Pneumatic undamped stoppers

	Basic product	Lowering stroke	Damping stroke	max. propelling force	Scope of application* at	Weight	Variants
	**D0-70**	7 mm	n/a	48 N	06 m/min 09 12 18 24 30 36	70 kg 50 25 12 7 4 3	EW/DW H/K I/E cust.-spec. solutions var. access.
	**D0-120**	9 mm	n/a	82 N	06 m/min 09 12 18 24 30 36	120 kg 100 100 100 50 30 20	EW/DW H/K I/E cust.-spec. solutions var. access.
	**D0-140**	8 mm	n/a	96 N	06 m/min 09 12 18 24 30 36	140 kg 120 100 100 50 30 25	EW/DW H/K I cust.-spec. solutions var. access.
	**D0-200**	13 mm	n/a	206 N**	06 m/min 09 12 18 24	200 kg ** 150 ** 120 ** 100 ** 60 **	EW/DW H/K E W50/W90 cust.-spec. solutions var. access.
	**D0-300**	50 mm	n/a	206 N	06 m/min 09 12 18 24 30 36	300 kg 225 125 60 35 20 15	DW H/K cust.-spec. solutions var. access.

	Basic product	Lowering stroke	Damping stroke	max. propelling force	Scope of application* at	Weight	Variants
	**PNU-395**	9 mm	n/a	275 N	06 m/min 09 12 18 24 30 36	400 kg 300 250 200 110 65 50	EW U cust.-spec. solutions var. access.
	**D0-400**	9 mm 15 mm 25 mm 40 mm	n/a	275 N	06 m/min 09 12 18 24 30 36	400 kg 300 250 200 110 65 50	EW/DW H/H2/K E G/V/KE cust.-spec. solutions var. access.
	**D0-400-R**	9 mm	n/a	275 N	06 m/min 09 12 18 24 30 36	400 kg 300 250 200 110 65 50	EW/DW rustproof cust.-spec. solutions var. access.
	**D0-810**	10 mm 20 mm	n/a	549 N	06 m/min 09 12 18 24 30 36	810 kg 810 810 810 450 250 250	EW/DW H/K I/E G cust.-spec. solutions var. access.

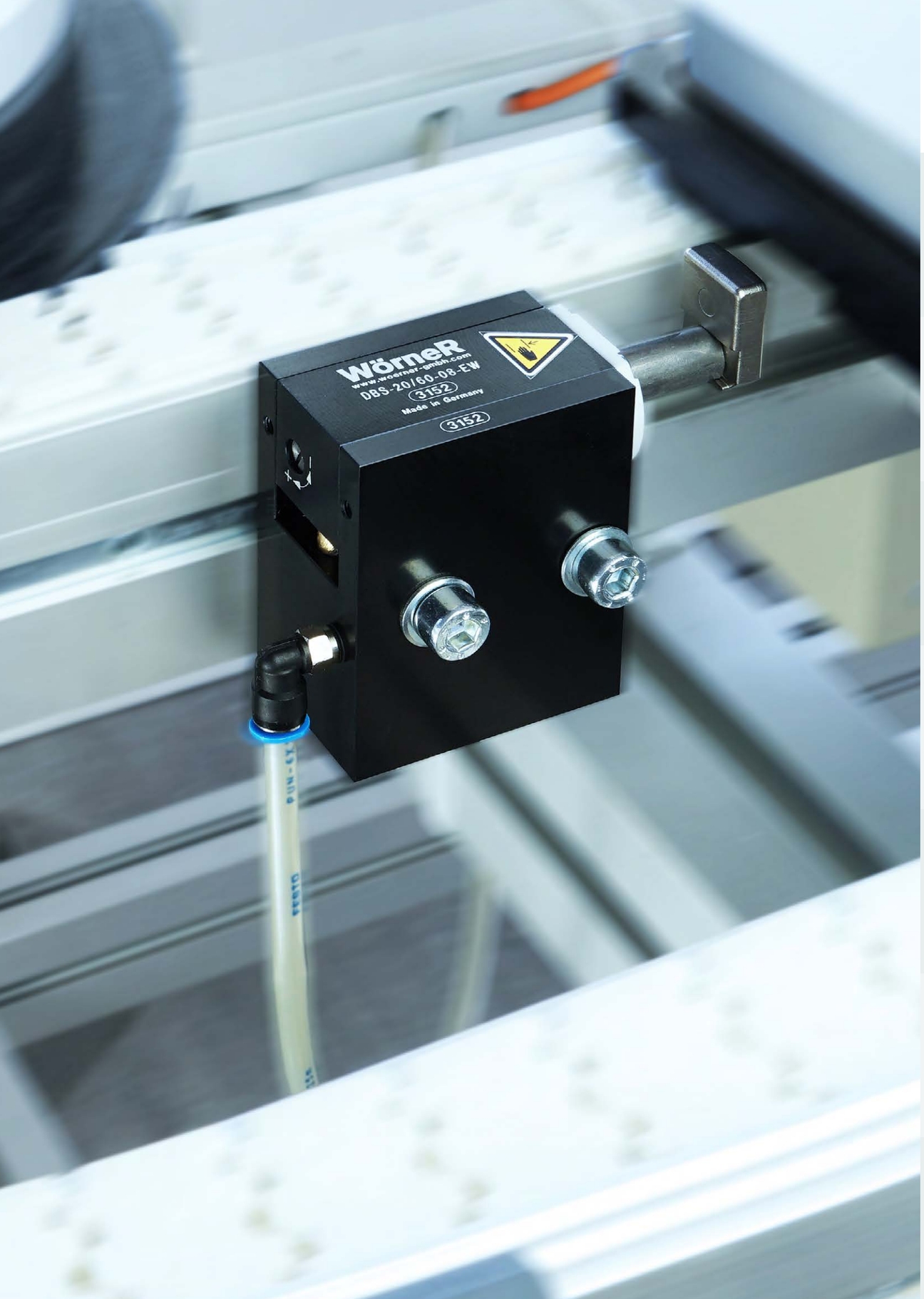
EW single-acting
DW double-acting
H/H2 heat-resistant
K cold-resistant

I prepared for inductive position sensor
E prepared for electronic position sensor

G/KE stop plate with thread /Elastomer stop plate
V extended stop plate
W50 tilted stop plate 50°
W90 tilted stop plate 90°

* All specifications given for a coefficient of friction of μ = 0.07
** Scope of application depends on operating mode (EW/DW) and stop plate design (W50/W90), see data sheet

Note: The scope of application for undamped stoppers is highly dependent on the conditions of use, in particular on the coefficient of friction between the conveyor equipment and pallet and on the rigidity of the conveyor. We can provide you with detailed technical advice when making your choice - just ask us!



WörneR

Pneumatic damped stoppers

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Weight	Variants
	**DBS-18**	7 mm	10 mm	0.5 N 15 N	06 m/min 09 12 18 24 30 36	22 kg 20 13 7 4 3 2	EW/DW H/K I/E KU cust.-spec. solutions var. access.
PNOZ 	**PND-67**	8 mm	24 mm	2.5 N 100 N	06 m/min 09 12 18 24 30 36	65 kg 44 38 33 26 19 11	KI
	**DBS-90**	8 mm 13 mm	30 mm	2.5 N 100 N	06 m/min 09 12 18 24 30 36	90 kg 70 60 50 40 30 22	EW/DW RD H/K E/I KI/KU/KA/V S
	**DBS-140**	8 mm	30 mm	2.5 N 160 N	06 m/min 09 12 18 24 30 36	150 kg 140 100 80 50 40 30	EW/DW H/K E cust.-spec. solutions var. access.

EW	single-acting	I	prepared for inductive position sensor	KA	plastic stop antistatic	* All specifications given for a coefficient of friction of μ = 0.07
DW	double-acting	E	prepared for electronic position sensor	V	extended stop plate	
RD	reduced damping stroke	KI	tilt stop	S	prepared for stop position sensing	
H/H2	heat-resistant	KU	plastic stop			
K	cold-resistant					

Pneumatic damped stoppers

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Weight	Variants
	**DBS-150**	15 mm	20 mm	3.5 N 103 N	06 m/min 09 12 18 24 30 36	170 kg 140 100 80 50 40 25	EW/DW H/K KI cust.-spec. solutions var. access.
	**DBS-150-T4**	11.5 mm	20 mm	3.5 N 103 N	06 m/min 09 12 18 24 30 36	150 kg 100 100 90 55 35 25	EW/DW H/K cust.-spec. solutions var. access.
	**DBS-170**	8 mm	27.5 mm	4 N 200 N	06 m/min 09 12 18 24 30 36	200 kg 160 145 90 55 40 30	EW/DW H/H2/K E KI/S19/S50 cust.-spec. solutions var. access.
	**DBS-240**	9 mm	24 mm	8 N 165 N	06 m/min 09 12 18 24 30	240 kg 220 200 180 110 70	EW/DW H/K KI/S20/S50/ S100 cust.-spec. solutions var. access.
	**DBS-240-R**	9 mm	24 mm	30 N 165 N	06 m/min 09 12 18 24 30	240 kg 220 200 180 110 70	EW/DW K rustproof cust.-spec. solutions var. access.

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Weight	Variants
	**DBS-255**	9 mm	38 mm	3.5 N 300 N	06 m/min 09 12 18 24 30	270 kg 220 160 110 60 40	EW/DW H/K E S19/S35 cust.-spec. solutions var. access.
	**DBS-300**	11 mm	24 mm	8.3 N 206 N	06 m/min 09 12 18 24 30	300 kg 270 250 225 140 95	EW/DW H/K I S cust.-spec. solutions var. access.
	**DBS-900**	15 mm	45.7 mm	6 N 700 N	06 m/min 09 12 18 24 30 36	900 kg** 800 ** 730 ** 410 ** 250 ** 180 ** 90 **	EW/DW RD H/K KI/KU S cust.-spec. solutions var. access.
	**DBS-1150**	15 mm	21 mm	30 N 700 N	09 m/min 12 18 24 30	700 kg** 750 ** 850 ** 550 ** 350 **	EW/DW KI/KU S cust.-spec. solutions var. access.
	**DBS-2000**	15 mm	25.4 mm	130 N 700 N	06 m/min 09 12 18 24 30	2000 kg** 1800 ** 1400 ** 1000 ** 600 ** 400 **	EW/DW H/K KI/KU S cust.-spec. solutions var. access.

EW single-acting
DW double-acting
RD reduced damping stroke
H/H2 heat-resistant
K cold-resistant

I prepared for inductive position sensor
E prepared for electronic position sensor

KI tilt stop
KU plastic stop
S prepared for stop position sensing

S19 steel stop, 19 mm wide
S20 steel stop, 20 mm wide
S21 steel stop, 21 mm wide

S35 steel stop, 35 mm wide
S50 steel stop, 50 mm wide
S100 steel stop., 100 mm wide

* All specifications given for a coefficient of friction of μ = 0.07
** Exceptionally, these values apply at a coefficient of friction of μ = 0.02

Pneumatic damped stoppers

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Scope of application* Weight	Variants
	**DBS-3000**	15 mm	46 mm	145 N 1800 N	09 m/min 12 18 24	3000 kg** 2600 ** 2500 ** 2000 **	EW/DW MD S cust.-spec. solutions var. access.
	**DBSS06-10**	8 mm	6 mm	0.5 N 7 N	06 m/min 09 12 18 24 30	10 kg 5 5 4 5 1.5	EW/DW H/K KI/KU/KA I cust.-spec. solutions var. access.
	**DBSS10-20**	8 mm	10 mm	0.5 N 14 N	06 m/min 09 12 18 24 30	20 kg 10 8 6 3.5 2.5	EW/DW H/K KI/KU/KA, I clean room ISO cl. 5 cust.-spec. var. access.
	**DBSSI-20**	8 mm	14 mm	1 N 14 N	06 m/min 09 12 18 24 30 36	20 kg 15 12 10 6 4 2.5	EW/DW H/K I cust.-spec. solutions var. access.

EW single-acting
DW double-acting
H heat-resistant
K cold-resistant

I prepared for inductive position sensor
KI tilt stop
KU plastic stop
KA plastic stop antistatic

S prepared for stop position sensing
E prepared for electronic position sensor

* All specifications given for a coefficient of friction of μ = 0.07
** Exceptionally, these values apply at a coefficient of friction of μ = 0.02

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Scope of application* Weight	Variants
	**DBSST-35**	7 mm	15.2 mm	1 N 29 N	06 m/min 09 12 18 24 30 36	42 kg 28 24 18 17 12 7	EW/DW H/K cust.-spec. solutions var. access.
	**DBSST-130**	7 mm	18.3 mm	2 N 90 N	06 m/min 09 12 18 24 30 36	130 kg 90 77 60 40 38 20	EW/DW H/K cust.-spec. solutions var. access.
	**DBSU-150**	9 mm	22 mm	3.5 N 103 N	06 m/min 09 12 18 24 30 36	150 kg 100 100 90 55 35 25	EW/DW H/K KI cust.-spec. solutions var. access.
	**DBSU-270**	9 mm	25.5 mm	7 N 185 N	06 m/min 09 12 18 24 30 36	270 kg 220 200 180 110 70 50	EW/DW H/K E KI cust.-spec. solutions var. access.

Custom-built:

DBS-1100-15-EW-011

With integrated anti-bounce stop designed to keep the pallet in position after the damping operation. A sealed cover that travels simultaneously with the damping unit protects the device against dirt and aggressive liquids. The solution also includes a retracted stop sensor (damping completed but mechanism still locked) and makes it possible to lock the stop in the lower position. Ideally suited for use in harsh environments, e.g. when linking machining centers in the automotive industry.

Electric undamped stoppers / ■ Rotary Switch

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Scope of application* Weight	Variants
	**DEL0-65**	9 mm	n/a	– 65 N	06 m/min 09 12 18	65 kg 60 55 50	2x5-pin M12x1 plug KU R cust.-spec. solutions var. access.
	**DEL0-120**	14 mm	n/a	– 206 N	06 m/min 09 12 18 24 30 36	300 kg 140 80 35 20 13 9	2x5-pin M12x1 plug R cust.-spec. solutions var. access.
	**ELU-20**	7 mm	n/a	1 N 20 N	06 m/min 09 12 18	20 kg 12 7 3	1x4-pin M12x1 plug KI cust.-spec. solutions var. access.
	**ELU-30**	7 mm	n/a	1.2 N 35 N	06 m/min 09 12 18	30 kg 15 9 4	1x4-pin M12x1 plug KI cust.-spec. solutions var. access.
	**DELW** Rotary Switch	n/a	n/a	n/a	n/a		2×5-pin M12×1 plug cust.-spec. solutions var. access.

KI tilt stop
KU plastic stop
S steel stop

R with spring reset
F fast

* All specifications given for a coefficient of friction of μ = 0.07

Electric damped stoppers

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Scope of application* Weight	Variants
	**ELD-40**	7.5 mm	10 mm	0.4 N 45 N	06 m/min 09 12 18 24 30 36	40 kg 30 20 11 10 8 5	2x5-pin M12x1 plug KU cust.-spec. solutions var. access.
	**ELD-70**	8 mm	13 mm	1.4 N 90 N	06 m/min 09 12 18 24 30 36	70 kg 45 40 29 15 10 7	2x5-pin M12x1 plug F KU cust.-spec. solutions var. access.
	**ELD-140**	8 mm	15 mm	1.5 N 90 N	06 m/min 09 12 18 24 30 36	140 kg 120 75 45 28 17 12	2x5-pin M12x1 plug S KI/KU cust.-spec. solutions var. access.
	**ELD-195**	8 mm	20 mm	2.5 N 200 N	06 m/min 09 12 18 24 30 36	195 kg 170 150 80 50 35 25	2x5-pin M12x1 plug F KU cust.-spec. solutions var. access.
	**ELD-430**	11 mm	25 mm	3.5 N 420 N	06 m/min 09 12 18 24 30 36	430 kg 340 280 180 120 90 50	2x5-pin M12x1 plug KU/KI cust.-spec. solutions var. access.

Electric damped stoppers

	Basic product	Lowering stroke	Damping stroke	min./max. propelling force	Scope of application* at	Weight	Variants
	**ELD-660**	11 mm	20 mm	5 N 450 N	06 m/min 09 12 18 24 30 36	660 kg 600 450 250 130 90 60	2x5-pin M12x1 plug S KI/KU cust.-spec. solutions var. access.
	**ELD-1200**	20 mm	25 mm	65 N 750 N	06 m/min 09 12 18	1350 kg** 1350 ** 1200 ** 700 **	3x5-pin M12x1 plug, cust.-spec. solutions var. access.
	**DEL-235**	9.3 mm	16.1 mm	25 N 419 N	06 m/min 09 12 18 24 30	250 kg** 190 ** 180 ** 135 ** 110 ** 55 **	RC cust.-spec. solutions var. access.
	**DEL-400**	9.3 mm	16.1 mm	25 N 419 N	06 m/min 09 12 18 24 30	400 kg** 340 ** 330 ** 255 ** 190 ** 150 **	RC cust.-spec. solutions var. access.
	**DEL-630**	8 mm	16 mm	32 N 250 N	06 m/min 09 12 18 24 30	650 kg ** 610 ** 450 ** 300 ** 190 ** 140 **	cust.-spec. solutions var. access.
	**DEL-650**	9.3 mm	16.1 mm	30 N 419 N	06 m/min 09 12 18 24 30	650 kg** 630 ** 470 ** 350 ** 250 ** 200 **	RC cust.-spec. solutions var. access.
	**DEL-800**	9.3 mm	20.2 mm	50 N 419 N	06 m/min 09 12 18 24 30	820 kg ** 790 ** 760 ** 640 ** 520 ** 340 **	RC cust.-spec. solutions var. access.
	**DEL-1100**	9.3 mm	20.2 mm	65 N 419 N	06 m/min 09 12 18 24	1100 kg ** 1000 ** 850 ** 750 ** 500 **	RC cust.-spec. solutions var. access.
	**DEL-1800**	9.3 mm	20.2 mm	100 N 419 N	06 m/min 09 12 16 18	1800 kg** 1700 ** 1550 ** 1000 ** 800 **	RC cust.-spec. solutions var. access.
	**DEL-350-S2**	8 mm	25 mm	80 N 200 N	06 m/min 09 12	400 kg 350 250	HS cust.-spec. solutions var. access.

KI tilt stop
KU plastic stop
S steel stop

RC manual remote control
HS high speed

* All specifications given for a coefficient of friction of μ = 0.07

** Exceptionally, these values apply at a coefficient of friction of μ = 0.02