

Kenos® KCS



- ▶ The KCS (Kenos collaborative small gripper) gripping system is equipped with integrated COAX® SX cartridges.
- ▶ The quick change system of KCS allows the gripper to move from one application to another very quickly.
- ▶ The KCS is equipped with a flow restrictor suitable for handling different sized sealed or leaking objects with the same lifting device even if the total foam area is not covered, the KCS will still maintain enough vacuum level to lift the object.
- ▶ The COAX® SX cartridges- providing high performance even at low or fluctuating feed pressures. The KCS can be equipped with 1 or 2 COAX® SX cartridges.

Technical data

| Description | Unit | Value |
|----------------------------|------|-----------------------------------|
| Feed pressure, max. | MPa | 0.7 |
| Temperature range | °C | 0-50 |
| Weight | g | 1 021 |
| Material | - | PA, POM, EPDM, SS, NBR, PVC, HDPE |
| Noise level | dBA | 70 |
| Connection, compressed air | - | G 1/8" |
| Material foam | - | EPDM |

Technical data, monitoring

| Description | Unit | Value |
|---|--------|--|
| Fluid | - | Air/Non-corrosive gas/Non-flammable gas |
| Rated pressure range | kPa | 0 to -101 |
| Extension analog output range | kPa | 10.1 to 0 |
| Proof pressure | kPa | 500 |
| Power supply voltage effect | VDC | 12 to 24 10 %, Ripple (p-p) 10 % or less (with reverse connection protection) |
| Current consumption | mA | 15 or less |
| Output specifications | V | 1 to 5 (within rated pressure range), 0.6 to 1 (within extension analogue output range) |
| Accuracy (Ambient temperature at 25 °C) | % F.S. | ±2 (within rated pressure range), ±5 (within extension analogue output range) |
| Linearity | % F.S. | ±0.4 |
| Repeatability | % F.S. | ±0.2 |
| Power supply voltage effect | % F.S. | ±0.8 |
| Enclosure | - | IP40 |
| Operating temperature range | °C | Operating: 0 to 50, Stored: -20 to 70 (No freezing or condensation) |
| Operating humidity range | %RH | Operating/Stored: 35 to 85 (No condensation) |
| Withstand voltage | VAC | 1000 (in 50 / 60 Hz) for 1 minute between terminals and housing |
| Insulation resistance | MΩ | 50 or more (500 V DC measured via megohmmeter) between terminals and housing |
| Temperature characteristics | % F.S. | ±2 (25 °C reference) |
| Sensor cable | - | Oilproof heavy-duty vinyl cable (ellipse), 3 cores, 2.7 x 3.2, Conductor area: 0.15 mm ² , Insulator O.D.: 0.9 mm |
| Standards | - | CE, UL/CSA (E216656), RoHS |
| Electrical connection | - | Connector, M8 3pin, Male |

Technical data, solenoid valve

| Description | Unit | Value |
|-------------------------------|------------------|--------------------------------|
| Fluid | - | Air |
| Operating pressure range | MPa | 0.15-0.7 |
| Operating temperature range | °C | -10 +50 (No freezing) |
| Manual override | - | Push-turn locking slotted type |
| Lubrication | - | Not required |
| Impact / Vibration resistance | m/s ² | 150/30 |
| Electrical connection | - | Connector M8 3 pin male |
| Coil rated voltage | Vcc | 24 |
| Allowable voltage | % rated voltage | ± 10 |
| Current consumption | mA | 17 |
| Surge voltage supressor | - | Diode |

| | | |
|-----------------|---|-----|
| Indicator light | - | LED |
|-----------------|---|-----|

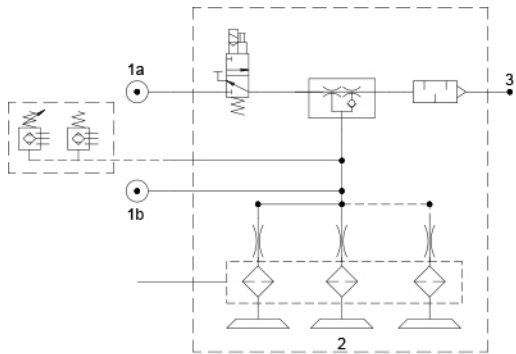
Vacuum flow

| Feed pressure pump / nozzle | Air Consumption per pump/nozzle | Vacuum flow (NI/s) at different vacuum levels (-kPa) | | | | | | | | | Max vacuum |
|--------------------------------|------------------------------------|--|------|------|------|------|------|------|------|------|---------------|
| MPa | NI/s | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | -kPa |
| 0.47 / 0.43 | 2.21 | 3.46 | 3.02 | 2.41 | 1.70 | 1.02 | 0.61 | 0.47 | 0.28 | 0.10 | 90 |

Gripping force data

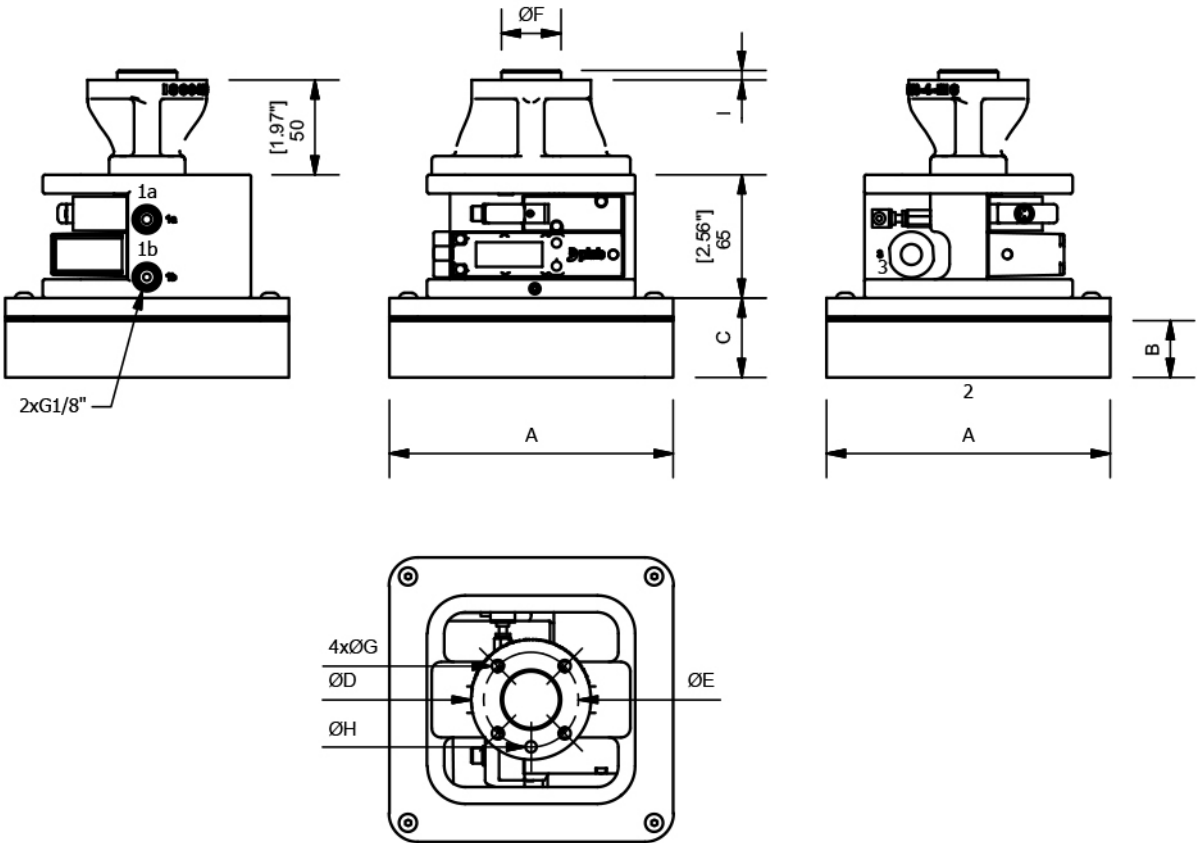
| Force, N, at different vacuum levels (-kPa) | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| 30 | 40 | 50 | 60 | 70 | 80 | 90 |
| 136 | 181 | 226 | 271 | 317 | 362 | 407 |

Dimensional drawing

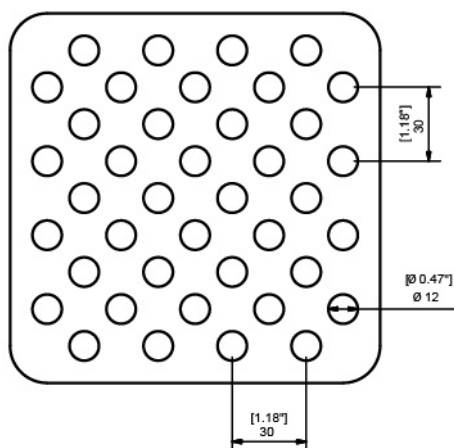


Note: The filter, the monitoring and the valves are optional depending on your configuration.

| | |
|---|--------------|
| A | 150 [5,91"] |
| B | 30 [1,18"] |
| C | 42 [1,65"] |
| D | 63 [2,48"] |
| E | 50 [1,97"] |
| F | 31,5 [1,24"] |
| G | 6,4 [0,25"] |
| H | 6 [0,24"] |
| I | 5 [0,20"] |



Note: The monitoring and the valves are optional depending on your configuration.



Ordering information

| Description | Product code |
|---|---|
| KCS 110x110mm, Foam, Foam EPDM, Foam 30mm, Without filter, Fine step, 150x150mm, Flow Reduction 0,6 mm (standard), Ejector pump, 1 x SX42, EV vacuum N.C., Analog 1-5V sensor, ISO 9409-1-50-M6 | KCS.U1.Q110.N301.150.FR6.SX421.V1.MA.50 |

Ordering information, spare part foam

| Description | Product code |
|--|------------------------|
| Foam EPDM, Foam 30mm, Without filter, Fine step, 150x150mm | FOAM.KCS.Q110.N301.150 |

Ordering information, accessories

| Description | Art. No. |
|---|----------|
| Y cable UR-KCS M8 8p V1/V3-MA 250mm (included in UR config) | 0212281 |