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## Gamma Radiography

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## Film Evaluation

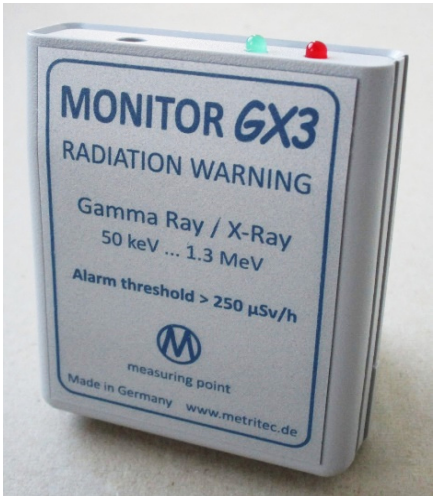
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Radiation Warning Equipment

01-0703 **MONITOR GX3**  
 Personal radiation alarm  
 for Gamma and X-Ray radiation  
 50 keV - 1.3 MeV  
 incl. alkaline battery 1.5V AA/LR6

NEW: with standard alkaline battery;  
 device self-test during power-up



available in English version:

01-0770 **MONITOR GX-Re** Radiation warning device  
 for Gamma and X-Ray radiation  
 stationary area monitoring system with  
 external probe and 20m connection cable



*Note: Installation and assembly may only be carried out by a qualified electrician in accordance with the national standard. Wiring diagram enclosed.*

Isotope Handling Tongs

09-0012 **Isotope handling tongs 1 metre long**

09-0010 **Isotope handling tongs 1.5 metres long**

09-0011 **Isotope handling tongs 2 metres long**



Warning Tapes

Barrier tape roll dispenser ...



now available in two sizes:

- ▶ **50 meters** *standard length*
- ▶ **100 meters** *NEW - on request*

synthetic fabric tape 40 mm wide:

- ▶ extremely tear-resistant and weatherproof
- ▶ with radioactive symbol
- ▶ in several language versions

- 08-0062 ... **German version acc. StrSchV und RöV**  
"Kein Zutritt Röntgen Kontrollbereich -  
Vorsicht Strahlung Radioaktiv"
- 08-0067 ... **German version acc. RöV**  
"Kein Zutritt Röntgen - Kontrollbereich kein Zutritt"
- 08-0069 ... **German version acc. StrSchV**  
"Vorsicht Strahlung - kein Zutritt Kontrollbereich"
- 08-0068 ... **English version**  
"STOP RADIATION - KEEP OUT"
- 08-0064 ... **Dutch version**  
"STRALINGSGEVAAR - GEEN TOEGANG  
VOOR ONBEVOEGDEN"
- 08-0065 ... **Italian version**  
"PERICOLO RADIAZIONI - ZONA CONTROLLATA  
E SORVEGLIATA"



Remote Controls & Spare Parts

02-0310 **Remote control MTC III, 10 m complete Ir/Se**  
drive cable length 14.10 m

02-0315 **Remote control MTC III, 15 m complete Ir/Se**  
drive cable length 19.10 m

height-adjustable stand of stainless steel  
with integrated spiral pipe for cable return:

- ▶ max. driving distance 3.80 m
- ▶ durable construction
- ▶ favorable maintenance
- ▶ convenient operation  
working height up to 83 cm  
(see picture)



02-0110 **Remote control MTC I, 10 m complete Ir/Se**  
drive cable length 19.80 m

02-0115 **Remote control MTC I, 15 m complete Ir/Se**  
drive cable length 29.80 m

with 2-piece stand of powder-coated steel

- ▶ double hose version (long cable return)
- ▶ proven standard system



02-0010 **Remote control 10 m, complete Ir/Se**  
without stand

02-0015 **Remote control 15 m, complete Ir/Se**  
without stand

- ▶ double hose version (long cable return)

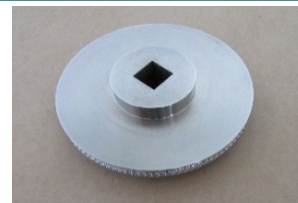


02-0021 **Gear box** 11mm square, with steel wheel

02-0020 **Gear box** 11mm square, with die cast wheel



02-0023 **Drive gear** 11mm square of stainless steel



02-0022 **Drive gear** 11mm square of die cast zinc



02-0025 **Crank handle** 11mm square with ball stop



02-1031 **Gear box** internal serration, with steel wheel

02-1030 **Gear box** internal serration, with die cast wheel



02-1033 **Drive gear** serrated of stainless steel



02-1032 **Drive gear** serrated of die cast zinc



02-1036 **Crank handle** serrated shaft with retaining screw





02-1037 **Crank handle** with serrated bolt and screw



02-0070 **Double hose clamp**, aluminium



02-0080 **Plate** for remote control  
02-0081 **Screw** for plate (M12x1)



02-0090 **Remote control quick connector**, M12x1



02-0096 **Protective plug** for remote control with clasp for double hose RC, quick connector fitting



02-0097 **Protective plug** for remote control with plate for single hose RC, quick connector fitting



04-0204 **Wrench** for quick connector, powder coated



02-1093 **Remote control connector** NUC 53 mm, threaded coupling M12x1



**Cable Hoses & Drive Cables**

**Cable guide hoses** for remote controls (M12x1)

- 02-0035 Cable hose 5 m
- 02-0045 Cable hose 10 m
- 02-0055 Cable hose 15 m



Drive cables for all established systems, with ball pin and safety terminal tensile load tested to min. 70 kg



**Drive cables** extra flexibel Ir/Se (GA, short ball pin) (variant Generation I)

- 02-0714 Length 14.1 m (e.g. for MTC III 10 m)
- 02-0719 Length 19.1 m (e.g. for MTC III 15 m)
- 02-0720 Length 19.8 m (for RC 10 m)
- 02-0730 Length 29.8 m (for RC 15 m)



**Drive cables** Ir/Se (GA, variant Gen. II)

- 02-0740 Length 19.8 m
- 02-0750 Length 29.8 m



**Drive cables** Co (GA, long ball pin)

- 02-0619 Length 19.1 m
- 02-0630 Length 29.8 m



**Drive cables** NUC (major ball pin):

- 02-1120 Length 19.8 m
- 02-1130 Length 29.8 m
- 02-1135 Length 35 m



▶ other lengths available on request

**Guide Tubes & Connectors**

**Guide tubes flexible, M18x1.5**

- 04-0051 Length 1 m
- 04-0058 Length 1.5 m
- 04-0052 Length 2 m
- 04-0059 Length 2.5 m
- 04-0053 Length 3 m
- 04-0055 Length 5 m
- 04-0056 Length 10 m



**Guide tubes adjustable, M14x1**

- 04-0453 Length 1 m
- 04-0454 Length 2 m
- 04-0455 Length 3 m
- 04-0456 Length 5 m
- 04-0457 Length 10 m



- 04-0072 **Guide tube connector SE/Exertus, M18x1.5**



- 04-0090 **Guide tube quick connector Iridium, M18x1.5**



- 04-0204 **Wrench** for quick connector,  
powder coated



- 04-0206 **Clutch** for quick connector (M18)





04-0201 **Double nipple** 2x M18x1.5

▶ for connecting two guide tubes



04-0203 **Threaded sleeve** M18x1.5

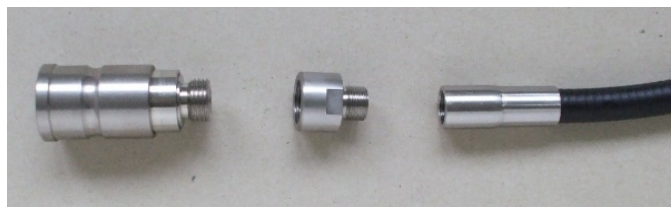


04-0207 **Threaded sleeve** M14x1



04-0458 **Transition fit** M14x1/M18x1.5

▶ as threaded transition required e.g.  
for the guide tube adjustable



- 04-1041 Guide tube NUC, green plastic hose L: 1.5 m
- 04-1045 Guide tube NUC, green plastic hose L: 2.0 m
- 04-1042 Guide tube NUC, green plastic hose L: 3.0 m
- 04-1043 Guide tube NUC, green plastic hose L: 4.5 m

▶ equipped with quick connector and source terminal



- 04-1031 Guide tube NUC, green plastic hose L: 1.5 m
- 04-1035 Guide tube NUC, green plastic hose L: 2.0 m
- 04-1032 Guide tube NUC, green plastic hose L: 3.0 m
- 04-1033 Guide tube NUC, green plastic hose L: 4.5 m

▶ equipped with quick connector coupling



- 04-1091 **Quick connector** NUC, tube connector with stop



- 04-1092 **Quick connector** NUC internal thread G3/8" with stop



- 04-1093 **Hose connector** NUC



- 04-1026 **Tube connector** NUC (tube - G3/8")



Guide Tube Extensions

04-0210 **Extension set 200 - 1000 mm, M18x1.5**  
allows 6 different tube lengths

set consisting of 3 tubes (200, 300, 500 mm)  
2 sleeves and 2 threaded connectors



04-0230 **Steel extension tube 300 mm, M18x1.5**



04-0250 **Steel extension tube 500 mm, M18x1.5**



04-0280 **Steel extension tube 840 mm, M18x1.5**

**NEW:** Extension tubes with internal thread connection  
for source terminals (no additional sleeve required)



04-0238 **Steel extension tube 385 mm IG, M18x1.5**

▶ suitable for Centering device 1.2

04-0251 **Steel extension tube 500 mm IG, M18x1.5**

▶ suitable for Centering device 1.0 / 1.1



04-0281 **Steel extension tube 840 mm IG, M18x1.5**

▶ suitable for Centering device 2.1



application example as inner tube for Centering device 1.1

Source Terminals

04-0173 **Source terminal Se** 120 mm, M18x1.5



04-0175 **Source terminal Se** 300 mm, M18x1.5

▶ sleeve jointed



04-0177 **Source terminal Se** 540 mm, M18x1.5

- ▶ weld jointed
- ▶ also available in 890 mm and 1050 mm
- ▶ suitable for our Centering devices



04-0182 **Source terminal Ir/Co** 85 mm, M18x1.5



04-0190 **Source terminal Ir/Co** 300 mm, M18x1.5



04-0195 **Source terminal Ir/Co** 500 mm, M18x1.5

▶ suitable for Centering device 1.0 / 1.1



04-0198 **Source terminal Ir/Co** 850 mm, M18x1.5

▶ suitable for Centering device 2.1



04-0199 **Source terminal Ir/Co** 1000 mm, M18x1.5

04-0421 **Source terminal Se 110 mm, M14x1**

▶ other lengths available



04-0431 **Source terminal Ir 80 mm, M14x1**

▶ other lengths available



04-1070 **Source terminal NUC 105 mm, tube connection**



04-1060 **Source terminal NUC 90 mm (G3/8")**



04-1081 **Source terminal NUC 90 mm, with quick connector**



04-1063 **Source terminal NUC 300 mm (G3/8")**

04-1065 **Source terminal NUC 500 mm (G3/8")**



04-1083 **Source terminal NUC 300 mm, with quick connector**

04-1085 **Source terminal NUC 500 mm, with quick connector**

▶ also available in 850 mm and 1000 mm  
▶ suitable for our Centering devices



04-2049 **Source terminal SEN 495 mm, male thread 1"-18**

▶ suitable for Centering device 1.0 / 1.1

04-2086 **Source terminal SEN 865 mm, male thread 1"-18**

▶ suitable for Centering device 2.1





**Tungsten Collimators**

05-0110 **Ir192 Tungsten pipe collimator 120°**

▶ easy plug-in for all established front emitting source terminals

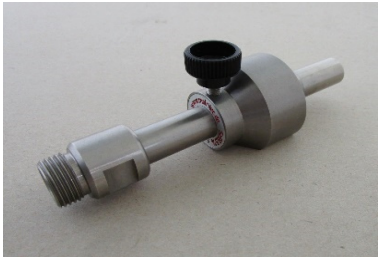


05-0171 **Se75 Tungsten plug-on collimator side emission 80°**



05-0172 **Se75 Tungsten plug-on collimator 80° full set including source terminal captively integrated, 360° rotatable**

▶ 'clamping zone' suitable for use with ellipse tongs



05-0176 **Collimator holder ring with rod for Se75 plug-on collimator 2-part**



*example of use*

Positioning Devices: Ellipse clamping tongs

06-0103 **Ellipse clamping tongs 460**, hydraulic support with mounting prism, FFD 0 - 460 mm for pipe diameters 10 - 90 mm OD



06-0104 **Ellipse clamping tongs 560**, hydraulic support with mounting prism, FFD 0 - 560 mm for pipe diameters 10 - 90 mm OD



06-0105 **Ellipse clamping tongs 750**, hydraulic support with mounting prism, FFD 200 - 750 mm for pipe diameters 10 - 90 mm OD



06-0107 **Ellipse clamping tongs 510**, mechanical fixture with mounting prism, FFD 0 - 510 mm for pipe diameters 10 - 90 mm OD



**Ellipse clamping tongs by METRITEC**

- ▶ for the positioning of gamma radiography sources and collimators
- ▶ equipped with hydraulic or mechanical fixture arm
- ▶ clamping of all joints by central locking
- ▶ mounting prism for source terminals up to  $\varnothing 18.5$  mm
- ▶ maximum clamping force appr. 7 kg
- ▶ special wishes can be considered

TIP: Hydraulic or mechanical fixture arms?

The hydraulic fixture is very convenient to use, because the greatest clamping force is achieved even with a slight tightening of the handwheel, while the mechanical fixture requires a much greater hand force to tighten all joints firmly. On the other hand, the mechanical clamping requires less maintenance and is stable regardless of the ambient temperature. In contrast, the hydraulic clamping does not tolerate large temperature fluctuations. Also, with hydraulics, there are a few things to keep in mind to ensure proper function: To protect the seals, do not overtighten the handwheel. Make sure that the oil is always topped up and that the joints are dry and free of grease.

Special designs on request, examples:

06-0110 **Ellipse clamping tongs HP**, hydraulics, mounting plate for pipes 10 - 90 mm OD, FFD 0 - 460 mm

*special here: mounting plate with bore  $\varnothing$ 10 mm*



06-0112 **Ellipse clamping tongs SC 035**, hydraulic support for pipes 10 - 90 mm OD, FFD 0 - 560 mm

*special here:  
universal super clamp*



06-0103 SO **Ellipse clamping tongs 395**, hydraulic support with mounting prism, FFD 0 - 395 mm for pipe diameters 10 - 90 mm OD

*special here: half length extension segment*



06-0108 **Ellipse clamping tongs 440**, hydraulic support with mounting prism, FFD 0 - 440 mm for pipe diameters 10 - 90 mm OD

*special here: without extension segment*



06-0113 **Ellipse clamping tongs** with long hydr. arm "550" with mounting prism, for pipes 10 - 90 mm OD

*special here: extra long hydraulic fixture and without extension segment*



06-0106 **Ellipse tongs construction kit 830**, 4-piece set for pipes 10 - 90 mm OD, FFD 0 - 830 mm  
four various lengths can be combined  
tools included, robust transport case



06-0061 **Safety locking spindle**  
for retrofitting ellipse clamping tongs

- ▶ reliable protection against rotation and loss, e.g. during tasks with large leverage or heavy load



Spare parts available from us, for example:

06-0021 **Handwheel for hydraulics**, star knob M12



06-0022 **Hydraulic piston** with sealing ring Ø7mm



For the maintenance of hydraulic fixtures:

06-0053 **Hydraulic fluid HLPD 32**, small bottle 30 ml



06-0055 **Service Spray** 500 ml, cleaner & degreaser





Positioning Devices: Magnetic holders etc.

06-0125 **Strong magnetic positioner TR 580**  
 featuring hydraulic support, FFD 0 - 580 mm  
 for flat or pipe surfaces, OD 25 - 200 mm (1" - 8")  
 Tested pull-off force: >300 kg, Weight: 2.4 kg  
 supplied in a robust transport case



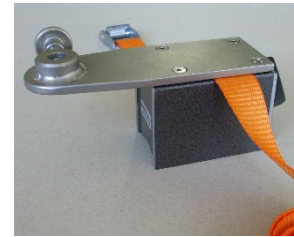
06-0127 **Positioning assistance kit:**  
**Strong magnetic holder & locking pipe clamp**  
 hydraulic fixture, screwable extension segments  
 versatile to combine, tools included  
 supplied in a robust transport case



examples of use

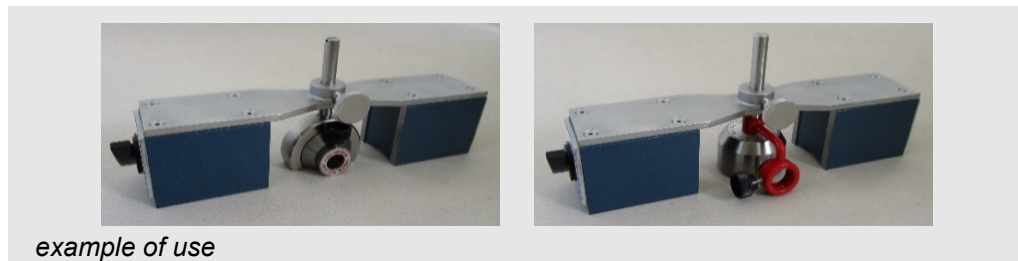
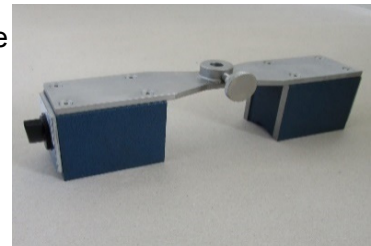
06-0140 **Magnet saddle** with collimator holder plate and safety tension belt

Positioning assistance for collimators.  
Switchable magnet with prism for pipes up to 100 mm OD



06-0142 **Double magnet saddle** with collimator holder plate

Two switchable magnets with prism for pipes up to 100 mm OD



06-0150 **Collimator positioning belt** for non-magnetic or coated pipes 100 - 400 mm OD

*example of use: mounted with collimator holder ring 05-0176*



### Positioning Devices: Film retaining straps

**Elastic strap** with clamping buckle,  
width: 25 mm

- 06-0605 length 0.5 m
- 06-0610 length 1.0 m
- 06-0615 length 1.5 m
- 06-0620 length 2.0 m



▶ other lengths available

Positioning Devices: Centering jigs

06-0200 **Centering device 1.0** for pipes 90 - 310 mm ID  
(3.5" - 12")



06-0210 **Centering device 1.1** for pipes 105 - 420 mm ID  
(4" - 16")

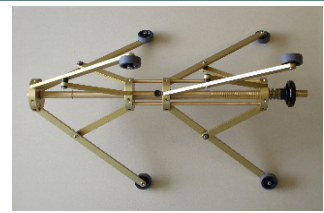


06-0220 **Centering device 1.2** for pipes 90 - 318 mm ID  
(3.5" - 12.5")

▶ extra short version, 340 mm in length



06-0310 **Centering device 2.1** for pipes 250 - 900 mm ID  
(10" - 35")



06-0410 **Extensions** for Centering device 2.1  
for pipe diameters of 900 - 1400 mm (35" - 55")  
6-part, equipped with plastic rollers



▶ easy screwing to the base arms  
by cross handles

*example of use:  
Centering device 2.1 stretched  
with mounted extensions*



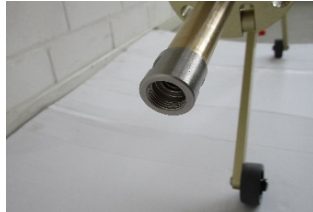
**Centering devices by METRITEC**

Our Centering devices are intended to use as mechanical positioning assistance for gamma radiography sources in pipes. The spring pressure of the arms is adjustable. For universal fit the basic unit is empty inside and supplied without any connectors. Therefore, as complementary accessory an appropriately long source terminal is needed, corresponding to the type of gamma ray projector which is used.

The source terminal can simply be slide through the centering device and be locked by the centre screw. Suitable for source terminals or steel extension tubes up to 15 mm OD.

06-0351 **Centering device 3.0** for pipes 200 - 600 mm ID (7.5" - 24")  
type 'Metriflex' for cylindrical or conical pipes  
complete, including source guide tube M18x1.5

▶ self-tensioning centering jig



*front connection for source terminal*



*rear connection for guide tube*





Densitometer

07-0400 **DENSIT-RT6** Hand-probe Densitometer  
incl. calibration certificate and batteries

Measuring range: diffuse optical density 0 - 5.0  
Sensor aperture diameter: 3 mm  
Powered by 4 batteries 1.5V AA (LR6)



- ▶ high measuring accuracy & stability
- ▶ user-friendly keypad
- ▶ HOLD function
- ▶ 3-level display backlighting
- ▶ extra function: digital calibration
- ▶ flexible probe cable
- ▶ robust plastic housing, IP65
- ▶ CE-marking



07-0608 **Reference density strip, BAM-approved**  
with certificate

