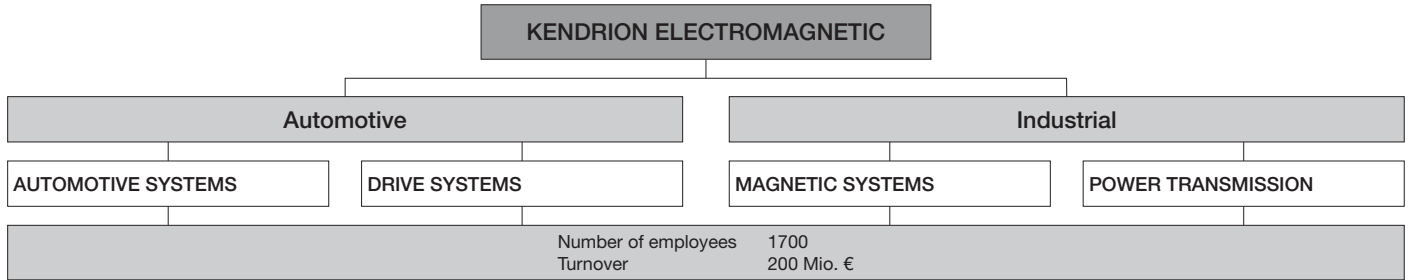




HAHN CQ^{LINE}

Who we are

Kendrion Electromagnetic designs, develops and produces electromagnetic components for almost every conceivable application. We manufacture standard off the shelf products as well as highly customised solutions to suit individual requirements. A modern enterprise with a global perspective has been formed from the amalgamation of the traditional brands of Binder, Thoma Magnettechnik, Neue Hahn Magnet and Linnig Antriebstechnik. Customer satisfaction is based upon the company structure. The four business units which respond to particular market needs offer optimal service to the customer.



As a part of the Dutch holding company Kendrion N.V. the Kendrion Electromagnetic Group is one of the worldwide leading manufacturers of electromagnetic components. Kendrion Electromagnetic – consisting of the 4 business units Automotive Systems, Drive Systems, Magnetic Systems and Power Transmission – guarantees solution-oriented customer service. Innovative ability and highest productivity characterize the group.



Kendrion Electromagnetic has successfully united the brands Binder, Linnig Antriebstechnik, Magnet AG, Neue Hahn Magnet and Thoma Magnettechnik. In the tradition of these successful brands, creative and committed employees develop premium products.

Mission

- We operate in partnership with our global customers.
- We are proud to be constantly developing our company.
- We are open-minded, reliable and helpful.
- We have the courage to open up new paths.

Be inspired by the “Spirit of Magnetism”!

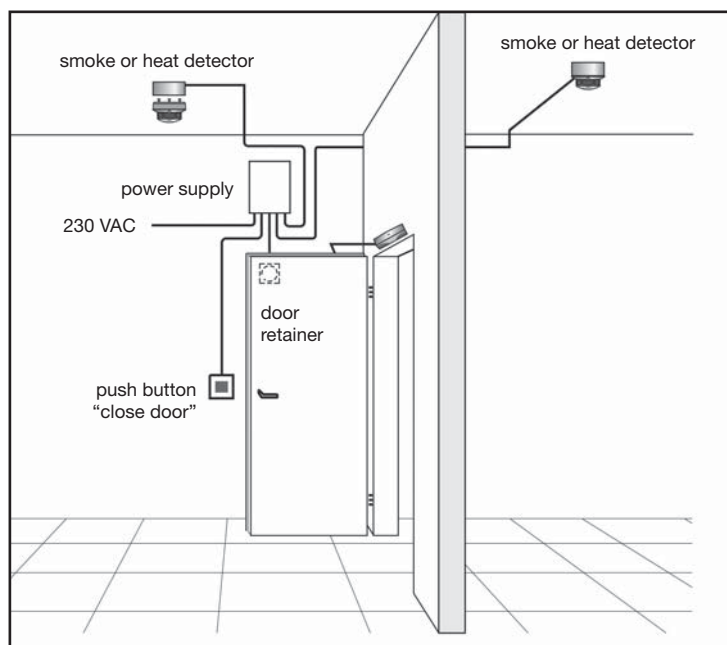
The production of the following “door retainer Line” takes place at the German manufacturing location Inzigkofen-Engelswies (formerly the company Hahn-Magnet), who have been working very successfully in this area since the 1960’s.

In 1952 the engineer Fred Hahn founded the company Hahn Magnet in Engelswies (Baden). In 1966 the name was changed to Neue Hahn Magnet because the company was taken over by Magnet AG Switzerland, (also today part of the Kendrion Electromagnetic Group). In 2001 Neue Hahn Magnet merged with the company then named Thoma Magnettechnik GmbH within the holding company Kendrion, thus forming the business unit Magnetic Systems.

HAHN D.C Door Retainer Magnets CQ^{LINE}

D.C Door Retainer Magnets for the HAHN CQ^{LINE} are primarily used as hold open devices for fire protection exclusions (fire protection swing doors, rolling gates, fire shutters with self locking devices). The fire door is normally held in the open state to allow easy passage and access through busy corridors etc. Controlled by a fire detection or smoke protection control unit, the door retainer releases the door when the power is cut and the over-door closer quickly closes the fire door automatically to prevent the spread of fire and smoke throughout the building. Integrated into the design is a spring loaded anti-remenance pin which ensures zero residual holding force when the magnet is de-energised, thus enabling faster closing of the fire door.

The door retainer can be mounted to the wall, to the floor or to the ceiling behind the door. Due to the large product range almost any requirement profile can be met. The counterpart is the armature (keeper plate) which is mounted to the door. Both standard models and models that allow for flexible adjustment or even spring damped models are available.



The illustration shows an example of the complete installation on a fire proof exclusion where the fire door is held open by the retainer magnet. The retainer magnet serves as a locking device which is mounted on the wall behind the door. Two ceiling mounted detectors monitor the areas around the fire door.

As a part of Kendrion Electromagnetic, HAHN magnet has been manufacturing door holding solenoids since the 1960's and is considered as one of the innovators of this type of retaining device. Over the years, continual innovation in design and technology has led to a leading position. A further milestone was the introduction of a world novelty, the new line HAHN CQ^{STAR}. HAHN magnet stands for quality, efficiency and user-friendliness. Quality in fire protection can save lives and is considered as a primary requirement to installation. Depending upon the line HAHN door holding magnets are quality tested by the VdS in Cologne according to the regulations of the German institute of Structural Engineering ("Deutsches Institut für Bautechnik") resp. tested according to the Eurocode ("Euronorm") EN1155.

Apart from the classic application door holding solenoids can also be used as locking devices for standard, house or business doors – wherever a door needs to be kept open safely as a passageway. The stylish versions of the new CQ^{STAR} line offer completely new design options for architects: the variable selection of colours and surfaces as well as the integrated LED-illumination are unique features in this respect.

EN Classification	: Position 1 = Range of Application	Public
35 ³ ₅ 113	Position 2 = Test Cycles	50,000
	Position 3 = Locking Size	Door Closer 3-5
	Position 4 = Suitability of Application	Fire-/Smoke Protection Doors
	Position 5 = Safety	Only 1 class defined
	Position 6 = Resistance to Corrosion	High Resistance

CQ^{LINE} – Overview

HAHN CQ^{STAR}



Market	World with respect to design, innovation, quality and technology
Features	<ul style="list-style-type: none"> ▪ Novelty ▪ Registered Design
Approvals	VdS quality-tested according to EN1155
Diodes	Reverse polarity protection diode + spark suppressing diode
Installation Size	50 mm diameter base magnet
Supply	24 V DC, according to customer requirements
Holding force	490 N
Power	1.5 Watt
Keeper plate	Choice available

HAHN CQ^{SAFE}



Market	Germany, in terms of approvals concerning building inspection World, for special requirements in terms of quality and installation (protection class, versions, etc.)
Features	Vacuum cast coil, VdS quality-tested according to EN1155, optimized design and quality
Diodes	Reverse polarity protection diode + spark suppressing diode
Installation size	42 mm, 50 mm, 63 mm, 70 mm diameter base magnet
Supply	24 V DC
Holding force	300 N – 1568 N
Power	1.5 Watt – 3 Watt
Versions	100
Keeper plate	Choice available

HAHN CQ^{STANDARD}



Market	Europe, World
Features	Pressed coil, tested according to EN1155, cost-optimized and -oriented
Diodes	Reverse polarity protection diode + spark suppressing diode
Installation size	48 mm diameter base magnet
Supply	24 V DC, 48 V DC, 230 V AC
Holding force	400 N resp. 200 N
Power	1.6 Watt @ 24 V, 48 V & 230 V
Versions	6
Keeper plate	Flexible angle adjustment version included in delivery

Generally all magnets have at least protection class IP42. The base magnets of the CQ^{SAFE} and CQ^{STAR} lines have at least protection class IP65. Beyond the standard versions and with a special product range of more than 100 versions we can also meet requirements such as EX-protected, versions for ships, etc.

HAHN CQ^{STAR}



This line represents the premium segment of the HAHN door holding magnets, its USP being design and innovation. They are used wherever visual appearance, design and top quality set standards. Apart from the standard application as a locking device within a central fire alarm system these models can also be used to keep doors open in much frequented public areas. The door holding magnet is used as a design element here. The product range offers a wide selection for architects to choose from.

- VdS quality-tested according to EN1155
- Magnetic head swivels from floor to wall-mounting
- Integrated LED at point of rotation with choice of colour
- Different surface finish
- Colour can be selected from the palette
- Base magnet spring damped to cushion the impact
- Design patent registered
- Patent for function pending
- Integrated reverse polarity protection diode and spark suppressing diode
- Preferred voltage 24 V

Type	Dimensions mm (floor/wall)	Voltage V	Force N	Watt	ED%	VdS-No.
GTR050150A00	140 x 71 x (180/248)	24	490	1,5	100	23097



Colours (anodized)

01	black-grey
02	slate-grey
03	gentian-blue
04	turquoise
05	signal-violet
06	red-violet
07	strawberry-red
08	amber
09	gold
10	silver



Surface finish silver (unless a colour is selected)

11	Gloss Anodized Natural
12	Gloss Chrome
13	Nirox Texture Galvanic
14	Nirox Galvanic



LED

01	white
02	blue
03	green
04	yellow
05	red

Example for orders:

GTR050150A00: Colour/Surface: 02 slate-grey, LED: 04 yellow

HAHN CQ^{SAFE}

The models of this line are generally vacuum-potted with casting resin, the basic device having protection class IP65. The magnets are quality-tested according to the respective VdS-numbers and are therefore subject to sample taking by the VdS twice a year. Furthermore, the installation sizes are tested according to EN1155 in compliance with the European regulations. The individual production steps are subject to a monitored, quality-oriented production process. With an experience of more than 45 years in this area the line has been steadily optimized.

All models (with the partial exception of magnets with feedback) are equipped with two integrated diodes (spark suppressing and reverse polarity protection).



Basis

Different options with respect to mounting and electrical connection available.

GT..R001 = without mounting plate

GT..R002 = with mounting plate

Electrical Connection

.01 = free strands, with inverse-polarity protection (photo)

.11 = terminal clamp, inverse-polarity protection

.31 = norm connector, inverse-polarity protection

.33 = norm connector with rectifier

Example

GT50R002.01 = Magnet diameter 50 with mounting plate and free strands

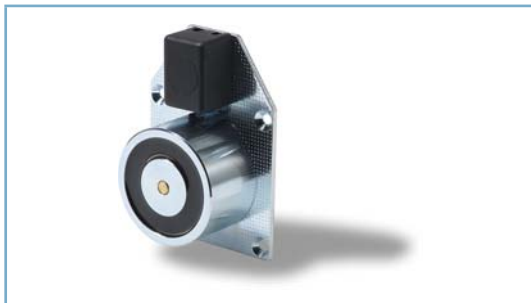
Stock type without mounting plate:

GT..R001.01 (free strands) – acc. to photo

Stock type with mounting plate:

GT..R002.11 (with clamp) – acc. to photo

Type	Diameter x Height	Voltage V	Force N	Watt	ED%	Mounting Plate	VdS-No.
GT42R	42 x 25	24	300	1.5	100	55 x 55 x 5	23055
GT50R	50 x 30	24	490	1.5	100	55 x 55 x 5	23097
GT50R	50 x 30	24	588	3.0	100	55 x 75 x 5	under examination
GT63R	63 x 30	24	700	1.5	100	75 x 75 x 8	23049
GT70R	70 x 35	24	1372	1.5	100	75 x 75 x 8	23098
GT70R	70 x 35	24	1568	3.0	100	75 x 75 x 8	under examination



Steel Mounting Plate with Clamp

The base magnet is mounted on a steel mounting plate. The serial electrical connection is a two-pole terminal clamp on the plate allowing for an easy installation. These types are primarily used in locking devices at sliding gates.

Type	Diameter x Height Base Magnet	Voltage V	Force N	Watt	ED%	Mounting Plate	VdS-No.
GT40R018	40 x 20	24	300	1.8	100	73 x 45 x 3	23043
GT50R153	50 x 30	24	490	1.5	100	93 x 65 x 3	23097
GT60R018	60 x 23	24	686	1.6	100	93 x 65 x 3	23099
GT60R018	60 x 23	24	800	2.1	100	93 x 65 x 3	23070
GT71R018	70 x 35	24	1372	1.5	100	103 x 75 x 3	23098

HAHN CQ^{SAFE}



In-Wall

For mounting behind the door in customary flush-mounted sockets. This allows for a low installation height and an inconspicuous, elegant appearance.

Type	Dimensions mm	Voltage V	Force N	Watt	ED%	VdS-No.
GT42R090	85 x 85 x 25	24	300	1.5	100	23055
GT50R090	85 x 85 x 30	24	490	1.5	100	23097
GT50R090	85 x 85 x 30	24	588	3.0	100	under examination
GT63R090	85 x 85 x 30	24	700	1.5	100	23049



On-Wall

Model for wall-mounting. The use of the plastic PA6 with a 30% portion of fibre glass guarantees high stability. A manual release button is integrated. Electrical connection either from the rear side or through robust cable connections allowing for a later installation.

Model GT..R061 = Closed housing

Connection rear side

Model GT..R062 = 2 cable connections PG9

Type	Dimensions mm	Voltage V	Force N	Watt	ED%	VdS-No.
GT50R06X	105 x 85 x 37,5	24	490	1.5	100	23097
GT50R06X	105 x 85 x 37,5	24	588	3.0	100	under examination
GT63R06X	105 x 85 x 37,5	24	700	1.5	100	23049
GT70R06X	105 x 85 x 42,5	24	1372	1.5	100	23098
GT70R06X	105 x 85 x 42,5	24	1568	3.0	100	under examination



Base

This magnet is equipped with base bracket. Alternatively, in the case of an installation size of 50mm, a different version in an elegant aluminium housing for highest visual and mechanical requirements (anti-vandalism) is available.

Type	Dimensions mm	Voltage V	Force N	Watt	ED%	VdS-No.	Housing
GT50R060	121 x 121 x 86	24	490	1.5	100	23097	PA6 30%GF
GT50R060	121 x 121 x 86	24	588	3.0	100	under examination	PA6 30%GF
GT63R060	121 x 121 x 86	24	700	1.5	100	23049	PA6 30%GF
GT70R060	121 x 121 x 86	24	1372	1.5	100	23098	PA6 30%GF
GT70R060	121 x 121 x 86	24	1568	3.0	100	under examination	PA6 30%GF
GT50R020	109 x 121 x 86	24	490	1.5	100	23097	Aluminium

HAHN CQ^{SAFE}



Aluminium Swivel Head, Brilliant Design

Applicable for floor, ceiling and wall-mounting. The customer can easily turn the anodized aluminium swivel head from wall to floor resp. ceiling mounting. The tube can be shortened to 110 resp. 145 mm so that almost all distances between door and wall can be bridged.

Type	Dimensions mm (floor/wall)	Voltage V	Force N	Watt	ED%	VdS-No.
GT50R089	90 x 80 x (150/185)	24	490	1.5	100	23097
GT50R089	90 x 80 x (150/185)	24	588	3.0	100	under examination
GT50R089	90 x 80 x (300/335)	24	490	1.5	100	23097
GT50R089	90 x 80 x (300/335)	24	588	3.0	100	under examination
GT50R089	90 x 80 x (450/485)	24	490	1.5	100	23097
GT50R089	90 x 80 x (450/485)	24	588	3.0	100	under examination



Plastic Swivel Head

Applicable for floor, ceiling and wall-mounting. The customer can easily turn the plastic swivel head.

Type	Dimensions mm (floor/wall)	Voltage V	Force N	Watt	ED%	VdS-No.
GT50R080	70 x 70 x (150/175)	24	490	1.5	100	23097
GT50R079	90 x 80 x (300/325)	24	490	1.5	100	23097
GT50R079	90 x 80 x (450/475)	24	490	1.5	100	23097



Distance Tube, Wall Mounting

Designed exclusively for wall mounting. Due to the wide product range distances from 65 mm (similar to CQ^{STANDARD} "on-wall") to 450 mm can be realized. With magnet diameters of 63 and 70 mm also suitable for heavy doors!

Type	Dimensions mm (wall)	Voltage V	Force N	Watt	ED%	VdS-No.
GT50R081	70 x 70 x (65)	24	490	1.5	100	23097
GT50R109	90 x 80 x (150)	24	490	1.5	100	23097
GT63R019	90 x 80 x (150)	24	700	1.5	100	23049
GT63R019	90 x 80 x (300)	24	700	1.5	100	23049
GT63R019	90 x 80 x (450)	24	700	1.5	100	23049
GT70R019	90 x 80 x (150)	24	1372	1.5	100	23098
GT70R019	90 x 80 x (300)	24	1372	1.5	100	23098
GT70R019	90 x 80 x (450)	24	1372	1.5	100	23098



Explosion-Proof Model

According to: EX IIG Eex me II T6
 Certificate: TÜV 01 ATEX 1778X-
 GT50R050.01 (ed1475/5 D) as well as GT70R050.01

Connection within cast housing via connector clamps
 Approved for 24 V DC, max. current 325 mA
 Range of application: zones 1, 2

For EX-protected magnets only approved and chemically nickel-plated keeper plates may be used, according to the standard types, but with designations GT..R105, GT..R106, GT..R107, because chemically nickel-plated.

Type	Dimensions mm	Voltage V	Force N	Watt	ED%	VdS-No.
GT50R050	130 x 117 x 106	24	588	3,0	100	23103
GT70R050	130 x 117 x 106	24	1568	3,0	100	23104



Ship Model

Certificate: Germ. Lloyd: No. 70 319-76 HH
 For installation on ships or outdoor. Protection Class IP56 according to DIN 40 050

Type	Dimensions mm	Voltage V	Force N	Watt	ED%	VdS-No.
GT50R038	236 x 95 x 60	24	490	1.5	100	23097
GT50R038	236 x 95 x 60	24	588	3.0	100	under examination
GT70R022	236 x 95 x 60	24	1372	1.5	100	23098
GT70R022	236 x 95 x 60	24	1568	3.0	100	under examination



Feedback for Position Monitoring

The function of the magnet (door open or closed) is monitored by a micro-switch. Application particularly in safety systems. Further models from our special programme (also monitored with Hall sensor) upon request.

Type	Dimensions mm (floor/wall)	Voltage V	Force N	Watt	ED%	VdS-No.	Other
GT50R071	93 x 65 x 42	24	490	1.5	100	23097	
GT50R072	93 x 65 x 42	24	490	1.9	100	23096	
GT50R099	90 x 80 x (150/175)	24	490	1.5	100	23097	swivel head, without inverse-polarity protection
GT50R099	90 x 80 x (300/325)	24	490	1.5	100	23097	swivel head, without inverse-polarity protection
GT50R099	90 x 80 x (450/475)	24	490	1.5	100	23097	swivel head, without inverse-polarity protection
GT50R132	65 x 65 x 47	24	490	1.5	100	23097	
GT70R066	75 x 75 x 55	24	1372	1.5	100	23098	

HAHN CQ^{STANDARD}

This line represents the standard and worldwide segment of the HAHN Door Holding Magnets, where the highest standards and quality of VdS are not a prime requirement. Whilst offering here market orientated pricing, the products have been designed and manufactured with no compromise on the overall quality, hence they are approved to EN1155 in accordance with European legislations. The models in this line basically come with a pressed coil and anti-remenance pin, giving a basic protection of IP54. All models are equipped with a spark suppression diode and reverse polarity protection diode. The plastic housings in the case of wall mounted versions are manufactured from the material Bayblend and containing 30% PA6 glass fibre they are much stronger than standard ABS plastic. Kendrion Electromagnetic always prides itself on the quality of its products and the Hahn CQ^{STANDARD} line compliments perfectly the CQ^{STAR} and CQ^{SAFE} lines because the visual appearance was paramount in the design and manufacturing process.



Basis

Version with terminal clamp and mounting plate
 Integrated reverse polarity protection diode and spark suppressing diode
 Tested according to EN1155
 Magnet IP54; connection IP42

Type	Dimensions mm	Voltage V	Holding Force	Watt	ED %	Other
GTR048000A01	55 x 55 x 33	24 DC	400 N	1.6	100	



In-wall

For mounting behind the door in conventional flush-mounted sockets. Thereby a low installation height is achieved.
 Integrated reverse polarity protection diode and spark suppressing diode
 Tested according to EN1155
 Magnet IP54; connection IP42

Type	Dimensions mm	Voltage V	Holding Force	Watt	ED %	Other
GTR048000A03	85 x 85 x 35	24 DC	400 N	1.6	100	



Universal

Manual release button changeable from the base side to left or right. Cable entry possible from rear side resp. by means of enclosed exits from the base side, left or right. With brackets (accessories) optional floor or wall mounting
 Integrated reverse polarity protection diode and spark suppressing diode
 Tested according to EN1155
 Magnet IP54; connection IP42

Type	Dimensions mm	Voltage V	Holding Force	Watt	ED %	Other
GTR048000A07	110 x 85 x 38	24 DC	400 N	1.6	100	
GTR048000A08	110 x 85 x 38	230 AC	400 N	1.6	100	
GTR048000A09	110 x 85 x 38	24 DC	400 N	1.6	100	position indicator
GTR048000A13	110 x 85 x 38	24 DC	200 N	1.6	100	
GTR048000A14	110 x 85 x 38	48 DC	200 N	1.6	100	
GTR063000A07	110 x 85 x 38	24 DC	1000 N	3.0	100	



Accessories
Wall mounted bracket

GTR048000A07800
GTR048000A07900

This bracket is particularly suitable for models GTR048000A07, A08, A09, A13, A14 as well as for GTR063000A07. Therefore, this basic magnet model can be universally used for floor mounting with distance tube.

GTR048000A07800 = tube length 150 mm
GTR048000A07900 = tube length 300 mm



Accessories
Floor mounted bracket

GTR048000A12006

This base is particularly suitable for models GTR048000A07, A08, A09, A13, A14 as well as for GTR063000A07. Therefore, this type of magnet can also be used for floor mounting. The magnet can either be mounted within the side plates (protection against vandalism) resp. in opposition (standard). Due to the thickness of the metal this base is also suitable for heavy-duty demands (schools, etc.).



On-wall

With manual release button
Alternative model for bridging bigger distances between door and wall
Integrated reverse polarity protection diode and spark suppressing diode
Tested according to EN1155
Magnet IP54; connection IP42

Type	Dimensions mm	Voltage V	Holding Force	Watt	ED %	Other
GTR048000A06	70 x 70 x 65	24 DC	400 N	1.6	100	



Distance

Magnet swivel head can be easily turned by customer. Therefore floor and wall mounting's possible. Distance tube can be shortened by customer in order to adapt the distance as required. Three basic lengths for different distances to wall
With manual release button
Integrated reverse polarity protection diode and spark suppressing diode
Tested according to EN1155
Magnet IP54; connection IP42

Type	Dimensions mm (floor/wall)	Voltage V	Holding Force	Watt	ED %
GTR048000A10	90 x 80 x (150/175 mm)	24 DC	400 N	1.6	100
GTR048000A10	90 x 80 x (300/325 mm)	24 DC	400 N	1.6	100
GTR048000A10	90 x 80 x (450/475 mm)	24 DC	400 N	1.6	100

General Accessories



Keeper Plate

The keeper plate, mounted to the door, effects an electro-magnetic connection between the holding magnet and the door. The plate is flexibly mounted to the bolting plate, thus balancing a possibly tilted stop bracket (max. 5°).

The keeper plate has to be selected according to the size of the door holding solenoid. GT42R etc. The diameter of the plate should exceed the solenoid to allow for easy installation. The holding surface is ground and then protected against corrosion by means of zinc plating (EX model, chemically nickel-plated).

Type	Dimensions mm	Diameter Plate mm	Other
GT42R005	55 x 55 x 18	45	
GT50R005	55 x 55 x 18	55	
GT63R005	75 x 75 x 23	65	
GT70R005	75 x 75 x 26	75	
GT50R105	55 x 55 x 18	55	EX-Model
GT70R105	75 x 75 x 26	75	EX-Model



Keeper Plate with Angle Adjustment

This model is designed for applications where the door has a stop bracket. Due to the joint the keeper plate can be adjusted and set with 60° each into the respective direction. Surface ground and protected against corrosion. With the CQ^{STANDARD} Line the type is customarily included in delivery.

Type	Dimensions mm	Diameter Plate mm	Other
GT42R006	55 x 55 x 50	45	
GT50R006	55 x 55 x 50	55	
GT63R006	75 x 75 x 55	65	
GT70R006	75 x 75 x 56	75	
GT50R106	55 x 55 x 50	55	EX-Model
GT70R106	75 x 75 x 56	75	EX-Model



Telescopic Keeper Plate

The actual plate is supported in a cushioned way by means of an integrated spring (spring travel 20 mm). This design is of advantage with heavy doors resp. sliding doors because it cushions unavoidable heavy impacts and thus protects the door holding magnet and the door against destruction. The stop should not exceed 5°.

Type	Dimensions mm	Diameter Plate mm	Other
GT42R007	55 x 55 x 79	45	
GT50R007	55 x 55 x 79	55	
GT63R007	75 x 75 x 81	65	
GT70R007	75 x 75 x 84	75	
GT50R107	55 x 55 x 79	55	EX-Model
GT70R107	75 x 75 x 84	75	EX-Model

General Accessories



Interrupter Switches GTU 05 and GTU 06

Interrupter rocker switches to activate retainer devices at fire-protection doors

Labelling acc. to IfB	: "Close door"
Housing	: Plastic
Contact load	: max. 0.5 Amp., DC
Ambient temperature	: 0° to +50° C
Colour Frame	: White
Switch	: Red
On-wall mounting	: Switch body with 2 bolts 4 mm at the wall
In-wall mounting	: in Ø 60 mm flush-mounted socket
Type designation	: GTU 05 = on-wall mounting GTU 06 = in-wall mounting GTU 07 = model for damp locations IP44



Interrupter Switch (EX) GTU 08

Model 8040/...

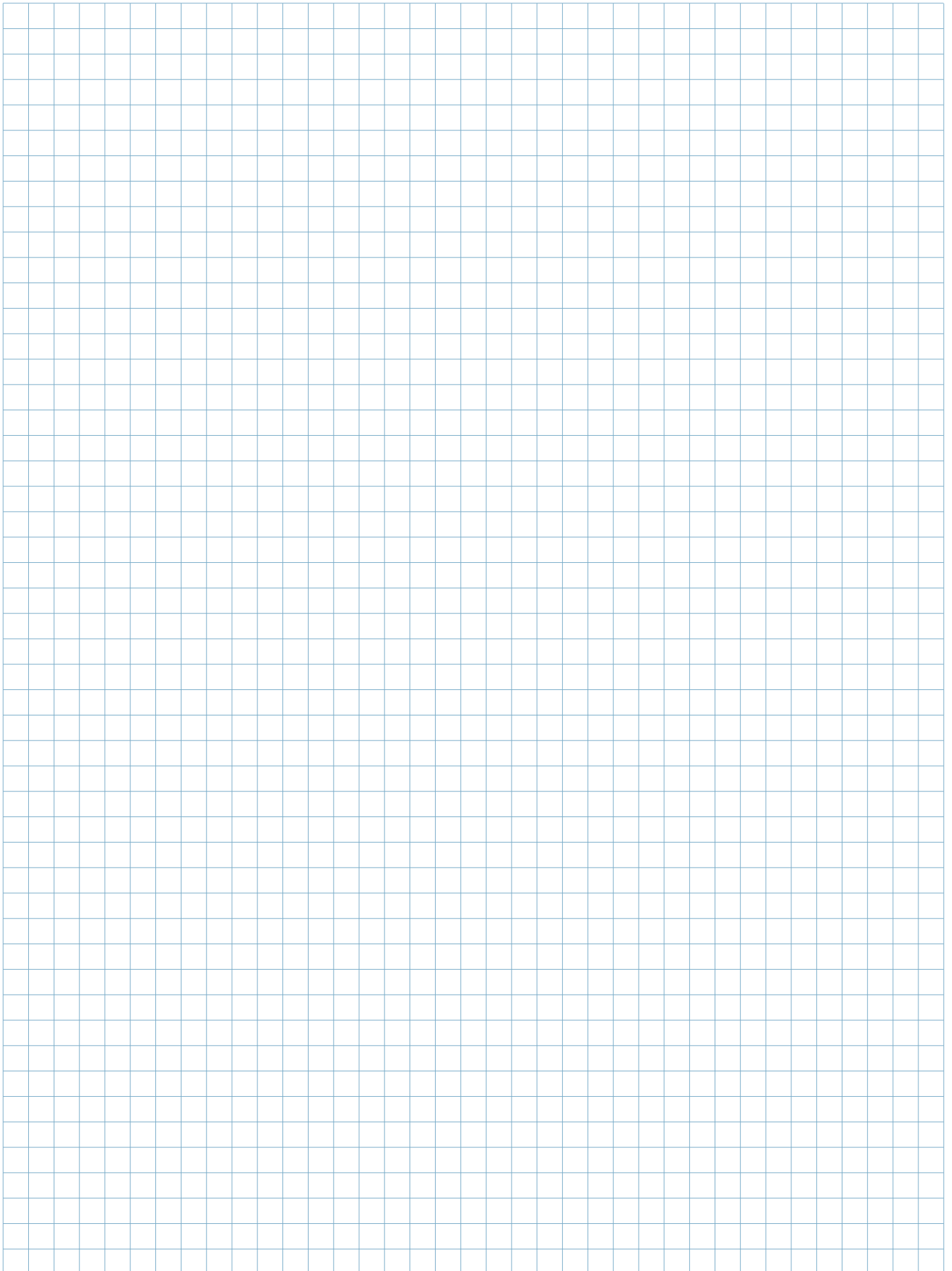
Interrupter push button for manual activation of retainer devices at fire protection exclusions in explosive areas. – Guideline 94/9/EG

Designation of explosion protection:

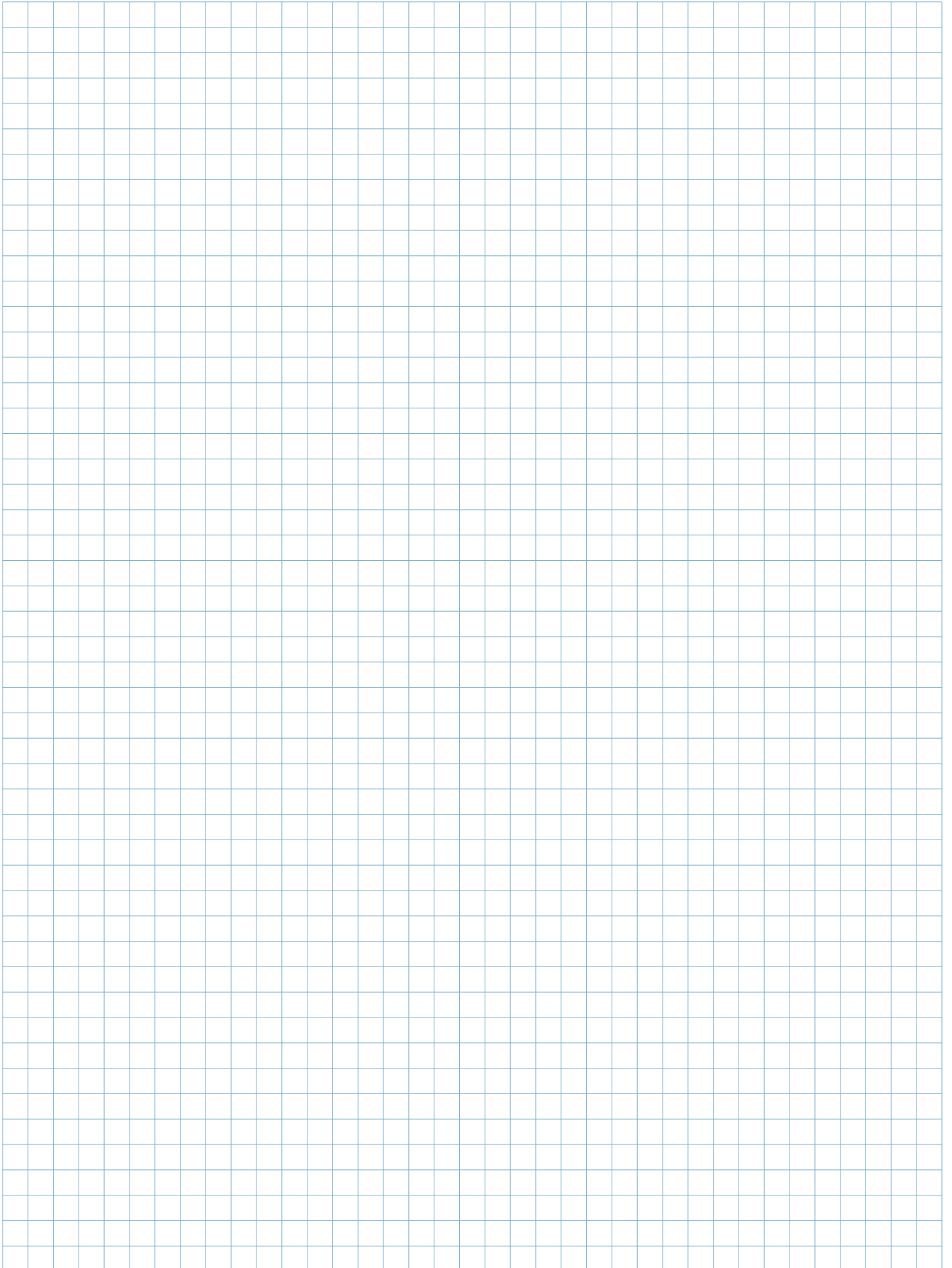
EX II 2 G EEx edqm ia/ib (ia/ib) II, IIA, IIB, IIC, T6, T5 resp. T4

Test report	: PTB Ex 01-11181
EG-prototype test certificate	: PTB 01 ATEX 1105
Rated voltage	: max. 690 V
Approval	: Zone 1 and Zone 2
Material Housing	: polyester resin (fibre glass)
Sealing	: EPDM
Closing of lid	: M4 cylinder head bolts
Protection class	: IP 66
Connection per clamp	: 2.5 m ²
Ambient temperature	: -20° bis + 40° C
Bush	: 1 x M25 cable connection
Colour of push button	: red or green, internal inserts
Labelling acc. IfB	: "Close door" is enclosed

Notes



Notes





You have not found what you were looking for?

For any questions please contact our professional team!

Kendrion Magnettechnik GmbH

August-Fischbach-Strasse 1

78166 Donaueschingen

Germany

Phone: +49 771 8009-3199

Fax: +49 771 8009-3190

Werk Engelswies

Fred-Hahn-Strasse 33

72514 Inzigkofen-Engelswies

Germany

Phone: +49 7575 208-3199

Fax: +49 7575 208-3190

www.kendrion-electromagnetic.com

magnetic-systems@kendrion.com