50	7.2	20.8	29	13.9	11.4	10.4	29	16.9	11.9	10.4	
10	17.50	13.2	20.8	34	19.6	17.1	15.6	34	22.0	17.1	15.6	
10	17.50	18.2	20.8	42	24.7	22.2	20.7	42	27.2	22.2	20.7	
10	17.50	23.3	20.8		NA	NA	NA	46	32.3	27.3	25.8	
11	19.25	7.2	22.5	31	13.9	11.4	10.4	31	16.9	11.9	10.4	
11	19.25	13.2	22.5	35	19.6	17.1	15.6	35	22.0	17.1	15.6	
11	19.25	18.2	22.5	43	24.7	22.2	20.7	43	27.2	22.2	20.7	
11	19.25	23.3	22.5		NA	NA	NA	48	32.3	27.3	25.8	
12	21.00	7.2	24.3	32	13.9	11.4	10.4	32	16.9	11.9	10.4	
12	21.00	13.2	24.3	37	19.6	17.1	15.6	37	22.0	17.1	15.6	
12	21.00	18.2	24.3	45	24.7	22.2	20.7	45	27.2	22.2	20.7	
12	21.00	23.3	24.3		NA	NA	NA	50	32.3	27.3	25.8	
13	22.75	7.2	26.0	33	13.9	11.4	10.4	33	16.9	11.9	10.4	
13	22.75	13.2	26.0	38	19.6	17.1	15.6	38	22.0	17.1	15.6	
13	22.75	18.2	26.0	46	24.7	22.2	20.7	46	27.2	22.2	20.7	
13	22.75	23.3	26.0		NA	NA	NA	51	32.3	27.3	25.8	
14	24.50	7.2	27.8	34	13.9	11.4	10.4	34	16.9	11.9	10.4	
14	24.50	13.2	27.8	40	19.6	17.1	15.6	40	22.0	17.1	15.6	
14	24.50	18.2	27.8	48	24.7	22.2	20.7	48	27.2	22.2	20.7	
14	24.50	23.3	27.8		NA	NA	NA	53	32.3	27.3	25.8	
15	26.25	7.2	29.5	36	13.9	11.4	10.4	36	16.9	11.9	10.4	
15	26.25	13.2	29.5	41	19.6	17.1	15.6	41	22.0	17.1	15.6	
15	26.25	18.2	29.5	50	24.7	22.2	20.7	50	27.2	22.2	20.7	
15	26.25	23.3	29.5		NA	NA	NA	55	32.3	27.3	25.8	

MILEX-WR case for extreme applications



The MILEX-WR is a 19" case with the frame mounted on stainless steel, spiral-wound, wire rope shock absorbers. It is used where electronics have to be protected from vibration and particularly severe shock impact, where a deflection is required exceeding that offered by the shock absorbers in the standard MILEX case. Typical applications are shock protection on ships, submarines, helicopters and aircraft.

The MILEX-WR is available in all standard depths and has an overall width of 29.45 inches. Payload is 100 to 154 pounds.

The MILEX-WR case has been tested to:

- MIL-167-1 for marine applications
- MIL-STD-810F 514.5 C3
- IP65 dust and moisture protection
- MIL-S-901 test in preparation

U = nominal height

HS = height of chassis

TS = depth of chassis

D = position of base fasteners

TA = overall depth (covers attached)

TG = overall depth (covers removed)

HG = overall height (without stacking feet)

Standard weights and dimensions

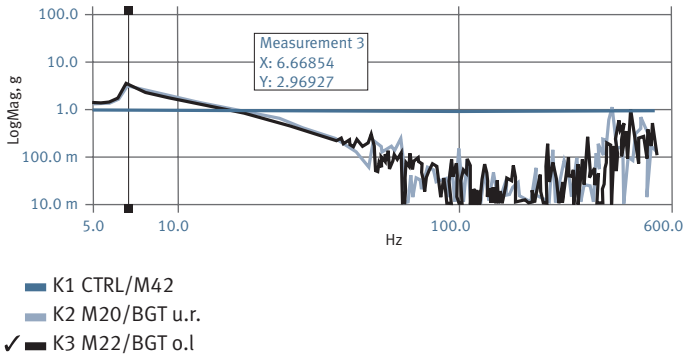
1 U = 1.75 inches

U	HS	TS	D	TA	TG	HG
6	10.50	13.8	13.2	28.3	23.4	20.6
6	10.50	18.9	18.2	33.5	28.5	20.6
6	10.50	24.0	23.3	38.6	33.6	20.6
7	12.25	13.8	13.2	28.3	23.4	22.4
7	12.25	18.9	18.2	33.5	28.5	22.4
7	12.25	24.0	23.3	38.6	33.6	22.4
8	14.00	13.8	13.2	28.3	23.4	24.1
8	14.00	18.9	18.2	33.5	28.5	24.1
8	14.00	24.0	23.3	38.6	33.6	24.1
9	15.75	13.8	13.2	28.3	23.4	25.9
9	15.75	18.9	18.2	33.5	28.5	25.9
9	15.75	24.0	23.3	38.6	33.6	25.9
10	17.50	13.8	13.2	28.3	23.4	27.6
10	17.50	18.9	18.2	33.5	28.5	27.6
10	17.50	24.0	23.3	38.6	33.6	27.6
11	19.25	13.8	13.2	28.3	23.4	29.4
11	19.25	18.9	18.2	33.5	28.5	29.4
11	19.25	24.0	23.3	38.6	33.6	29.4
12	21.00	13.8	13.2	28.3	23.4	31.1
12	21.00	18.9	18.2	33.5	28.5	31.1
12	21.00	24.0	23.3	38.6	33.6	31.1
13	22.75	13.8	13.2	28.3	23.4	32.9
13	22.75	18.9	18.2	33.5	28.5	32.9
13	22.75	24.0	23.3	38.6	33.6	32.9
14	24.50	13.8	13.2	28.3	23.4	34.6
14	24.50	18.9	18.2	33.5	28.5	34.6
14	24.50	24.0	23.3	38.6	33.6	34.6



MILEX-WR case test results

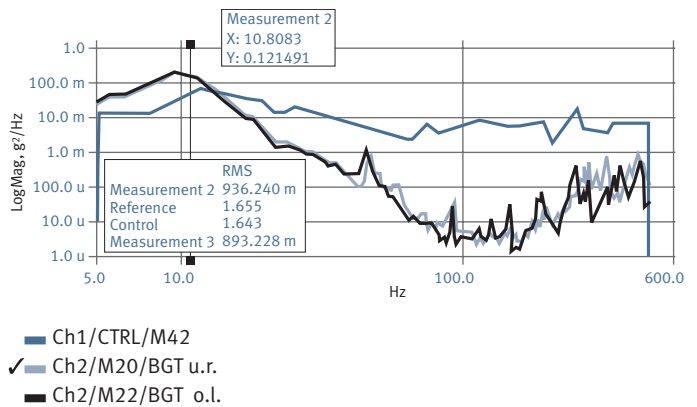
System natural frequency by sinussweep (1 octave/minute)



Vertical acceleration response

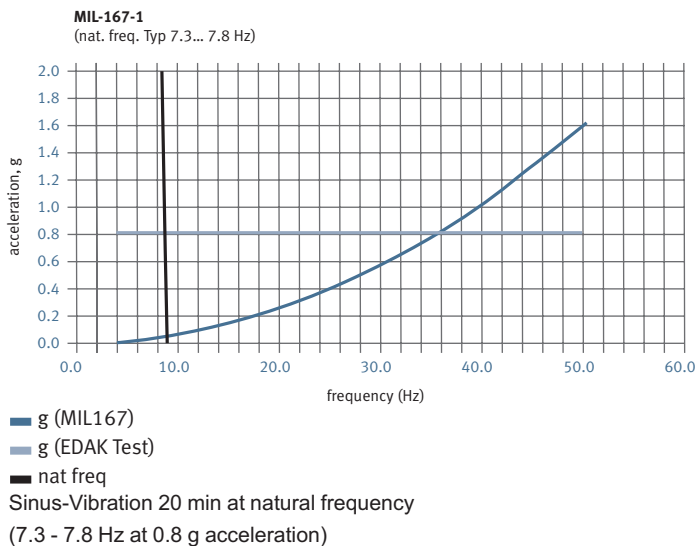
Attenuation properties in random test

MIL-STD-810 method 514.5 vibration, procedure 1, category 4

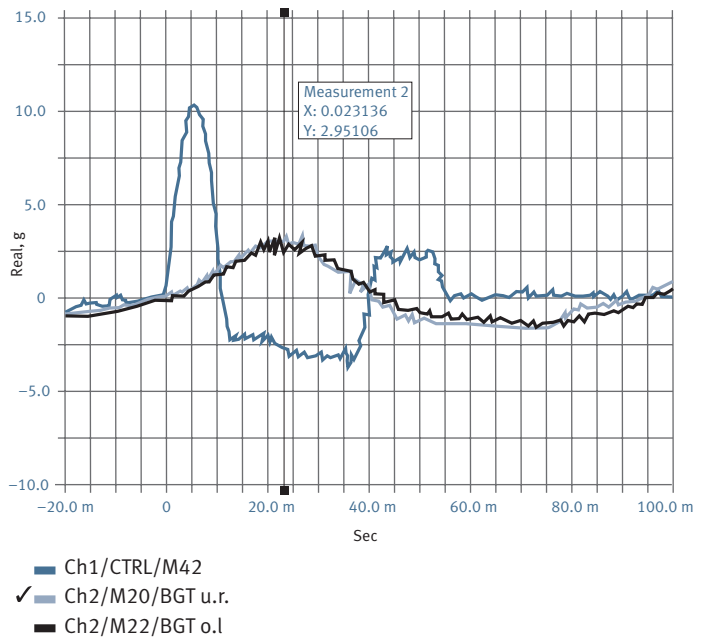


Random-Vibration (5–8 Hz red 0.01 g²/Hz)

Variable frequency test according MIL-167-1 5.1.3.3.2



Shock response



Vertical operating mode 100 shocks 10 g/11 ms

MILEX Rack System

Used to mount MILEX racks in vehicles, shelters or other locations. The rack is all-aluminum construction, and has a modular space-saving design for easy assembly. It can be built for fastening to floors, back walls and ceiling, and several units can be installed adjacent to each other. The rack can house any number of cases per unit to a maximum rack height of 94.5 inches. Width of rack is 30 inches. Maximum weight per rack unit is 660 lbs. The MILEX cases are held in place by a quick-release locking device. Once locked in place, the cases are prevented from falling out of the rack. MILEX cases with a depth of up to 31.5 inches can be mounted in the rack.



Support, dolly, locks, lugs



Support stand

Available with 3 and 4 legs. Working height gradually adjustable between 17.1 and 25 inches in increments of 1.6 inches. Maximum load is 265 lbs. Legs fold in when support not in use. When legs folded in case with support is stackable. Fits on to cases with depths from 13.8 inches.



Lifting lugs

For lifting of heavy cases.



Dolly

Used for wheeling MILEX cases, also stacked, in building or outdoors. Wheel diameter is 5". Maximum load is 440 pounds. Suitable for cases with depths from 13.8 inches.



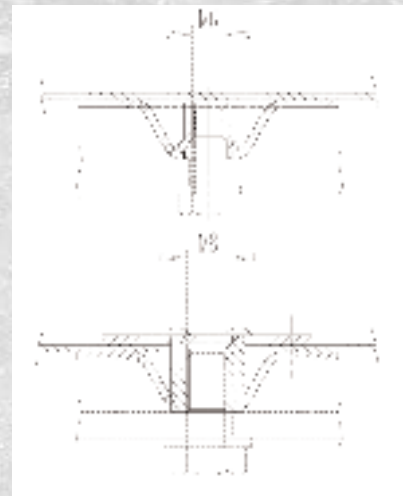
Interlock

For attachment of cases to each other, or for fastening to a hard surface.



Quarter-turn latch

Used to attach covers, options and cases for locking and closure.



Base fastener

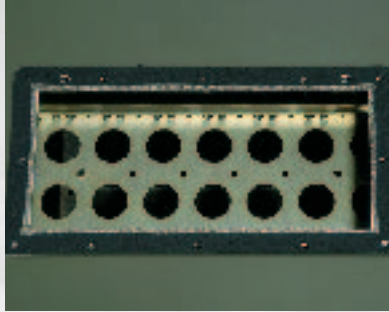
Used where MILEX case needs to be bolted onto a flat surface.

Seal, storage & cover features



Skirt seal

To eliminate the risk of water or dust contaminating the interior of the equipment when the covers are removed, a flexible seal between the chassis and the housing can be fitted.



Connector tray, I/O panel

To be installed in covers of case.



Windows, louvres

Windows made of acrylic glass, with or without EMI screening.



Cable coil

On cases of 3 U and above, brackets and restraining straps can be fitted to inside of the front or rear cover to hold a cable coil.
3 U – 5 U: ø 5.9 in.
above 6 U: ø 7.9 in.



Storage pouch

Pouch with zipper particularly for storage of small items can be fitted to cases with heights 4 U and above.

Pouch standard sizes:

- 8.7 x 4.9 x 2.0 in.
- 10.2 x 6.3 x 2.0 in.
- 16.1 x 11.8 x 2.0 in.



Gas compression struts

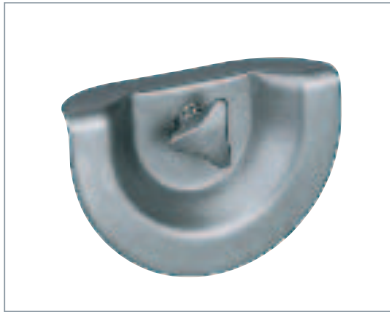
To prevent cover from closing accidentally.



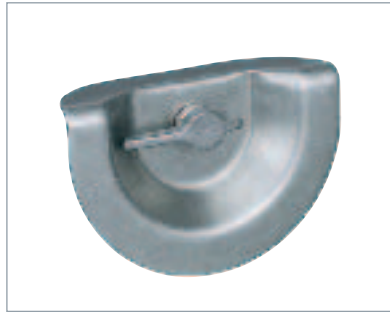
Side screens

Cover attached at an angle of 120°. Side screens to protect from sun glare.

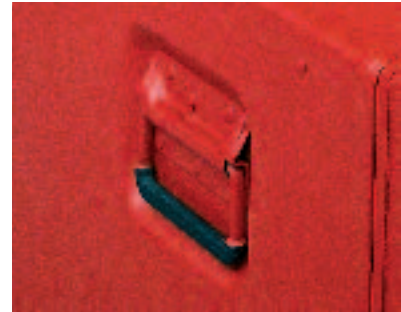
Closures, valves, drawers, slides



Star knob closure
For covers
2.5 in., 4.0 in., 6.0 in.



Fastlock
For covers
2.5 in., 4.0 in., 6.0 in.



Spring-loaded handle
In recessed position.



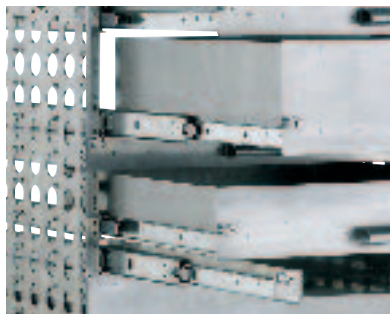
Pressure relief valves
Manually operated, 2 per housing
on 18.9 and 24.0 in.



Breather valve
Automatic breather valve,
also for housings with
EMI gaskets.



Humidity indicator
For indication of relative
humidity.



Telescopic slides
For depths:
13.8, 18.9, 24.0 in.
 $\frac{3}{4}$ and full extension.
Solid slides available for all
frame depths (not pictured).



Tray, drawer
Trays 1 U high, Drawers
1 U – 3 U high run on plastic
tracks or on telescopic slides.

KOOLEX heat management – cooling/heating

KOOLEX HE heat exchanger

Operates with forced air circulation. Closed airflow circuit inside case to maintain IP 65 protection. Heat exchanger is installed inside cover for easy mounting onto housing. The heat dissipation capability depends on the position of the case (stand alone, positioned against wall, stacked).



KOOLEX air conditioner

Two types are available:

Standard duty:

Size: For installation in cases > 7 U

Power: 1,092 BTU/h 95 °F environment temperature

820 BTU/h 120 °F environment temperature

Test: DEF STAN 07–55

Superior duty:

Size: For installation in cases > 14 U

Power: 920–3,750 BTU/h 122 °F environment temperature

Outstanding heat transfer is typical for the aluminum-made MILEX housing. Forced air circulation with fans or air/air heat exchangers will increase heat dissipation capability. The heat dissipation capability is in relationship to the position of the cases (stand alone, positioned against a wall or stacked).			Without fans			Heat dissipation with forced air circulation			EDAK air/air heat exchanger	
			Cases with no airflow obstructions	Cases with one side against wall	Stacked cases	Cases with no airflow obstructions	Cases with one side against wall	Stacked cases	BTU/h min	BTU/h max
Type	Depth	Delta °C	BTU/h	BTU/h	BTU/h	BTU/h	BTU/h	BTU/h	BTU/h min	BTU/h max
(U=1.75")										
3 U	8.6 in.	20	259	242	157	962	665	423		
6 U	8.6 in.	20	348	321	215	1095	874	587	1344	
9 U	8.6 in.	20	433	396	273	1225	1078	747	1419	
12 U	8.6 in.	20	522	471	331	1358	1286	908	2495	2177
15 U	8.6 in.	20	607	549	392	1658	1495	1068	1573	2255
3 U	13.8 in.	20	317	300	184	1191	816	505		
6 U	13.8 in.	20	416	389	249	1324	1058	682	1413	
9 U	13.8 in.	20	515	474	314	1454	1297	860	1498	
12 U	13.8 in.	20	611	563	382	1587	1535	1037	1679	2221
15 U	13.8 in.	20	713	651	447	1942	1778	1218	1675	2358
3 U	18.9 in.	20	372	355	215	1419	969	583		
6 U	18.9 in.	20	485	454	287	1553	1242	778	1477	
9 U	18.9 in.	20	594	553	358	1682	1512	976	1576	
12 U	18.9 in.	20	703	655	430	1812	1781	1170	1679	2361
15 U	18.9 in.	20	816	754	502	2218	2054	1368	1778	2460
3 U	24.0 in.	20	427	409	242	1648	1119	662		
6 U	24.0 in.	20	549	522	321	1778	1423	877	1546	
9 U	24.0 in.	20	672	635	399	1911	1727	1088	1658	
12 U	24.0 in.	20	795	744	478	2040	2030	1303	1767	2450
15 U	24.0 in.	20	918	856	556	2498	2334	1518	1880	2563

KOOLEX TC temperature-controlled transit case

The KOOLEX TC is a high- power portable unit for both heating and cooling of electronics during transport, operation or storage.

The distinctive feature of the KOOLEX TC is its ability to maintain individual preset temperatures in up to four cases simultaneously. It has the capability to heat, and satisfies even the most severe cooling requirements. The design is based on a compressor and condenser in a 8U MILEX transit case (TC server) that is connected to the evaporators in the covers (TC covers) of the cases requiring temperature control. Fans circulate the cool air throughout the cases. Three different performance ratings are available for the TC covers ranging from 1700 BTU/h to 6800 BTU/h for cooling and 2700 BTU/h for heating. The KOOLEX TC offers the same level of protection to shock, vibration and environment as the MILEX transit case.



Specifications:

TC server

- cooling power: 8500 BTU/h
- size: 8U (24")
- weight: 99 lbs.

TC cover

- cooling power
- heating power
- case size
- cover depth
- air flow cfm
- weight

TC-1

- 1700 BTU/h
- 2700 BTU/h
- ≥5U
- 6.0"
- 88
- 33 lbs.

TC-2

- 3400 BTU/h
- 2700 BTU/h
- ≥7U
- 7.9"
- 233
- 66 lbs.

TC-3

- 6800 BTU/h
- 2700 BTU/h
- ≥10U
- 13.7"
- 350
- 99 lbs.

- IP 65 dust- and moisture-proof
- MIL-STD 810-F compliant

Operating range

- heating: lowest surrounding temperature -40 °F
- cooling: highest surrounding temperature 131 °F



Acknowledgements

Text: EDAK AG, FD, 1200, August 2005

Images: Croci & du Fresne Fotografie, Bern

Concept/Design: MASCIADRI Communication & Design, Bern

