

CARZ EXPLOSION ISOLATION VALVE



TECHNICAL INFORMATION

Operating Temperature Range	Min. -20°C	Max. +70°C
Ambient Temperature	Min. -20°C	Max. +60°C
Flow velocity	Max. 30 m/s	
Max. reduced explosion pressure	0.45 bar	
Min. Vessel size	0.4 m ³	
Average Maximum Explosion Pressure	1 bar	
Flow applications	Push/Pull	
Inclination of the CARZ	Horizontally	
Protection method of connected vessel	Explosion vents or suppression	

FEATURES

- Prevents the effects of an explosion to spread to upstream equipment and buildings
- Prevents stray dust from returning along the duct when the installation has been stopped
- Simple and robust design
- ATEX Approved



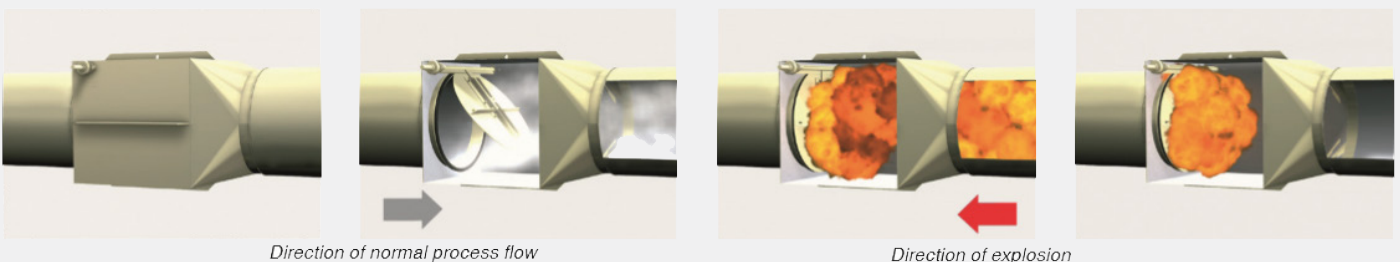
AES PART CODE/ORDERING TABLE

Nederman CARZ Explosion Isolation Valve	XX
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DESCRIPTION

A CARZ Explosion Isolation Flap valves is designed to prevent the effect of pressure wave and flames caused by an explosion from traveling upstream in the ductwork in which it is mounted. It is tested and certified to a maximum reduced explosion pressure for the downstream protected vessel (typically ATEX zone 20, internal) and acts as an isolating valve during an explosion. Under normal working conditions, it is kept open against the force of gravity by the airflow going in the normal process flow direction.

How It Works



AES OFFER INSTALLATION AND SERVICE SUPPORT FOR ALL EQUIPMENT

CARZ EXPLOSION ISOLATION VALVE

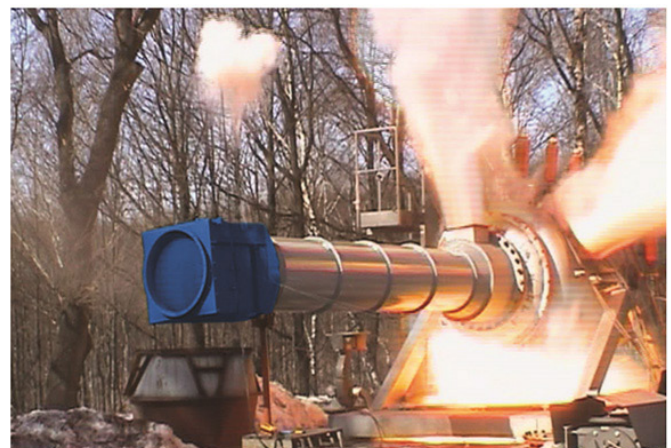
Flap valve size ØD	Dimensions [mm]								Weight [kg]	Part number					
	A	B	C	D	E	F	G	H		FL	QF	NW**	Stainless steel version		
	FL	QF	NW**	FL	QF	NW**									
160mm	495	470	435	581	196	310	130	155	23	73001200	73001224	73001212	73000301	73000315	73000308
180mm	515		455		206	301	140	165	26	73001201	73001225	73001213	73000302	73000316	73000309
200mm	535		475		216	291	150	175	29	73001202	73001216	73001214	73000303	73000317	73000310
250mm	585		525	585	241	266	175	200	36	73001204	73001228	73001216	73000304	73000318	73000311
315mm	650	495	605	650	273	230	213	253	45	73001207	73001231	73001219	73000305	73000319	73000312
350mm*	685	530	640	685	291	217	225	265	50	73001209	73001233	73001221	73000306	73000320	73000313
400mm	735	580	690	735	316	198	250	290	57	73001211	73001235	73001223	73000307	73000321	73000314

* for NW flange diameter 355mm

** flange NW acc. DIN 24154-R2



Without CARZ



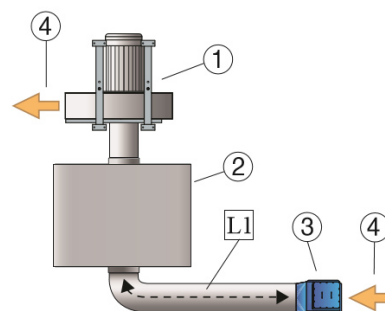
With CARZ installed

1. Fan
 2. Vessel (filter, container, silo etc.)
 3. CARZ Explosion Isolation Flap
 4. Normal process flow
- L1/L2: Min/max installation distance from the vessel

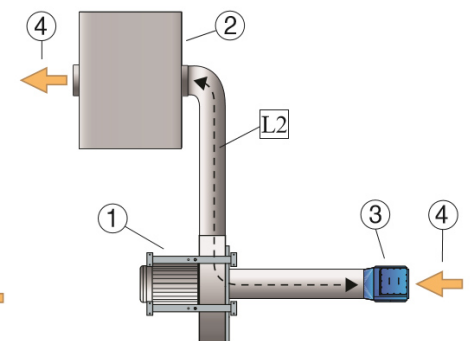
Installation requirements

- The locking rod is normally on the right-hand side.
- CARZ sizes from diameter 550 upwards include an inspection door on each side.
- The distance between the CARZ and the filter / silo depends on installation type and size.
- The CARZ shall be installed horizontally.
- The direction of the airflow should be noted carefully. This is indicated by an arrow on the product.

Pull flow application



Push flow application



	Diameter Ø		
	Ø160 – 500 mm	Ø550 – 710 mm	Ø750 – 1000 mm
L1	2.0 – 5.0 m	5.0 – 8.5 m	5.0 – 8.5 m
L2	4.8 – 8.0 m	5.0 – 8.5 m	Not possible

L1 / L2 = Installation distance from the vessel, where the explosion could occur

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