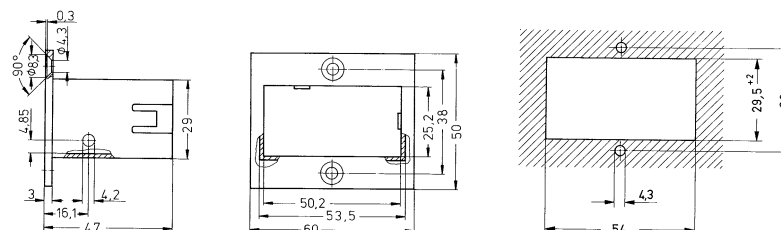


Panel Frames for Hengstler Modular System 400



Size 1

Attachment by two countersunk screws M4



Plastic, black
Plastic, grey

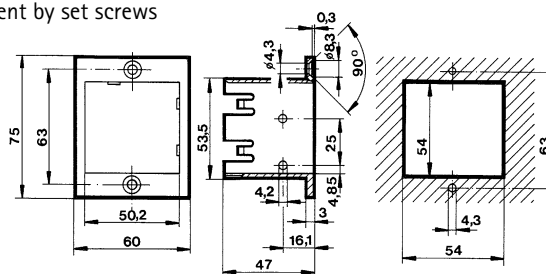
Ordering code 1 405 491
Ordering code 1 405 452

Dimensions in mm



Size 2

Attachment by set screws



Plastic, black
Plastic, grey

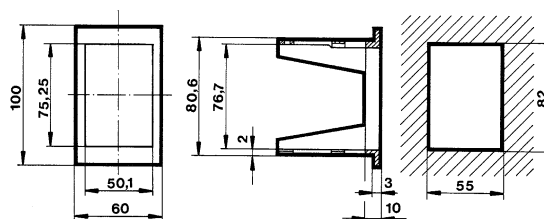
Ordering code 1 405 492
Ordering code 1 405 453

Dimensions in mm



Size 3

Attachment by set screws



Die-cast
Textured paint, matt black
silver

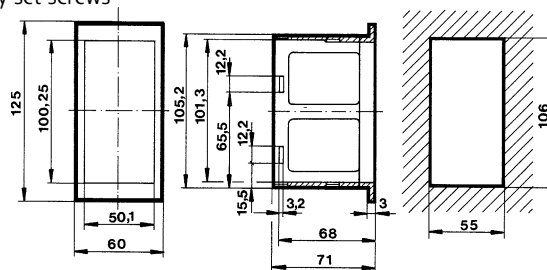
Ordering code 1 405 010
Ordering code 1 405 009

Dimensions in mm



Size 4

Attachment by set screws

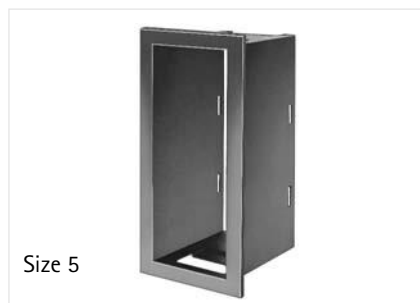


Sheet steel
Textured paint, matt black

Ordering code 1 405 093

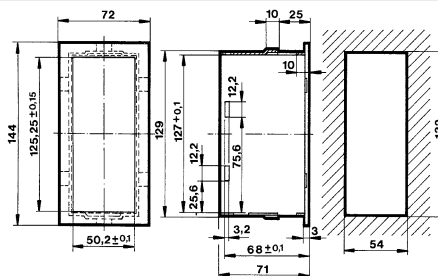
Dimensions in mm

Panel Frames for Hengstler Modular System 400



Size 5

Attachment
by set screws

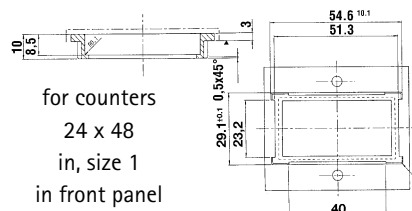


Die-cast

Textured paint, matt black Ordering code 1 405 493

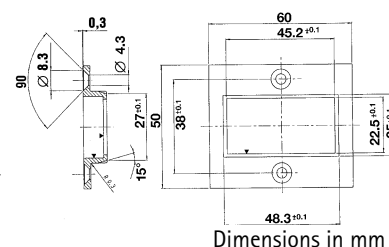
Dimensions in mm

Panel Frames "signo" + "tico"



for counters
24 x 48
in, size 1
in front panel

Ordering code 1 405 692

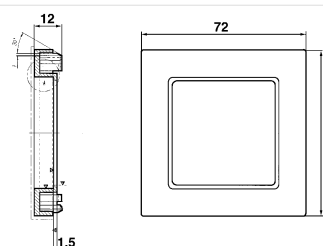


Dimensions in mm



for counters
48 x 48
in DIN cutout
68 x 68

Ordering code 1 405 676

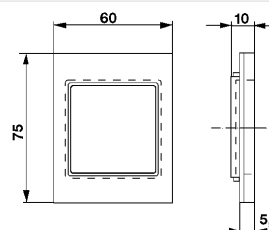


Dimensions in mm



for counters
48 x 48
in, size 2
front panel

Ordering code 1 405 675

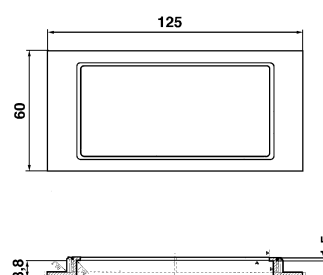


Dimensions in mm



for counters
48 x 96
in, size 4
front panel

Ordering code 1 405 679



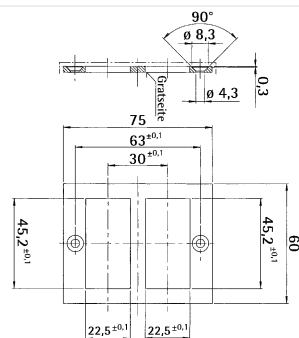
Dimensions in mm

Panel Frames for Hengstler Modular System 400



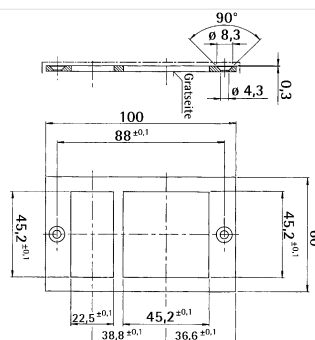
2 counters
24 x 48 mm
in
front panel size 2

Order-Nr. 1 405 696



1 counter 24 x 48 mm
1 counter 48 x 48 mm
in
front panel size 3

Order-Nr. 1 405 693



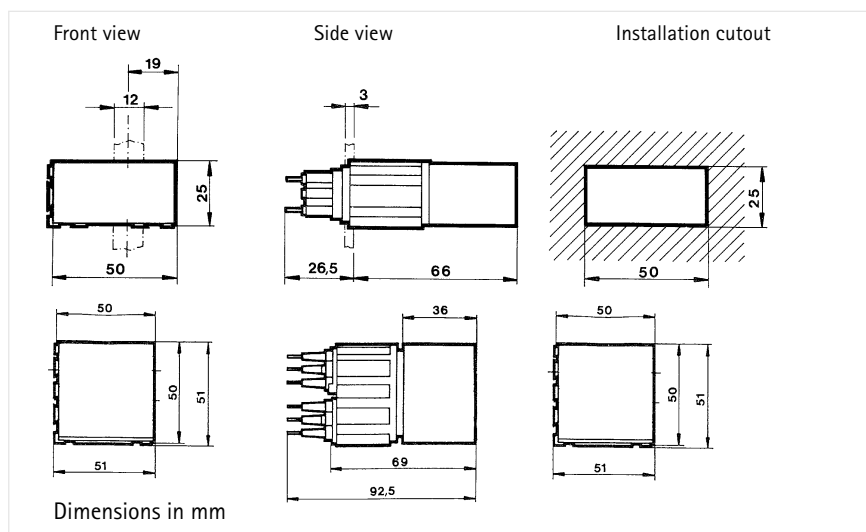
DIMENSIONED DRAWING SIZE 1
Dummy cap with attachment socket

DIMENSIONED DRAWING SIZE 2
Dummy cap with attachment socket

ORDER INFORMATION



■ For filling a prepared counter cutout



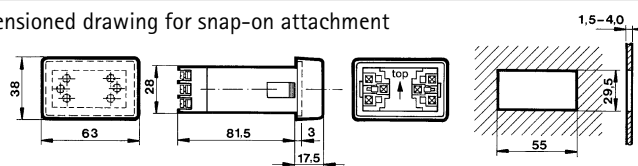
Dummy cap size 1	Ordering code 2 651 009
Dummy cap size 2	Ordering code 1 651 018

Protective Cases with Screw Terminal Connection

Size 1



Dimensioned drawing for snap-on attachment

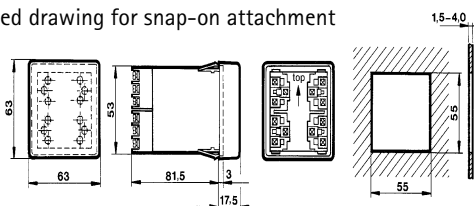


Colour: light grey Ordering code 1 405 588 Spare cover Ordering code 2 405 191*
Colour: black Ordering code 1 405 641 Dimensions in mm

Size 2



Dimensioned drawing for snap-on attachment

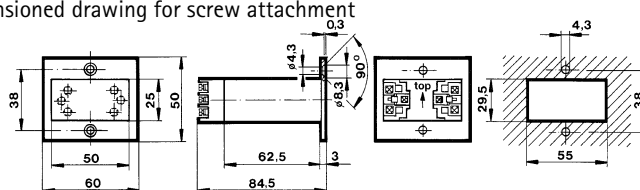


Colour: light grey Ordering code 1 405 666 Spare cover Ordering code 2 405 192*
Colour: black Ordering code 1 405 668 Dimensions in mm

Size 1

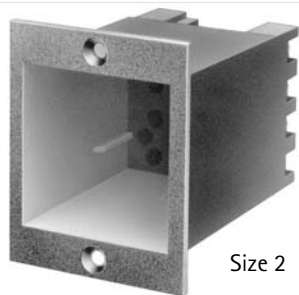


Dimensioned drawing for screw attachment

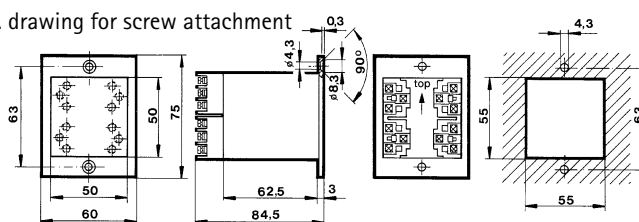


Colour: light grey Ordering code 1 405 562
Colour: black Ordering code 1 405 640 Dimensions in mm

Size 2



Dimens. drawing for screw attachment



Colour: light grey Ordering code 1 405 667
Colour: black Ordering code 1 405 669 Dimensions in mm

* On request

TECHNICAL DATA

Case	fibreglass-reinforced plastic
Transparent cover	see "Accessories - transparent covers"
Mounting	screw or snap-on attachment, dep. on version
Connection	screw terminals on the rear of the case
Protection class (IEC 144)	- screw-mounted case IP 00, with mounted transparent cover: front IP 65, connections IP 00 - case with snap-on attachment: front IP 52, connections IP 00

Sealing Covers • Transparent Covers with Protection to IP 65



Size 1



Size 2



Size 1



Size 2

Transparent covers together with the fitting panel frame or protective case offer protection against dust and water from the front for switch-panel incorporation.

Flexible Vestolit sealing cover with metal frame for panel frames or protective cases size 1-2.

The sealing set enables you to operate a counter through the cover.

Size 1

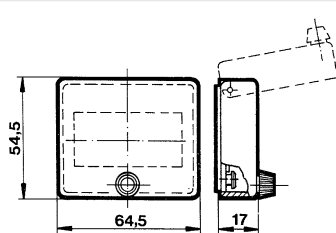
for screwed front panel 60 x 50 mm
Ordering code 1 405 615, silver colour

Size 2

for screwed front panel 60 x 75 mm
Ordering code 1 405 404, silver colour
Ordering code 1 405 587, black

Parts supplied:

Sealing set including metal frame, cover and retaining screws.



Size 1

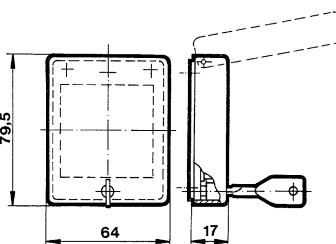
for screwed front panel 60 x 50 mm

with knob

Ordering code 1 405 611

with key lock

Ordering code 1 405 612



Size 2

for screwed front panel 60 x 75 mm

with knob

Ordering code 1 405 613

with key lock

Ordering code 1 405 614

Protection class IP 65 acc. to DIN 40 050.

Transparent covers are made of makrolon, seals are made of synthetic rubber.

Parts supplied:

Transparent covers including seals.

1 key per unit for versions with lock.

Type 680



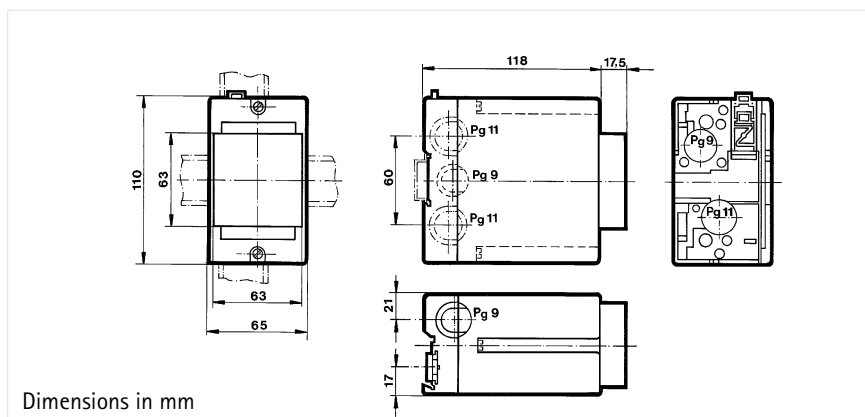
TECHNICAL DATA

Case for Surface Mounting and DIN Rail Attachment

- Attachment by means of 35 mm DIN rail or with screws
- Case made of insulating material
- Installation of counters of the modular system 400 in protective case size 2

Case	ABS plastic
Colour	grey
Resistance to heat	up to 85 °C
Burning properties	VDE 0304 part 3/5.70, degree IIIa
Mounting	- snap-on attachment to 35 mm DIN rail (DIN 46277/DIN EN 5022), lengthwise or crosswise - screw-mounting 2 x M4 or M5
Connection	by cable, cable inlet with PG-cable gland or feed-through

DIMENSIONED DRAWING



ORDER INFORMATION

Case (without counters) Ordering code 1 680 089

Delivery includes case compl. with protective case size 2 (12-way connectors) without counters.

Measuring Wheels

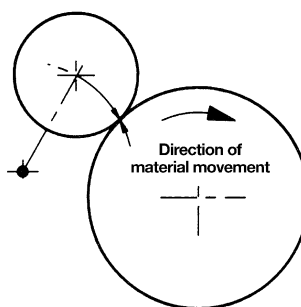
APPLICATION

In order to avoid errors when using measuring wheel actuation, it is important that the slip is kept as low as possible. When choosing a profile (surface structure), special attention must be given to the properties the material being measured, such as elasticity, thickness and interaction resistance. Slippage is also influenced by the width of the contacting measuring wheel, the pressure of

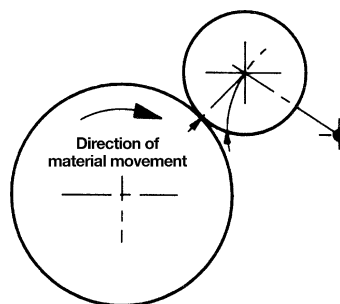
contact, the tensile stress in the material that is being measured and the angle of wrap. The angle of wrap should be as large as possible. Wheel bodies are made of cast metal or plastics (see designation).

The position of the measuring wheel should be chosen such that the material moves away from the bearing of the sensor.

CORRECT MEASURING WHEEL OR PULSE GENERATOR



WRONG MEASURING WHEEL OR PULSE GENERATOR



MEASURING WHEEL CIRCUMFERENCE/ TRANSMISSION RATIO

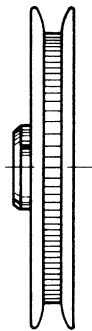
Use the following measuring wheels for different transmission ratios of counters:

Counter transmission ratio	measuring wheel circumference
500:1	0.2 m (1/5 yd.)
50:1	0.2 m (1/5 yd.)
5:1	0.2 m (1/5 yd.)
2:1	0.5 m (1/2 yd.)
1:2	0.2 m (1/5 yd.)
1:5	0.5 m (1/2 yd.)
1:20	0.2 m (1/5 yd.)

Measuring Wheels

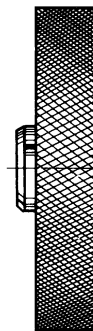
OVERVIEW

Profile 1



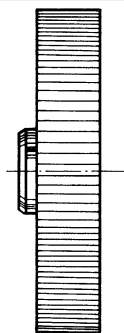
1 with rims, aluminium with fine cross knurling
Used e.g. for threads and yarns

Profile 2



2 Rubber profile, glued on
Used e.g. for paper and cardboard, cable measurement, non-greasy metal, fleece, wood (rough or finished), soft and hard plastic materials;
A = soft, highly adhesive rubber coating
B = good-grip, low-wear rubber

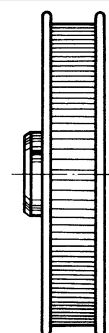
Profile 3/4



3 Rubber coating with parallel knurling, vulcanized
Used e.g. for rubber, leather, textiles, floorings, glass

4 Aluminium with parallel knurling
Used e.g. for rubber, soft plastic materials, wood with rough surface, certain textiles

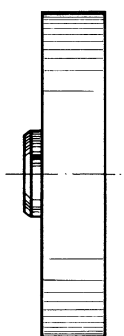
Profile 5



5 With rims, aluminium with parallel knurling
Used e.g. for threads, yarns, ribbons

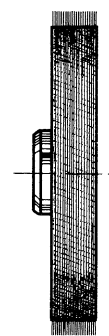
MEASURING WHEEL circumference/transmission ratio

Profile 6



6 Plastic coated
Used e.g. for wire, greased metals, steel profiles

Profile 7



7 Card band
Used e.g. for carpets and coarse textiles

Measuring Wheels

ORDER INFORMATION

Aluminium

PLASTIC

Technical data

Circumf.	Profile	Width of contact surf. mm	B o r e ∅			
			4.0 mm	6.0 mm	7.0 mm	10.0 mm
0.2 m	1	4	0 601 014	0 601 015	0 601 017	--
	2 A	12	0 601 018	--	--	--
	2 B	12	0 601 118	0 601 048	--	0 601 049
	2 A	24	0 601 020	--	0 601 092	--
	2 B	24	--	--	0 601 192	--
	4	20,5	0 601 023	--	--	--
	4	20	--	--	0 601 093	--
	5	16,5	0 601 026	--	0 601 094	--
0.5 m	2 A	25	--	--	0 601 050	--
	2 B	--	--	--	0 601 150	0 601 151
	3	25	--	--	0 601 059	0 601 156
	4	25	--	--	0 601 121*	0 601 157
	5	16	--	--	0 601 052	--
	6	25	--	--	0 601 063*	0 601 163
	7	26,5	--	--	--	--
1/5 yd.	1	4	0 601 034	--	0 601 037	--
	5	16,5	--	--	0 601 096	--
1 Fuß	2 A	25	--	--	0 601 071	--
	2 B	25	--	--	0 601 171	--
0.2 m	1	4	0 601 100	--	--	--
0.5 m	4	25	--	--	0 601 301	--
	6	25	--	--	0 601 300	--

* meets PTB requirements

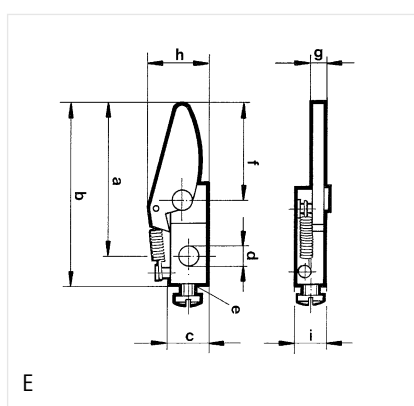
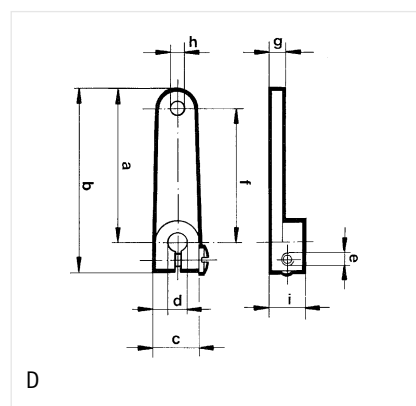
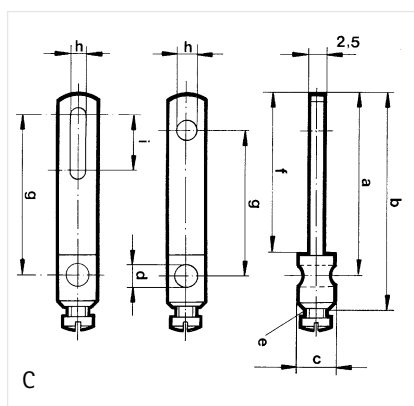
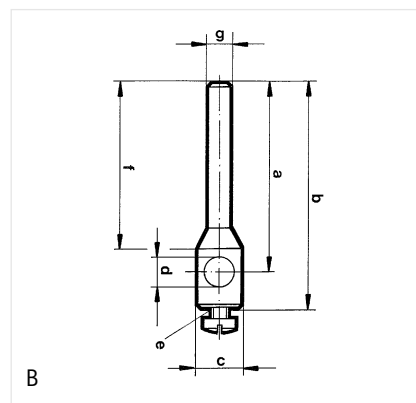
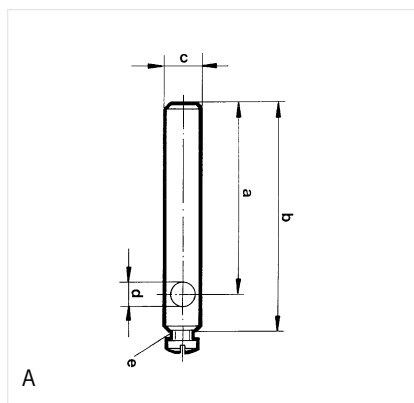
Inquire for other measuring wheels

Stroke Levers

OVERVIEW

This overview shows different kinds of levers available. The stroke levers are not supplied with the counters and must be ordered separately.

A "standard lever" is stated with the order information for mechanical stroke counters.



Stroke Levers

DIMENSION TABLE

ORDER INFORMATION

Spark Quenching

RC UNIT

For contactors, solenoids etc.

VARISTOR

For small relays

ORDER INFORMATION

Technical data

Ordering code	a	b	c	d	e	f	g	h	i
0 600 003	34	40.5	∅ 8	∅ 5	M 3	29.5	∅ 4	--	--
0 600 005	45	55	∅ 10	∅ 7	M 4	41	∅ 5	--	--
0 600 007	26	31.5	∅ 7	∅ 3	M 2.6	21.2	--	--	--
0 600 009	22	28	∅ 7	∅ 4	M 4	18	18	3	11
0 600 010	28.7	33.7	8	∅ 3	M 2.6	25.4	1.8	2.5	5.5
0 600 012	28.2	33.5	7	∅ 3	M 2.6	17.8	2	10.7	5
0 600 013	28.2	33.5	7	∅ 4	M 4	17.8	2	10.7	5
0 600 026	35.5	41.5	∅ 7	∅ 4	M 4	31.5	∅ 3.5	--	--
0 600 047	27.5	35	7	∅ 4	M 3	24	2.5	2	6
0 600 061	22	28	∅ 7	∅ 4	M 4	18	15	3	--
0 600 090	33	39.5	∅ 8	∅ 5.5	M 4	28.5	∅ 4	--	--
0 600 126	35	41.5	∅ 6	∅ 4	M 4	--	--	--	--

Bore ∅ mm	A	B	Shape C	D	E
3	--	--	0 600 007	0 600 010	0 600 012
4	0 600 126	0 600 026	0 600 009*	0 600 047*	0 600 013
4	--	--	0 600 061*	--	--
5	--	0 600 003	--	--	--
5.5	--	0 600 090	--	--	--
7	--	0 600 005	--	--	--

* on request

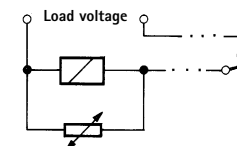
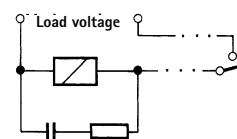
Inquire for other stroke levers

Loads operated directly by the counter, such as contactors, solenoids etc., produce a very high inductive voltage when they are switched off.

This leads to sparking at the switch contacts and causes contact burning, thus reducing the lifetime or the inte-

grated relay. Voltage peaks may also cause interfering pulses.

Therefore we recommend to adopt one of the following spark quenching measures for inductive loads.



RC unit	Ordering code 3 536 801
Varistor	Ordering code 3 540 777



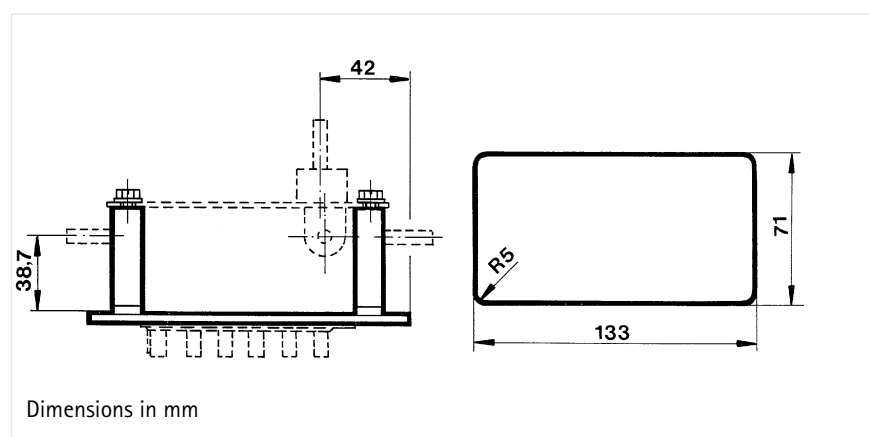
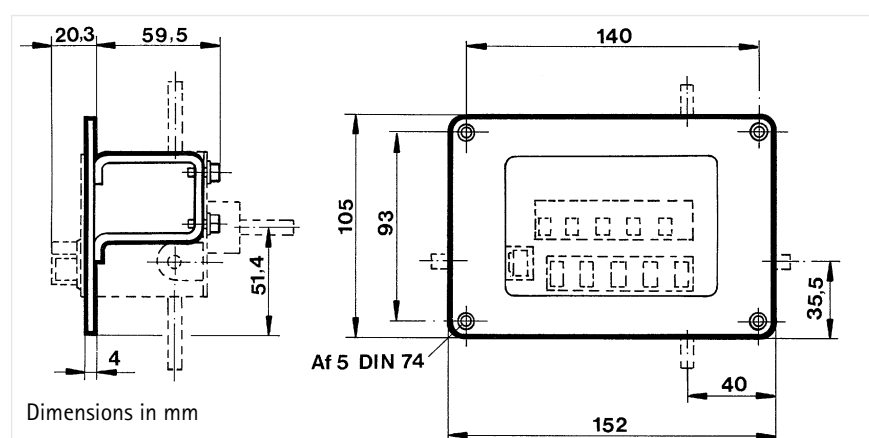
DIMENSIONED DRAWING

Mounting Frame

This mounting frame is designed for the installation of mechanical counters type 225 and 250.

The mounting frame is attached by means of four countersunk screws (supplied with the frame). The counter can

easily be installed once the frame is in place. Slide the counter into the mounting frame and fasten to the baseplate from below.



ORDER INFORMATION

Flat connectors

Flat steel bar

Mounting frame for counters type 225 or 250, complete Ordering code 1 250 056

Flat connector 2.8 x 0.8 mm for electrical connection of all counters (except for counters with screw terminals)

Order information Ord. code 3 530 077

Flat steel bar for the installation of connection boxes of the modular system 400

Order information Ord. code 2 405 058

12 x 3 x 105 mm
For description see installation instructions