

Differential indicators



A guarantee of maintenance to the correct ISO 4406 contamination class achieved through the use of the filters can be provided exclusively with the correct use of the specific clogging indicators.

The trip threshold of the indicator must be selected taking account of the maximum differential pressure indicated for each type of filter element and the trip pressure of the bypass valve, if incorporated in the filter.

Indicator body (Materials)

- Brass

Pressure

- Max. working pressure: 420 bar (42 MPa)

Temperature

- From - 35°C to + 110°C

Seals

- HNBR
- FPM

Compatibility

- Bodies compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
Synthetic fluids, water and glycol.
- V and H series FPM and HNBR seals, compatible with:
Mineral oils to ISO 2943 - aqueous emulsions
Synthetic fluids, water and glycol.
For synthetic fluids type HS-HFDR-HFDS-HFDU, seals in FPM V series.

Order code

1	2	3

Example: **E** **7**

1 - Styles

- V** Visual
- E** Electric -Visual
- J** Electrical -Visual - Thermostat controlled

2 - Differential trip pressure

- 6** 2 bar ± 10%
- 7** 5 bar ± 10%
- 8** 7 bar ± 10%
- 9** 10 bar ± 10%

3 - Seals

FPM Standard

- x** Other information on request

Seal for indicator/filter head, Bonded Seal.

ADAPTER

Order code
ICPAP01



Order code

1	2	3	4	5	6	7	8

Example: **NM** **8** **C** **11** **P01**

1 - Styles

- NR** Electrical
- KR** Electric -Visual
- NM** Electric IP 67
- Z** Visual
- N** Electric
- K** Electric - Visual
- NE** Electronic

2 - Differential trip pressure

- 6** 2 bar ± 10%
- 7** 5 bar ± 10%
- 8** 7 bar ± 10%
- 9** 10 bar ± 10%

3 - Power supply voltage*

(only for style K - KR)

- 1** 24 Volt
- 2** 110 Volt (DC only for KR)
- 3** 220 Volt (not available for KR)

4 - Seals

- H** HNBR Standard
- V** FPM
- x** Others on request

5 - Thermostat (only for NM style)

- A** Without
- C** 50°

6 - Electrical connector (only for NM style)

- 11** AMP Superseal connector

7 - Options (only for style NE)

- S** Standard
- T** Double contact 75% - 100%
6 sec. signalling delay

8 - Options

- P01** MP standard

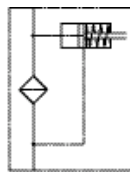
Seal for indicator/filter head, flat profiled.

* Other supply voltage on request.

STYLE

TECHNICAL CHARACTERISTICS

SERIES Z VISUAL



Standard visual indicator with manual reset.

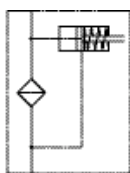
Nylon signalling button.

Button depressed position = cartridge clean.
Button raised position, Red = cartridge clogged.

Weight: 118 g

Tightening torque: 65 Nm.

SERIES V VISUAL



Cover and lens in nylon.

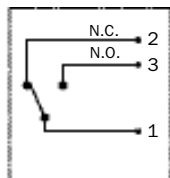
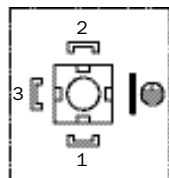
Visual indicator green = cartridge clean.
Visual indicator red = cartridge clogged.

Weight: 137 g

Tightening torque: 95 Nm.

SERIES E ELECTRIC / VISUAL

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
Max. contact rating 5 A/250V~
Voltage 230 V~

Connector DIN 43650 Microswitch contact
Cable gland PG 9

Cover and lens in nylon.

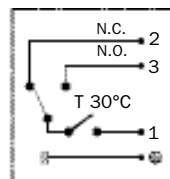
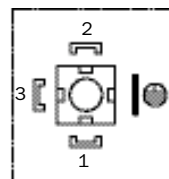
Visual indicator green = cartridge clean.
Visual indicator red = cartridge clogged.

Weight: 188 gr.

Tightening torque: 95 Nm.

SERIES J ELECTRIC / VISUAL WITH THERMOSTAT CONTROL

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
Max. contact rating 5 A/250V~
Voltage 230 V~

Connector DIN 43650 Microswitch contact
Cable gland PG 9

Cover and lens in nylon.

Visual indicator green = cartridge clean.
Visual indicator red = cartridge clogged.

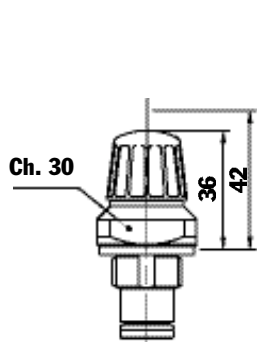
CONTACT N.O.

Operation on reaching temperature of + 30°C

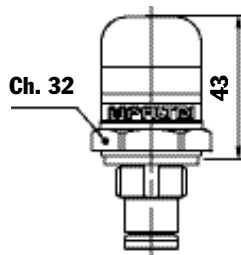
Weight: 198 gr.

Tightening torque: 95 Nm.

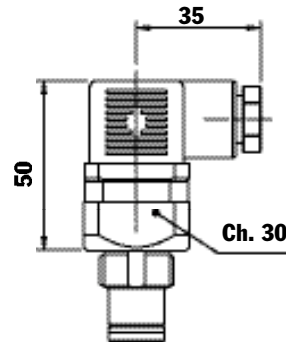
Differential indicator dimensions



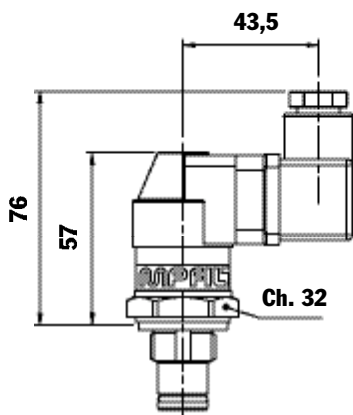
SERIES Z



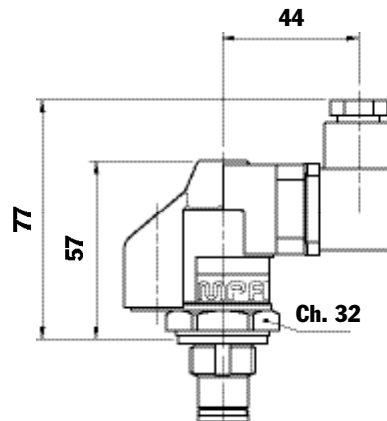
SERIES V



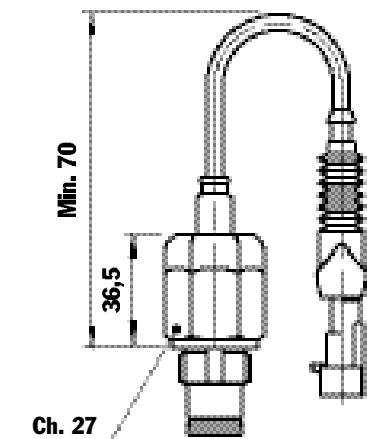
SERIES NR - KR



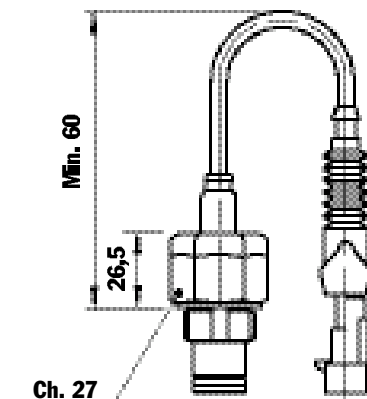
SERIES E



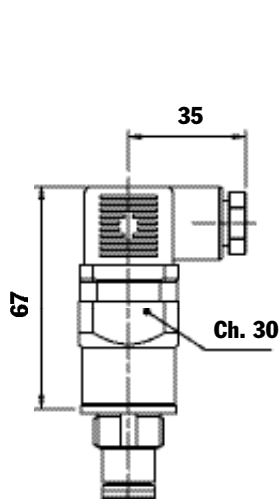
SERIES J



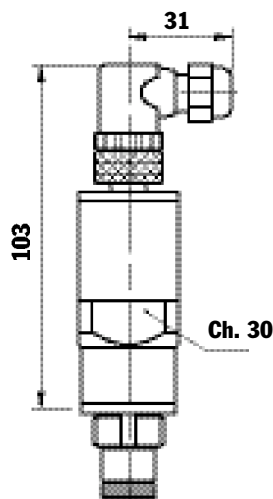
SERIES NM with Thermostat



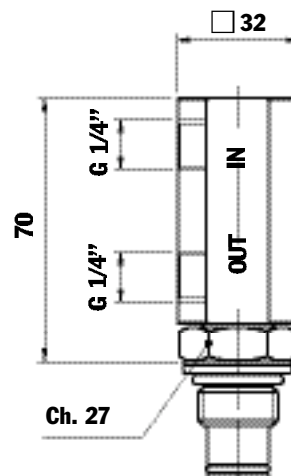
SERIES NM without Thermostat



SERIES N - K - NE



SERIES NE...T



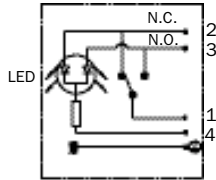
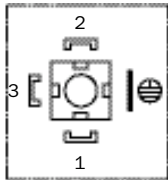
ICPAP01

STYLE

TECHNICAL CHARACTERISTICS

SERIES K ELECTRIC / VISUAL

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
 Max. contact rating 5 A/24V~
 Voltage 24V DC - 115V DC/AC - 230V AC

Connector DIN 43650 Microswitch contact
 Cable gland PG 9

SIGNALLING LEDS :

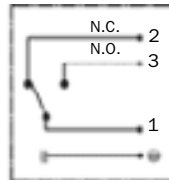
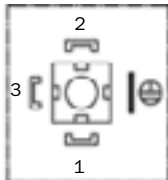
GREEN LED = Cartridge clean.
 RED LED = Cartridge clogged.

Weight: 183 gr.

Tightening torque: 65 Nm.

SERIES N ELECTRIC

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
 Max. contact rating 5 A/250V~
 Voltage 230 V~

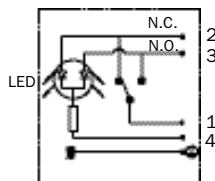
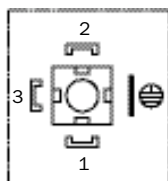
Connector DIN 43650 Microswitch contact
 Cable gland PG 9

Weight: 183 gr.

Tightening torque: 65 Nm.

SERIES KR ELECTRIC / VISUAL

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
 Carico massimo sui contatti 0,8 A/24V DC
 0,17 A/115V DC
 Max. contact rating 24V - 115V DC

Connector DIN 43650 Reed switch
 Cable gland PG 9

SIGNALLING LEDS :

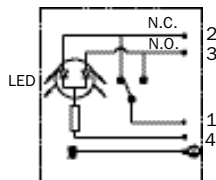
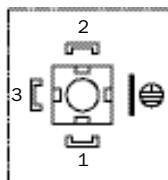
GREEN LED = Cartridge clean.
 RED LED = Cartridge clogged.

Weight: 123 gr.

Tightening torque: 65 Nm.

SERIES NR ELECTRIC

Connector EN 175301-803 A/ISO 4400



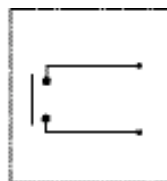
Protection rating IP 65
 Max. contact rating 0,17 A/115V DC
 Voltage max 120V DC

Connector DIN 43650 Reed switch
 Cable gland PG 9

Weight : 123 gr.

Tightening torque: 65 Nm.

SERIES NM.A



Connector AMP Superseal
 Cable and cable gland PVC
 Max. contact rating 0,17 A/115V DC
 Voltage max 120V DC
 Protection rating IP 67
 Contacts N.O.

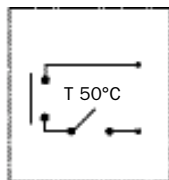
Weight : 110 gr.

Tightening torque: 65 Nm.

STYLE

TECHNICAL CHARACTERISTICS

SERIES NM.C



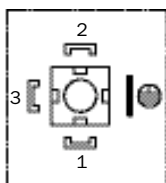
Connector	AMP Superseal
Cable and cable gland	PVC
Max. contact rating	0,17 A/115V DC
Voltage	max 120V DC
Protection rating	IP 67
Contacts	N.O.
Thermostat (N.O.)	Switching + 50°C

Weight :	136 gr.
Tightening torque:	65 Nm.

SERIES NE



- 1= + 24 VCC
- 2= Out 4 - 20 mA
- 3= - 24 VCC



Protection rating	IP 65
Voltage	From 19 to 28 VCC
Output signal	4 - 20 mA
Input impedance	100 Ohm
Non-linearity + hysteresis	≤ 10% of full scale
Thermal deviation from zero	< 5% of full scale from 0°C to + 60°C
Operating temperature	From - 20°C a + 80°C
Storage temperature	From - 35°C a + 110°C

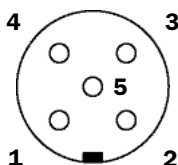
Connector	DIN 43650
Cable gland	PG 9

Weight:	200 gr.
Tightening torque:	65 Nm.

INDICATOR NE...T



- 1= + 24 VCC
- 2= Out 4 > 20 mA
- 3= - 24 VCC
- 4= Out NA 16 mA
- 5= Out NA 20 mA



Protection rating	IP 67
Power supply voltage	From 19 to 28 VCC
Output signal	4 - 20 mA
Input impedance	100 Ohm
Non-linearity + hysteresis	≤ 10% of full scale
Thermal deviation from zero	< 5% of full scale from 0°C to + 70°C
N° 1 N.O. alarm threshold NA	a 16 mA (75% of full scale)
N° 2 N.O. alarm threshold NA	a 20 mA (100% of full scale)
Fixed timer interval	threshold N° 1 and N° 2 6 seconds
Operating temperature	From - 20°C to + 80°C
Storage temperature	From - 35°C to + 110°C

Connector	M12 5 pin IEC 60947-5-2
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Weight:	350 gr.
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Tightening torque:	65 Nm.
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ADAPTER ICPAP01



Adapter for oil outlet and pressure sensing up-stream and down-stream from the filter element.

IN/OUT connections G 1/4"

Orientation: IN/OUT connections 360°

Material: Phosphated steel

Seals: NBR (others on request)