

Description & Features

- Suitable for dry or liquid filled pressure instruments.
- With the capability of opening or closing an electrical circuit.

Applications

- Used for all industrial application

Specifications

Dial Size

4" (100mm), 6" (150mm)

Pressure Range

From vacuum to 0-58000psi (0-4000bar)

Case

304 stainless steel

Case Design

High case for under dial contact
Case with hood for contact on dial

Lens

Methacrylate disk standard for high case
Methacrylate hood

Ring

304 stainless steel, bayonet

Pointer

Aluminum, painted black

Movement

Stainless steel

Socket Material

316 stainless steel

Connection

1/4", 3/8", 1/2" in NPT, BSP, BSPT

Protection

IP65

Adjustable Lock

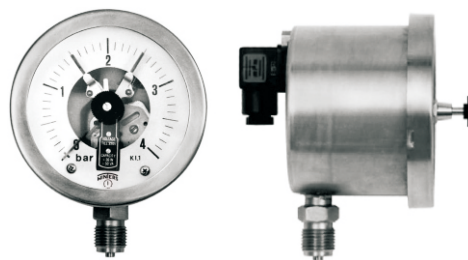
Fixed key (standard)
Removable key (option)

Electrical Wiring

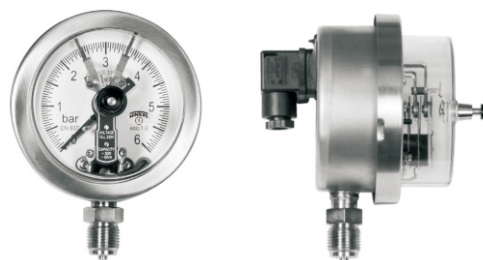
Junction box grounding
- cable-gland PG 9

Working Pressure

Maximum 75% of full scale value



High Case



Hood Case

Over-pressure Limit

15% of full scale value

Ambient Temperature

-40°F to 150°F (-40°C to 65°C)

Process Temperature

-40°F to 150°F (-40°C to 65°C)

Accuracy

± 1.0% - Gauge

Options

Silicone fill
Laminated safety glass for high case
Other connection sizes available upon request

Electrical Information

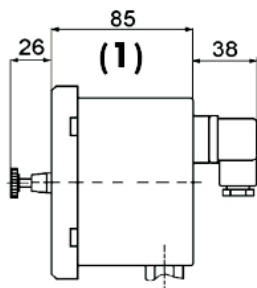
Voltage	Direct current	Control category	Alternating category	Control category
230V	100mA	DC 12	120mA	AC 12
	55mA	DC 13	65mA	AC 14
110V	200mA	DC 12	240mA	AC 12
	100mA	DC 13	130mA	AC 14
50V	300mA	DC 12	450mA	AC 12
	160mA	DC 13	200mA	AC 14
24V	400mA	DC 12	600mA	AC 12
	200mA	DC 13	250mA	AC 14

Order Information

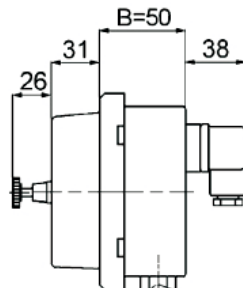
Series/ Dial Size/ Case Materials/ Wetted Parts/ Configuration/ Connection Size/ Thread/ Range/ Option

Dimensions

Bottom direct mounting

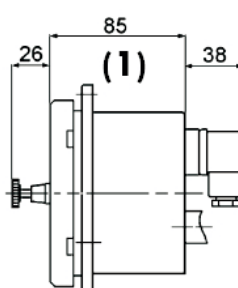


High case

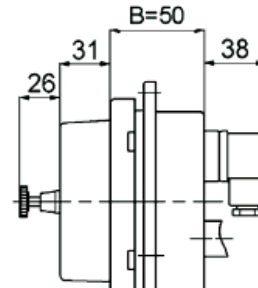


Hood case

Flush mounting with 3-hole fixing

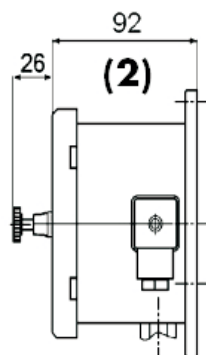


High case

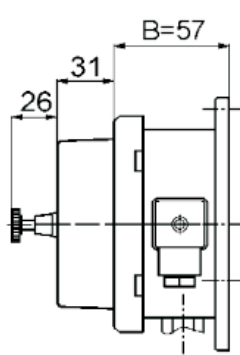


Hood case

Surface mounting

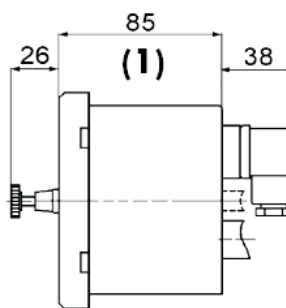


High case

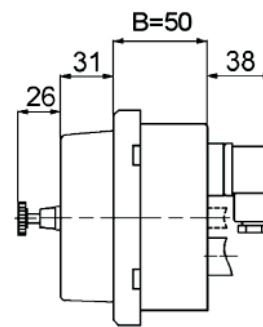


Hood case

Back direct mounting

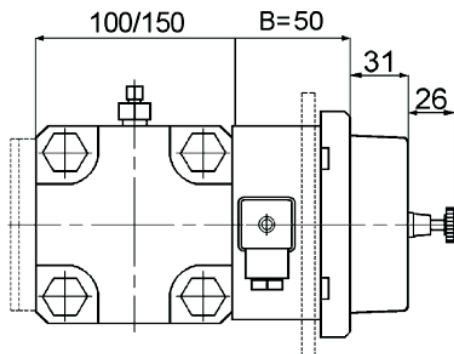


High case



Hood case

Differential Pressure Gauge



Type	
Snap action contacts	SA
Independent snap action contacts	ISA
Electronic contacts	EC
Inductive contacts intrinsically explosion proof	ICI
Microswitch Contacts	MC

Casing	
High Case	H
Hood	Q

Can be fitted to	High Case	Hood
LF series pressure gauges	✓	✓
Differential pressure gauges	X	✓
Diaphragm pressure gauges	X	✓
Expansion thermometers remote reading series	X	✓

ECS 308 type H with contact in high case



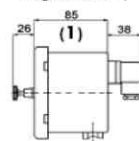
ECS 308 type Q with contact in hood



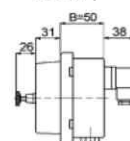
Intervention setup	On the whole range scale extension
Adjusting device	Fixed key (standard)
	Removeable key (on request)
Electrical connection	Junction box grounding : - cable gland PG9 - cable gland PG13,5 according with contact type

Bottom direct mounting

high case (BDH)

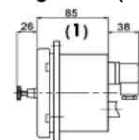


hood (BDD)

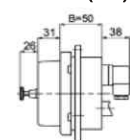


Flush mounting with 3-hole fixing

high case (LFH)

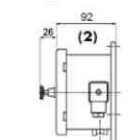


hood (LFD)

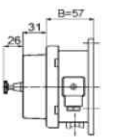


Surface mounting with 3-hole fixing

high case (BSH)

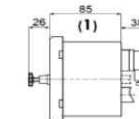


hood (BSD)

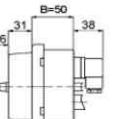


Back direct mounting

high case (LDH)

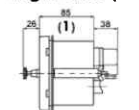


hood (LDD)



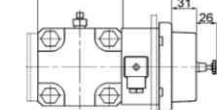
Flush mounting with clamp

high case (LCH)



Differential pressure gauge

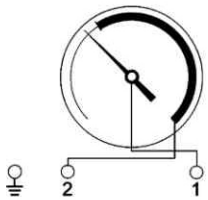
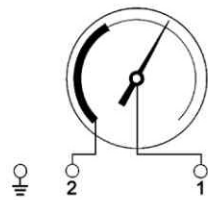
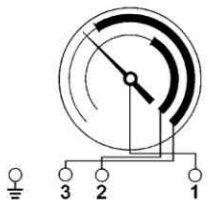
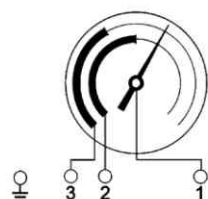
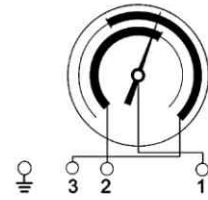
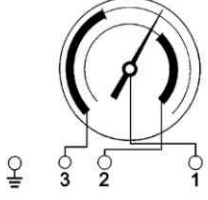
(DBD)



Type	Voltage Max	Switching capacity	Thermal current Max.
SA/ISA	250 V	≈30W / ~50VA	0,7 A
Type	Supply		
EC	10/30 VCC		
ICI	8 VCC		
Type	Supply		Current
	Max		Max
MC	250 V		5 A

Table Ecs 4.1

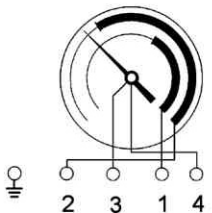
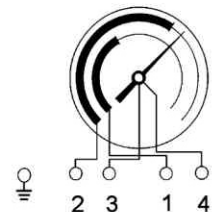
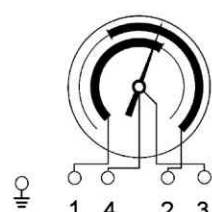
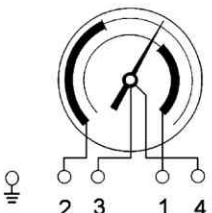
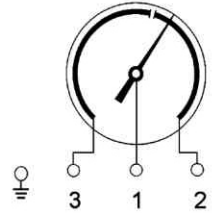
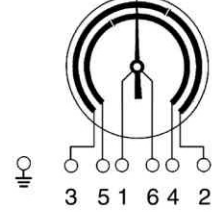
Single and double snap-action contacts interference types

Wiring scheme	Type	The instrument pointer moves clockwise and when it reaches the set limit value...	After the interference ...
	SA 01	...makes the contact	... circuit is closed
	SA 02	...breaks the contact	... circuit is open
	SA 11	...makes the 1st contact ...makes the 2nd contact	... 1st circuit is closed ... 2nd circuit is closed
	SA 22	...breaks the 1st contact ...breaks the 2nd contact	... 1st circuit is open ... 2nd circuit is open
	SA 12	...makes the 1st contact ...breaks the 2nd contact	... 1st circuit is closed ... 2nd circuit is open
	SA 21	...breaks the 1st contact ...makes the 2nd contact	... 1st circuit is open ... 2nd circuit is closed

note: for vacuum gauges interferences are opposite to those above indicated for the pointer usually rotates anticlockwise

Table Ecs 4.2

Separate and change-over snap-action contacts interference types

Wiring scheme	Type	The instrument pointer moves clockwise and when it reaches the set limit value...	After the interference ...
	SSA 11 separate	...makes the 1st contact ...makes the 2nd contact	... 1st circuit is closed ... 2nd circuit is closed
	SSA 22 separate	...breaks the 1st contact ...breaks the 2nd contact	... 1st circuit is open ... 2nd circuit is open
	SSA 12 separate	...makes the 1st contact ...breaks the 2nd contact	... 1st circuit is closed ... 2nd circuit is open
	SSA 21 separate	...breaks the 1st contact ...makes the 2nd contact	... 1st circuit is open ... 2nd circuit is closed
	SSA 03 change-over	... makes and in the same time breaks the contact	SPDT
	SSA 33 change-over	... makes and in the same time breaks the 1st contact ... makes and in the same time breaks the 2nd contact	DPDT

note: for vacuum gauges interferences are opposite to those above indicated for the pointer usually rotates anticlockwise

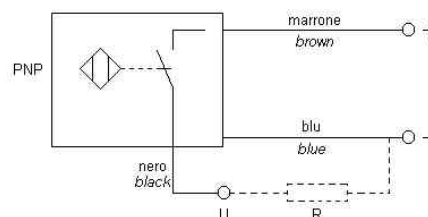
Table Ecs 4.3

Electronic contacts interference types

Wiring scheme	Type	The instrument pointer moves clockwise and when it reaches the set limit value carries the metal flag...	After the interference ...
	EC 01	...into the control head	... control circuit is closed
	EC 02	...out of the control head	... control circuit is open
	EC 11	...1st contact into the control head ...2nd contact into the control head	... control circuit is closed ... control circuit is closed
	EC 22	...1st contact out of the control head ...2nd contact out of the control head	... control circuit is open ... control circuit is open
	EC 12	...1st contact into the control head ...2nd contact out of the control head	... control circuit is closed ... control circuit is open
	EC 21	...1st contact out of the control head ...2nd contact into the control head	... control circuit is open ... control circuit is closed

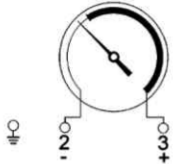
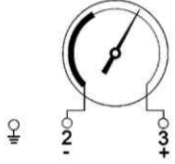
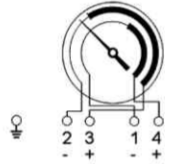
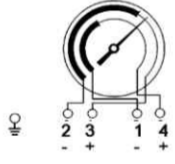
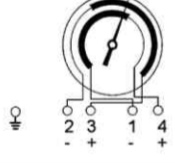
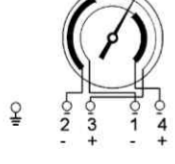
With a PNP switching apparatus, the switched output (U) is a connection towards "+" (brown).
The load (R) between (U) and the connection towards "-" (blue) should be selected in the way not to exceed the maximum switching current (100 mA).

No direct connection between U and "-"



note: for vacuum gauges interferences are opposite to those above indicated for the pointer usually rotates anticlockwise

Table Ecs 4.4*Inductive contacts interference types*

Wiring scheme	Type	The instrument pointer moves clockwise and when it reaches the set limit value carries the metal flag...	After the interference ...
	IC 01	...out of the control head	... control circuit is closed
	IC 02	...into the control head	... control circuit is open
	IC 11	...1st contact out of the control head ...2nd contact out of the control head	... control circuit is closed ... control circuit is closed
	IC 22	...1st contact into the control head ...2nd contact into the control head	... control circuit is open ... control circuit is open
	IC 12	...1st contact out of the control head ...2nd contact into the control head	... control circuit is closed ... control circuit is open
	IC 21	...1st contact into the control head ...2nd contact out of the control head	... control circuit is open ... control circuit is closed

Basic functions

As long as the metal flag is in the control head, a low control current of ≤ 1 mA flows and the initiator is at high impedance.

Whenever the metal flag is outside the control head, a high control current of ≥ 3 mA flows and the initiator is at low impedance.

Upon reversal of operation mode from operating current to rest current, the types description must be changed accordingly.

Connecting cable

"+" (brown)
"-" (blue)

note: for vacuum gauges interferences are opposite to those above indicated for the pointer usually rotates anticlockwise