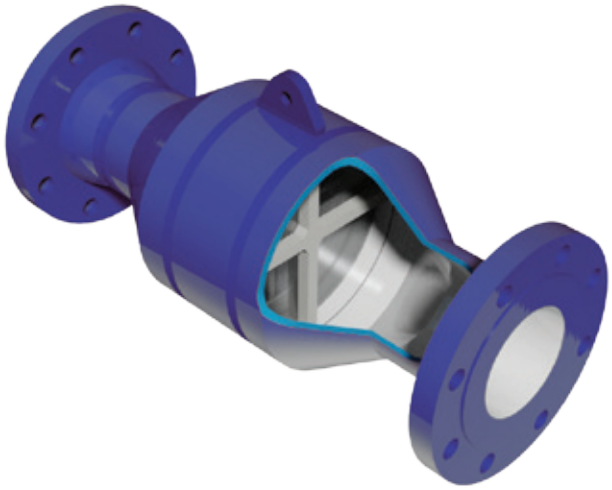
ANDERSON GREENWOOD AMAL LIR/LIRE FLAME ARRESTERS

In-line deflagration flame arresters designed to prevent the propagation of subsonic flames



FEATURES

- Concentric and eccentric model variants available.
- Fabricated housings.
- Advanced crimped stainless steel element construction as standard. Other materials available.
- Mounted vertically or horizontally.
- Uni-directional.
- Can be used in combination with a Marvac pressure/vacuum valve.
- Independently tested and certified.
- Manufactured to ISO 9001:2008.

GENERAL APPLICATION

The LIR/LIRE are used in applications with subsonic flames and mounted in process or vent lines. They can be located in the pipeline or at the end of the pipe vent.

TECHNICAL DATA

Materials:	Carbon steel, stainless steel
Sizes:	DN 6 to 400 (⅛" to 16")
Connections:	Threaded, flanged or plain
Temperature range:	-20° to +165°C (-4° to +329°F)
Gas groups:	IIA, IIB1, IIB2, IIB3, IIB, IIC*
Certification:	ATEX Directive 94/9/EC; PED 97/23/EC; ISO 16852

* Up to and including DN 150 (6")

MATERIALS AND CONNECTION OPTIONS

Materials
Carbon steel and stainless steel.

Connection pipe size

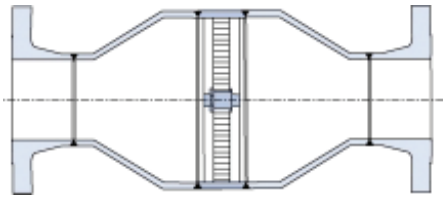
Threaded	DN 6 to 80 (⅛" to 3")
Flanged	DN 15 to 400 (½" to 16")
Plain	DN 20 to 150 (¾" to 6")

Gas groups
- IIA
- IIB1
- IIB2
- IIB3
- IIB
- IIC*

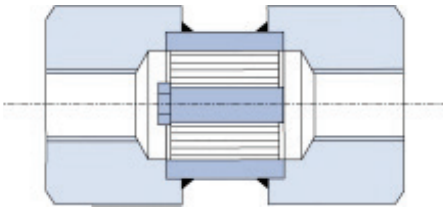
* Only available up to and including DN 150 (6")

NOTE
Accessories, special materials and connections are available on request.

LIR FLANGED* (LF VERSION)



LIR SCREWED (LR VERSION)



* Eccentric variants are available

TEMPERATURE RANGE

Type	Connection	Gas group	Size range	Short burn	Max. temperature	Element
LIR/LIRE	Flanged	IIA	DN 12/400	Yes	-20 /+60°C	1 x 0.8 mm
LIR/LIRE	Flanged	IIB1/IIB3	DN 12/400	Yes	-20 /+60°C	1 x 0.8/0.6 mm
LIR/LIRE	Flanged	IIB	DN 12/400	Yes	-20 /+60°C	1 x 0.45 mm
LIR/LIRE	Flanged	IIC	DN 12/150	Yes	-20 /+60°C	1 x 0.15 mm
LIR/LIRE	Flanged	IIA	DN 12/400	No	-20 /+165°C	1 x 0.6 mm
LIR/LIRE	Flanged	IIB1/IIB3	DN 12/400	No	-20 /+165°C	1 x 0.38 mm
LIR/LIRE	Flanged	IIB	DN 12/400	No	-20 /+165°C	1 x 0.3 mm
LIR/LIRE	Flanged	IIC	DN 12/500	No	-20 /+165°C	1 x 0.15 mm
LIR	Screwed	IIA	DN 6/40	Yes	-20 /+60°C	1 x 0.8 mm
LIR	Screwed	IIB1/IIB3	DN 6/40	Yes	-20 /+60°C	1 x 0.8/0.6 mm
LIR	Screwed	IIB	DN 6/40	Yes	-20 /+60°C	1 x 0.45 mm
LIR	Screwed	IIC	DN 6/40	Yes	-20 /+60°C	1 x 0.15 mm
LIR	Screwed	IIA	DN 6/40	No	-20 /+165°C	1 x 0.6 mm
LIR	Screwed	IIB1/IIB3	DN 6/40	No	-20 /+165°C	1 x 0.38 mm
LIR	Screwed	IIB	DN 6/40	No	-20 /+165°C	1 x 0.3 mm
LIR	Screwed	IIC	DN 6/40	No	-20 /+165°C	1 x 0.15 mm

NOTES
All sizing and selection must be conducted by the factory.
Standard elements are double the pipe size.

SELECTION GUIDE

Example:	LIR	50	LF	100	19	60	S3	S3
Model								
LIR								
LIRE								
Connection diameter, mm (in)								
Threaded								
DN 6 to 40 (⅛" to 1½") - LIR only								
DN 50 to 80 (2" to 3")								
DN 20 to 50 (¾" to 2") - LIR only								
Flanged								
DN 15 to 400 (½" to 16")								
DN 20 to 50 (¾" to 2")								
Plain								
DN 20 to 150 (¾" to 6") - LIR only								
Element code								
LF								
Element diameter, mm (in)								
DN 25 to 50 (1" to 2")								
DN 40 to 600 (1½" to 24")								
DN 50 to 300 (2" to 12")								
Element width, mm (in)								
19 19 mm (0.75")								
38 38 mm (1.5")								
76 76 mm (3.0")								
Cell height, mm (in)								
80 0.80 mm (0.032")								
60 0.60 mm (0.024")								
45 0.45 mm (0.018")								
38 0.38 mm (0.015")								
15 0.15 mm (0.006")								
Element material								
S3 Stainless steel								
C Carbon steel								
Body material								
S3 Stainless steel								
C Carbon steel								