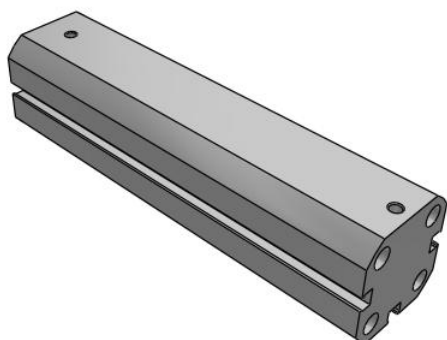
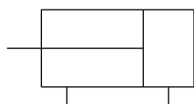




## C(D)55-X1439, Compact Cylinder ISO Standard (ISO 21287), Auto Switch Mounting Groove: T-slot Type CD55B25-125M-X1439

### Datasheet

European machine builders looking for a range of high performance ISO 21287 compliant compact actuators need look no further thanks to the latest development from world leaders, SMC Pneumatics, with the launch of their new generation – Series C55, double acting, single rod, air operated cylinders. Designed to meet a broad range of automation machine applications, Series C55 achieves outstanding load performance thanks to its unique rubber bumpers, piston wear ring and rod bushing which are used throughout the complete range. Therefore, European machine builders looking for an ISO compact cylinder with stroke lengths of up to 150mm including the benefits of standardised mounting dimensions, now have the perfect solution. Available in standard bore sizes of: 20, 25, 32, 40, 50, 63, 80 y 100mm, with piston speeds of between 50 – 500mm/sec, these cylinders are designed to operate using relatively low air pressure of between 0.05 – 1.0 MPa and at ambient and fluid temperatures of between minus 10°C to plus 70°C. With standardised mounting options conforming both ISO 21287 and 6431, this new cylinder range effectively complete SMC's comprehensive line up of ISO/VDMA compliant cylinders.



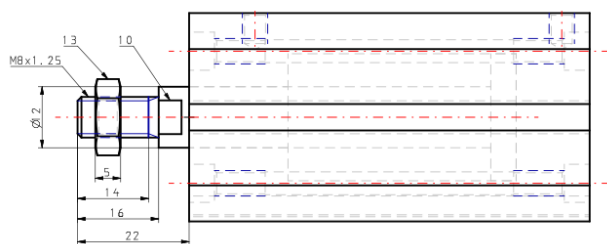
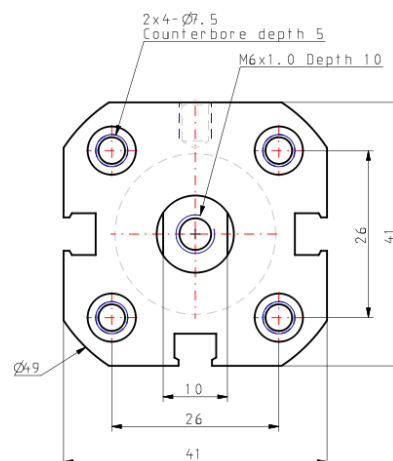
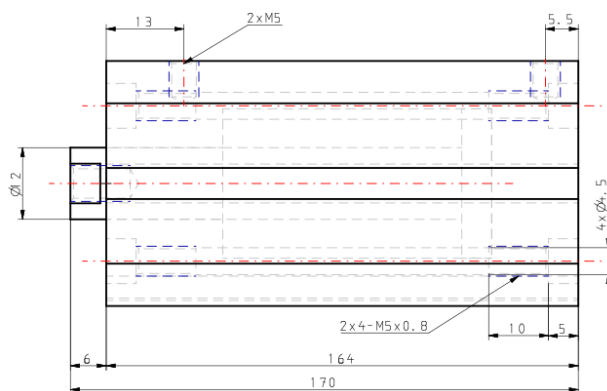
Double-acting, single-rod cylinder

### Standard specifications

|                                                    |                                           |
|----------------------------------------------------|-------------------------------------------|
| Built-in Magnet                                    | D (With Magnet)                           |
| Mounting Style                                     | B (Standard)                              |
| Bore Size                                          | Ø25 mm                                    |
| Stroke                                             | 125 mm                                    |
| Rod End Thread                                     | M (Rod End Male Thread)                   |
| Auto Switch                                        | Without Autoswitch                        |
| Number                                             | 2 pcs. [Or None in the Case of No Switch] |
| Pressure medium                                    | Compressed Air                            |
| Maximum temperature of pressure medium             | 70 °C                                     |
| Maximum temperature of pressure medium with magnet | 60 °C                                     |
| Minimum temperature of pressure medium             | -10 °C [without condensation]             |
| Minimum temperature of pressure medium with magnet | -10 °C [without condensation]             |
| Maximum operating pressure                         | 1.0 MPa                                   |

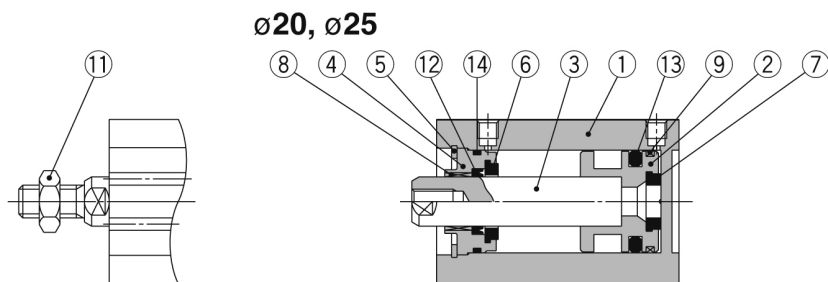
|                                                         |                           |
|---------------------------------------------------------|---------------------------|
| Minimum operating pressure                              | 0.05 MPa                  |
| Proof pressure                                          | 1.5 MPa                   |
| Maximum ambient temperature                             | 70 °C                     |
| Maximum ambient temperature with magnet                 | 60 °C                     |
| Minimum ambient temperature                             | -10 °C                    |
| Minimum ambient temperature with magnet                 | -10 °C                    |
| Conform to the European RoHS Directive                  | Conform                   |
| Numero of pneumatic connections                         | 2 pcs.                    |
| Pneumatic input connection                              | M5                        |
| Pneumatic output connection                             | M5                        |
| Pneumatic exhaust connection                            | M5                        |
| Mode of operation of drive                              | Double acting             |
| Theoretical cylinder force, advance stroke (at 0.5 MPa) | 245 N                     |
| Theoretical cylinder force, return stroke (at 0.5 MPa)  | 189 N                     |
| Maximum piston speed                                    | 500 mm/s                  |
| Type of cushioning                                      | Rubber bumper on both end |
| Piston rod end                                          | Male Thread               |
| Geometric form of the piston rod                        | Single rod                |
| Male thread of rod end                                  | M8                        |
| Female thread of rod end                                | M6                        |
| Minimum piston speed                                    | 50 mm/s                   |
| Weight                                                  | 0.528 Kg                  |

## Dimensions



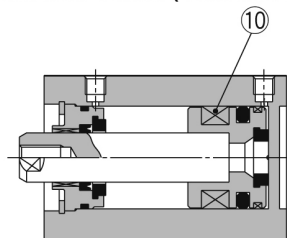
Rod end male thread detail

## Constructions



M: Rod end  
male thread

With auto switch (Built-in magnet)



### Component Parts

| No. | Description    | Material              | Note                                                          |
|-----|----------------|-----------------------|---------------------------------------------------------------|
| 1   | Cylinder tube  | Aluminum alloy        | Hard anodised                                                 |
| 2   | Piston         | Aluminum alloy        | Chromated                                                     |
| 3   | Piston rod     | Stainless steel       | $\varnothing 20, \varnothing 25$                              |
|     |                | Carbon steel          | $\varnothing 32$ to $\varnothing 100$ Hard chrome plated      |
| 4   | Collar         | Aluminum alloy        | $\varnothing 20$ to $\varnothing 40$ Anodized                 |
|     |                | Aluminum alloy casted | $\varnothing 50$ to $\varnothing 100$ Painted after chromated |
| 5   | Retaining ring | Carbon tool steel     | Phosphate coated                                              |
| 6   | Bumper A       | Urethane              |                                                               |
| 7   | Bumper B       | Urethane              |                                                               |
| 8   | Bushing        | Bearing alloy         |                                                               |
| 9   | Wear ring      | Resin                 | $\varnothing 20$ to $\varnothing 63$                          |
| 10  | Magnet         | —                     |                                                               |
| 11  | Rod end nut    | Carbon steel          | Nickel plated                                                 |
| 12  | Rod seal       | NBR                   |                                                               |
| 13  | Piston seal    | NBR                   |                                                               |
| 14  | Tube gasket    | NBR                   |                                                               |

### Replacement Parts/Seal Kit

| Bore size (mm) | Kit no.    | Contents                          |
|----------------|------------|-----------------------------------|
| 20             | CQ2B20-PS  | Set of nos.<br>at left<br>⑫, ⑬, ⑭ |
| 25             | CQ2B25-PS  |                                   |
| 32             | CQ2B32-PS  |                                   |
| 40             | CQ2B40-PS  |                                   |
| 50             | CQ2B50-PS  |                                   |
| 63             | CQ2B63-PS  |                                   |
| 80             | CQ2B80-PS  |                                   |
| 100            | CQ2B100-PS |                                   |

\* Seal kit includes ⑫, ⑬, ⑭. Order the seal kit, based on each bore size.

## Additional information

Catalogue

[C55-X1439\\_EU.pdf](#)