

LDT-T150 ZA

CLASSE TENUTA
AIR LEAKAGE CLASSIFICATION

EN 1751:2014

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EN 1751:2024

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ATC3



Air leakage damper 150 mm pitch in galvanized steel + natural aluminium



DAMPERS

Description and application:

Rectangular duct damper with double flange, multi-blade type, equipped with an extended shaft suitable for both manual operation and motorized actuation.

Designed to ensure high air tightness by minimizing leakage in HVAC systems, it is ideal for airflow shut-off and isolation, suitable for installation in air distribution networks and in rectangular ducts, whether main, secondary or terminal, in ventilation and air conditioning systems, for both civil and industrial applications.

Construction:

- Execution made of Z200 galvanized steel + natural aluminium;
- Frame thickness 1,5 mm, riveted, depth 160 mm, in galvanized steel;
- Frame internally sealed at the corners to ensure air tightness;
- Flange 40mm drilled Ø9 pitch 300mm with BM=20mm;
- Blades in natural aluminium extruded alloy EN AW-6060 with silicone sealing gasket;
- Blade pitch 150 mm with opposed movement operation;
- Side sealing strips in raw stainless steel AISI301;
- Bronze bushings;
- Stub shafts Ø18 mm in galvanized steel;
- Blades movement by external linkage in galvanized steel;
- Control shaft Ø18 extended L=100mm;
- Control plate suitable for manual operation and/or motorized actuator (for models with anti-rotation rod).

Available execution:

- Atex version (see page 7).

Operating limits:

- Maximum dimensions WxH: 2000x1960 mm;
- Temperature range: from -20* to +180 °C;
- Dimensional drawing and drilling pattern: page 3;
- V max recommended: 15 m/s (see table page 5);
- Pressure: see graph page 5.

* Negative temperature is achievable only if ice formation is prevented.

Certifications and Testing:

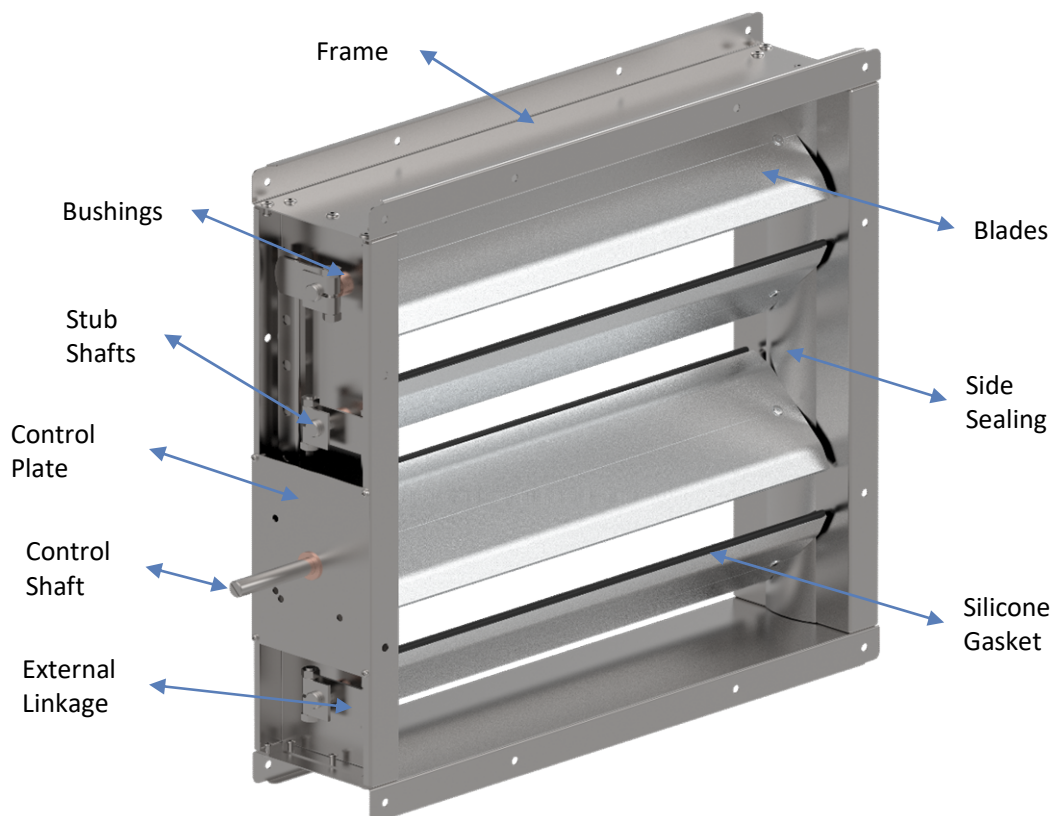
- Pressure drop tests carried out in accordance with ISO 7244;
- Self-generated noise tests carried out in accordance with UNI EN 25135;
- Air leakage tests carried out in accordance with DIN 1946/4;
- Air leakage tests carried out in accordance with EN 1751.



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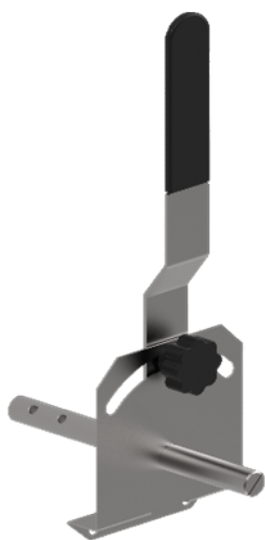
Additional Construction Details



Available Controls, Options, Accessories and Actuators

Manual Control

R18 ZN



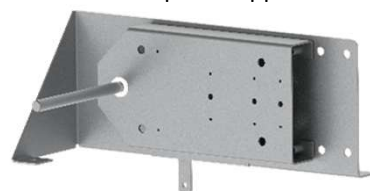
Option

Teflon Bushings (T_{max} 180°C)



Accessories

Internal control plate support R21 ZN



Actuators

On/Off electric actuators with or without spring return

Modulating On/Off electric actuators with or without spring return

- Belimo
- Siemens
- Schischek



Double-acting pneumatic pistons/cylinders with flow regulators

- Waircom

Integrable accessories:

- 5-way solenoid valve + 24V or 230V coil

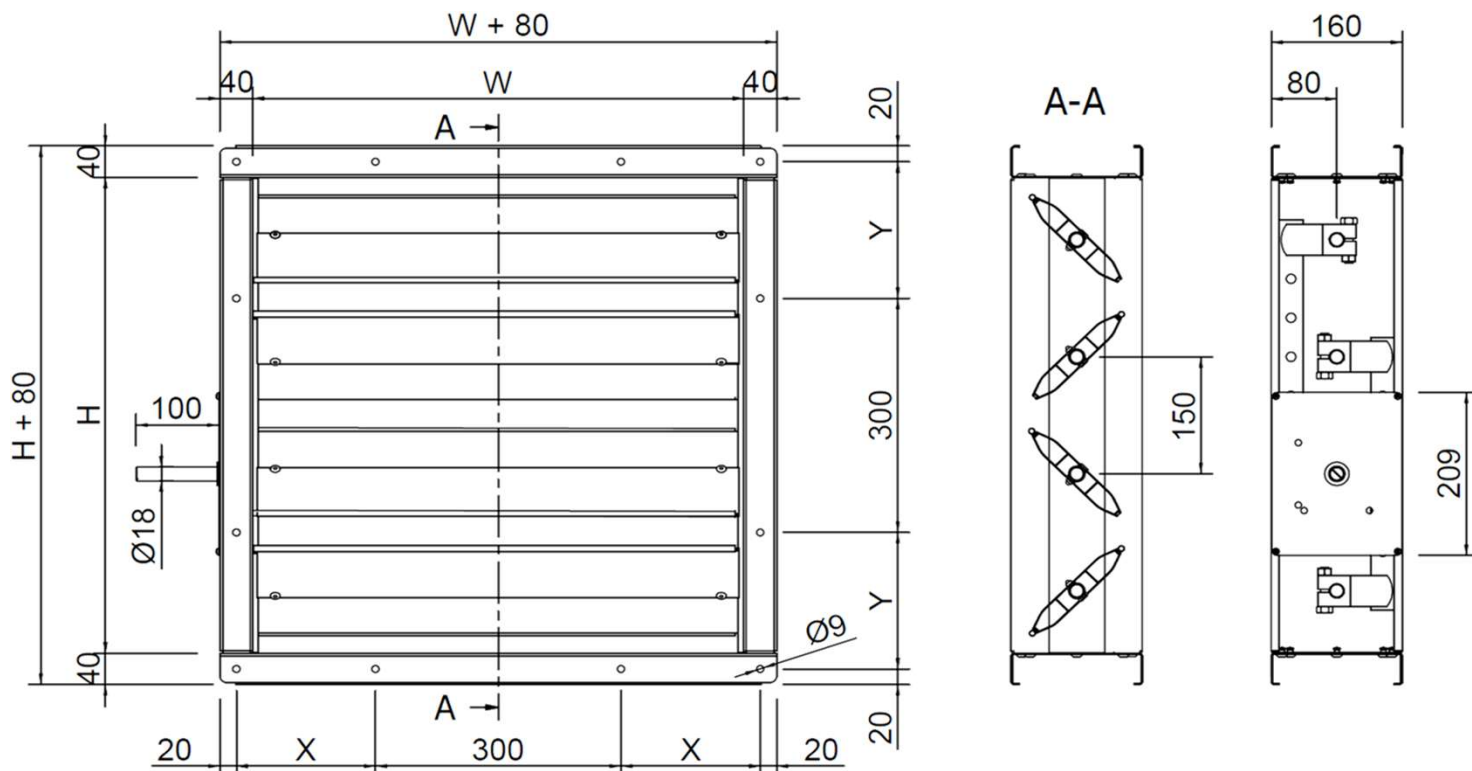




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Dimensional Drawing and Standard Drilling Pattern (size in mm, always referred to the inside of the flanges)



Nr. 4 HOLES CENTERED IN THE CORNERS ALWAYS PRESENT

WIDTH DRILLING						HEIGHT DRILLING					
W	N°HOLES	X	W	N°HOLES	X	H	N°HOLES	Y	H	N°HOLES	Y
200	\	\	1150	3	295	160	\	\	1100	3	270
250	\	\	1200	3	320	200	\	\	1150	3	295
300	\	\	1250	3	345	250	\	\	1210	3	325
350	\	\	1300	4	220	310	\	\	1250	3	345
400	1	220	1350	4	245	350	\	\	1300	4	220
450	1	245	1400	4	270	400	1	220	1360	4	250
500	1	270	1450	4	295	460	1	250	1400	4	270
550	1	295	1500	4	320	500	1	270	1450	4	295
600	1	320	1550	4	345	550	1	295	1510	4	325
650	1	345	1600	5	220	610	1	325	1550	4	345
700	2	220	1650	5	245	650	1	345	1600	5	220
750	2	245	1700	5	270	700	2	220	1660	5	250
800	2	270	1750	5	295	760	2	250	1700	5	270
850	2	295	1800	5	320	800	2	270	1750	5	295
900	2	320	1850	5	345	850	2	295	1810	5	325
950	2	345	1900	6	220	910	2	325	1850	5	345
1000	3	220	1950	6	245	950	2	345	1900	6	220
1050	3	245	2000	6	270	1000	3	220	1960	6	250
1100	3	270				1060	3	250			

Note : For sizes not listed in the table, the number of holes and the starting position X or Y (Width or Height) are determined by referring to the next lower standard dimension.

N.B. If the resulting value of X or Y is greater than 369.5 mm, the number of holes must refer to the next higher dimension .



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mm	Actuator Torque Selection Table LDT-T150 [Nm]												
W\H	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810	1960
200	5	5	10	10	10	10	10	10	10	10	10	10	10
300	5	5	10	10	10	10	10	10	10	10	10	10	10
400	5	5	10	10	10	10	10	10	10	10	10	10	10
500	5	10	10	10	10	10	10	10	10	10	10	10	10
600	10	10	10	10	10	10	10	10	10	10	10	10	10
700	10	10	10	10	10	10	10	10	10	10	10	10	10
800	10	10	10	10	10	10	10	10	10	10	10	10	20
900	10	10	10	10	10	10	10	10	10	10	10	10	15
1000	10	10	10	10	10	10	10	10	10	10	10	15	15
1100	10	10	10	10	10	10	10	10	10	15	15	15	15
1200	10	10	10	10	10	10	10	10	10	15	15	15	15
1300	10	10	10	10	10	10	10	10	15	15	15	15	20
1400	10	10	10	10	10	10	10	10	15	15	15	20	20
1500	10	10	10	10	10	10	10	10	15	15	15	20	20
1600	10	10	10	10	10	10	10	15	15	15	20	20	20
1700	10	10	10	10	10	10	10	15	15	20	20	20	20
1800	10	10	10	10	10	10	15	15	15	20	20	20	20
1900	10	10	10	10	10	15	15	15	20	20	20	20	20
2000	10	10	10	10	10	15	15	15	20	20	20	20	20

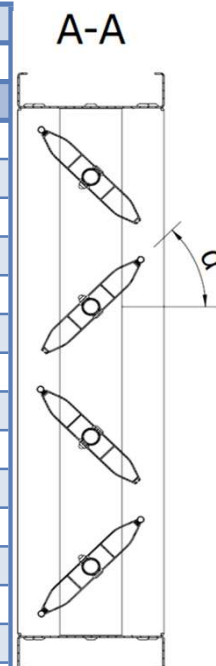
Pneumatic Cylinder Selection Table		
Operating air pressure [Bar]	Cylinder Type	
	Piston rod Ø27 stroke L=100mm	Piston rod Ø35 stroke L=150mm
	Torque [Nm]	Torque [Nm]
2	4	10
3	6	15
4	8	20
5	10	25
6	12	30
7	14	36
8	16	41



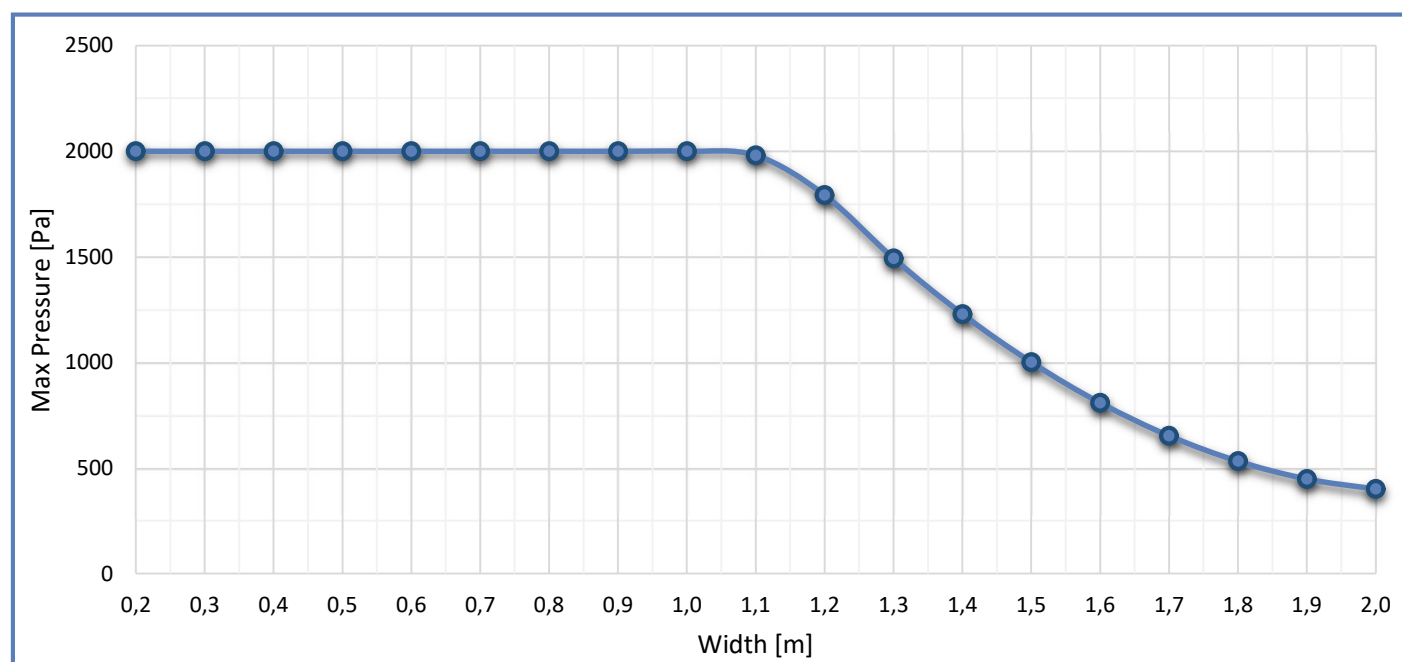
LDT-T150 ZA

Air leakage damper 150 mm pitch in galvanized steel + natural aluminium

Vel. [m/s]	Pressure Loss and Generated Noise Data Table LDT-T150					
	$\alpha = 0^\circ$		$\alpha = 30^\circ$		$\alpha = 60^\circ$	
	Δp [Pa]	LwA [dB(A)]	Δp [Pa]	LwA [dB(A)]	Δp [Pa]	LwA [dB(A)]
1	<5	<20	5	32	65	47
2	<5	23	18	48	270	63
3	<5	34	44	57	625	72
4	<5	43	75	64	1110	77
5	<5	48	120	70	>1500	83
6	<5	54	170	74	>1500	87
7	5	58	240	77	>1500	90
8	7	62	320	80	>1500	93
9	9	66	400	83	>1500	95
10	11	69	480	85	>1500	98
11	13	72	590	88	>1500	100
12	15	75	700	90	>1500	>100
13	18	77	820	92	>1500	>100
14	21	79	950	93	>1500	>100
15	25	81	1120	95	>1500	>100



Maximum Allowable Pressure Chart LDT-T150 ZA





LDT-T150 ZA

Air leakage damper 150 mm pitch in galvanized steel + natural aluminium

mm	General Weight Table LDT-T150 ZA [Kg]												
W\H	160	310	460	610	760	910	1060	1210	1360	1510	1660	1810	1960
200	4,2	6,1	8,0	9,9	11,7	13,6	15,5	17,4	19,3	21,2	23,1	25,0	26,9
250	4,6	6,5	8,5	10,4	12,4	14,3	16,3	18,3	20,2	22,2	24,1	26,1	28,1
300	4,9	7,0	9,0	11,0	13,0	15,1	17,1	19,1	21,1	23,2	25,2	27,2	29,2
350	5,3	7,4	9,5	11,6	13,7	15,8	17,9	20,0	22,1	24,2	26,2	28,3	30,4
400	5,7	7,9	10,0	12,2	14,3	16,5	18,7	20,8	23,0	25,1	27,3	29,5	31,6
450	6,1	8,3	10,5	12,8	15,0	17,2	19,4	21,7	23,9	26,1	28,4	30,6	32,8
500	6,5	8,8	11,1	13,3	15,6	17,9	20,2	22,5	24,8	27,1	29,4	31,7	34,0
550	6,8	9,2	11,6	13,9	16,3	18,7	21,0	23,4	25,7	28,1	30,5	32,8	35,2
600	7,2	9,7	12,1	14,5	16,9	19,4	21,8	24,2	26,7	29,1	31,5	34,0	36,4
650	7,6	10,1	12,6	15,1	17,6	20,1	22,6	25,1	27,6	30,1	32,6	35,1	37,6
700	8,0	10,5	13,1	15,7	18,2	20,8	23,4	25,9	28,5	31,1	33,6	36,2	38,8
750	8,4	11,0	13,6	16,3	18,9	21,5	24,2	26,8	29,4	32,1	34,7	37,3	40,0
800	8,7	11,4	14,1	16,8	19,5	22,2	24,9	27,6	30,3	33,0	35,7	38,4	41,1
850	9,1	11,9	14,7	17,4	20,2	23,0	25,7	28,5	31,3	34,0	36,8	39,6	42,3
900	9,5	13,7	17,9	22,1	26,2	30,4	34,6	38,8	43,0	47,2	51,4	55,5	58,4
950	9,9	12,8	15,7	18,6	21,5	24,4	27,3	30,2	33,1	36,0	38,9	41,8	44,7
1000	10,3	13,2	16,2	19,2	22,1	25,1	28,1	31,1	34,0	37,0	40,0	42,9	45,9
1050	10,6	13,7	16,7	19,8	22,8	25,8	28,9	31,9	34,9	38,0	41,0	44,1	47,1
1100	11,0	14,1	17,2	20,3	23,4	26,5	29,7	32,8	35,9	39,0	42,1	45,2	48,3
1150	11,4	14,6	17,7	20,9	24,1	27,3	30,4	33,6	36,8	40,0	43,1	46,3	49,5
1200	11,8	15,0	18,3	21,5	24,7	28,0	31,2	34,5	37,7	40,9	44,2	47,4	50,7
1250	12,2	15,5	18,8	22,1	25,4	28,7	32,0	35,3	38,6	41,9	45,2	48,5	51,9
1300	12,5	15,9	19,3	22,7	26,0	29,4	32,8	36,2	39,5	42,9	46,3	49,7	53,0
1350	12,9	16,4	19,8	23,2	26,7	30,1	33,6	37,0	40,5	43,9	47,3	50,8	54,2
1400	13,3	16,8	20,3	23,8	27,3	30,9	34,4	37,9	41,4	44,9	48,4	51,9	55,4
1450	13,7	17,3	20,8	24,4	28,0	31,6	35,1	38,7	42,3	45,9	49,5	53,0	56,6
1500	14,1	17,7	21,4	25,0	28,6	32,3	35,9	39,6	43,2	46,9	50,5	54,2	57,8
1550	14,4	18,2	21,9	25,6	29,3	33,0	36,7	40,4	44,1	47,9	51,6	55,3	59,0
1600	14,8	18,6	22,4	26,2	29,9	33,7	37,5	41,3	45,1	48,8	52,6	56,4	60,2
1650	15,2	19,0	22,9	26,7	30,6	34,4	38,3	42,1	46,0	49,8	53,7	57,5	61,4
1700	15,6	19,5	23,4	27,3	31,2	35,2	39,1	43,0	46,9	50,8	54,7	58,6	62,6
1750	16,0	19,9	23,9	27,9	31,9	35,9	39,9	43,8	47,8	51,8	55,8	59,8	63,8
1800	16,3	20,4	24,4	28,5	32,5	36,6	40,6	44,7	48,7	52,8	56,8	60,9	64,9
1850	16,7	20,8	25,0	29,1	33,2	37,3	41,4	45,5	49,7	53,8	57,9	62,0	66,1
1900	17,1	21,3	25,5	29,7	33,8	38,0	42,2	46,4	50,6	54,8	59,0	63,1	67,3
1950	17,5	21,7	26,0	30,2	34,5	38,7	43,0	47,2	51,5	55,8	60,0	64,3	68,5
2000	17,9	22,2	26,5	30,8	35,1	39,5	43,8	48,1	52,4	56,7	61,1	65,4	69,7



LDT-T150 ZA

Air leakage damper 150 mm pitch in galvanized steel + natural aluminium

ATEX Compliance:

The product is available in a version compliant with ATEX Directive 2014/34/EU for installation in **potentially explosive atmospheres**, classified as Zone 1 or 2 (gas) or Zone 21 or 22 (dust), depending on the requirements.

If fully motorized versions are requested, it is mandatory to use **ATEX-certified components** (for our certification, only Schischek-Rotork actuators may be used) and to follow the installation instructions specified for these environments.

ATEX EXECUTION and available CERTIFICATIONS:

- Bronze bushings (standard for air leakage damper);
- For manual operation, round control shaft Ø18 mm, L=100 mm (standard shaft);
- For motorized versions, Schischek kit added with control square shaft 12x12 / 16x16 (AISI shaft);
- Grounding tab with corresponding label;
- ATEX certificate.



ATEX version damper simple without actuator equipped with free round control shaft Ø18 mm L=100mm and/or with manual control (optional heating cables can be installed on the damper).
SUITABLE FOR ZONE 1, 2, 21 e 22.

Marcatura / marking

CE II 2G Ex h IIC T6..T3 Gb
 II 2D Ex h IIC T85°C..T200°C Db

ATEX version damper with ExMax Schischek actuator supplied by us and/or only prepared with Schischek kit (optional heating cables can be installed on the damper).
SUITABLE FOR ZONE 1, 21.

Marcatura / marking

CE II 2G Ex h IIC T6..T4 Gb
 II 2D Ex h IIC T85°C..T135°C Db

ATEX version damper with RedMax Schischek actuator supplied by us and/or only prepared with Schischek kit (optional heating cables can be installed on the damper).
SUITABLE FOR ZONE 2, 22.

Marcatura / marking

CE II 3G Ex h IIC T6..T4 Gb
 II 3D Ex h IIC T85°C..T135°C Db

ATEX version damper (Non-Certified) intended for safe areas and does not require certification. Available with free round control shaft Ø18 mm L=100mm and/or manual control mounted, or with InMax Schischek actuator supplied by us and/or only prepared with Schischek kit (optional heating cables can be installed on the damper).
SUITABLE FOR SAFE AREAS.

Kit Schischek Tg.S - Plate support + Square shaft 12x12;



Kit Schischek Tg.M - Plate support + Square shaft 16x16;



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DI GESTIONE QUALITÀ
CERTIFICATO DA DNV GL
ISO 9001

AZIENDA CON
SISTEMA DI GESTIONE
AMBIENTALE CERTIFICATO
DA DNV
ISO 14001



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