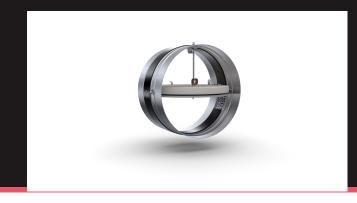


ROUND FIRE DAMPER



Characteristics:

A fire damper for general ventilation systems with an electric spring return actuator or a spring mechanism with a thermal fuse.



version: 25/03/24

Intended use

The KTM-O fire dampers are designed for application in general ventilation systems as cut-off partitions separating the fireengulfed zone from the remaining part of the building (normally open). The purpose of these dampers is to prevent the spread of fire, heat and smoke.

The KTM-O fire dampers are certified by the Scientific and Research Centre for Fire Protection – the National Research Institute, **Certificate of Constancy of Performance No. 1438-CPR-0529**.

The dampers are designed, manufactured and tested in accordance with the following standards: **PN-EN 15650** "Ventilation for buildings – Fire dampers" and **PN-EN 13501-3** "Fire classification of construction products and building elements – Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers."

The effectiveness of the dampers is confirmed by tests according to **PN-EN 1366-2** "Fire resistance tests for service installations – Part 2: Fire dampers."

The KTM-O fire damper is classified as tightness class B (housing tightness) on the basis of tests carried out according to **PN-EN 1751** "Ventilation for buildings. Air terminal devices. Aerodynamic testing of dampers and valves."

Classification

The KTM-O fire dampers are classified in the following fire resistance classes and may be installed in the following building partitions:

El 120 ($v_e h_o i \leftrightarrow o$) S

- floors with density of 2,200 \pm 200 kg/m 3 or higher, 150 mm in thickness or more, and a fire resistance class EI120 or higher
- rigid walls with low density (650 ± 200 kg/m3) or higher, 115 mm in thickness or more, and El120 or a higher fire resistance class (e.g. concrete walls, solid brick walls, cellular concrete block walls, hollow masonry unit walls or concrete slab walls)
- flexible walls, 125 mm in thickness or more and EI 120 or a higher fire resistance class (thicker, higher density, more board layers)

El 90 (v_e i⇔o) S

- flexible standard walls, 100 mm in thickness or more and EI90 or a higher fire resistance (thicker, greater density, more board layers)
- rigid walls, 100 mm in thickness or more, and EI90 or a higher fire resistance class (e.g. concrete walls, non-hollow brick walls, cellular concrete block walls, hollow masonry unit walls or concrete slab walls).
- away from rigid walls with low density (650 ± 200 kg/m3) or more, 120 mm in thickness or more, and EI90 or a higher fire resistance class (e.g. concrete walls, solid brick walls, cellular concrete block walls, hollow masonry unit walls or concrete slab walls)

El 60 ($v_e i \leftrightarrow o$) S

- rigid walls, 100 mm in thickness or more, and a density of 520 $\mbox{kg/m}^3$ or higher, as well as El60 or a higher fire resistance class

El 30 (v_e i ↔ o) S

• flexible standard walls, 75 mm in thickness or more and EI30 or a higher fire resistance (thicker, greater density, more board layers)

Where:

- E szczelność ogniowa,
- izolacyjność ogniowa,
- S dymoszczelność,
- Ve klapa montowana bezpośrednio na ścianie,
- **h**o klapa montowana bezpośrednio w stropie,
- i↔ O kryteria skuteczności działania spełnione są od wewnątrz do zewnątrz (ogień wewnątrz) oraz od zewnątrz do wewnątrz (ogień zewnątrz),
- 120/90/60/30 czas spełniania kryteriów E, I oraz S, wyrażony w minutach.

The KTM-O fire dampers may also be installed in buildings partitions with a lower fire resistance rating. In this case, the damper fire resistance rating is equal to the partition fire resistance rating, subject to the smoke leakage criterion.



The KTM-O fire dampers may be installed in vertical building partitions with either horizontal or vertical rotation axis, with any actuator position.

Description

The KTM-O-S dampers (with a spring mechanism) and the KTM-O-E dampers (with an electric spring return actuator) consist of a housing of a round cross-section, a moving, single-axis isolating baffle and an actuating mechanism with a release device.

The damper housing and its interacting elements are made of galvanised steel sheet. Both ends of the housing are adapted for sleeve or nipple connection, allowing easy connection between the duct and the damper.

There are intumescent seals on the outer and inner surfaces of the housing, in the place of perforation, around the closed isolating baffle. Their characteristic feature is that their volume increases at high temperatures, tightly filling all leaks between the baffle and the body.

The isolating baffle of the damper is made of calcium-silicate board, and a rubber seal is installed on its

perimeter, ensuring the damper integrity at ambient temperature.

The KTM-O-S damper is provided with actuating springs, which store energy when the baffle is being opened, which is then used to close the baffle. The open position of the baffle is ensured by a thermal fuse with nominal activation temperature 70 ± 5 °C, and which is placed in special bolted strikes. The baffle closes when the thermal fuse is activated after the actuating temperature is exceeded. Damage to the thermal fuse results in disconnection of bolted strikes, and rotation of the baffle into closed position, which is caused by the release of actuating springs. The movement of the baffle is limited by a buffer.

The KTM-O-E damper is provided with an electric spring return actuator BFL or BF series manufactured by BELIMO, and the BAT or BAE thermal triggers (72°C), constituting damper's drive system supplied by the 230 V AC or 24 V AC/DC voltage. After the voltage has been supplied, the actuator rotates the baffle to the open position. The baffle closes due to voltage loss or when the thermal trigger is activated (the return spring in the actuator closes the baffle by returning to the non-stressed position).

During normal operation of the system, the KTM-O-S and KTM-O-E dampers are in the open position. If a fire breaks out, the damper baffle rotates to the closed position.

The permissible flow rate in a connection duct for the KTM-O-E dampers with an actuator is 12 m/s and 8 m/s for the KTM-O-S dampers with a spring mechanism.

Manufacturing versions

The range of dampers covers diameters from DN100 to DN250. The primary type series includes the following sizes: **DN100**, **DN125**, **DN160**, **DN200**, **DN250**.

The KTM-O dampers are designed for two connection types, i.e. sleeve and nipple.

Depending on the operating range and type of the actuation system used, the dampers are marked as follows:

- **KTM-O-S** dampers with a spring mechanism
- **KTM-O-E** dampers with an electric spring return actuator

The length of the **KTM-O-S** dampers may be $150 \div 350$ mm for the sleeve version and $195 \div 395$ mm for the nipple version. The length of the **KTM-O-E** dampers may be $262 \div 462$ mm for the sleeve version and $307 \div 507$ mm for the nipple version.

The primary length type series comprises the following sizes:

- 150 mm sleeve version with spring mechanism
- $195 \ mm$ nipple version with spring mechanism
- + $262\ mm$ sleeve version with electric actuator
- **307 mm** nipple version with electric actuator

The dampers may also be fitted with limit switches indicating open or closed position of the baffle.

In a special version, resistant to aggressive environments, all components of the damper are made of stainless steel, whereas the damper baffle is impregnated with a fire-resistant board impregnation.



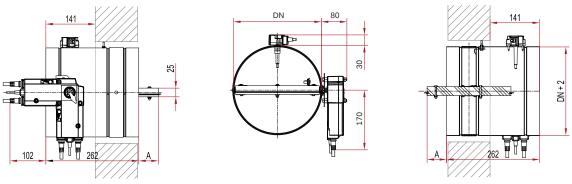


Figure 1. KTM-O-E-...-M damper (with a spring return actuator, sleeve connections).

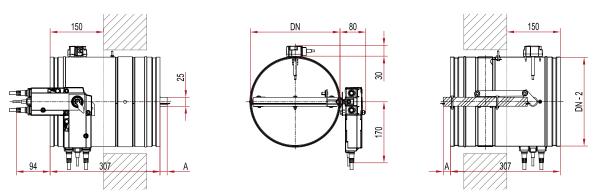


Figure 2. KTM-O-E-...-N damper (with a spring return actuator, nipple connections).

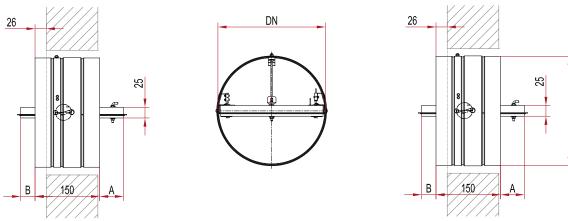


Figure 3. KTM-O-S-...-M damper (with a spring mechanism, sleeve connections)

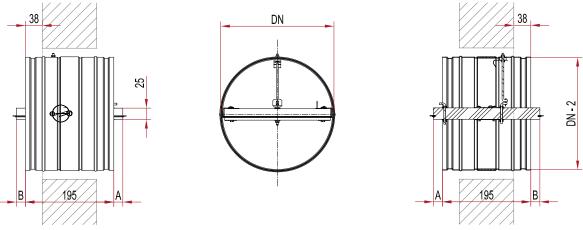


Figure 4. KTM-O-S-...-N damper (with a spring mechanism, nipple connections)

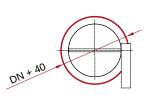


DN+2

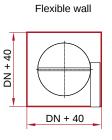
Table 1. Dimensions of the baffle protruding outside the damper body.

	КТМ-О-ЕМ		KTM-O-EN		KTM-O-SM		KTM-O-SN	
DN [mm]	L=262 mm		L=307 mm		L=150 mm		L=195 mm	
	A [mm]	B [mm]						
100	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0
160	11	0	0	0	11	0	0	0
200	31	0	0	0	31	9	0	0
250	56	0	20	0	56	34	20	20

Installation



Rigid wall / floor



Permissible range: DN + (40 ÷ 80) mm

Figure 5. Openings required for the KTM-O damper

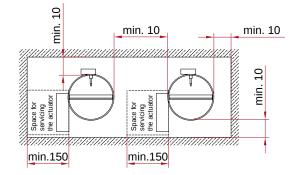


Figure 6. Spacing required between the dampers.

i

When mounting the damper with an actuator on the opposite side of the body, rotate the damper 180 degrees – cables will go up from the actuator.

Technical data

Table 2. The net surface area and the range of actuators used.

KTM	A [m ²]	
	100	0,005
5.1	125	0,009
DN diameter [mm]	160	0,016
[]	200	0,026
	250	0,043

0.123 - BFL actuator

Table 3. Pressure drop on KTM-O damper, Δp [Pa].

КТМ-О		Air velocity in the connection duct, v $\left[\text{m/s}\right]$					
		2	4	6	8	10	
	100	3	11	25	45	70	
DN	125	2	7	15	27	42	
diameter [mm]	160	1	4	10	17	27	
[]	200	0	2	4	7	11	
	250	0	2	4	6	10	

Table 4. Sound power level emitted by the KTM-O damper to the duct, L_{WA} [dB(A)].

КТМ-О		Air velocity in the connection duct, $v [m/s]$						
		2	4	6	8	10		
	100	19	29	39	47	53		
DN	125	18	29	39	45	51		
diameter [mm]	160	19	28	34	42	49		
	200	19	27	36	45	48		
	250	18	27	36	43	47		

Table 5. Weight of KTM-O damper, m [kg].

КТМ-О		KTM-O-E- M	KTM-O-E- N	KTM-O-S- M	KTM-O-S- N
	100	3,1	3,2	0,8	0,9
DN	125	3,3	3,4	0,9	1,0
DN diameter [mm]	160	3,7	3,9	1,1	1,3
[]	200	4,1	4,3	1,4	1,6
	250	4,6	4,9	1,7	2,0



KTM-O - Round fire damper

When ordering, please provide information according to the following pattern:

KTM-O- <F> - <D> - <T> - <L> - <W> - <O> - <S> - <UP> - <P> - <RAL> - <Q>

Where:

P Vector decision system used S - spring mechanism E - selectic spring rutum actuator M - selectic spring rutum actuator S - selectic spring rutum actuator 202 - selectic spring rutum actuator 203 - selectic spring rutum actuator 204 vector spring rutum actuators are always equipped with limit switches)* V vector spring rutum actuators are always equipped with limit switches)* V - selectic spring rutum actuators are always equipped with limit switches)* V - selectic spring rutum actuators are always equipped with limit switches)* V - selectic spring rutum actuators are always equipped with limit switches)* V - selectic spring rutum actuators are always equipped with limit switches)* V - selectic spring rutum actuators are always equipped with limit switches)* V - selectic spring rutum actuators are always equipped with limit switches)* V	 S - spring mechanism E - electric spring return actuator D nominal diameter, [mm]: 100, 125, 160, 200, 250 T damper version* 									
Image: Instrume Instruction Image: Instrume Instrume Instruction Image: Instrume I	 E - electric spring return actuator D nominal diameter, [mm]: 100, 125, 160, 200, 250 T damper version* 									
0 nominal dameter, [mn]: 100. 125, 160, 200. 250 T damper version* I M - sleeve N - sipple L damper length [mm]* I slope version with spring mechanism 150 - sleeve version with spring mechanism 262 - sleeve version with spring mechanism 262 - sleeve version with spring return actuator IV with switches (KT dampers only; the dampers with actuators are always requipped with limit switches)* IV with switches (KT dampers only; the dampers only the damper obset on W1 - inimi switches indicating damper closed position W12 - two limit switches indicating damper open openion W12 - two limit switches indicating damper open openion I V - perpendicularly to the damper body H - in parallel to the damper body H - in parallel to the damper body H = in parallel to the damper body H = in parallel to the damper open open BF - for CON 100 mn BF - for CON 100 mn BF - for consumetions* Poduct marking: - somply voltage - termediction topping dence IVP valiantess stell SL - coated stell SL - coate	D nominal diameter, [mm]: 100, 125, 160, 200, 250 T damper version*									
Image: reversion** Image: reversion with spring mechanism 10 samper teepth [mm]* 11 150 - sleeve version with spring mechanism 222 - sleeve version with electric spring return actuator 207 more - no link switches 207 more - no link switches 208 reversion with electric spring return actuators 209 winit switches (KTM dampers only, the dampers with actuators are always equipped with limit switches)* 200 none - no link switches 201 winit switches indicating damper closed position 202 winit switches indicating damper closed position 208 v2 - winit switche indicating closed and open damper positions 209 repredictuality to the damper body 201 in a parallel to the damper body 201 in a parallel to the damper body 202 sets on comections* 203 result with indicating control (TL) 24230 1 = supply voltage control 219 exited on control (TL) 24230 1 = supply voltage control 210 none - no seals (SL - contexiton societ) scotaseting temper t	T damper version*									
<pre>Note: Set: Set: Set: Set: Set: Set: Set: S</pre>										
i o nipple i o nipple i o nipple version with spring mechanism i o nipple version with spring mechanism i o nipple version with spring mechanism i o nipple version with electric spring return actuator i o nipple version with electric spring return actuator i o nipple version with electric spring return actuator i o nipple version with electric spring return actuator i o nipple version with electric spring return actuator i o nipple version with electric spring return actuator i o nipple version with electric spring return actuator i o no nipple version with electric spring return actuator i o no nipple version with electric spring return actuator i o no nipple version with electric spring return actuator i o no nipple version with electric spring return actuator i o no nipple version with electric spring return actuator i o no nipple version with electric spring return actuator i o no nipple version only i o per o actuator i o no nipple version only i o no seas i o no version i o no seas i o no version i o no version i o no version i o no version i o no nipple version only i o no version i o no version i o no version i o no nipple version only	M - sleeve									
i damper length [mm]* i damper length [mm]* i f 50 - sleeve version with spring mechanism i f 50 - sleeve version with spring mechanism i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator i f 50 - sleeve version with electric spring return actuator viii i writhe writch indicating damper open position viiii z viitch indicating damper open position viii z viitch indicating damper open position setuator position* g e clataator used (only for the KTM-E dampers)										
<pre>Note in the set of the set o</pre>	N - nipple									
<pre>195 - nipple version with spring mechanism 202 - sleeve version with electric spring return actuator 307 - nipple version with electric spring return actuator 307 - nipple version with electric spring return actuator 307 - nipple version with electric spring return actuator 308 version - no limit switches 309 - no limit switches indicating damper closed position 302 - limit switch indicating damper open position 302 - limit switch indicating damper open position 303 - limit switch indicating damper open position 304 - vo limit switches indicating closed and open damper positions 305 version* 406 - vo limit switches indicating closed and open damper positions 407 - perpedicularly to the damper body 408 version version* 409 - sprepedicularly to the damper body 400 spret actuator used (only for the KTM-E dampers) 400 sple closes 400 sple clo</pre>	L damper length [mm]*									
262 - sleeve version with lefettic spring return actuator 307 - inpile version with electric spring return actuator 307 - winit switches (KTM dampers only, the dampers with actuators are always equipped with limit switches)* 307 - limit switches (KTM dampers only, the damper olesed position 307 - limit switch indicating damper olesed position 302 - limit switches indicating closed and open damper positions 303 - stuator position* 404 - stuator position* 305 - stuator position* 306 - stuator position* 307 - perpendicularly to the damper body 308 - stuator position* 309 - for DN ≥ 100 mm 307 - for DN ≥ 100 mm 307 - for communication control (TL) 24223 T 309 - for communication control (TL) 24223 T 3010 - none - no seals - connection socket 3010 - stainless steel - connection socket 3011 - stainless steel SL - coated steel 3012 - coated steel - stainless steel 3013 - stainless steel - stainless steel	150 - sleeve version with spring mechanism									
307 - nipple version with electric spring return actuator W vimit switches (KTM dampers only; the dampers with actuators are always equipped with limit switches)* W1 - limit switches V1 - init switches W2 - limit switches indicating damper open position W2 - init switches indicating damper open position W2 - init switches indicating damper open position W1 - init switches indicating damper open position W2 - init switches indicating damper open position W1 - init switches indicating damper open position W2 - init switches damper body F H - in parallel to the damper body H - in parallel to the damper body BF - for ON > 100 nm 24/230 TL - supply voltage TL - communication control TL - comm	195 - nipple version with spring mechanism									
wimit switches (KTM dampers only; the dampers with actuators are always equipped with limit switches)* none - no limit switches W1 - limit switches W1 - limit switches W1 - limit switches W1 - limit switches W2 - limit switches (adapter open position W2 - limit switches indicating damper open position W1 - vol limit switches indicating closed and open damper positions V - perpendicularly to the damper body H - in parallel to the damper body H - in parallel to the damper body BFL - for DN ≥ 100 mm BFL - for CON PULCE Product marking: BFL - for communication control (TL) 24/230 - supply voltage T - communication control T - thermoelectric tripping device ST - conmedication socket UP seals on connections* Inshing* none - no seals UP - with seals (nipple version only) I finishing* colour as per RAL code (for SL finishing)* colour as per RAL code (for SL finishing)* colour as per RAL code (for SL finishing)* R - inspection opening R - inspection opening	262 - sleeve version with electric spring return actuator	62 - sleeve version with electric spring return actuator								
Rone non init switches W1 - limit switch indicating damper closed position W2 - limit switch indicating damper open position W2 - limit switch indicating closed and open damper positions W2 - stuator position* V - perpendicularly to the damper body H - in parallel to the damper body H - in parallel to the damper body BF - for DN ≥ 100 mm BF - for communication control (TL) T - supply voltage - connection socket UP seals on connections* UP - with seals (nipple version only) P finshing* UP - with seals (nipple version only) P finshing* RAL colour as per RAL code (for SL finishing)* Q ispection opening* Q ispection opening* RAL - on inspection opening	307 - nipple version with electric spring return actuator									
W1 - limit switch indicating damper closed position W2 - limit switch indicating damper open position W12 - two limit switch indicating damper open position W12 - two limit switch indicating damper open position W12 - two limit switch indicating damper open position V12 - two limit switch indicating damper open position V12 - two limit switch indicating damper open position V12 - two limit switch indicating damper open position V12 - two limit switch indicating damper open position V12 - two limit switch indicating damper open position V12 - two limit switch indicating damper open position V13 - two limit switch indicating damper open position V13 - perpendicularly to the damper body S1 - perpendicularly to the damper body S1 - perpendicularly to the KTM-E dampers) S2 - for communication control (TL) 24/230 S2 - for communication control (TL) 24/230 S2 - for communication control (TL) - communication control (TL) S2 - for seals - control secket UP - twith seals (nipple version only)	W wlimit switches (KTM dampers only; the dampers with actuators are always equipped with limit switches)*									
W2 - limit switch indicating damper open position W12 - two limit switch indicating closed and open damper positions W12 - two limit switch indicating closed and open damper positions V - perpendicularly to the damper body H - in parallel to the damper body F - for DN ≥ 100 mm BF - for DN ≥ 100 mm BF - for DN ≥ 100 mm BF - for communication control (TL) CP seals on connections* UP seals on connections UP - inspecton only) P - inspecton only) P - contextions RA - galvanized steel SN - stainless steel SL - coated steel SL - coated (for SL finishing)* Q inspecton opening* RAL colour as per RAL code (for SL finishing)* Q inspection opening	none - no limit switches									
W12 + two limit switches indicating closed and open damper positions 0 actuator position* V - perpendicularly to the damper body H - in parallel to the damper body BF for DN ≥ 100 mm BFL - for DN ≥ 100 mm Product marking: - communication control T	W1 - limit switch indicating damper closed position	- limit switch indicating damper closed position								
O actuator position* V - perpendicularly to the damper body H - in parallel to the damper body S type of actuator used (only for the KTM-E dampers) BFL - for DN ≥ 100 mm 24/230 - supply voltage TL - communication control TL - communication control BF - for communication control (TL) 24/230 - supply voltage TL - communication control UP seals on connections* - connection socket UP - with seals (nipple version only) - connection socket P finishing* none - galvanized steel SL - coated steel SN - stainless steel SL - coated steel SL - coated steel respection opening* - none - no inspection opening RAL colour as per RAL code (for SL finishing)* R< - inspection opening R - inspection opening	W2 - limit switch indicating damper open position	- limit switch indicating damper open position								
Note • perpendicularly to the damper body Image: Set in parallel to the damper body • in parallel to the damper body Image: Set in parallel to the damper body • perpendicularly to the KTM-E dampers) Image: Set in parallel to the damper body • perpendicularly to the KTM-E dampers) Image: Set in parallel to the damper body • perpendicularly to the KTM-E dampers) Image: Set in parallel to the damper body • perpendicularly to the KTM-E dampers) Image: Set in parallel to the damper body • perpendicularly to the KTM-E dampers) Image: Set in parallel to the damper body • perpendicularly to the damper body Image: Set in parallel to the damper body • perpendicularly to the dampers) Image: Set in parallel to the damper body • perpendicularly to the dampers) Image: Set in parallel to the damper body • perpendicularly to the dampers) Image: Set in parallel to the damper body • on perpendicular to p	W12 - two limit switches indicating closed and open damper positions	W12 - two limit switches indicating closed and open damper positions								
i in parallel to the damper body i i	actuator position*									
S type of actuator used (only for the KTM-E dampers) BFL - for DN ≥ 100 mm Product marking: BF - for communication control (TL) 24/230 TL T - supply voltage - communication control T UP seals on connections* UP seals on connections* IDP finishing* IDP - control stall IDP - stainless steel ISL - coated steel ISL - coated steel IDP - no inspection opening* IDP - no inspection opening	V - perpendicularly to the damper body									
BFL - for DN ≥ 100 mm Product marking: BF - for DN ≥ 100 mm 24/230 - supply voltage TL - communication control TL - communication control TV seals on connections* - connection socket UP seals on connections* P inspining* P finishing* RAL colour as per RAL code (for SL finishing)* Q isspection opening* RAL colour as per RAL code (for SL finishing)* R - non inspection opening	H - in parallel to the damper body									
BF - for DN 2 100 mm BF - for communication control (TL) 24/230 - communication control T - communication control - thermoelectric tripping device - connection socket UP seals on connections* UP - no seals UP - with seals (nipple version only) P finishing* SN - stainless steel SL SN - stainless steel SL SL - coated steel SL - coated steel RAL colura sper RAL code (for SL finishing)* RAL - noi nspection opening										
BF - tor communication control - communication control UP seals on connections* IDP none - no seals UP - with seals (nipple version only) P finishing* IDP - connections seals UP - connection socket	BFF - 10L DV 5 T00 UIII									
ST - connection socket UP seals on connections* none - no seals UP with seals (nipple version only) P finishing* stainless steel SN SL - coated steel SL - coated steel RAL colour as per RAL code (for SL finishing)* Rone - no inspection opening R - no inspection opening R - inspection opening	BF - for communication control (1L) TL – communication control									
<pre>none - no seals UP = with seals (nipple version only) P trishing* none - galvanized steel SN = stainless steel SN = stainless steel SL = coated steel RAL Q tour as per text code (for SL finishing)* p none - no inspection opening R = inspection opening R = inspection opening</pre>										
<pre>I UP - with seals (nipple version only) I UP - with seals (nipple version only) I</pre>	UP seals on connections*									
p finishing* none - galvanized steel SN - stainless steel SL - coated steel RAL colour as per RAL code (for SL finishing)* none - no inspection opening R - no inspection opening R - no inspection opening	none - no seals									
none - galvanized steel SN - stainless steel SL - coated steel RAL colour as per RAL code (for SL finishing)* q inspection opening* R - no inspection opening R - inspection opening										
SN - stainless steel SL - coated steel RAL colour as per RAL code (for SL finishing)* inspection opening* R - no inspection opening R - inspection opening										
SL - coated steel RAL clour as per RAL code (for SL finishing)* 0 inspection opening* R - no inspection opening R - inspection opening										
RAL colour as per RAL code (for SL finishing)* Q inspection opening* none - no inspection opening R - inspection opening	SN _ stanlass staal									
Q inspection opening* none - no inspection opening R - inspection opening										
none - no inspection opening R - inspection opening	SL - coated steel									
R - inspection opening	SL - coated steel RAL colour as per RAL code (for SL finishing)*									
	RAL colour as per RAL code (for SL finishing)* Q inspection opening*									
udiional ilems – It not indicated, detault values Will de USEC	SL - coated steel RAL colour as per RAL code (for SL finishing)* inspection opening* none - no inspection opening									
	SL - coated steel RAL colour as per RAL code (for SL finishing)* Q inspection opening* R - no inspection opening R - inspection opening									

Sample product marking:

KTM-O-E-125M-BFL24-T

