

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

**GLYCERIN FILLED STAINLESS STEEL CASE PRESSURE GAUGES MG1 - INOX and MG3A - INOX**

TYPE: **MG1 - INOX** BOTTOM CONNECTION    **MG3A - INOX** BACK CONNECTION    CASE OUTSIDE DIAMETER (mm): **63**    **100**

SCALE RANGE, (bar)	0/1	0/1.6	0/2.5	0/4	0/6	0/10	0/12	/16	0/20	0/25	0/40	0/60	0/100	0/160	0/250	0/400	0/600
	-1/0	-1/+0.6	-1/+1.5	-1/+3	-1/+5	-1/+9	-1/+15										

Note: the heavy typed scales are standard ranges

THREADED CONNECTION: **SEE TABLE BELOW**    OP = OPTIONAL    STD = STANDARD    (For further specifications see on page 15)

AVAILABLE OPTIONS :

- D** = Dual scale bar/psi
- I** = Aluminium pointer ABS black (only for Ø 63)
- Q** = Branded dial (\*)
- S** = Nichel chromed U-clamps for panel mounting, (only for 63)
- T** = Silver alloy soldering (up to 40 bar)
- X** = On customer's request (\*)

(\*) = To be agreed with our technical department

SPECIFICATIONS

MATERIALS

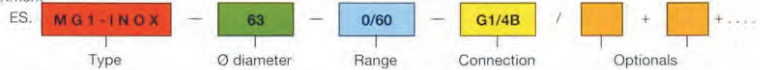
**Case**  
Stainless steel  
**Window**  
Vední  
**Connection**  
Brass  
**Sensing element**  
Bourdon tube Copper-alloy  
**Movement**  
Brass clockwork

**Pointer**  
Aluminium black enamel  
**Dial**  
Aluminium black enamel  
**Soldering**  
Tin alloy up to 40 bar  
Silver alloy above 40 bar  
**Liquid Fill**  
Glycerin 98%

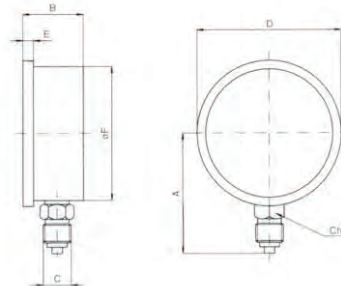
SERVICE OPERATIONS

**Range**  
Bar over 270° arc of scale  
**Accuracy**  
Cl. 1.6  
**Protection**  
IP 65  
**Operation temperature**  
With tin alloy soldering:  
-10 + 80°C  
with silver alloy soldering:  
-10 + 120°C  
**Inlet orifice**  
Restrictor screw Ø = 0.5 mm

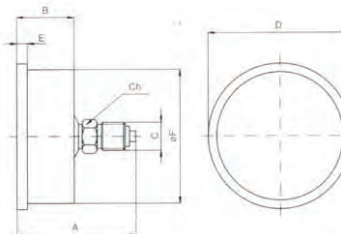
MODEL SELECTION CHART



MG1 INOX	NOM. SIZE	
	63	100
A (mm)	56	87
B (mm)	28.5	28.5
C	G1/4c	OP
	G1/4B	STD
	G1/2B	STD
W (mm)	14	21
D (mm)	68	107
E (mm)	5.0	6
F (mm)	62.5	100
Mass (g)	195	530



MG3A INOX	NOM. SIZE	
	63	100
A (mm)	52.5	69.5
B (mm)	27	28.5
C	G1/4c	OP
	G1/4B	STD
	G1/2B	STD
W (mm)	14	21
D (mm)	68	107
E (mm)	5	6
F (mm)	62.5	100
Mass (g)	210	500



**STAINLESS STEEL CASE PRESSURE GAUGES PANEL MOUNTING MG3B - INOX and MG3F - INOX**

TYPE : **MG3B - INOX** 3 HOLE = FRONT FLANGE CASE OUTSIDE DIAMETER (mm) : **63** **100** TYPE : **MG3F - INOX** U-CLAMPS = FIXING CASE OUTSIDE DIAMETER (mm) : **100**

SCALE RANGE : (bar)

0/1	0/1.6	0/2.5	0/4	0/6	0/10	0/12	0/16	0/20	0/25	0/40	0/60	0/100	0/160	0/250	0/400	0/600
-1/0	-1/+0.6	-1/+1.5	-1/+3	-1/+5	-1/+9	-1/+15										

Note: the heavy typed scales are standard ranges

THREADED CONNECTION : **SEE TABLE BELOW** OP = OPTIONAL STD = STANDARD (For further specifications see on page 15)

**AVAILABLE OPTIONS :**

- D** = Dual scale bar/psi
  - I** = Aluminium pointer black (only Ø 63)
  - Q** = Branded dial (\*)
  - T** = Silver alloy soldering (up to 40 bar)
  - X** = On customer's request (\*)
- (\*) = To be agreed with our technical department

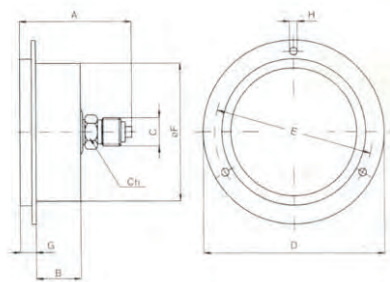
**SPECIFICATIONS**

MATERIALS	Movement	SERVICE OPERATIONS
<b>Case</b> Stainless steel	Brass clockwork	<b>Range</b> Bar over 270° arc of scale
<b>Ring</b> Stainless steel	<b>Pointer</b> Aluminium black enamel	<b>Accuracy</b> Cl. 1.6
<b>Flange</b> Stainless steel	<b>Dial</b> Aluminium black enamel	<b>Operation temperature</b> With tin alloy soldering: -10 + 80°C Silver alloy soldering: -10 + 120°C
<b>Window</b> Vedril	<b>Soldering</b> Tin alloy up to 40 bar Silver alloy above 40 bar	<b>Inlet orifice</b> Restrictor screw Ø=0.5 mm
<b>Connection</b> Brass	<b>Liquid fill</b> Glycerin 98%	
<b>Sensing element</b> Bourdon tube Copper-alloy		

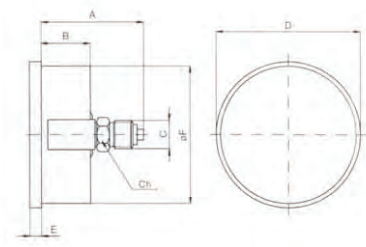
**MODEL SELECTION CHART**



MG3B INOX	NOM. SIZE	
	63	100
A (mm)	52.5	62.5
B (mm)	21	22
C	G1/4c	OP
	G1/4B	STD
	G1/2B	STD
W (mm)	14	21
D (mm)	85.5	134
E (mm)	75	118
F (mm)	64	102
G (mm)	5.5	7
H (mm)	3.6	6
Mass (g)	235	585



MG3F INOX	NOM. SIZE	
	100	
A (mm)	63.5	
B (mm)	22.5	
C	G1/2B	STD
Ch (mm)	21	
D (mm)	107	
E (mm)	6	
F (mm)	100	
Mass (g)	535	

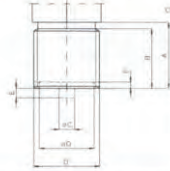


## DIMENSIONS OF THE THREADED CONNECTIONS

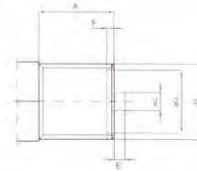
### BSP TAPER THREADED CONNECTIONS

RIF.	A	B	C	D (+)	E	F	G
1/8G	10	8.5	/	G1/8	/	/	/
1/4G	11	9	/	G1/4	/	/	/
3/8G	16	14	5	G3/8	3	2	14
1/2G	16	14	5	G1/2	3	2	17.5

BOTTOM CONNECTION



BACK CONNECTION



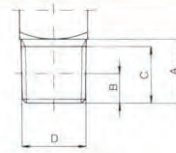
(\*) BSP Taper threaded connection ISO 228-1 (ex UNI 338, BSPP, NF E03-005)

### BPS TAPER (CONICITY = 1 : 16)

RIF.	A	B	C	D (+)
G1/8c	10	4	8.5	G1/8c
G1/4c	13	6	11.5	G1/4c

(\*) BPS Taper ISO 7-1 (ex UNI 399, DIN 2990, BSP Tr)  
On request also available NPTF - ANSI ASME - B1 - 20 - 1 threaded connection

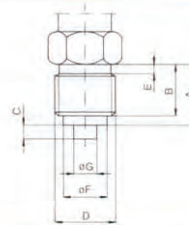
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### CONNECTION WITH SPIGOT ACCORDING TO EN 837-1

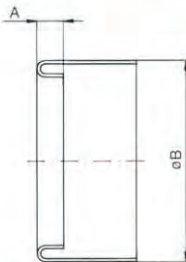
RIF.	A	B	C	D (+)	E	F	G
G1/8B	10	8	/	G1/8	1.6	8	/
G1/4B	13	11	3	G1/4	2	9.5	5
G3/8B	16	14	3	G3/8	2	14	5
G1/2B	20	17	5	G1/2	3	17.5	6

(\*) BSP threaded connection ISO 228-1 (ex UNI 338, BSPP, NF E03-005)



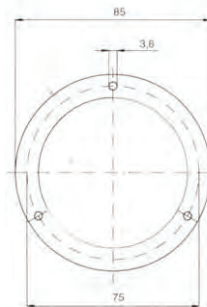
### DIMENSION OF THE CHROMED RINGS

	NOMINAL SIZE				
	40	50	63	80	100
A	1.3	1.9	2.6	2.8	2.2
B	41	52	64	81	100



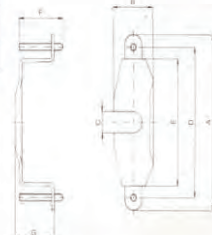
### 3 HOLE FALNGE (MG3A)

outside  $\varnothing = 85$   
distance between centers  $\varnothing = 75$   
3 holes  $\varnothing = 3.6$



### DIMENSIONS OF THE U-CLAMPS (MG3A)

	NOM. SIZE	
	50	63
A	78.2	97
B	27.5	27.5
C	11.7	11.7
D	67	83
E	58	70
F	30	30



### ELECTRIC CONTACTS

The electric contacts are applicable on pressure gauges MD ... and thermometers Type TM .... They have the following characteristics: the contact closes (NA) or opens (NC) an electric circuit when the pointer is at the initial value of the span.

One or two electric contacts can be installed, no matter if NA or NC. The electrical connection is performed by a 1 mt double-insulating electric cable with 2 conductors in the 1 contact application, and 3 conductors in the 2 contacts application. It is also possible to have 2 independent contacts with 4 conductors: please ask for optional (4) Electric contacts with permanent magnet are available. Please ask for optional (0).

BASIC CONTACT			
V	~	=	INDUCTIVE LOAD
380	30 mA	25 mA	15 mA
220	50 mA	45 mA	20 mA
110	100 mA	90 mA	40 mA
50	200 mA	140 mA	80 mA
24	400 mA	250 mA	130 mA

CONTACTS WITH PERMANENT MAGNET			
V	~	=	INDUCTIVE LOAD
380	80 mA	70 mA	40 mA
220	140 mA	140 mA	60 mA
110	280 mA	220 mA	120 mA
50	460 mA	400 mA	200 mA
24	600 mA	500 mA	250 mA