• Mössbauer sources

Cobalt-57 / tin-119 / Te 125m

These sealed sources are deployed in metallurgical analysis using the Mössbauer effect.

Mössbauer spectrometry is widely used in physical, chemical and biological applications to determine the structure of materials and interaction mechanisms.

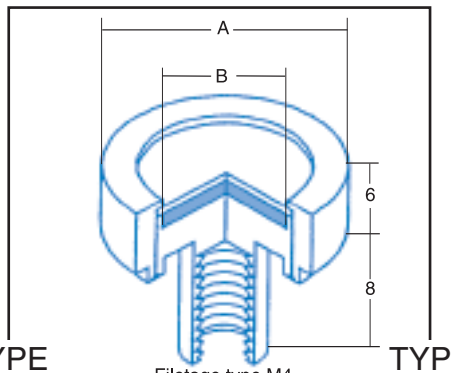
• Technique

The cobalt-57 (^{57}Co) source is prepared by electroplating pure cobalt-57 onto a fine metal matrix, followed by controlled annealing (thickness " 6 µm, diameter 4-8 mm).

Tin-119 (^{119}Sn) is prepared on the basis of a matrix of tin-119m with a high specific activity (>300 mCi/g) and purity over 99.9%.

Standard matrices are made from rhodium. Other matrices are available on request. A brazed beryllium window and a titanium-alloy weld made with argon as the carrier gas provide protection against radioactive contamination of the environment.

• Available holders

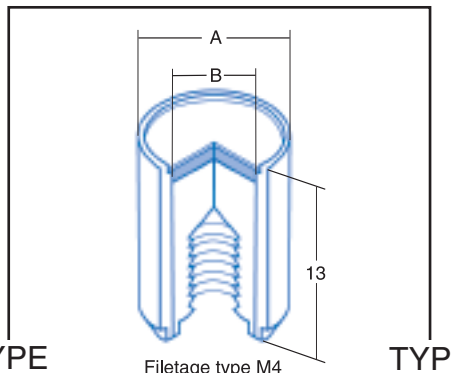


TYPE 1

A: *Outside diameter 14 mm*
B: *Active diameter 10 mm*

TYPE 3

A: *Outside diameter 18 mm*
B: *Active diameter 15 mm*



TYPE 5

A: *Outside diameter 11.2 mm*
B: *Active diameter 10 mm*

TYPE 6

A: *Outside diameter 6 mm*
B: *Active diameter 5 mm*

^{57}CO (half-life 271,77 days)

Product code	Nominal activity* MBq	mCi	Holder	Matrix
CO57MCo7.112	370	10	3	rhodium
CO57MCo7.113	925	25	3	rhodium
CO57MCo7.114	1850	50	3	rhodium
CO57MCo7.115	3700	100	3	rhodium
CO57MCo7.122	370	10	1	rhodium
CO57MCo7.123	**925**	**25**	**1**	**rhodium**
CO57MCo7.124	**1850**	**50**	**1**	**rhodium**
CO57MCo7.125	3700	100	1	rhodium

Classification ISO 2919 C54344

^{119}Sn (half-life 293,1 days)

Product code	Nominal activity* MBq	mCi	Holder	Matrix
SN119MSn9.112	185	5	1	SnO_2
SN119MSn9.212	185	5	1	$CaSnO_3$
SN119MSn9.113	370	10	1	SnO_2
SN119MSn9.213	**370**	**10**	**1**	**$CaSnO_3$**
SN119MSn9.133	370	10	3	SnO_2
SN119MSn9.233	370	10	3	$CaSnO_3$
SN119MSn9.114	555	15	1	SnO_2
SN119MSn9.134	555	15	3	SnO_2
SN119MSn9.234	555	15	3	$CaSnO_3$
SN119MSn9.135	740	20	3	SnO_2
SN119MSn9.235	740	20	3	$CaSnO_3$

Classification ISO 2919 C54243

^{125m}Te (half-life 54,7 days)

Product code	Nominal activity* MBq	mCi	Type of package
MTe5.11	370 to 3700	10 to 100	1
MTe5.13	370 to 3700	10 to 100	3
MTe5.15	370 to 3700	10 to 100	5
MTe5.16	370 to 3700	10 to 100	6

Classification ISO 2919 C54344

Legend:

** tolerance ± 10 %*

To order: see Commercial Information on pages I.1 – I.5 of the INFORMATION section