

Differential indicators



A guarantee of maintenance of the correct ISO 4406 contamination class achieved through the use of the filters can be provided exclusively with the correct use of the specific differential 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 housing (Materials)

- Brass

Pressure

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

Temperature

- From -35 °C to +110 °C

Seals

- HNBR
- FPM

Compatibility

- Housings 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,
series V FPM seals.

Order code

1	2	3	4

Example: **1 E 7**

1 - Differential trip pressure

1 1,2 bar ± 10% (only for style V - E)

2 - Styles

V Visual

E Electrical-Visual

J Electrical-Visual-Thermostat controlled

3 - Differential trip pressure

6 2 bar ± 10%

7 5 bar ± 10%

4 - Seals

FPM Standard

x Others on request

Seal for indicator/filter head, Bonded Seal.

CLOGGING INDICATOR SELECTION

Filter for forced lubrication with or without bypass indicator opening value Δp 1.2 - Δp 2 bar.

Return or in-line filter with bypass valve indicator opening value Δp 2 bar.

Off-line and over-boost filter, without bypass valve indicator opening value Δp 2 bar - 5 bar.

Order code

1	2	3	4	5	6	7	8

Example: **NM 8 C 11 P01**

1 - Styles

NR Electrical

KR Electrical-Visual

NM Electrical IP 67

Z Visual

NE Electronic

2 - Differential trip pressure

2 1,2 bar ± 10%

6 2 bar ± 10%

7 5 bar ± 10%

3 - Power supply voltage*

(only for style K - KR)

1 24 Volt

2 110 Volt (only DC voltage for KR style)

3 220 Volt (excluding style KR)

4 - Seals

H HNBR Standard

V FPM

x Others on request

5 - Thermostat (only for style NM)

A Without

C 50°

6 - Electrical connector (only for style NM)

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

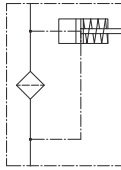
Seal for indicator/filter head, flat profiled.

* Other power supply voltages on request.

STYLE

TECHNICAL CHARACTERISTICS

SERIES Z VISUAL



Standard visual indicator with manual reset.

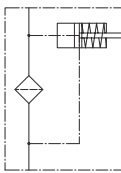
Nylon signalling button.

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.

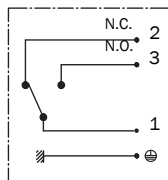
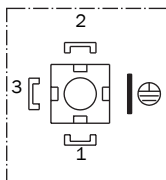
Visual indicator green = cartridge clean.
Visual indicator red = cartridge clogged.

Weight: 137 g.

Tightening torque: 95 Nm.

SERIES E ELECTRICAL/VISUAL

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
Max. contact rating 5 A/250V ~
Power supply voltage 230 V ~

Connector DIN 43650 Microswitch contact
Cable gland PG 9

Cover and lens in nylon.

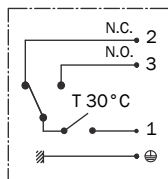
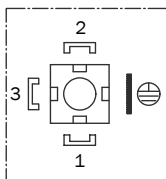
Visual indicator green = cartridge clean.
Visual indicator red = cartridge clogged.

Weight: 188 g.

Tightening torque: 95 Nm.

SERIES J ELECTRICAL/VISUAL WITH THERMOSTAT CONTROL

Connector EN 175301-803 A/ISO 4400



Protection rating IP 65
Max. contact rating 5 A/250V ~
Power supply 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.

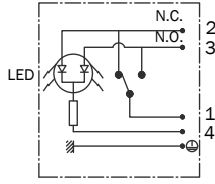
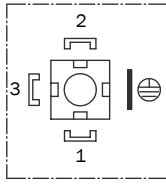
CONTACT N.O.
Operation on reaching temperature of +30 °C

Weight: 198 g.

Tightening torque: 95 Nm.

SERIES KR ELECTRICAL/VISUAL

Connector EN 175301-803 A/ISO 4400



Protection rating
Max. contact rating
Power supply voltage

IP 65
0.8 A/24V DC
0.17 A/115V DC
24V - 115V DC

Connector
Cable gland
SIGNALLING LEDES

DIN 43650 Reed switch
PG 9

GREEN LED
RED LED

= Cartridge clean.
= Cartridge clogged.

Weight:

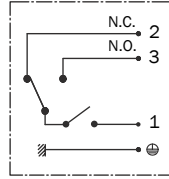
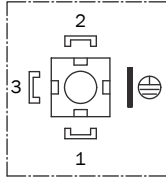
123 g.

Tightening torque:

65 Nm.

SERIES NR ELECTRICAL

Connector EN 175301-803 A/ISO 4400



Protection rating
Max. contact rating
Max power supply voltage 1

IP 65
0.17 A/115V DC
max 120V DC

Connector
Cable gland

DIN 43650 Reed switch
PG 9

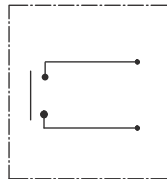
Weight:

123 g.

Tightening torque:

65 Nm.

SERIES NM.A ELECTRICAL



Connector
Cable and cable gland
Max. contact rating
Max power supply voltage
Protection rating
Contacts

AMP Superseal
PVC
0.17 A/115V DC
max 120V DC
IP 67
N.O.

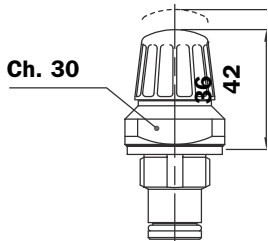
Weight:

110 g.

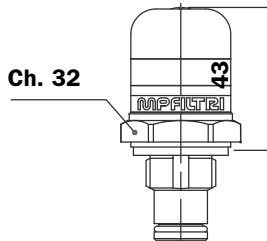
Tightening torque:

65 Nm.

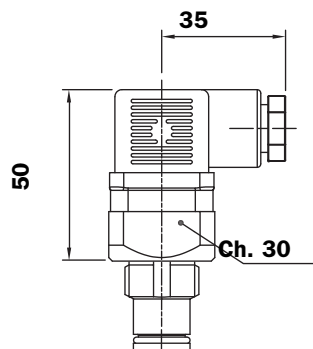
Differential indicator dimensions



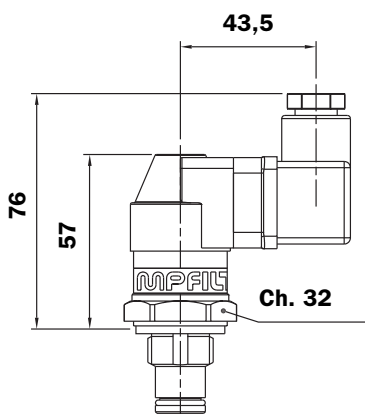
SERIES Z



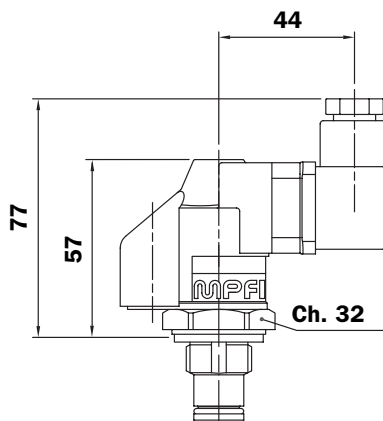
SERIES V



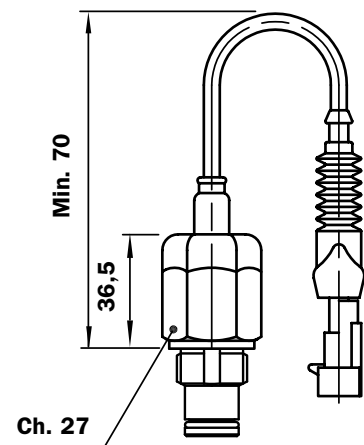
SERIES NR - KR



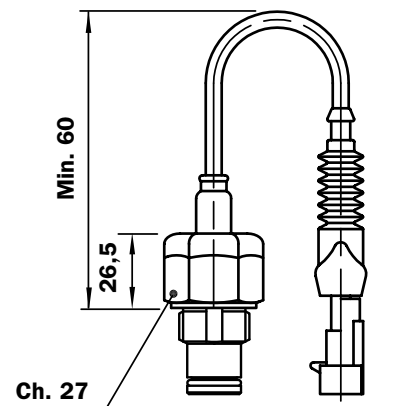
SERIES E



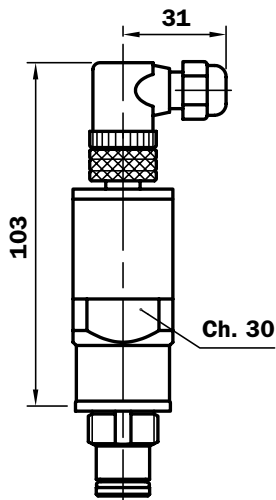
SERIES J



SERIES NM with Thermostat



SERIES NM without Thermostat

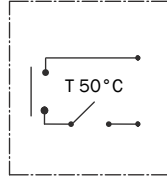


SERIES NE...T

STYLE

TECHNICAL CHARACTERISTICS

SERIES NM.C ELECTRICAL/THERMOSTAT



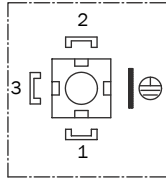
Connector	AMP Superseal
Cable and cable gland	PVC
Max. contact rating	0.17 A/115V DC
Max power supply voltage	max 120V DC
Protection rating	IP 67
N.O. Contacts	
Thermostat (N.O.)	Switching +50 °C

Weight:	136 g.
Tightening torque:	65 Nm.

SERIES NE ELECTRONIC



1= + 24 VDC
2= Out 4 - 20 mA



Protection rating	IP 65
Power supply voltage from	19 to 28 VDC
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 to +80 °C
Storage temperature	from -35 °C to +110 °C

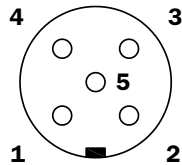
Connector	DIN 43650
Cable gland	PG 9

Weight:	200 g.
Tightening torque:	65 Nm.

INDICATOR NE...T ELECTRONIC



1= + 24 VDC
2= Out 4 > 20 mA
3= Out N.O. 20 mA
4= Out N.O. 16 mA
5= - 24 VDC



Protection rating	IP 67
Power supply voltage from	19 to 28 VDC
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	16 mA (75% of full scale)
N° 2 N.O. alarm threshold	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 g.
Tightening torque:	65 Nm.