

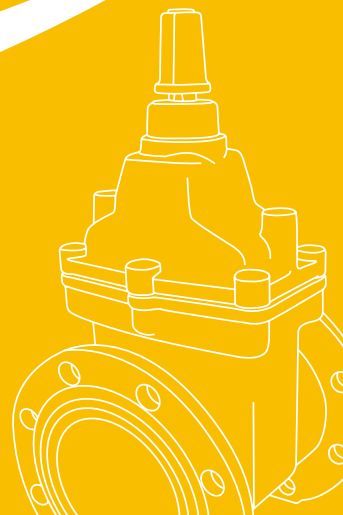


Optimum Solutions

# Gas Valves



Part of the Radius Group



## The leading manufacturer of valve solutions for gas applications

Aeon, part of Radius Flow Control (a Radius Group company), is a manufacturer of innovative valve solutions for the control of gases and fluids in water and gas pipeline networks.

With headquarters in the UK, testing and assembly facilities in Europe and the UAE, we have been for many years, successfully supplying our patented gate valves throughout the world.

## State of the art valve technology

For many years, we have cooperated with dedicated suppliers of approved components and coatings who deliver high quality products. We believe that by using high quality components we can increase the efficient and safe operation of our valves, which in turn will make a positive contribution to preserving our natural resources and promote a cleaner environment. This is why we place great emphasis on safety, durability and ease of use, when we develop our valve solutions.

Specially designed with a unique twin seal patented integral wedge for maximum leak tightness,


our state-of-the-art range of gate valves, OptiValve™ and OptiValve Plus™, are internally and externally protected with a minimum epoxy coating thickness of 250 microns for optimum corrosion resistance. This epoxy coating is colour coded yellow for gas applications and for challenging environments, bespoke valves with higher grade components can be manufactured on request. Easy to install and operate, the Aeon OptiValve™ and OptiValve Plus™ are approved to the toughest international standards for gas applications and are supplied with a traceability barcode, to maximise visibility within the supply chain.





## OptiValve™ & OptiValve Plus™


Our range of OptiValve™ and OptiValve Plus™ has been developed with an innovative design offering unique features, to benefit the gas industry and end users during the installation and the life of the valve.


### Design Features

- 

The OptiValve™ and OptiValve Plus™ product range features a fully NBR encapsulated patented double seated integral ductile iron wedge.
- 


The perfectly smooth guides, situated on either side of the wedge, offer low closing torque.
- 


The design of the integral wedge is such that compression occurs in the final 10% of travel. This results in a 'positive stop', preventing the need to re-tighten and eliminates any possible stem 'back-winding'.
- 


The patented primary seal, integrated in the wedge ensures a perfect top seal when the valve is opened.
- 


The stem strength is designed to be at least three times higher than the MOT requirements of EN13774.


### Benefits

- 

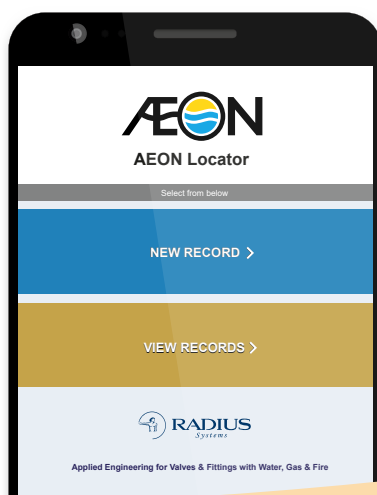
The full clear through bore ensures there is no collection of dust or debris at the bottom of the valve.
- 

The stem seals are replaceable under pressure, eliminating the need to turn off the supply of gas to end users.
- 

The double start stem thread offers a lower number of turns to close, bringing time and labour savings.
- 

The indelible identification label with the unique QR Code ensures complete traceability from inventory to final installation.
- 

The plastic protection on the bonnet, flange and bore eliminates the risk of damage during storage, transportation and installation.



## AEON Valve locator

The latest mobile app technology for maximum valve traceability.

## Increased safety

The AEON OptiValve™ and OptiValve Plus™ provide maximum leak-tight performance at low closing torques and are ideally suited for gas applications. The patented integral wedge can be tailored with vents for double block and bleed operations.

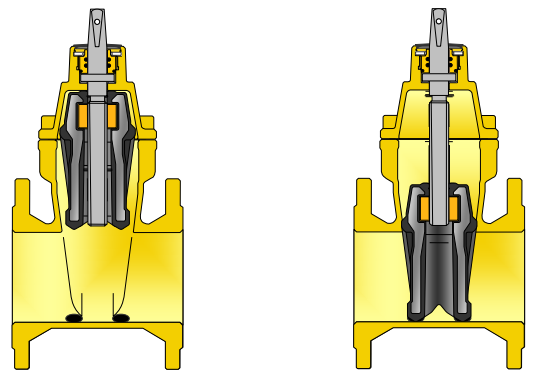
## Patented low friction seat design

The specially designed low friction wedge guides with narrow angles in the seat of the body, increase the gate valve's functionality and offer substantial benefits:

- reduced wear on the wedge
- reduced operational torques
- increased valve lifetime.

Seat contact occurs at about 90% of travel. The applied torque increase during closure confirms:

- positive sealing
- deformation of wedge seal.



The unique twin seal within the OptiValve™ and OptiValve Plus™ offers both robustness and ease of use, giving customers considerable operational advantages:

- no leakage
- long-term durability
- reduction in operator's effort
- minimal maintenance.

**Fully vulcanized wedge casting:**

- the wedge is entirely encapsulated in NBR rubber with a minimum thickness of 1.5 mm and the rubber within the wedge is approved to EN 682
- there are no exposed metallic parts, reducing the risk of corrosion and increasing the lifetime of the wedge.

**Wedge guides**

The guides are located on more than 50% of the wedge height providing:

- no bending movement
- smooth travel during the valve operation.

**“Wash-out” effect**

Removal of trapped debris:

- during closure, the wedge creates a turbulence which removes potential debris located on the lower part of the valve.

**Corrosion resistant coating**

The OptiValve™ range:

- is fully coated with a resin layer, hot dipped epoxy or electrostatic paint 250 µm minimum
- eliminates the need for extra wrapping prior to installation, bringing additional time and cost savings.





## High quality engineered solutions

Our extensive industry knowledge in the design and manufacture of gas valves has led us to develop the next generation of gate valves. The Aeon OptiValve™ and OptiValve Plus™ have been specifically engineered to offer a high quality and robust valve solution which provides maximum leak tightness.

All our valves are extensively tested in our dedicated facilities, certified to ISO 9001:2008 and ISO 14001, providing the assurance of a high performance and high quality product.

Our valves are approved to most stringent international standards:

- UK Gas Industry Standard GIS/V7-1:2007
- European standard EN 13774
- DVGW (DIN 3352-5 PG2 and PG3)
- PED 2014/68/EU
- Epoxy protective coating tested and certified by Lloyd UK
- CE mark
- INIG
- KIWA-GASTEC
- Russia national gas certification
- Australia national gas certification
- Croatia national gas certification.



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2004/400



EMS 507217

Engineered for **ultimate performance**



OptiValve™



OptiValve Plus™

Part	OptiValve™	OptiValve Plus™
CAST PARTS	2: body and bonnet	3: body, bonnet, glandhousing
BEARINGS	plastic POM	brass/bronze
STEM	with collar	without collar, thicker stem
GLAND BUSH	brass	brass/bronze

## OptiValve™ and OptiValve Plus™ gas gate valves

### Valve range at a glance



OptiValve™  
RSGV with or  
without vent  
plug, double  
block and bleed  
option  
DN40-DN300  
PN10 & PN16  
Options: F4, F5,  
BS & ANSI



OptiValve™  
RSGV with PE  
tails, with or  
without vent  
plug  
DN50-DN300  
PN10



OptiValve™  
RSGV with  
steel ends,  
with or  
without vent  
plug  
DN50-DN300  
PN16



OptiValve Plus™  
RSGV with or  
without vent  
plug, double  
block and bleed  
option  
DN50-DN300  
PN10 & PN16  
Options: F4, F5,  
BS & ANSI



OptiValve  
Plus™  
RSGV with PE  
tails, with or  
without vent  
plug  
DN50-DN300  
PN10



OptiValve  
Plus™  
RSGV with  
steel ends,  
with or  
without vent  
plug  
DN50-DN300  
PN16



OptiValve Plus™  
RSGV with or  
without vent  
plug, double  
block and bleed  
option  
DN400  
PN10 & PN16  
Options: F4 & BS



OptiValve  
Plus™  
RSGV prepared  
for actuator,  
with or without  
vent plug  
DN80-DN300  
PN10 & PN16  
Options: F4, F5,  
BS & ANSI



OptiValve  
Plus™  
RSGV with  
actuator, with  
or without  
vent plug  
DN80-DN300  
PN10 & PN16  
Options: F4,  
F5, BS & ANSI

Full technical datasheets are available from our website [www.aeonvalves.com](http://www.aeonvalves.com) and upon request.



# OptiValve™



## Options

BS	DN 50 - DN 300	with vent plug
ANSI	DN 50 - DN 300	
F4	DN 40 - DN 300	without vent plug
F5	DN 40 - DN 300	



## Dimensions

Type	DN	40	50	65	80	100	125	150	200	250	300
	Length [mm]	140	150	170	180	190	200	210	230	250	270
F4	Epoxy PN16 PN10	AG0408	AG0510	AG6521	AG0828	AG1028	AG1264	AG1521	AG2038 AG2028	AG2538 AG2528	AG3038 AG3028
	PUR PN16 PN10	AG0434	AG0534	AG6534	AG0834	AG1034	AG1234	AG1534	AG2074 AG2075	AG2574 AG2575	AG3074 AG3075
	Length [mm]	240	250	270	280	300	325	350	400	450	500
F5	Epoxy PN16 PN10	AG0409	AG0511	AG6522	AG0829	AG1029	AG1265	AG1522	AG2039 AG2029	AG2539 AG2529	AG3039 AG3029
	PUR PN16 PN10	AG0416	AG0516	AG6516	AG0816	AG1016	AG1216	AG1516	AG 2076 AG2017	AG2576 AG2517	AG3076 AG3017
BS	Length [mm]		178		203	229	254	267	292	330	356
	PN16		AG0507		AG0807	AG1007	AG1257	AG1507	AG2007	AG2507	AG3007
ANSI			AG0002		AG0003	AG0004		AG0006	AG0008	AG0010	AG0012

F4 & F5 DN 50 and above are available with vent plug on request.

# OptiValve Plus™



## Options

BS	DN 50 - DN 400	with vent plug
ANSI	DN 50 - DN 300	
F4	DN 40 - DN 400	without vent plug
F5	DN 40 - DN 300	



## Dimensions for OptiValve Plus™ DN 50 - DN 300

Type	DN	50	80	100	125	150	200	250	300
	Length [mm]		180	190	200	210	230	250	270
F4	Epoxy PN16 PN10		BG0848	BG1048	BG1268	BG1548	BG2048 BG2047	BG2548 BG2547	BG3048 BG3047
	PUR PN16 PN10		BG0845	BG1045	BG1245	BG1545	BG2045 BG2044	BG2545 BG2544	BG3045 BG3044
	Length [mm]		280	300	325	350	400	450	500
F5	Epoxy PN16 PN10		BG0849	BG1049	BG1279	BG1549	BG2049 BG2050	BG2549 BG2550	BG3049 BG3050
	PUR PN16 PN10		BG0863	BG1063	BG1263	BG1563	BG 2063 BG2056	BG2563 BG2556	BG3063 BG3056
BS	Length [mm]	178	203	229		267	292	330	356
	PN16	BG0500	BG0807	BG1007		BG1507	BG2007	BG2507	BG3007
ANSI		BG0002	BG0003	BG0004		BG0006	BG0008	BG00010	BG00012

F4 & F5 DN 50 and above are available with vent plug on request.

## Dimensions for OptiValve Plus™ DN 400

Type	DN	400
	Length [mm]	310
F4	PN10	BG4038
	PN16	BG4028
BS	Length [mm]	406
	PN16	BG4007

# OptiValve Plus™ prepared for/with actuator



## Options

BS	DN 50 - DN 300	with vent plug
ANSI	DN 50 - DN 300	
F4	DN 80 - DN 300	without vent plug
F5	DN 80 - DN 300	



## Dimensions for OptiValve Plus™ prepared for actuator

Type	DN	50	80	100	125	150	200	250	300
F4	Length [mm]		180	190	200	210	230	250	270
	PN16 PN10		BG0853	BG1053	BG1283	BG1553	BG2053 BG2054	BG2553 BG2554	BG3053 BG3054
F5	Length [mm]		280	300	325	350	400	450	500
	PN16 PN10		BG0859	BG1059	BG1289	BG1559	BG2059 BG2064	BG2559 BG2564	BG3059 BG3064
BS	Length [mm]	178	203	229		267	292	330	356
	PN16	BG0557	BG0857	BG1057		BG1557	BG2057	BG2557	BG3057
ANSI		BG0558	BG0858	BG1058		BG1558	BG2058	BG2558	BG3058

F4 & F5 DN 50 and above are available with vent plug on request.

## Dimensions for OptiValve Plus™ with actuator

Type	DN	50	80	100	125	150	200	250	300
F4	Length [mm]		180	190	200	210	230	250	270
	PN16 PN10		BG1300	BG1301	BG1302	BG1303	BG1304 BG1307	BG1305 BG1308	BG1306 BG1309
F5	Length [mm]		280	300	325	350	400	450	500
	PN16 PN10		BG1310	BG1311	BG1312	BG1313	BG1314 BG1317	BG1315 BG1318	BG1316 BG1319
BS	Length [mm]	178	203	229		267	292	330	356
	EN 1092-2	BG1320	BG1321	BG1322		BG1324	BG1325	BG1326	BG1327
ANSI		BG1328	BG1329	BG1330		BG1331	BG1332	BG1333	BG1334

F4 & F5 DN 50 and above are available with vent plug on request.

# OptiValve™/OptiValve Plus™ with PE tail



## Options

DN 50 - DN 300    without vent plug



### Dimensions for OptiValve™ with PE tail

DN	50	80	100	100	150	150	200	200	250	250	300
OD	63	90	110	125	160	180	200	225	250	280	315
Length [mm]	920	920	920	920	950	950	1000	1000	1050	1050	1100
Epoxy	AG0551	AG0851	AG1051	AG1052	AG1551	AG1552	AG2051	AG2052	AG2551	AG2552	AG3051
PUR	AG0566	AG0866	AG1066	AG1067	AG1566	AG1557	AG2066	AG2067	AG2566	AG2567	AG3066

### Dimensions for OptiValve Plus™ with PE tail

DN	50	80	100	100	150	150	200	200	250	250	300
OD	63	90	110	125	160	180	200	225	250	280	315
Length [mm]	920	920	920	920	950	950	1000	1000	1050	1050	1100
Epoxy	BG0551	BG0851	BG1051	BG1052	BG1551	BG1552	BG2051	BG2052	BG2551	BG2552	BG3051
PUR	BG0566	BG0866	BG1066	BG1067	BG1566	BG1557	BG2066	BG2067	BG2566	BG2567	BG3066

OD - pipe outside diameter.

Valves are available with vent plug on request.

# OptiValve™ / OptiValve Plus™ with steel ends



## Options

DN 50 - DN 300

without vent plug



### Dimensions for OptiValve™ with steel ends

DN	50	80	100	150	200	250	300
Length [mm]	570	550	520	530	570	590	620
Epoxy	AG0555	AG0855	AG1055	AG1555	AG2055	AG2555	AG3055
PUR	AG0564	AG0864	AG1064	AG1564	AG2049	AG2549	AG3049
Epoxy	AG0560	AG0860	AG1060	AG1560	AG2061	AG2561	AG3061
PUR	AG0565	AG0865	AG1065	AG1565	AG2065	AG2565	AG3065

### Dimensions for OptiValve Plus™ with steel ends

DN	50	80	100	150	200	250	300
Length [mm]	570	550	520	530	570	590	620
Epoxy	BG0555	BG0855	BG1055	BG1555	BG2055	BG2555	BG3055
PUR	BG0560	BG0860	BG1060	BG1560	BG2060	BG2560	BG3060
Epoxy	BG0561	BG0861	BG1061	BG1561	BG2061	BG2561	BG3061
PUR	BG0562	BG0862	BG1062	BG1562	BG2062	BG2562	BG3062

Valves are available with vent plug on request.

# Polyethylene ball valve



## Options

PE 20 - 180 mm available on request



## Dimensions

D	32	63
SDR	11	11
Length [mm]	323	456
Product code	AR0007	AR0006

D - valve size and pipe outside diameter.

# Extension spindles

## Telescopic extension spindles

DN	Length [mm]	Weight [kg]	OptiValve™	OptiValve Plus™
50	550-800	3.0	AA1018	AA1062
	800-1200	4.0	AA1019	AA1063
	1000-1600	4.5	AA1020	AA1064
	1400-2200	5.2	AA1021	AA1065
80	550-800	3.0	AA1024	AA1062
	800-1200	4.0	AA1025	AA1063
	1000-1600	4.5	AA1026	AA1064
	1400-2200	5.3	AA1027	AA1065
100 -150	550-800	3.0	AA1030	AA1068
	800-1200	4.0	AA1031	AA1069
	1000-1600	4.5	AA1032	AA1070
	1400-2200	5.3	AA1033	AA1071
200	550-800	3.5	AA1036	AA1074
	800-1200	4.5	AA1037	AA1075
	1000-1600	5.0	AA1038	AA1076
	1400-2200	6.0	AA1039	AA1077
250-300	550-800	3.5	AA1042	AA1080
	800-1200	4.5	AA1043	AA1081
	1000-1600	5.0	AA1044	AA1082
	1400-2200	6.0	AA1045	AA1083

Other sizes available on request

## Fixed extension spindles

DN	Length [mm]	Weight [kg]	OptiValve™	OptiValve Plus™
50	700	3.0	AA1156	AA1236
	1000	4.0	AA1157	AA1237
	1250	4.5	AA1158	AA1238
	1500	5.2	AA1159	AA1239
80	700	3.0	AA1162	AA1242
	1000	4.0	AA1163	AA1243
	1250	4.5	AA1164	AA1244
	1500	5.3	AA1165	AA1245
100 -150	700	3.0	AA1168	AA1248
	1000	4.0	AA1169	AA1249
	1250	4.5	AA1170	AA1250
	1500	5.3	AA1171	AA1251
200	700	3.5	AA1174	AA1254
	1000	4.5	AA1175	AA1255
	1250	5.0	AA1176	AA1255
	1500	6.0	AA1177	AA1256
250-300	700	3.5	AA1180	AA1258
	1000	4.5	AA1181	AA1259
	1250	5.0	AA1182	AA1260
	1500	6.0	AA1183	AA1261

Other sizes available on request

### Design features

- Coating  
Fully galvanised internally and externally
- Benefit  
Ease of operation for below ground installations



# Hand wheels

## Design features

- Coating  
Galvanised Fe/Zn 12c black bituminous external and internal coating
- Application  
To open and close valves from ground level



## Dimensions

	DN	40	50	65	80	100	125	150	200	250	300	400
	OD	175	175	175	255	255	305	305	355	405	405	640
Hand Wheel kit for OptiValve™	Square [mm]	14	14	17	17	19	19	19	24	27	27	32
	Weight [mm]	0.8	0.8	0.8	1.7	1.6	2.7	2.7	3.3	4.8	4.8	23.3
	Product code	BV0030	BV0030	BV0031	BV0032	BV0033	BV0034	BV0034	BV0035	BV0036	BV0036	BV0038
Hand Wheel kit for OptiValve Plus™	Square [mm]		19		19	19	19	19	24	27	27	32
	Weight [mm]		1.6		1.6	1.6	2.7	2.7	3.3	4.8	4.8	23.3
	Product code		BV0033		BV0033 (BS)	BV0033		BV0034	BV0035	BV0036	BV0036	BV0038

OD - wheel outside diameter.  
Square - centre square diameter.

# Cap tops

## Design features

- Coating  
Galvanised Fe/Zn 12 c
- Application  
To open and close valves



## Dimensions

	DN	50	80	100	125	150	200	250	300
Product code	OptiValve™	AA2408	AA2409	AA2410	AA2410	AA2410	AA2411	AA2412	AA2412
	OptiValve Plus™	AA2410	AA2410	AA2410		AA2410	AA2411	AA2412	AA2412



# Surface boxes for valves



## Options

Cast iron

### Design features

- Corrosion protection  
Asphalt coating
- Application  
Designed for valve installations below ground. In paths, surfaced and non surfaced roads



### Dimensions

DIN	4056	3581
Weight [kg]	13	13
Product code	AA0502	AA0506



## Options

HDPE

### Design features

- Corrosion protection  
Asphalt coating
- Application  
Designed for valve installations below ground. In paths, surfaced and non surfaced roads



### Dimensions

DIN	4056	3581
Weight [kg]	4	4
Product code	AA0552	AA0554

# Support tiles

## Design features

- Material  
HDPE
- Application  
Stabilising support for below ground surface boxes



Weight [kg]	0.9
Product code	AA0561

# Position indicators

## Design features

- Easy to install
- Can be retrofitted to installed valves
- Open/close red indicator
- Compatible with OptiValve Plus™



## Dimensions

DN	50	80	100	150	200	250	300
Weight [kg]	0.07	0.07	0.07	0.09	0.15	0.18	0.18
Product code	AP0090	AP0090	AP0090	AP0091	AP0092	AP0093	AP0093

# Valve key

## Design features

- Coating  
Black bituminous coating or blue FBE coating
- Application  
The valve key is designed to open and close valves, manholes and underground hydrants.



Weight [kg]	8.5
Product code	AA0000

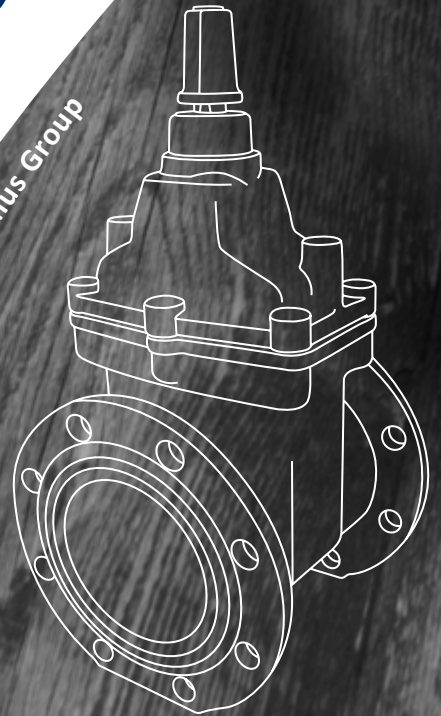


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