TECHNICAL BULLETIN









Model 7C00

Detonation Flame Arrestor

OBJECTIVE

The Model 7C00 unstable/overdriven detonation flame arrestor type II is a device that can be fitted to the opening of an enclosure or to the connecting pipe work of a system of enclosures. Its primary function is to allow the flow of gases or vapor of flammable liquids through the enclosure, but prevent the transmission of a flame. The element inside the housing provides an extinguishing barrier to the ignited vapor mixture by absorbing heat from the flame. The Model 7C00 is used as an independent safety system to ensure explosion protection.

TECHNIQUE

7C00 flame arrestors are designed on the principle of "quenching gap". The crimped SST metal element allows vapor to pass through in order to allow a vessel to breath, yet prevents the propagation of a flame from the exposed side to the protected side.

CONSTRUCTION

Housing Material: Carbon Steel, Stainless Steel.

Trim Material: Stainless Steel (1.4571) element. Standard element is suitable for explosion group D flammable gases and vapors. Elements for other gas groups are available upon request.

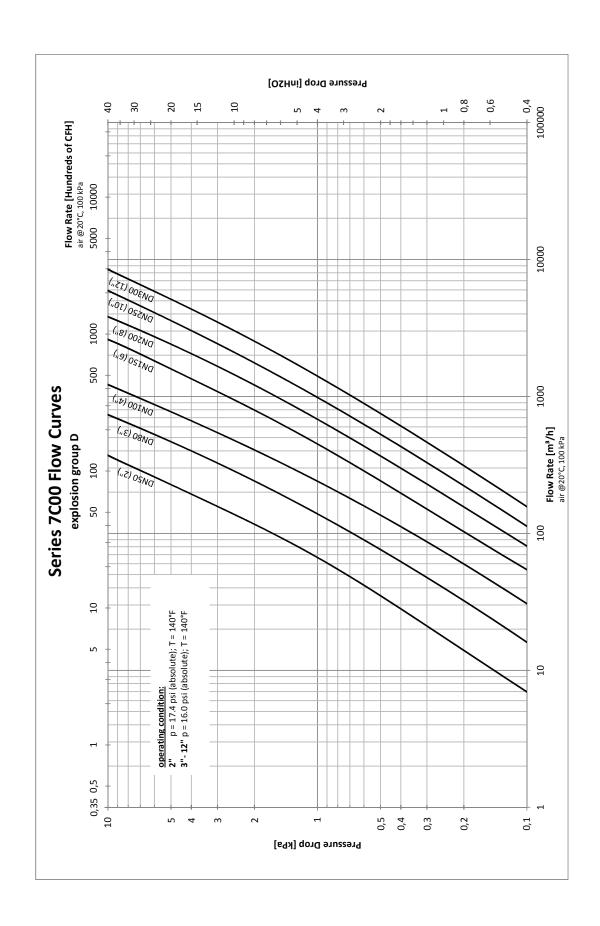
SPECIAL FEATURES

The Model 7C00 is designed, manufactured, and tested according to Title 33, Code of Federal Regulations (CFR), part 154, Appendix A for USCG approved application.

The element design is bidirectional and available for horizontal or vertical installations.

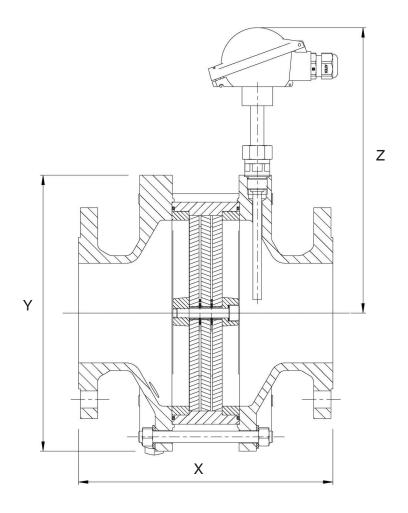
Easy Maintenance: The Model 7C00 detonation flame arrestor is a passive device with no moving parts. The flame cell element can be easily removed for inspection and cleaning in appropriate solvent solution.

Sizes: Units are available in 2", 3", 4", 6", 8", 10", and 12" line sizes; standard flange connections according ASME B16.5 150#RF. Other line sizes are available upon request.



2 7C00-TB

DIMENSIONS AND WEIGHTS



Units - in					
)	(
SIZE	Explosion Group		ØΥ	z	
	D	С			
2"	10.0	-	6.9	9.5	
3"	11.2	-	9.4	10.8	
4"	11.9	-	11.4	11.8	
6"	15.2	-	17.5	15.0	
8"	16.5	-	21.4	16.9	
10"	19.0	-	26.1	19.3	
12"	20.5	-	30.1	21.2	

Units - Ibs			
	Weight		
SIZE	Explosion Group		
	D	С	
2"	37.5	-	
3"	70	-	
4"	95	-	
6"	238	-	
8"	375	-	
10"	760	-	
12"	1090	-	

3

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. We reserve the right to modify or improve the designs or specifications of such product at any time without notice.

Cashco, Inc. does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Cashco, Inc. product remains solely with the purchaser.

7C00 Series PRODUCT CODER

05/28/19



POS 3 & 4 POS 5



POS 7 & 8 POS 9 POS POS 10 & 11 12

POS 13 POS 14 & 15 POS 16



POS 18

POSITION 3 & 4 SIZE / EXPLOSION GROUP		
Size	D	С
Size	CODE	CODE
2"	4F	-
3"	4Y	-
4"	56	-
6"	5E	-
8"	5N	-
10"	5X	-
12"	64	-

POSITION 5 OPERATING CONDITION				
Explosion Group	Size	p _{max.} absolute in psi	T _{max} in ^o F	CODE
D	2"	17.4	≤ 140	2
	3" - 12"	16	≤ 140	1
Consult factory for additional operating conditions.				

POSITION 7 & 8 CASING / ELEMENT / RIM MATERIALS		
Material CODE		
Stainless Steel (1.4571)	0D	

POSITION 9 GASKET MATERIALS	
Material	CODE
NBR	1
FKM	2
EPDM	3
FKM/FEP seamless covered	4

POSITION 10 & 11 HOUSING MATERIALS / CONNECTION		
	ASME(150#RF)	
	CODE	
Carbon Steel (1.0619)	39	
Stainless Steel (1.4581)	99	

POSITION 12 PORTS	
Number / Location	CODE
Two ports G1/2" on each side Std. for all explosion groups and sizes	4

POSITION 14 & 15 TEMPERATURE SENSOR (PT100)				
Quantity	Ex ib 3-wire	Ex ib 3-wire plus transmitter		
,	С	ODE		
None	00	00		
One	01	02		

POSITION 13 MOUNTING KIT MAT'L FOR HOUSING	
Material	CODE
Standard A2 Stainless Steel	2
A4 Stainless Steel	3

CODE

POSITION 18 PAINT	
Color	CODE
No Paint (SST)	0
Red Hempadur Offshore	9

POSITION 16 NAME PLATE

Material / Language SST / English