



Standard ED sealed type



Flat seal threaded type



Blocking hole G1/2 thread type



External taper seal



Internal thread connection



Flat film chuck type

### Principle structure

The diffused silicon sensor is used for pressure measurement, and the signal is processed by a post-processing circuit and converted into a standard industrial electrical signal for output and display. The all-metal casing design, with a highlighted LED digital display, enables the product line to be used in a variety of industrial applications. The three-button design and menu make the product more convenient to use, and a variety of connection methods can fully meet various specific installation needs. The device, which can rotate at 330°, guarantees the best viewing angle in different mounting modes.

### Technical parameter

◇ Supply voltage: 12... 30Vdc

◇ No-load current consumption: maximum 40mA, 24Vdc power supply

◇ Switch output:

Output type: PNP/NPN can be switched, normally open/normally closed can be set

switch load: <200mA /24VDC

Response time: 0.01~2s (Factory default)

Switching accuracy:  $\leq \pm 0.5\%$  range

Current model analog output:  $\leq \pm 0.5\%$  range

Output type: 4-20mA/1-5V/0-10V can be set

Load RA:  $\leq 500\Omega$

Linearity:  $\leq 0.5\%$  range

Communication output: IO-Link/RS485

Connection protection: reverse phase, overload, short circuit protection

◇ Display:

Design: Red 4-bit 12mm high brightness LED

Display range: -1999... 9999

◇ Accuracy:  $\leq \pm 0.5\%$  range

◇ Stability (annual drift) :  $\leq \pm 0.3\%$  range

◇ Temperature:

Medium temperature: -20... 85 ° c.

Ambient temperature: -20... 80 ° c.

Storage temperature: -30... 80 ° c.

◇ Materials:

Case: engineering plastic

Flame retardant grade: UL-94 V-0

Housing: stainless steel 304

Medium contact part: stainless steel 304

◇ Protection level: IP67

◇ Outlet mode: M12x1 connector

### Panel diagram

SP2 Switch signal lamp

SP1 Switch signal lamp

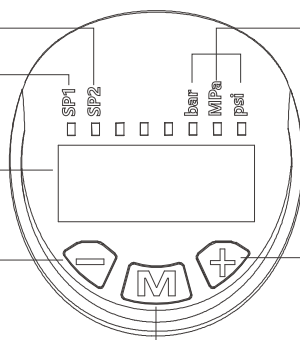
4 digit LED digital display

Up/down key

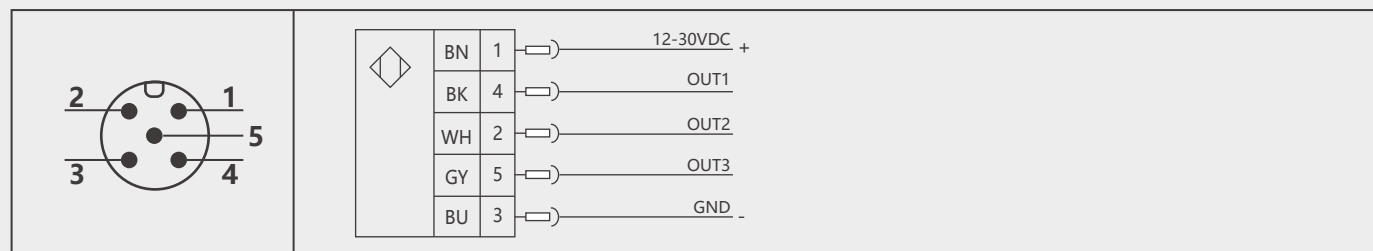
Pressure unit indicator light

Down/increase key

Confirm/exit key

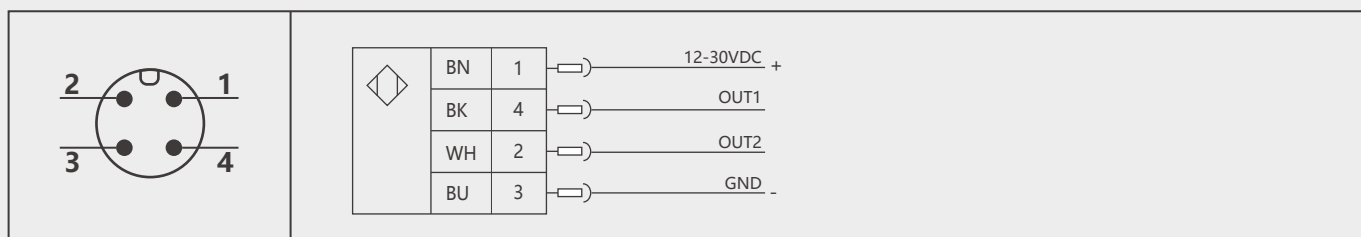


## Wiring diagram



## Two way switch /IO-Link/Frequency + one way analog

| color | stitch      | Instructions                                                                                  | color | stitch      | Instructions                                       | color | stitch      | Instructions                              |
|-------|-------------|-----------------------------------------------------------------------------------------------|-------|-------------|----------------------------------------------------|-------|-------------|-------------------------------------------|
| BN    | 1           | power supply (+)                                                                              | BU    | 3           | power supply (-)                                   | GY    | 5<br>(OUT3) | 4-20mA (Factory default)<br>1-5V<br>0-10V |
| BK    | 4<br>(OUT1) | SP1 switch PNP (Factory default)<br>SP1 switch NPN<br>IO-Link<br>Frequency (full scale 100Hz) | WH    | 2<br>(OUT2) | SP2 switch PNP (Factory default)<br>SP2 switch NPN |       |             |                                           |



## Two-way switch/Frequency

| color | stitch      | Instructions                                                                       | color | stitch      | Instructions                                       |
|-------|-------------|------------------------------------------------------------------------------------|-------|-------------|----------------------------------------------------|
| BN    | 1           | power supply (+)                                                                   | BU    | 3           | power supply (-)                                   |
| BK    | 4<br>(OUT1) | SP1 switch PNP (Factory default)<br>SP1 switch NPN<br>Frequency (full scale 100Hz) | WH    | 2<br>(OUT2) | SP2 switch PNP (Factory default)<br>SP2 switch NPN |

## One switch /IO-Link/Frequency+ analog

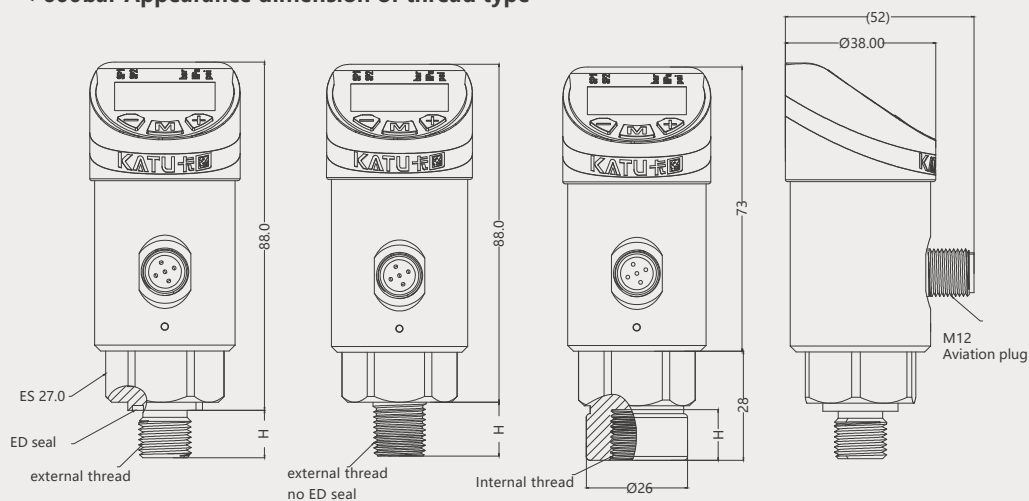
| color | stitch      | Instructions                                                                                  | color | stitch      | Instructions                              |
|-------|-------------|-----------------------------------------------------------------------------------------------|-------|-------------|-------------------------------------------|
| BN    | 1           | power supply (+)                                                                              | BU    | 3           | power supply (-)                          |
| BK    | 4<br>(OUT1) | SP1 switch PNP (Factory default)<br>SP1 switch NPN<br>IO-Link<br>Frequency (full scale 100Hz) | WH    | 2<br>(OUT2) | 4-20mA (Factory default)<br>1-5V<br>0-10V |

## RS485

| color | stitch      | Instructions     | color | stitch      | Instructions     |
|-------|-------------|------------------|-------|-------------|------------------|
| BN    | 1           | power supply (+) | BU    | 3           | power supply (-) |
| BK    | 4<br>(OUT1) | RS485(B)         | WH    | 2<br>(OUT2) | RS485(A)         |

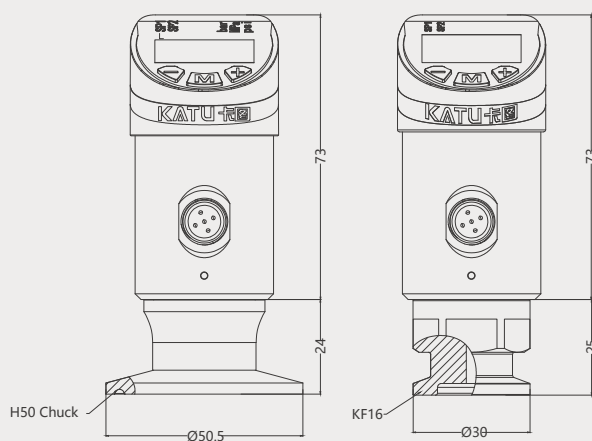
## Dimensional drawing (mm)

## &lt; 600bar Appearance dimension of thread type

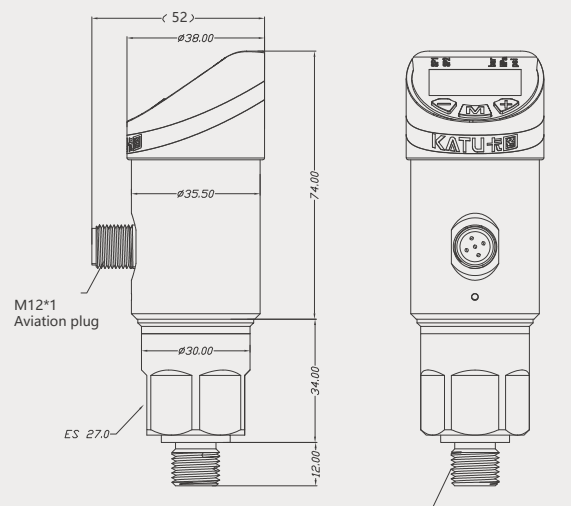


| Screw thread    |         | Thread height(H) | seal           |
|-----------------|---------|------------------|----------------|
| external thread | G1/4    | 12               | Sealed with ED |
|                 | G1/2    | 12               |                |
|                 | M20*1.5 | 12               |                |
|                 | R1/4    | 14               | No ED seal     |
|                 | R1/2    | 14               |                |
|                 | NPT1/4  | 14               |                |
| Internal thread | R1/4    | 13               | No ED seal     |
|                 | G1/4    | 13               |                |

## &lt; 600bar Chuck type appearance dimensions



## ≥600bar Appearance size



The process connection specification is the same as &lt; 600bar

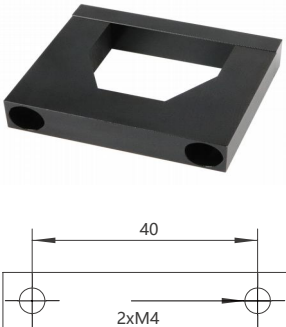
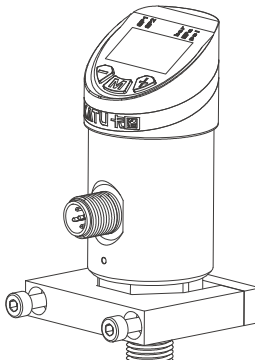
## Parameter list

| Pressure range            | bar | 1  | 2  | 5  | 10  | 16  | 25  | 60  | 100  | 160  | 250  | 400  | 600  |
|---------------------------|-----|----|----|----|-----|-----|-----|-----|------|------|------|------|------|
|                           | psi | 15 | 30 | 75 | 145 | 230 | 370 | 900 | 1500 | 2300 | 3600 | 6000 | 9000 |
| Maximum overload pressure |     | ×5 |    |    | ×3  |     |     | ×2  |      |      | ×1.5 |      | ×1.3 |
| Minimum damage pressure   |     | ×6 |    |    | ×4  |     |     | ×3  |      |      | ×2   |      | ×1.6 |

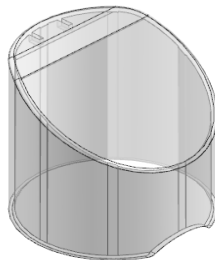
Selection table

| PS500- | B | 100  | G14M | S2 | expatiate                                                                                                     |
|--------|---|------|------|----|---------------------------------------------------------------------------------------------------------------|
| PS500- |   |      |      |    | PS500 series electronic digital display pressure sensor                                                       |
|        | B |      |      |    | Manometer pressure                                                                                            |
|        | F |      |      |    | Negative pressure                                                                                             |
|        |   | 0001 |      |    | Measuring range: -10... 10KPa or 0... 10KPa                                                                   |
|        |   | 0006 |      |    | Measuring range: -60... 60KPa or 0... 60KPa                                                                   |
|        |   | 001  |      |    | Measuring range: -1... 1bar or 0... 1bar                                                                      |
|        |   | 002  |      |    | Measuring range: -1... 2bar or 0... 2bar                                                                      |
|        |   | 005  |      |    | Measuring range: -1... 5bar or 0... 5bar                                                                      |
|        |   | 010  |      |    | Measuring range: -1... 10bar or 0... 10bar                                                                    |
|        |   | 025  |      |    | Measuring range: 0... 25bar                                                                                   |
|        |   | 060  |      |    | Measuring range: 0... 60bar                                                                                   |
|        |   | 100  |      |    | Measuring range: 0... 100bar                                                                                  |
|        |   | 160  |      |    | Measuring range: 0... 160bar                                                                                  |
|        |   | 250  |      |    | Measuring range: 0... 250bar                                                                                  |
|        |   | 400  |      |    | Measuring range: 0... 400bar                                                                                  |
|        |   | 600  |      |    | Measuring range: 0... 600bar                                                                                  |
|        |   | 1000 |      |    | Measuring range: 0... 1000bar                                                                                 |
|        |   |      | G14M |    | Process connection: G1/4 external thread                                                                      |
|        |   |      | G12M |    | Process connection: G1/2 external thread                                                                      |
|        |   |      | G14K |    | Process connection: G1/4 internal thread                                                                      |
|        |   |      | N14M |    | Process connection: NPT1/4 external thread                                                                    |
|        |   |      | R12M |    | Process connection: R1/2 external thread                                                                      |
|        |   |      | R14M |    | Process connection: R1/4 external thread                                                                      |
|        |   |      | M20M |    | Process connection: M20*1.5 external thread                                                                   |
|        |   |      | KP50 |    | Process connection: 1.5 inch (outer diameter 50.5mm)<br>chuck metal flat film type (standard pressure 1.6MPa) |
|        |   |      | KF16 |    | Process connection: KF16 vacuum chuck type                                                                    |
|        |   |      |      | S2 | Output signal: Two switch output/frequency (4-core cable)                                                     |
|        |   |      |      | SA | Output signal: One switch output /IO-link/ frequency + analog output (4-core cable)                           |
|        |   |      |      | A3 | Output signal: two switch output /IO-link/ frequency + analog output (5-core cable)                           |
|        |   |      |      | RS | Output signal: RS485 communication (4-core cable)                                                             |

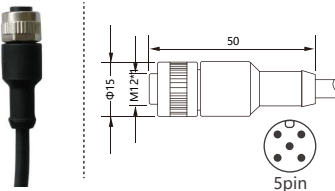
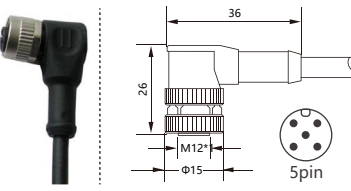
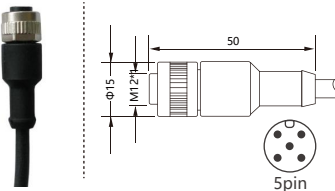
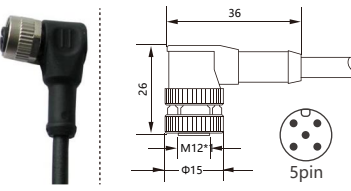
## Optional accessories-FA027

| Outline drawing/dimension drawing (mm)                                            | Installation effect drawing                                                       |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |

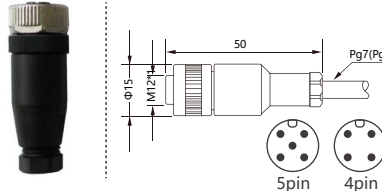
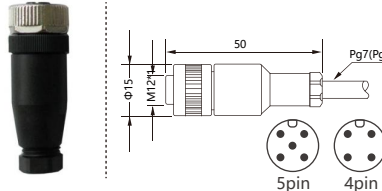
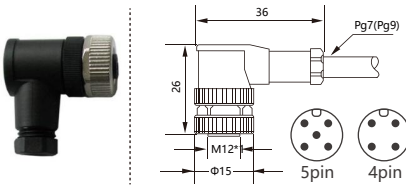
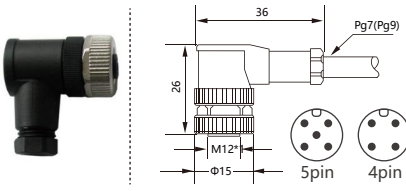
## Optional accessories - Protective cover

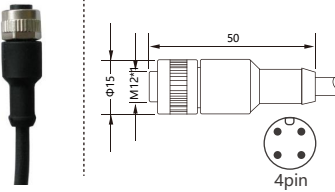
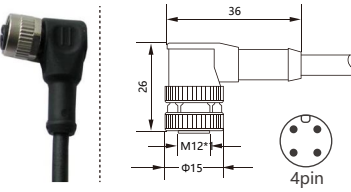
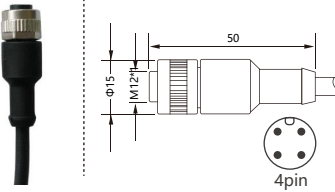
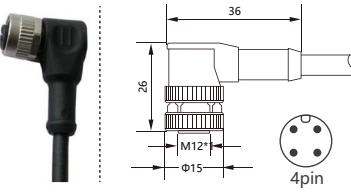
| 500 Series(sensor) Sensor protection cover                                          |
|-------------------------------------------------------------------------------------|
|  |
| Order number: KTC533662                                                             |

## Optional accessories - electrical accessories

| name                   | Outline drawing/dimension drawing (mm)                                              | material | model       |
|------------------------|-------------------------------------------------------------------------------------|----------|-------------|
| M12*1-5Pin (2m cable)  |   | PUR      | ZL05-PU02G  |
| M12*1-5Pin (5m cable)  |                                                                                     |          | ZL05-PU05G  |
| M12*1-5Pin (10m cable) |                                                                                     |          | ZL05-PU010G |
| M12*1-5Pin (2m cable)  |  | PUR      | ZL05-PC02G  |
| M12*1-5Pin (5m cable)  |                                                                                     |          | ZL05-PC05G  |
| M12*1-5Pin (10m cable) |                                                                                     |          | ZL05-PC010G |
| M12*1-5Pin (2m cable)  |   | PVC      | ZL05-PU02W  |
| M12*1-5Pin (5m cable)  |                                                                                     |          | ZL05-PU05W  |
| M12*1-5Pin (10m cable) |                                                                                     |          | ZL05-PU010W |
| M12*1-5Pin (2m cable)  |  | PVC      | ZL05-PC02W  |
| M12*1-5Pin (5m cable)  |                                                                                     |          | ZL05-PC05W  |
| M12*1-5Pin (10m cable) |                                                                                     |          | ZL05-PC010W |

Factory standard:ZL05-PC02G

| M12* 1-4pin /5Pin self-connector/size drawing (mm)                                   | model             |
|--------------------------------------------------------------------------------------|-------------------|
|   | GL04 (4Pin joint) |
|   | GL05 (5Pin joint) |
|  | WL04 (4Pin joint) |
|  | WL05 (5Pin joint) |

| name                   | Outline drawing/dimension drawing (mm)                                              | material | model       |
|------------------------|-------------------------------------------------------------------------------------|----------|-------------|
| M12*1-4Pin (2m cable)  |  | PUR      | ZL04-PU02G  |
| M12*1-4Pin (5m cable)  |                                                                                     |          | ZL04-PU05G  |
| M12*1-4Pin (10m cable) |                                                                                     |          | ZL04-PU010G |
| M12*1-4Pin (2m cable)  |  | PUR      | ZL04-PC02G  |
| M12*1-4Pin (5m cable)  |                                                                                     |          | ZL04-PC05G  |
| M12*1-4Pin (10m cable) |                                                                                     |          | ZL04-PC010G |
| M12*1-4Pin (2m cable)  |  | PVC      | ZL04-PU02W  |
| M12*1-4Pin (5m cable)  |                                                                                     |          | ZL04-PU05W  |
| M12*1-4Pin (10m cable) |                                                                                     |          | ZL04-PU010W |
| M12*1-4Pin (2m cable)  |  | PVC      | ZL04-PC02W  |
| M12*1-4Pin (5m cable)  |                                                                                     |          | ZL04-PC05W  |
| M12*1-4Pin (10m cable) |                                                                                     |          | ZL04-PC010W |

Factory standard:ZL04-PC02G