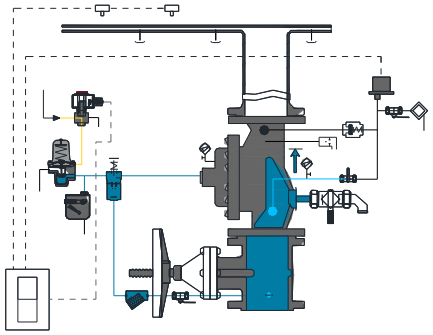
DIAPHRAGM DELUGE VALVE LOCAL RESET

MODEL AG 400-L EXTERNAL AND LOCAL RESET
Electro - Pneumatic Actuation
(Ductile Iron, Cast Steel, Nickel Aluminum Bronze)

c UL us LISTED 15133

Valve Closed





PRODUCT DESCRIPTION

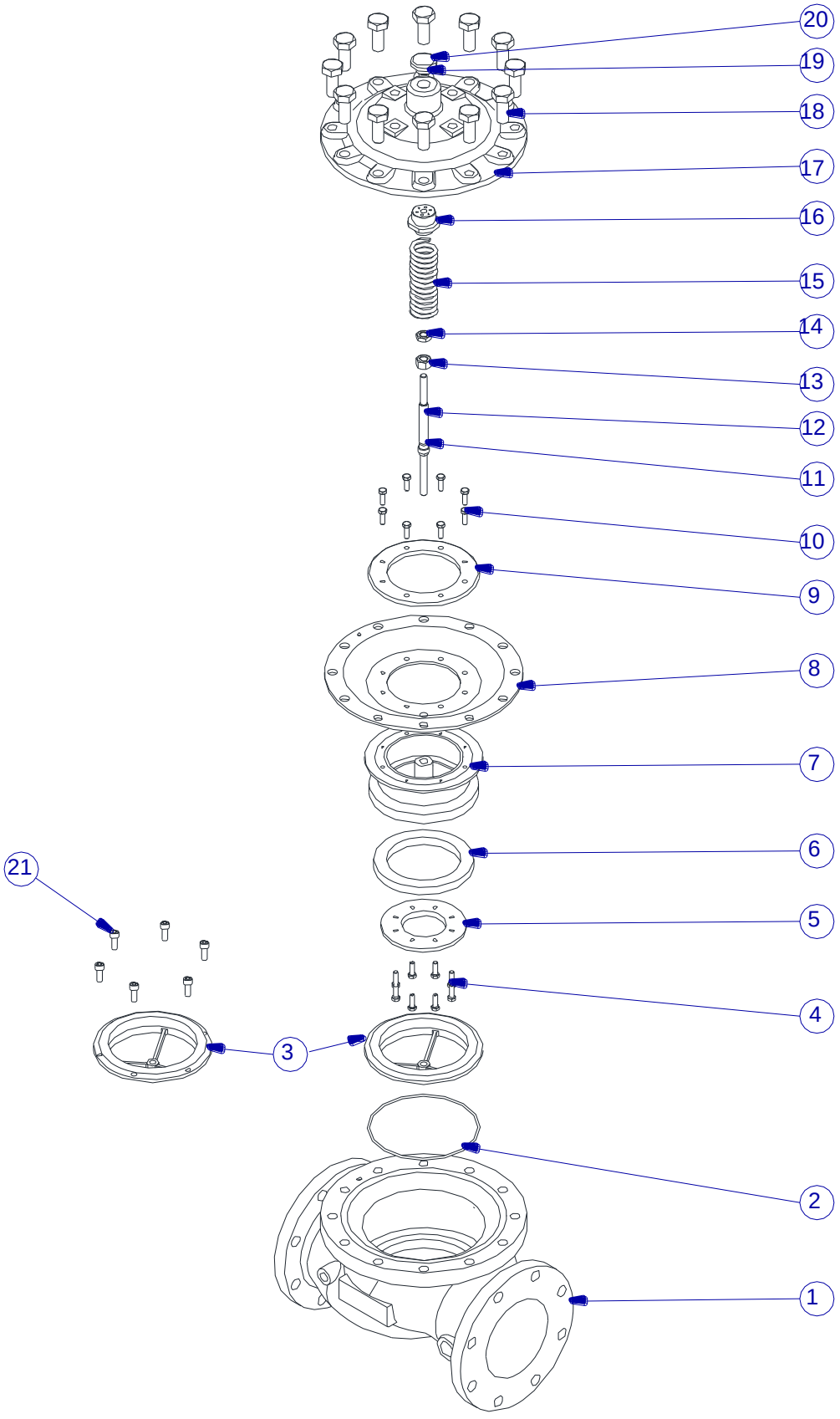
Deluge Valve is known as a system control valve in a deluge system, used for fast application of water in a spray system. Deluge valve protects areas such as power transformer installation, storage tank, conveyor protection and other industrial application etc. With the addition of foaming agent deluge valve can be used to protect aircraft hangar and inflammable liquid fire.

TECHNICAL DATA

MODEL	AG 400-L
MATERIAL	D: Ductile Iron ASTM A536 S: Cast Steel ASTM A216 WCB N: Nickel Aluminium Bronze BS1400 Gr AB2
NOMINAL SIZE	DN50 (2”), DN80 (3”), DN100 (4”), DN150 (6”) & DN200 (8”)
SEVICE PRESSURE	1.4 to 17.5 Bar (20 to 250 PSI)
THREADED OPENING	BSPT
MOUNTING	Vertical or Horizontal mounting
FACTORY HYDROSTATIC TEST PRESSURE	35 Kg/sq.cm. (500 PSI)
FLANGE CONNECTION	ANSI B 16.5
SERVICE	Without removal from line
TRIM	Galvanized tubing and fittings and nickel lated accessories. Solenoid valve 175 psi Stainless Steel (SS-316) tubing and fittings. Solenoid valve 250 psi Monel tubing and fittings. Ni AL Br Accessories
WET PILOT SPRINKLER HEIGHT LIMITATION	As per graph in the catalogue
NET WEIGHT WITHOUT TRIM	DN50 - 32 Kg DN80 - 35 Kg DN100 - 50 Kg DN150 - 79 Kg DN200 - 153 Kg
FINISH	Red RAL 3000

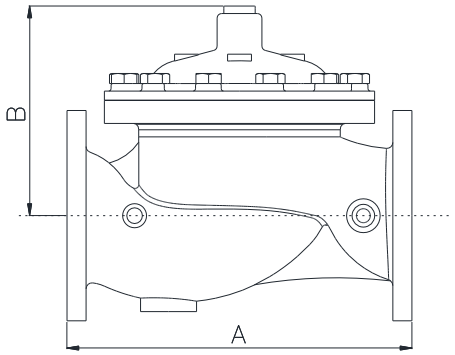
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DELUGE VALVE MODEL: AG 400-L SIZE 50 / 80 / 100 / 150 / 200 DN



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DELUGE VALVE MODEL: AG 400-L SIZE 50 / 80 / 100 / 150 / 200 DN



DIMENSION in millimeter (Approximate)

VALVE NOMINAL SIZE	A	B
50 DN	320	232
80 DN	372	232
100 DN	412	245
150 DN	462	282
200 DN	552	332

AG 400-L (DUCTILE IRON ASTM A 536-77 GRADE 65-45-12)

ITEM Nº	PART Nº					DESCRIPTION	QTY				MATERIAL SPECIFICATION
	200 DN	150 DN	100 DN	80 DN	50 DN		200 DN	150 DN	100 DN	80/50 DN	
1	NA	NA	NA	NA	NA	HOUSING	1	1	1	1	DUCTILE IRON
2	8561	9783	9784	9791	9791	“O” RING	1	1	1	1	NEOPRENE RUBBER
3	4025	3993	4003	4017	4017	SEAT	1	1	1	1	STAINLESS STEEL*
4	9151	9112	9112	-	-	BOLT	4	4	-	8	STAINLESS STEEL
5	4026	3994	4004	4018	4018	RUBBER CLAMP	1	1	1	1	DUCTILE IRON **
6	4027	4000	4005	4023	4023	RUBBER SEAT	1	1	1	1	NEOPRENE RUBBER
7	4034	3990	4011	4041	4041	CLAPPER	1	1	1	1	DUCTILE IRON **
8	4035	2427	2507	2786	2786	DIAPHRAGM	1	1	1	1	NEOPRENE RUBBER
9	4030	2424	2504	2788	2788	CLAMP RING	1	1	1	1	DUCTILE IRON **
10	8806	9151	9151	9187	9187	BOLT	8	8	8	12	STAINLESS STEEL
11	9986	9986	9986	9986	9986	“O” RING	1	1	1	1	NEOPRENE RUBBER
12	4029	3996	4007	4020	4020	SPINDLE	1	1	1	1	STAINLESS STEEL
13	9185	8838	8838	9185	9185	NUT	1	1	1	1	STAINLESS STEEL
14	9186	9184	9184	9186	9186	LOCK NUT	1	1	1	1	STAINLESS STEEL
15	2980	2979	2978	2977	2977	SPRING	1	1	1	1	STAINLESS STEEL
16	4033	3998	4010	3983	3983	ADAPTOR	1	1	1	1	BRASS
17	NA	NA	NA	NA	NA	COVER	1	1	1	1	Ductile iron ,
18	9008	9049	9051	8692	8692	BOLT	12	12	12	16	CARBON STEEL
19	9982	9982	9982	9982	9982	“O” RING	1	1	1	1	NEOPRENE RUBBER
20	2514	2514	2514	2514	2514	PLUG	1	1	1	1	STEEL PLATED
21	8843	-	-	-	-	ALLEN BOLT	-	-	-	6	STAINLESS STEEL

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AG 400-L (NICKEL ALUMINIUM BRONZE BS1400 Gr AB2)											
ITEM Nº	PART Nº					DESCRIPTION	QTY				MATERIAL SPECIFICATION
	200 DN	150 DN	100 DN	80 DN	50 DN		200 DN	150 DN	100 DN	80/50 DN	
1	NA	NA	NA	NA	NA	HOUSING	1	1	1	1	AL. BRONZE BS 1400 - AB2
2	8561	9783	9784	9791	9791	“O” RING	1	1	1	1	NEOPRENE RUBBER
3	4155	3925	3955	3986	3986	SEAT	1	1	1	1	AL. BRONZE BS 1400 - AB2*
4	9898	9899	9899	-	-	BOLT	8	4	4	-	MONEL 400
5	4156	3926	3956	3984	3984	RUBBER CLAMP	1	1	1	1	AL. BRONZE BS 1400 - AB2**
6	4027	4000	4005	4023	4023	RUBBER SEAT	1	1	1	1	NEOPRENE RUBBER
7	4153	3927	3953	3985	3985	CLAPPER	1	1	1	1	AL. BRONZE BS 1400 - AB2
8	4035	2427	2507	2786	2786	DIAPHRAGM	1	1	1	1	NEOPRENE RUBBER
9	4158	3918	3958	3978	3978	CLAMP RING	1	1	1	1	AL. BRONZE BS 1400 - AB2
10	9842	9898	9898	9898	9898	BOLT	12	8	8	8	MONEL 400
11	9986	9986	9986	9986	9986	“O” RING	1	1	1	1	NEOPRENE RUBBER
12	4157	3917	3957	3977	3977	SPINDLE	1	1	1	1	MONEL 400
13	9896	9896	9896	9896	9896	NUT	1	1	1	1	MONEL 400
14	9897	9897	9897	9897	9897	LOCK NUT	1	1	1	1	MONEL 400
15	4154	3914	3954	3974	3974	SPRING	1	1	1	1	INCONEL-X-750
16	4159	3919	3959	3979	3979	ADAPTOR	1	1	1	1	AL. BRONZE BS 1400 - AB2
17	NA	NA	NA	NA	NA	COVER	1	1	1	1	AL. BRONZE BS 1400 - AB2
18	9841	9841	8801	9123	9123	BOLT	16	12	12	12	STAINLESS STEEL
19	9982	9982	9982	9982	9982	“O” RING	1	1	1	1	NEOPRENE RUBBER
20	3920	3920	3920	3920	3920	PLUG	1	1	1	1	AL. BRONZE BS 1400 - AB2
21	9843	-	-	-	-	ALLEN BOLT	6	-	-	-	MONEL 400

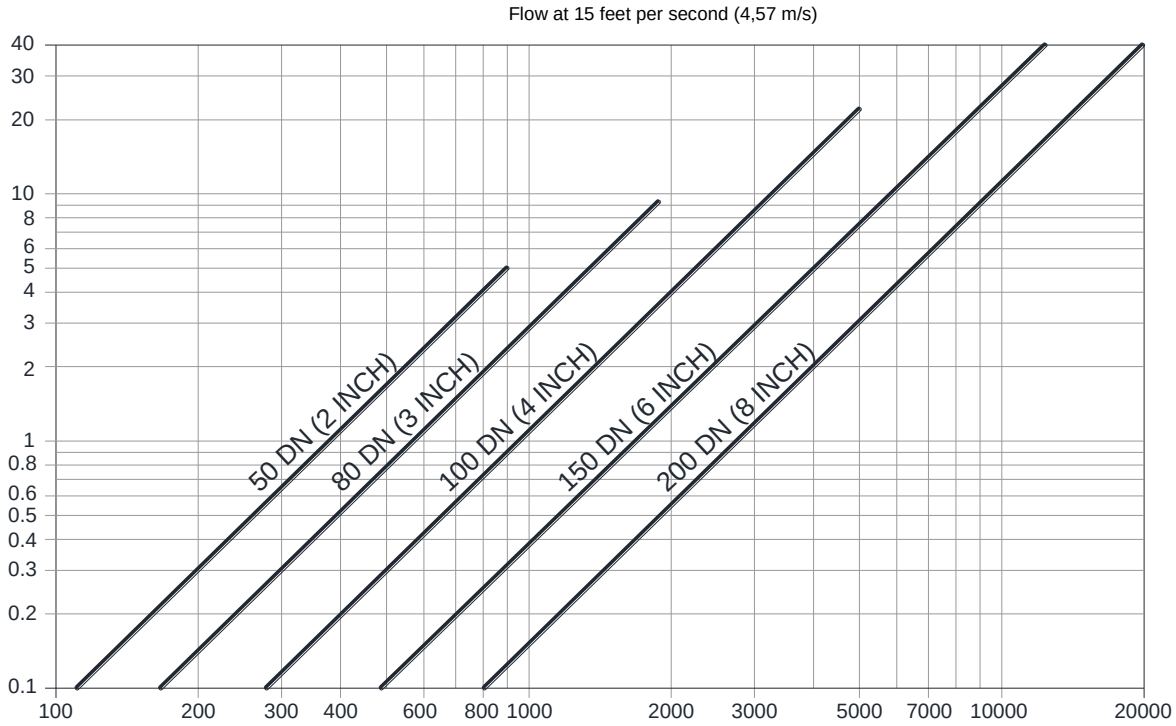
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AG 400-L (CAST STEEL ASTM A216-WBC)											
ITEM Nº	PART Nº					DESCRIPTION	QTY				MATERIAL SPECIFICATION
	200 DN	150 DN	100 DN	80 DN	50 DN		200 DN	150 DN	100 DN	80/50 DN	
1	NA	NA	NA	NA	NA	HOUSING	1	1	1	1	CAST STEEL
2	8561	9783	9784	9791	9791	“O” RING	1	1	1	1	NEOPRENE RUBBER
3	4025	3993	4003	4017	4017	SEAT	1	1	1	1	STAINLESS STEEL*
4	9151	9112	9112	-	-	BOLT	4	4	-	8	STAINLESS STEEL
5	4026	3994	4004	4018	4018	RUBBER CLAMP	1	1	1	1	DUCTILE IRON **
6	4027	4000	4005	4023	4023	RUBBER SEAT	1	1	1	1	NEOPRENE RUBBER
7	4034	3990	4011	4041	4041	CLAPPER	1	1	1	1	DUCTILE IRON **
8	4035	2427	2507	2786	2786	DIAPHRAGM	1	1	1	1	NEOPRENE RUBBER
9	4030	2424	2504	2788	2788	CLAMP RING	1	1	1	1	DUCTILE IRON **
10	8806	9151	9151	9187	9187	BOLT	8	8	8	12	STAINLESS STEEL
11	9986	9986	9986	9986	9986	“O” RING	1	1	1	1	NEOPRENE RUBBER
12	4029	3996	4007	4020	4020	SPINDLE	1	1	1	1	STAINLESS STEEL
13	9185	8838	8838	9185	9185	NUT	1	1	1	1	STAINLESS STEEL
14	9186	9184	9184	9186	9186	LOCK NUT	1	1	1	1	STAINLESS STEEL
15	2980	2979	2978	2977	2977	SPRING	1	1	1	1	STAINLESS STEEL
16	4033	3998	4010	3983	3983	ADAPTOR	1	1	1	1	BRASS
17	NA	NA	NA	NA	NA	COVER	1	1	1	1	CAST STEEL
18	9008	9049	9051	8692	8692	BOLT	12	12	12	16	CARBON STEEL
19	9982	9982	9982	9982	9982	“O” RING	1	1	1	1	NEOPRENE RUBBER
20	2514	2514	2514	2514	2514	PLUG	1	1	1	1	STEEL PLATED
21	8843	-	-	-	-	ALLEN BOLT	-	-	-	6	STAINLESS STEEL

NA - PART REPLACEMENT NOT AVAILABLE
* Stainless Steel is standard supply Bronze is optional supply.
** Ductile Iron is standard supply Bronze/Stainless Steel is optional supply.

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FRICTION LOSS MODEL AG 400-L



* 2.3 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 594 lpm thru DN 50 AG 400-L
* 4.7 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 1308 lpm thru DN 80 AG 400-L
* 4.7 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 2255 lpm thru DN 100 AG 400-L
* 7.5 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 5117 lpm thru DN 150 AG 400-L
* 8.4 PSI Pressure loss @ 15 feet per second (4,57 m/s) velocity having flow of 8854 lpm thru DN 200 AG 400-L

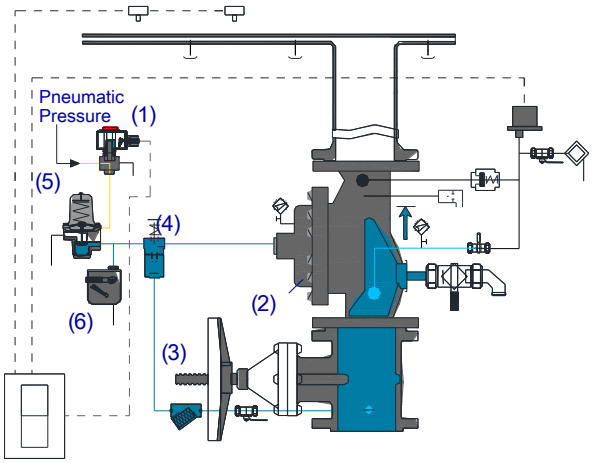
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OPERATION

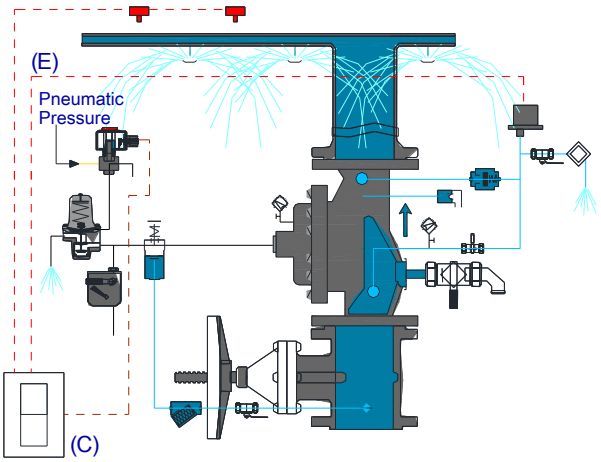
The Model AG 400-L from AG Fire Sprinkler is suitable for systems that include electric fire detection and a piping system with a wide variety of open nozzles. Being electro-pneumatically controlled, the Model AG 400-L is recommended in cases, such as seawater installations, where it is advantageous to keep the solenoid **(1)** dry.

In the SET position, the line-pressure supplied to the main valve's control chamber **(2)** via the priming line **(3)** and through a Manual Reset **(4)** is trapped by the Manual Reset **(4)** internal check valve, by a closed Pneumatic Pressure Operated Relief Valve **(5)**, and a closed Manual Emergency Release **(6)**. The trapped pressure holds the main valve's diaphragm and plug against the valve seat, sealing it drip-tight and keeping the system piping dry. The Pneumatic Pressure Operated Relief Valve **(5)** is held closed by the maintained pneumatic pressure, supplied through the Solenoid **(1)**.

Under FIRE or TEST conditions, an electric detection system **(E)**, through a control panel **(C)**, triggers the Solenoid to release the trapped pneumatic pressure from the Pneumatic Pressure Operated Relief Valve **(5)**, thereby opening it. Pressure is then released from the control chamber through the opened Pressure Operated Relief Valve **(5)**, or the Manual Emergency Release. The Manual Reset **(4)** prevents line-pressure from entering the control chamber, allowing the main valve to latch open and water to flow into the system piping and to the alarm device.



Valve Closed (Set position)



Valve Opened (operating condition)

ORDERING INFORMATION

ASSEMBLED VALVES					
SIZE	VALVE TYPE				
	DUCTILE IRON		STEEL		NICKEL – ALUMINUM – BRONZE
	TRIM TYPE		TRIM TYPE		TRIM TYPE
	GALVANIZED STEEL (175psi)	STAINLESS STEEL AISI316 (250psi)	GALVANIZED STEEL (175psi)	STAINLESS STEEL AISI316 (250psi)	MONEL (250psi)
2" DN50	PDAG400L050EN0	PDAG400L050EN1	PDAG400L050EN2	PDAG400L050EN3	PDAG400L050EN4
3" DN80	PDAG400L080EN0	PDAG400L080EN1	PDAG400L080EN2	PDAG400L080EN3	PDAG400L080EN4
4" DN100	PDAG400L100EN0	PDAG400L100EN1	PDAG400L100EN2	PDAG400L100EN3	PDAG400L100EN4
6" DN150	PDAG400L150EN0	PDAG400L150EN1	PDAG400L150EN2	PDAG400L150EN3	PDAG400L150EN4
8" DN200	PDAG400L200EN0	PDAG400L200EN1	PDAG400L200EN2	PDAG400L200EN3	PDAG400L200EN4

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SEPARATED COMPONENTS			
SIZE	VALVE		
	DUCTILE IRON	STEEL	NICKEL – ALUMINUM – BRONZE
2” DN50	AG400D050U	AG400S050U	AG400N050U
3” DN80	AG400D080U	AG400S080U	AG400N080U
4” DN100	AG400D100U	AG400S100U	AG400N100U
6” DN150	AG400D150U	AG400S150U	AG400N150U
8” DN200	AG400D200U	AG400S200U	AG400N200U

SEPARATED COMPONENTS						
SIZE	TRIM TYPE					
	GALVANIZED STEEL (175psi)		STAINLESS STEEL AISI316 (250psi)		MONEL (250psi)	
	SPARED	PREMOUNTED	SPARED	PREMOUNTED	SPARED	PREMOUNTED
2” DN50	TRDL050080EN0	TRDL050080EN0P	TRDL050080EN3	TRDL050080EN3P	TRDL050080EN4	TRDL050080EN4P
3” DN80	TRDL050080EN0	TRDL050080EN0P	TRDL050080EN3	TRDL050080EN3P	TRDL050080EN4	TRDL050080EN4P
4” DN100	TRDL100200EN0	TRDL100200EN0P	TRDL100200EN3	TRDL100200EN3P	TRDL100200EN4	TRDL100200EN4P
6” DN150	TRDL100200EN0	TRDL100200EN0P	TRDL100200EN3	TRDL100200EN3P	TRDL100200EN4	TRDL100200EN4P
8” DN200	TRDL100200EN0	TRDL100200EN0P	TRDL100200EN3	TRDL100200EN3P	TRDL100200EN4	TRDL100200EN4P

Specify:

Model number	
Type (Actuation)	
Quantity	
Material	
Size of valve	
Flange specification	
Trim materials	
Thread Size	

The equipment presented in this data sheet is to be installed in accordance with the latest published Standards of the national fire protection association (NFPA), FM Global, LPCB, VdS or other similar organizations, also with the provisions of governmental codes or ordinances whenever applicable.
This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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