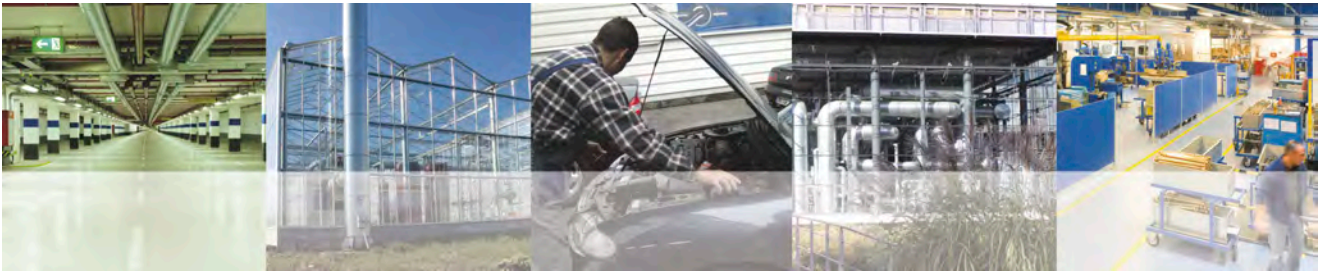




Product information
**Flow -
sight glass, flap, ball**



Characteristics

System

- Sight glass, Flap, Ball

Evaluating

- Display

Nominal widths

- DN 8..50

Range

- 0,1..250 l/min

Media

- Water, Oils

Pressure resistance

- max. 16 bar

Temperature

- bis 200 °C

Function and benefits

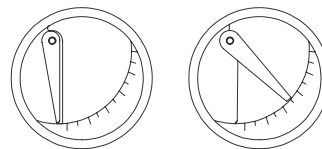
The liquid medium enters the sight glass and can be visually checked for quality and consistency.

Applications

- Visual flow control of fluids
- Test equipment
- Filling plants

Flap

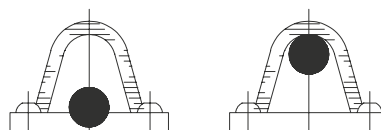
The position of the flap can be read on a scale.



The flap indicates the position in the sight glass.

Ball

A ball in a glass dome shows that flow is present. The device design is also applicable for gases. Function: Yes/No display



With its position in the sight glass, the ball indicates a trend of the flow value.

Device overview

Device	Principle	Range l/min	Pressure resistance in bar	Medium temperature	Materials	Connection	Page
FH	Sight glass	0..65	PN 16	-20..+200 °C	Red bronze	G ½..G 1	5
ON	Sight glass	0..40	PN 6	-20..+70 °C	Brass	G ¼..G ½	6
OW	Sight glass	0.250	PN 16	-20..+70 °C	Brass	G ¼..G 1	7
WO1	Sight glass	0..220	PN 16	-20..+100 °C	Brass or stainless steel	G ¼..G 1½	8
FQ	Flap	2,1..24	PN 16	-20..+200 °C	Red bronze	G ½..G 1	9
FK	Flap	5..56	PN 16	-20..+170 °C	Tin bronze	G ½..G 2	10
SK	Flap	3..195	PN 16	-20..+170 °C	Tin bronze	G ½..G 2	11
BL	Ball	10,3..23	PN 16	-20..+200 °C	Stainless steel	G ¼..G 1½	12
Accessories	○ ZV / ZE (Filter)						13

Errors and technical modifications reserved.

Flow Indicator FH-...GR



- No moving parts internally
- Installation location as desired
- For heavily soiled or coloured fluids
- Double-sided large-surface window
- Natural glass

Characteristics

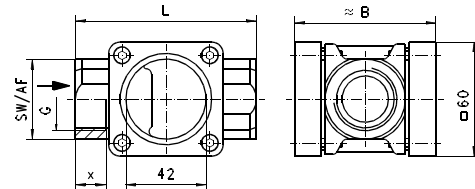
Devices made from solid red bronze, where the medium can be visually examined through the sight glass (fluid level, colour, bubbles,...).

Technical data

Nominal width	DN 15..25
Process connection	female thread G 1/2..G 1
Q_{max.}	G 1/2 - 25 l/min G 3/4 - 45 l/min G 1 - 65 l/min
Pressure resistance	PN 16 bar
Medium temperature	0..100 °C water -20..+200 °C oils
Ambient temperature	-20..+100 °C
Materials medium-contact	Rg 5, CW614N, soda lime glass, Klingsil C4400
Medium	water, oils
Weight	see table "Dimensions and weights"
Installation location	as desired

Dimensions and weights

G	Types	L	B	SW	X	Weight kg
G 1/2	FH-015GR	85	68	38	14	1.20
G 3/4	FH-020GR					1.10
G 1	FH-025GR	95	74	42	16	1.25



Ordering code

FH - 1. 2. 3.
G R

1. Nominal width	015	DN 15 - G 1/2
	020	DN 20 - G 3/4
	025	DN 25 - G 1
2. Process connection	G	female thread
3. Connection material	R	red bronze

Flow Indicator ON-...GM



- No moving parts internally
- For heavily soiled or coloured fluids
- Natural glass

Characteristics

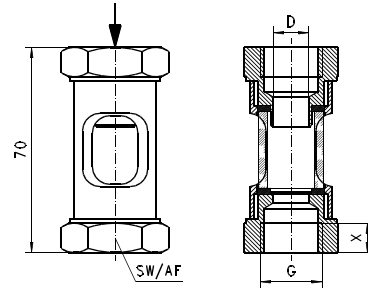
Devices made from solid brass, where the medium enters from above, and so can be visually examined through the sight glass (colour, bubbles, amount...). The device has a drip nozzle for the inspection of small flow rates.

Technical data

Nominal width	DN 8..15
Process connection	female thread G 1/4..G 1/2
Q_{max.}	G 1/4 - 15 l/min G 3/8 - 20 l/min G 1/2 - 40 l/min
Pressure resistance	PN 6 bar
Medium temperature	-20..+70 °C
Ambient temperature	-20..+70 °C
Materials medium-contact	CW614N pickled, natural glass
Medium	water, oils
Weight	see table "Dimensions and weights"
Installation location	vertical inwards flow from above; other installation arrangements without drip nozzle function.

Dimensions and weights

G	Types	D	SW	X	Weight kg
G 1/4	ON-008GM	5	19	12	0.08
G 3/8	ON-010GM	8	27	11	0.16
G 1/2	ON-015GM	12	32	10	0.20



Ordering code

ON - 1. 2. 3.
ON - **G** **M**

1. Nominal width		
008	DN 8 - G 1/4	
010	DN 10 - G 3/8	
015	DN 15 - G 1/2	
2. Process connection		
G	female thread	
3. Connection material		
M	brass	

Flow Indicator OW-...GM



- No moving parts internally
- Installation location as desired
- For heavily soiled or coloured fluids
- Natural glass, acrylic glass

Characteristics

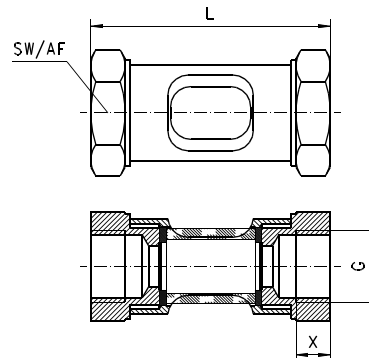
Devices made from solid brass, where the medium can be visually examined through the sight glass (fluid level, colour, bubbles,...).

Technical data

Nominal width	DN 8..50
Process connection	female thread G 1/4..G 2
Q_{max.}	G 1/4 - 15 l/min G 3/8 - 20 l/min G 1/2 - 30 l/min G 1 - 90 l/min G 1 1/2 - 220 l/min G 2 - 250 l/min
Pressure resistance	PN 6 bar
Medium temperature	-20..+70 °C
Ambient temperature	-20..+70 °C
Materials medium-contact	DN 8..15 - CW614N pickled, natural glass DN 25..50 - CW614N nickelled, acrylic glass
Medium	water, oils
Weight	see table "Dimensions and weights"
Installation location	as desired

Dimensions and weights

G	Types	L	SW	X	Weight kg
G 1/4	OW-008GM	70	19	12	0.08
G 3/8	OW-010GM		27	11	0.16
G 1/2	OW-015GM		32	10	0.20
G 1	OW-025GM	90	46	19	0.82
G 1 1/2	OW-040GM	130	60	23	1.40
G 2	OW-050GM	148	65	25	1.50



Ordering code

OW - 1. 2. 3.
OW - **G** **M**

1. Nominal width	
008	DN 8 - G 1/4
010	DN 10 - G 3/8
015	DN 15 - G 1/2
025	DN 25 - G 1
040	DN 40 - G 1 1/2
050	DN 50 - G 2
2. Process connection	
G	female thread
3. Connection material	
M	brass

Flow Indicator WO1-...GM / K



- No moving parts internally
- Internal wiper provides ability to clean the glass without removing the device.
- Installation location as desired
- For heavily soiled or coloured fluids
- 360 ° visibility

Characteristics

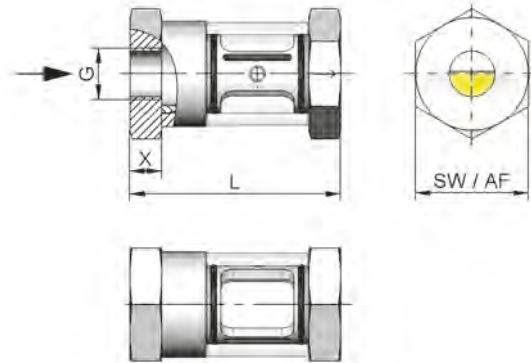
Devices made from solid brass or stainless steel, where the medium can be visually examined through the sight glass (fluid level, colour, bubbles, ...). A wiper makes it possible to clean the sight glass.

Technical data

Nominal width	DN 8..40	
Process connection	female thread G 1/4..G 1 1/2	
Q_{max.}	G 1/4 - 15 l/min G 3/8 - 20 l/min G 1/2 - 30 l/min G 3/4 - 60 l/min G 1 - 90 l/min G 1 1/4 - 150 l/min G 1 1/2 - 220 l/min	
Pressure resistance	PN 16 bar	
Medium temperature	-20..+100 °C	
Ambient temperature	-20..+70 °C	
Materials medium-contact	<i>Brass construction:</i> CW614N nickelled, borosilicate glass, NBR	<i>Stainless steel construction:</i> 1.4305, borosilicate glass, FKM
Medium	water, oils	
Weight	see table "Dimensions and weights"	
Installation location	as desired	

Dimensions and weights

G	Types	L	SW	X	Weight kg
G 1/4	WO1-008G.	71	36	9	0.3
G 3/8	WO1-010G.				
G 1/2	WO1-015G.	86	46	13	0.6
G 3/4	WO1-020G.				
G 1	WO1-025G.				
G 1 1/4	WO1-032G.	120	65	19	1.5
G 1 1/2	WO1-040G.	130		20	1.6



Ordering code

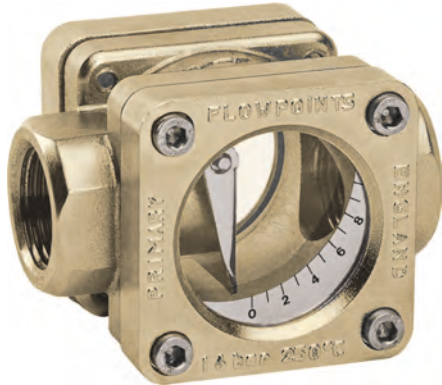
WO1 - 1. 2. 3.
G

1. Nominal width	
008	DN 8 - G 1/4
010	DN 10 - G 3/8
015	DN 15 - G 1/2
020	DN 20 - G 3/4
025	DN 25 - G 1
032	DN 32 - G 1 1/4
040	DN 40 - G 1 1/2
2. Process connection	
G	female thread
3. Connection material	
M	brass
K	stainless steel

Options

- Wiper seal made from EPDM

Flow Indicator FQ-...GR



- High temperature resistance
- Double-sided large-surface window
- Natural glass
- Display of flow rate

Characteristics

Mechanical flow indicator for fluid media. A stainless steel flap in the area of flow is lifted by the volume flow, and indicates the present flow rate.

Technical data

Nominal width	DN 15.0.25	
Process connection	female thread G 1/2..G 1	
Display range	2.5..65 l/min	for details see table "Ranges"
Q _{max.}	to 65 l/min	
Pressure resistance	PN 16 bar	
Media temperature	0..+100 °C water -20..+200 °C oil	
Ambient temperature	-20..+100 °C	
Materials medium-contact	Rg 5, CW614N, 1.4310, 1.4305, Soda lime glass, Klingersil C4400	
Materials, non-medium-contact	aluminium	
Medium	water (oil available on request)	
Weight	see table "Dimensions and weights"	
Installation location	Standard: Horizontal inwards flow from the left; optionally inwards flow from below, installation position affects the range.	

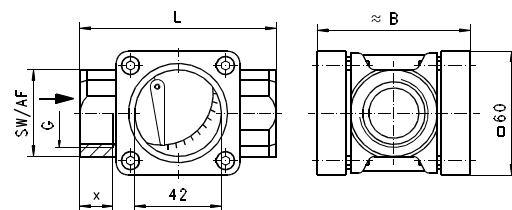
Ranges

Details in the table correspond to horizontal inwards flow with decreasing flow rate.

G	Display range l/min H ₂ O	Q _{max.} recommended	Types
G 1/2	2.1 - 17.0	25	FQ-015GR
G 3/4	2.1 - 20.0	45	FQ-020GR
G 1	2.1 - 24.0	65	FQ-025GR

Dimensions and weights

G	Types	L	B	SW	X	Weight kg
G 1/2	FQ-015GR	85	68	38	14	1.20
G 3/4	FQ-020GR					1.10
G 1	FQ-025GR	95	74	42	16	1.25



Scaling

Scale divisions 1 to 10.

Display range l/min H ₂ O	Scale divisions									
	1	2	3	4	5	6	7	8	9	10
2.1 - 17	2.1	3.2	3.8	4.3	4.7	5.0	5.7	7.5	9.5	17.0
2.1 - 20	2.1	3.2	4.5	5.2	5.6	6.3	7.5	8.9	11.6	20.0
2.1 - 24	2.1	4.0	5.0	7.0	7.8	9.1	11.1	14.0	17.8	24.0

Ordering code

FQ - 1. 2. 3. 4.
G R

1. Nominal width	
015	DN 15 - G 1/2
020	DN 20 - G 3/4
025	DN 25 - G 1
2. Process connection	
G	female thread
3. Connection material	
R	red bronze
4. Display range	
017	2,1 – 17 l/min H2O
020	2,1 – 20 l/min H2O
024	2,1 – 24 l/min H2O

Flow Indicator FK-...GR



- High temperature resistance
- Double-sided large-surface window
- Natural glass
- Visualisation of the flow rate

Characteristics

Mechanical flow indicator for fluid media. A plastic flap in the area of flow is lifted by the volume flow, and indicates the present flow rate.

Technical data

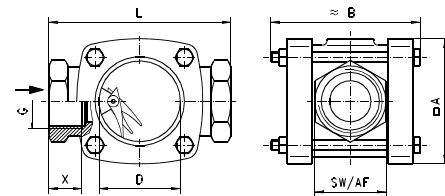
Nominal width	DN 15..50	
Process connection	female thread G 1/2..G 2	
Display range	5..250 l/min	for details see table "Ranges"
Q_{max.}	to 250 l/min	
Pressure resistance	PN 16 bar	
Media temperature	0..+100 °C water -20..+170 °C oil	
Ambient temperature	-20..+100 °C	
Materials medium-contact	cast tin bronze, grey iron, crown hardened glass, Flexicarb with nickel reinforcement, 1.4436, PA 6.6	
Medium	water (oils available on request)	
Weight	see table "Dimensions and weights"	
Installation location	Standard: Horizontal inwards flow from the left; optionally inwards flow from below, installation position affects the range.	

Ranges

G	Approx. inflow rate l/min H ₂ O	Q _{max.} recommended	Types
G 1/2	5	25	FK-015GR
G 3/4	7	40	FK-020GR
G 1	14	60	FK-025GR
G 1 1/2	27	120	FK-040GR
G 2	56	250	FK-050GR

Dimensions and weights

G	Types	L	A	B	D	SW	X	Weight kg
G 1/2	FK-015GR	90	60	74	40	36	14	0.9
G 3/4	FK-020GR							0.8
G 1	FK-025GR	110	76	95	49	43	18	1.6
G 1 1/2	FK-040GR	130	90	116	60	61	20	3.0
G 2	FK-050GR	170	114	138	80	74	25	5.9

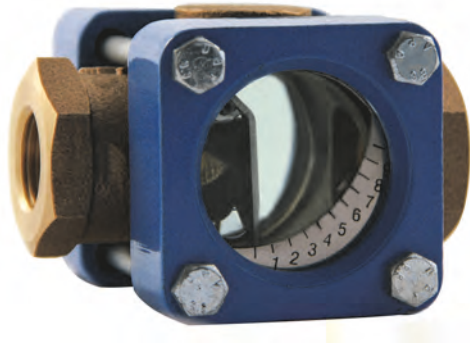


Ordering code

FK - 1. 2. 3.
FK - **G** **R**

1. Nominal width		
015	DN 15 - G 1/2	
020	DN 20 - G 3/4	
025	DN 25 - G 1	
040	DN 40 - G 1 1/2	
050	DN 50 - G 2	
2. Process connection		
G	female thread	
3. Connection material		
R	cast tin bronze	

Flow Indicator SK-...GR



- High temperature resistance
- Double-sided large-surface window
- Natural glass
- Display of flow rate

Characteristics

Mechanical flow indicator for fluid media. A stainless steel flap in the area of flow is lifted by the volume flow, and indicates the present flow rate.

Technical data

Nominal width	DN 15..50	
Process connection	female thread G 1/2..G 2	
Display range	3..195 l/min	for details see table "Ranges"
Q_{max.}	to 250 l/min	
Pressure resistance	PN 16 bar	
Media temperature	0..+100 °C water -20..+170 °C oil	
Ambient temperature	-20..+100 °C	
Materials medium-contact	cast tin bronze, grey iron, crown hardened glass, Flexicarb with nickel reinforcement, 1.4436	
Materials, non-medium-contact	aluminium	
Medium	water (oils available on request)	
Weight	see table "Dimensions and weights"	
Installation location	Standard: Horizontal inwards flow from the left; optionally flow from bottom, installation position affects the range.	

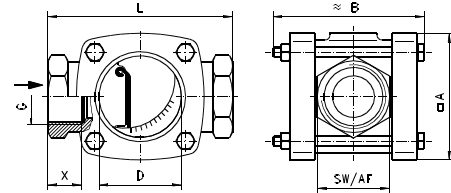
Ranges

Details in the table correspond to horizontal inwards flow with decreasing flow rate.

G	Display range l/min H ₂ O	Q _{max.} recommended	Types
G 1/2	3 - 25	30	SK-015GR025
G 3/4		40	SK-020GR025
G 1	5 - 40	60	SK-025GR040
G 1 1/2	10 - 76	120	SK-040GR076
G 2	15 - 195	250	SK-050GR195

Dimensions and weights

G	Types	L	A	B	D	SW	X	Weight kg
G 1/2	SK-015GR.	90	60	74	40	36	14	1.0
G 3/4	SK-020GR.							
G 1	SK-025GR.	110	76	95	49	43	18	1.8
G 1 1/2	SK-040GR.	130	90	116	60	61	20	3.4
G 2	SK-050GR.	170	114	138	80	74	25	5.9



Scaling

Scale divisions 1 to 10.

Display range l/min H ₂ O	Scale divisions									
	1	2	3	4	5	6	7	8	9	10
3 - 25	3	4	5	7	8	9	10	14	20	25
5 - 40	5	7	9	10	13	15	18	21	28	40
10 - 76	10	14	19	22	27	30	36	44	63	76
15 - 195	15	23	29	35	41	46	59	79	118	195

Ordering code

SK - 1. 2. 3. 4.
G **R**

1. Nominal width	
015	DN 15 - G 1/2
020	DN 20 - G 3/4
025	DN 25 - G 1
040	DN 40 - G 1 1/2
050	DN 50 - G 2
2. Process connection	
G	female thread
3. Connection material	
R	cast tin bronze
4. Display range	
025	3 - 25 l/min
040	5 - 40 l/min
076	10 - 76 l/min
195	15 - 195 l/min

Flow Indicator BL



- High temperature resistance

Characteristics

Mechanical flow indicator for fluid, gaseous, or aggressive media. The medium enters the valve housing and raises the Teflon ball which is resting in the valve seat. Robust construction in stainless steel.

Technical data

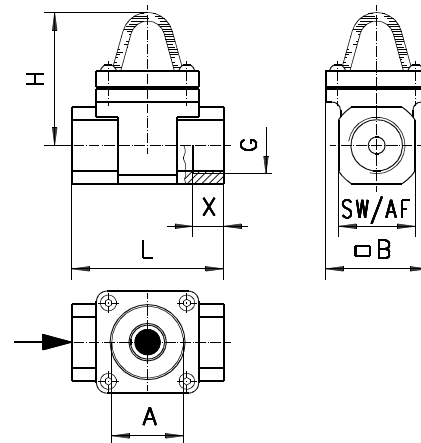
Nominal width	DN 8..40	
Process connection	female thread G 1/4..G 1 1/2	
Display range	0.3..23 l/min	for details see table "Ranges"
Q_{max.}	to 60 l/min	
Pressure	PN 16	
Media temperature	-20..+200 °C	
Ambient temperature	-20..+200 °C	
Materials medium-contact	1.4436, 1.4410, PTFE, borosilicate glass, Klingersil C4400	
Materials, non-medium-contact	1.4436, borosilicate glass	
Medium	water (oils, gases and aggressive media available on request)	
Weight	see table "Dimensions and weights"	
Installation location	horizontal inwards flow; glass dome on top	

Ranges

G	Ball l/min H ₂ O		Q _{max.} recommended	Types
	initial movement	fully visible		
G 1/4	0.3	1.5	4	BL-008GK
G 3/8			8	BL-010GK
G 1/2			12	BL-015GK
G 3/4	2.5	5.0	25	BL-020GK
G 1	4.0	8.0	40	BL-025GK
G 1 1/2	11.0	23.0	60	BL-040GK

Dimensions and weights

G	Types	L	H	A	B	SW	X	Weight kg
G 1/4	BL-008GK	76	67	42	60	28	12	0.8
G 3/8	BL-010GK	89	78	50	77	45	16	0.7
G 1/2	BL-015GK						14	
G 3/4	BL-020GK						18	
G 1	BL-025GK	118	95	50	77	62	30	1.4
G 1 1/2	BL-040GK							2.5



Ordering code

BL - 1. 2. 3.
BL - **G** **K**

1. Nominal width	
008	DN 8 - G 1/4
010	DN 10 - G 3/8
015	DN 15 - G 1/2
020	DN 20 - G 3/4
025	DN 25 - G 1
040	DN 40 - G 1 1/2
2. Process connection	
G	female thread
3. Connection material	
K	stainless steel

Filter

Filter

Type ZV



Type ZE



The HONSBERG filters are offered for the protection of the devices from dirt or as independent components for coarse and fine filtration of liquids.

For more information, see additional product information.

contact us



Headquarter

GHM Messtechnik GmbH
GHM GROUP CORPORATE
Tenter Weg 2-8
42897 Remscheid | GERMANY
Phone +49 2191 9672-0
info@ghm-group.de
www.ghm-group.de

Centers of Competences

GHM Messtechnik GmbH
GHM GROUP – Greisinger
Hans-Sachs-Straße 26
93128 Regenstein | GERMANY
Phone +49 9402 9383-0
info@greisinger.de | www.greisinger.de

GHM Messtechnik GmbH
GHM GROUP – Honsberg
Tenter Weg 2-8
42897 Remscheid | GERMANY

GHM Messtechnik GmbH
GHM GROUP – Martens
Kiebitzhörn 18
22885 Barsbüttel | GERMANY

GHM Messtechnik GmbH
GHM GROUP – Imtron
Carl-Benz-Straße 11
88696 Owingen | GERMANY

Delta OHM S.r.l. a socio unico
GHM GROUP – Delta OHM
Via Marconi 5
35030 Caselle di Selvazzano
Padova (PD) | ITALY
Phone +39 049 8977150
info@deltaohm.com
www.deltaohm.com

Valco srl
GHM GROUP – VAL.CO
Via Rovereto 9/11
20014 S. Ilario di Nerviano
Milano (MI) | ITALY
Phone +39 0331 53 59 20
valco@valco.it
www.valco.it

GHM GROUP International

Austria
GHM Messtechnik GmbH
Office Austria
Breitenseer Str. 76/1/36
1140 Vienna | AUSTRIA
Phone +43 660 7335603
a.froestl@ghm-messtechnik.de

Brazil & Latin America
GHM Messtechnik do Brasil Ltda
Av. José de Souza Campos, 1073, cj 06
Campinas, SP
13025 320 | BRAZIL
Phone +55 19 3304 3408
info@grupoghm.com.br

Czech Republic / Slovakia
GHM Greisinger s.r.o.
Ovci hájek 2/2153
158 00 Prague 5
Nove Butovice | CZECH REPUBLIC
Phone +420 251 613828
Fax +420 251 612607
info@greisinger.cz | www.greisinger.cz

Denmark
GHM Maaleteknik ApS
Maarslet Byvej 2
8320 Maarslet | DENMARK
Phone +45 646492-00
Fax +45 646492-01
info@ghm.dk | www.ghm.dk

France
GHM GROUP France SAS
Parc des Pivolles
9 Rue de Catalogne
69150 Décines-Charpieu (Lyon) | FRANCE
Phone +33 4 72 37 45 30
contact@ghm-group.fr

India
GHM Messtechnik India Pvt Ltd.
209 | Udyog Bhavan | Sonowala Road
Gregaon (E) | Mumbai - 400 063
INDIA
Phone +91 22 40236235
info@ghmgroup.in | www.ghmgroup.in

Italy for Greisinger & Delta OHM
GHM GROUP – Delta OHM
Via Marconi 5
35030 Caselle di Selvazzano
Padova (PD) | ITALY
Phone +39 049 8977150
a.casati@ghm-messtechnik.de

Italy for Honsberg, Martens, Valco
GHM GROUP – Valco
Via Rovereto 9/11
20014 S. Ilario di Nerviano
Milano (MI) | ITALY
Phone +39 0331 53 59 20
alessandro.perego@valco.it

Netherlands
GHM Meettechnik BV
Zeeltweg 30
3755 KA Eemnes | NETHERLANDS
Phone +31 35 53805-40
Fax +31 35 53805-41
info@ghm-nl.com | www.ghm-nl.com

South Africa
GHM Messtechnik SA (Pty) Ltd
16 Olivier Street
Verwoerdpark, Alberton 1453
SOUTH AFRICA
Phone +27 74 4590040
j.grobler@ghm-sa.co.za

...and more than
100 qualified distributors!



Visit us at: www.ghm-group.de