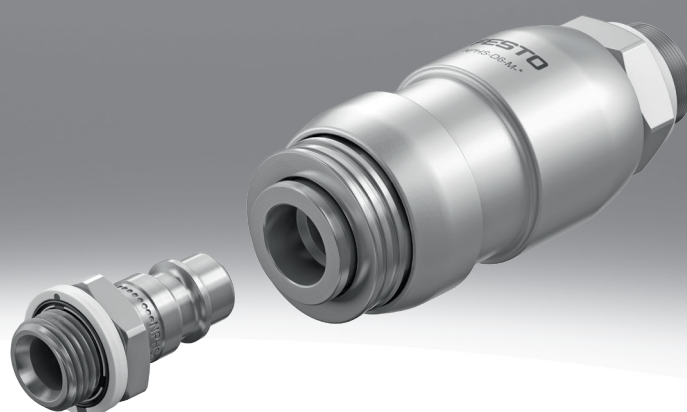


## Coupling socket, quick coupling plug NPHS

**FESTO**



Characteristics

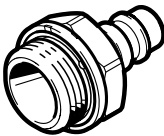
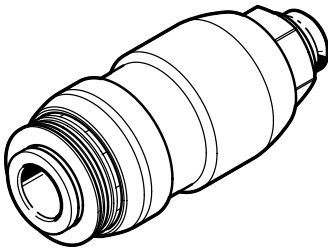
At a glance

- Safety coupling to ISO 4414, with shut-off on one side.
- Exhaust the air on the connector side without releasing the coupling

Notes on product selection:

- All types of coupling socket NPHS-D6 are compatible with all plugs NPHS-S6. In addition, the coupling sockets NPHS-D6-M and all quick coupling plugs NPHS-S6 can be combined with the coupling sockets/quick coupling plugs KD4/KS4 made of brass.
- The coupling sockets NPHS-D6-P, on the other hand, can only be used with the hardened quick coupling plugs NPHS-S6.
- No safety function when combining coupling socket KD4 and quick coupling plug NPHS-S6. With this combination, the plug is released directly in one step.
- Safety exhaust couplings with the coupling sockets NPHS-D6 fulfil the requirements for pneumatic systems to EN ISO 4414.

Coupling element

| [S]                                                                              | Coupling plug | [D]                                                                                | Coupling socket |
|----------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------|-----------------|
|  |               |  |                 |

Releasing sleeve version

| [M]                                                                                                                                                                                                                                                                                                                                                                               | Metal | [P]                                                                                                                                                                                                                                                                         | Polymer |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <p>Coupling socket: metal release sleeve</p> <ul style="list-style-type: none"><li>• Exhaust the air on the connector side by moving the sliding sleeve, then unlocking the coupling</li><li>• can be combined with brass coupling sockets/quick coupling plugs KD4/KS4</li><li>• Combination of coupling and hand slide valve</li><li>• Can be used as an on/off valve</li></ul> |       | <p>Coupling socket: polymer release sleeve</p> <ul style="list-style-type: none"><li>• Exhaust the air on the connector side by pushing the release sleeve, then unlocking the coupling</li><li>• can only be used with the hardened quick coupling plugs NPHS-S6</li></ul> |         |

## Type code

|      |                          |  |
|------|--------------------------|--|
| 001  | Series                   |  |
| NPHS | Coupling socket/plug     |  |
| 002  | Coupling element         |  |
| S    | Coupling plug            |  |
| D    | Coupling socket          |  |
| 003  | Coupling size            |  |
| 6    | Size 6                   |  |
| 004  | Releasing sleeve version |  |
| P    | Polymer                  |  |
| M    | Metal                    |  |

|     |                                       |  |
|-----|---------------------------------------|--|
| 005 | Pneumatic connection 1                |  |
| BC9 | Barbed connector 9 mm for tubing clip |  |
| G12 | G1/2                                  |  |
| G14 | G1/4                                  |  |
| G18 | G1/8                                  |  |
| G38 | G3/8                                  |  |
| 006 | Thread type connection 1              |  |
|     | Male thread                           |  |
| F   | Female thread                         |  |

## Datasheet

## General technical data – Coupling sockets NPHS-D6-M (metal unlocking sleeve)

| Pneumatic connection, port 1                                        | Male thread G1/4      | Male thread G3/8        | Male thread G1/2 |
|---------------------------------------------------------------------|-----------------------|-------------------------|------------------|
| Nominal size                                                        | 8.2 mm                | 10 mm                   |                  |
| Nominal torque                                                      | 7 Nm                  | 15 Nm                   | 25 Nm            |
| Tolerance for nominal tightening torque                             | ± 20%                 |                         |                  |
| Standard nominal flow rate (standardised to DIN 1343) <sup>1)</sup> | 1,750 ... 1,833 l/min | 2,000 ... 2,100 l/min   |                  |
| Nominal flow rate standardised according to ISO 8778                | 1,897 ... 1,987 l/min | 2,168 ... 2,276.4 l/min |                  |

1) Measured at p1 = 6 bar and Δp = 1 bar

## General technical data – Coupling sockets NPHS-D6-P (polymer release sleeve)

| Pneumatic connection, port 1                                        | Male thread G1/8        | Male thread G1/4          | Male thread G3/8        | Male thread G1/2          | Female thread G1/4        | Female thread G3/8      | Female thread G1/2        | Barbed hose fitting 9 mm  |
|---------------------------------------------------------------------|-------------------------|---------------------------|-------------------------|---------------------------|---------------------------|-------------------------|---------------------------|---------------------------|
| Nominal size                                                        | 5 mm                    | 7.8 mm                    | 10.2 mm                 | 11 mm                     | 10.5 mm                   |                         |                           | 7 mm                      |
| Nominal torque                                                      | 3.5 Nm                  | 11 Nm                     | 12.5 Nm                 | 14 Nm                     | –                         |                         |                           |                           |
| Tolerance for nominal tightening torque                             | ± 10%                   |                           | ± 20%                   |                           | –                         |                         |                           |                           |
| Standard nominal flow rate (standardised to DIN 1343) <sup>1)</sup> | 875 ... 1,050 l/min     | 1,183 ... 1,966 l/min     | 1,216 ... 2,083 l/min   | 1,233 ... 2,016 l/min     | 1,183 ... 2,050 l/min     | 1,203 ... 2,083 l/min   | 1,008 ... 2,050 l/min     | 1,093 ... 1,613 l/min     |
| Nominal flow rate standardised according to ISO 8778                | 948.5 ... 1,138.2 l/min | 1,282.4 ... 2,131.1 l/min | 1,318.1 ... 2,258 l/min | 1,336.6 ... 2,185.3 l/min | 1,282.4 ... 2,222.2 l/min | 1,304.1 ... 2,258 l/min | 1,092.7 ... 2,222.2 l/min | 1,184.8 ... 1,748.5 l/min |

1) Measured at p1 = 6 bar and Δp = 1 bar

## General technical data – Quick coupling plug NPHS-S6

| Pneumatic connection, port 1                                        | Male thread G1/8      | Male thread G1/4          | Male thread G3/8          | Male thread G1/2        | Female thread G1/4        | Female thread G3/8      | Female thread G1/2        | Barbed hose fitting 9 mm  |
|---------------------------------------------------------------------|-----------------------|---------------------------|---------------------------|-------------------------|---------------------------|-------------------------|---------------------------|---------------------------|
| Nominal size                                                        | 5.5 mm                | 7.85 mm                   |                           |                         |                           |                         |                           | 7 mm                      |
| Nominal torque                                                      | 3.5 Nm                | 11 Nm                     | 12.5 Nm                   | 14 Nm                   | –                         |                         |                           |                           |
| Tolerance for nominal tightening torque                             | ± 10%                 |                           | ± 20%                     |                         | –                         |                         |                           |                           |
| Standard nominal flow rate (standardised to DIN 1343) <sup>1)</sup> | 875 ... 1,238 l/min   | 1,038 ... 2,100 l/min     | 1,038 ... 2,050 l/min     | 1,002 ... 2,000 l/min   | 1,002 ... 1,950 l/min     | 1,050 ... 2,083 l/min   | 1,038 ... 2,050 l/min     | 966 ... 1,700 l/min       |
| Nominal flow rate standardised according to ISO 8778                | 948.5 ... 1,342 l/min | 1,125.2 ... 2,276.4 l/min | 1,125.2 ... 2,222.2 l/min | 1,086.2 ... 2,168 l/min | 1,086.2 ... 2,113.8 l/min | 1,138.2 ... 2,258 l/min | 1,125.2 ... 2,222.2 l/min | 1,047.1 ... 1,842.8 l/min |

1) Measured at p1 = 6 bar and Δp = 1 bar

## Operating and environmental conditions

| Coupling element                              | Coupling plug                             | Coupling socket |
|-----------------------------------------------|-------------------------------------------|-----------------|
| Releasing sleeve version                      | Metal                                     | Polymer         |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa                        |                 |
| Operating pressure complete temperature range | -0.95 ... 12 bar                          |                 |
| Operating pressure complete temperature range | -13.775 ... 174 psi                       |                 |
| Operating medium                              | Compressed air to ISO 8573-1:2010 [7:-:-] |                 |
| Note on operating and pilot medium            | Lubricated operation possible             |                 |
| Ambient temperature                           | -10 ... 60°C                              | -20 ... 80°C    |
| Corrosion resistance class CRC <sup>1)</sup>  | 1 - Low corrosion stress                  |                 |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

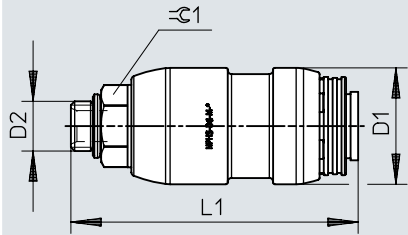
## Datasheet

| Materials                          |                   |                                              |                                         |
|------------------------------------|-------------------|----------------------------------------------|-----------------------------------------|
| Coupling element                   | Coupling plug     | Coupling socket                              |                                         |
| Releasing sleeve version           | Metal             |                                              | Polymer                                 |
| Material housing                   | –                 | Brass, nickel-plated                         |                                         |
| Valve body material                | –                 |                                              | Brass                                   |
| Material sleeve                    | –                 | Wrought aluminium alloy, Colourless anodised | –                                       |
| Material releasing sleeve          | –                 | Nickel-plated brass                          | POM<br>PP<br>High-alloy stainless steel |
| Material seals                     | –                 | NBR                                          |                                         |
| Material spring                    | –                 | High-alloy stainless steel                   |                                         |
| Material thread seal <sup>1)</sup> | PA66-GF30/TPE-U   | Aluminium, HNBR                              | PA66-GF30/TPE-U                         |
| Material thread piece              | –                 | Nickel-plated brass                          |                                         |
| Material of inner raceway          | –                 | Brass                                        | POM                                     |
| Material ball                      | –                 | High-alloy stainless steel                   |                                         |
| Material pins                      | –                 |                                              | High-alloy stainless steel              |
| Information on materials           | Galvanised steel  | –                                            |                                         |
| Note on materials                  | RoHS-compliant    |                                              |                                         |
| LABS (PWIS) conformity             | VDMA24364-B1/B2-L |                                              |                                         |

1) only for male thread

Dimensions

Dimensions – Coupling socket male thread metal Download CAD data [www.festo.com](http://www.festo.com)

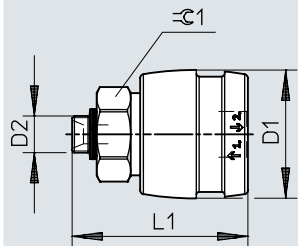


|               | D1<br>Ø | D2   | L1   | 1  |
|---------------|---------|------|------|----|
| NPHS-D6-M-G14 | 30,8    | G1/4 | 76   | 19 |
| NPHS-D6-M-G38 |         | G3/8 | 77   | 22 |
| NPHS-D6-M-G12 |         | G1/2 | 80,5 | 24 |

## Dimensions

Dimensions – Coupling socket male thread, polymer

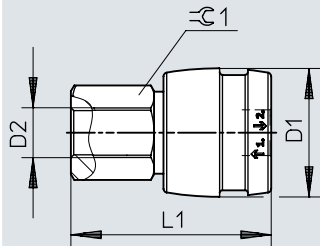
Download CAD data [www.festo.com](http://www.festo.com)



|               | D1<br>Ø | D2   | L1   | ±0.1 |
|---------------|---------|------|------|------|
| NPHS-D6-P-G18 | 34      | G1/8 | 46,5 | 22   |
| NPHS-D6-P-G14 |         | G1/4 | 48   | 22   |
| NPHS-D6-P-G38 |         | G3/8 | 49   | 22   |
| NPHS-D6-P-G12 |         | G1/2 | 50,5 | 24   |

Dimensions

Dimensions – Coupling socket female thread [Download CAD data](#) [www.festo.com](http://www.festo.com)



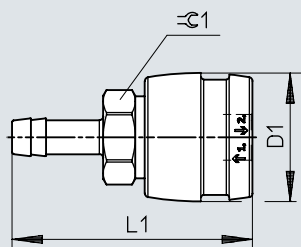
|                | D1<br>Ø | D2   | L1 | 1/2 |
|----------------|---------|------|----|-----|
| NPHS-D6-P-G14F | 34      | G1/4 | 53 | 22  |
| NPHS-D6-P-G38F |         | G3/8 | 53 | 22  |
| NPHS-D6-P-G12F |         | G1/2 | 56 | 24  |



## Dimensions

### Dimensions – Coupling socket for plug-in nipple

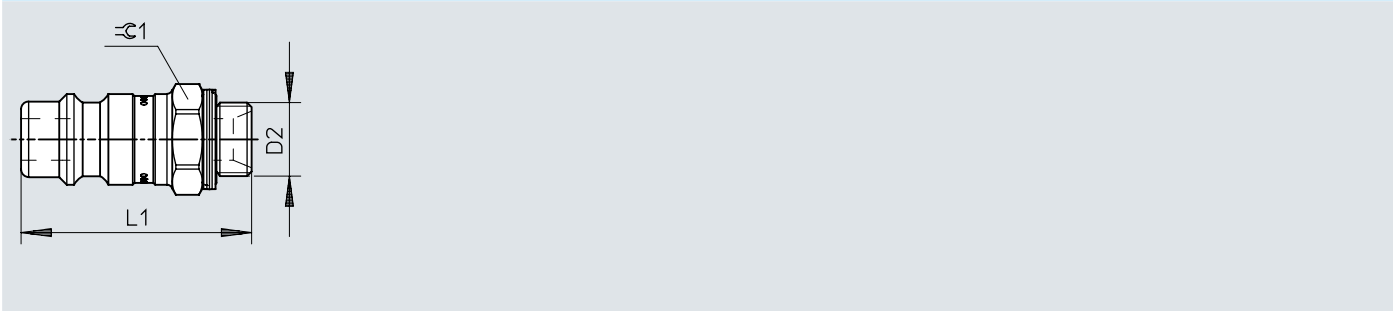
Download CAD data [www.festo.com](http://www.festo.com)



|               | D1<br>Ø | D2 | L1   | ⌀ 1 |
|---------------|---------|----|------|-----|
| NPHS-D6-P-BC9 | 34      | –  | 63,6 | 22  |

Dimensions

Dimensions – Quick coupling plug, male thread [Download CAD data](#) [www.festo.com](http://www.festo.com)

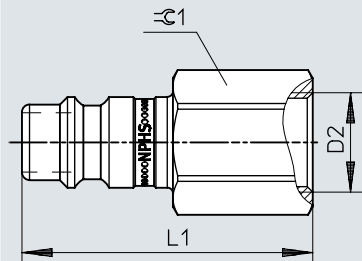


|               | D2   | L1   | ⌀ 1 |
|---------------|------|------|-----|
| NPHS-S6-M-G18 | G1/8 | 30,5 | 13  |
| NPHS-S6-M-G14 | G1/4 | 32,5 | 17  |
| NPHS-S6-M-G38 | G3/8 | 34   | 19  |
| NPHS-S6-M-G12 | G1/2 | 37,5 | 24  |

## Dimensions

### Dimensions – Quick coupling plug female thread

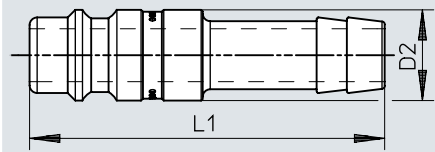
Download CAD data [www.festo.com](http://www.festo.com)



|                | D2   | L1   | H9/k9 |
|----------------|------|------|-------|
| NPHS-S6-M-G14F | G1/4 | 38,5 | 17    |
| NPHS-S6-M-G38F | G3/8 | 39,5 | 19    |
| NPHS-S6-M-G12F | G1/2 | 44   | 24    |

Dimensions

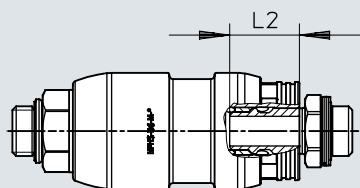
Dimensions – Quick coupling plug for plug-in sleeve [Download CAD data](http://www.festo.com) [www.festo.com](http://www.festo.com)



|               | D2 | L1 |
|---------------|----|----|
| NPHS-S6-M-BC9 | 12 | 47 |

## Dimensions

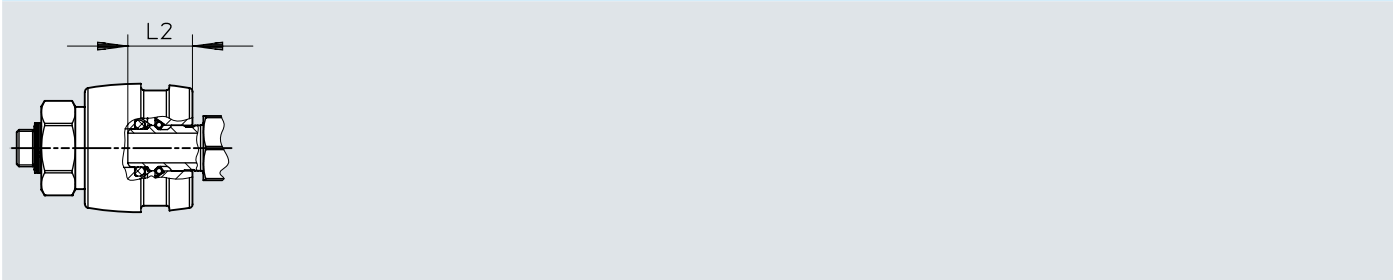
Dimensions – Quick coupling plug Insertion depth Unlocking sleeve metal

Download CAD data [www.festo.com](http://www.festo.com)

|               | L2        |
|---------------|-----------|
| NPHS-D6-M-... | 18,6 ±0,4 |

Dimensions

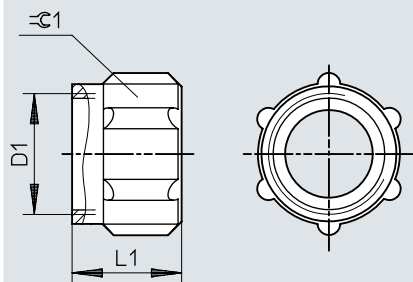
Dimensions – Quick coupling plug insertion depth unlocking sleeve, polymer [Download CAD data](#) [www.festo.com](http://www.festo.com)



|               |           |
|---------------|-----------|
|               | L2        |
| NPHS-D6-P-... | 17,1 ±0,3 |

## Dimensions

### Dimensions – Union nut MCK

[Download CAD data](http://www.festo.com)


|          | D1      | L1   | ±C1 |
|----------|---------|------|-----|
| MCK-PK-3 | M6x0,75 | 8,5  | 8   |
| MCK-PK-4 | M10x1   | 11   | 12  |
| MCK-PK-6 | M12x1   | 11   | 14  |
| MCK-PK-9 | M16x1   | 14,4 | 19  |

## Ordering data

## Ordering data – Coupling sockets NPHS-D6-M (metal releasing sleeve)

|                                                                                  | Pneumatic connection, port 1 | Nominal size | Nominal torque | Product weight | Part no. | Type          |
|----------------------------------------------------------------------------------|------------------------------|--------------|----------------|----------------|----------|---------------|
|  | Male thread G1/4             | 8.2 mm       | 7 Nm           | 173 g          | 8059275  | NPHS-D6-M-G14 |
|                                                                                  | Male thread G3/8             | 10 mm        | 15 Nm          | 179 g          | 8059276  | NPHS-D6-M-G38 |
|                                                                                  | Male thread G1/2             |              | 25 Nm          | 200 g          | 8059277  | NPHS-D6-M-G12 |

## Ordering data – Coupling sockets NPHS-D6-P (plastic releasing sleeve)

|                                                                                  | Pneumatic connection, port 1 | Nominal size | Nominal torque | Product weight | Part no. | Type           |
|----------------------------------------------------------------------------------|------------------------------|--------------|----------------|----------------|----------|----------------|
|  | Male thread G1/8             | 5 mm         | 3.5 Nm         | 94 g           | 8059266  | NPHS-D6-P-G18  |
|                                                                                  | Male thread G1/4             | 7.8 mm       | 11 Nm          | 95 g           | 8059267  | NPHS-D6-P-G14  |
|                                                                                  | Male thread G3/8             | 10.2 mm      | 12.5 Nm        | 98 g           | 8059268  | NPHS-D6-P-G38  |
|                                                                                  | Male thread G1/2             | 11 mm        | 14 Nm          | 113 g          | 8059269  | NPHS-D6-P-G12  |
|                                                                                  | Female thread G1/4           | 10.5 mm      |                | 124 g          | 8059271  | NPHS-D6-P-G14F |
|                                                                                  | Female thread G3/8           |              |                | 114 g          | 8059272  | NPHS-D6-P-G38F |
|                                                                                  | Female thread G1/2           |              |                | 122 g          | 8059273  | NPHS-D6-P-G12F |
|                                                                                  | Barbed hose fitting 9 mm     | 7 mm         |                | 95 g           | 8059274  | NPHS-D6-P-BC9  |

## Ordering data – Quick coupling plug NPHS-S6

|                                                                                    | Pneumatic connection, port 1 | Nominal size | Nominal torque | Product weight | Part no. | Type           |
|------------------------------------------------------------------------------------|------------------------------|--------------|----------------|----------------|----------|----------------|
|  | Male thread G1/8             | 5.5 mm       | 3.5 Nm         | 19 g           | 8059257  | NPHS-S6-M-G18  |
|                                                                                    | Male thread G1/4             | 7.85 mm      | 11 Nm          | 20 g           | 8059258  | NPHS-S6-M-G14  |
|                                                                                    | Male thread G3/8             |              | 12.5 Nm        | 27 g           | 8059259  | NPHS-S6-M-G38  |
|                                                                                    | Male thread G1/2             |              | 14 Nm          | 50 g           | 8059260  | NPHS-S6-M-G12  |
|                                                                                    | Female thread G1/4           |              |                | 28 g           | 8059262  | NPHS-S6-M-G14F |
|                                                                                    | Female thread G3/8           |              |                | 29 g           | 8059263  | NPHS-S6-M-G38F |
|                                                                                    | Female thread G1/2           |              |                | 49 g           | 8059264  | NPHS-S6-M-G12F |
|                                                                                    | Barbed hose fitting 9 mm     | 7 mm         |                | 17 g           | 8059265  | NPHS-S6-M-BC9  |



## Accessories

| Union nut MCK                                                                     |                       |                        |                   |          |          |
|-----------------------------------------------------------------------------------|-----------------------|------------------------|-------------------|----------|----------|
|                                                                                   | Size                  | LABS (PWIS) conformity | Note on materials | Part no. | Type     |
|  | Female thread M10x1   | VDMA24364-B2-L         | RoHS-compliant    | 2965     | MCK-PK-4 |
|                                                                                   | Female thread M12x1   |                        |                   | 2966     | MCK-PK-6 |
|                                                                                   | Female thread M16x1   |                        |                   | 2967     | MCK-PK-9 |
|                                                                                   | Female thread M6x0.75 |                        |                   | 205254   | MCK-PK-3 |