

Hydraulic test point fittings with ISO 15171-2, M16x2 coupling end to stud ends

## Hydraulic Test Point Fittings



**Hydraulic test coupling diagnostic purposes  
ISO 15171-2, M16x2 coupling end to stud ends**

## Hydraulic Test coupling end system with M16x2 end

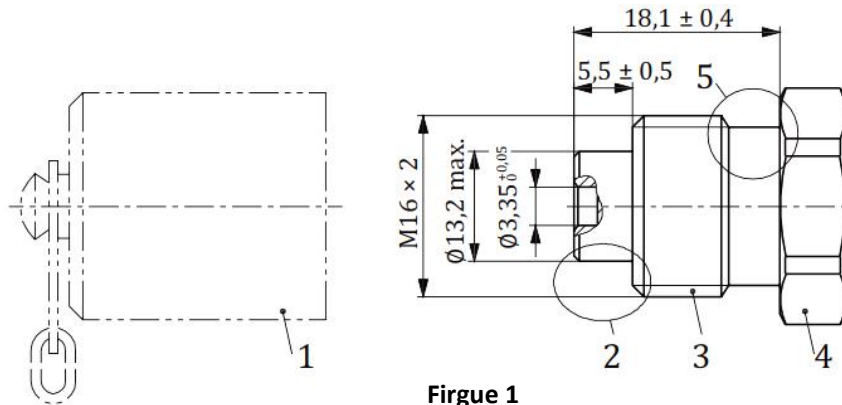


Figure 1

### Introduction of Test coupling M16x2 end

Test point diagnostic coupling with M16x2 connection ends, can be connected under pressure without tools to a maximum pressure of 10 MPa(400bar), Test coupling is designed for use in hydraulic system that use mineral oils.

Explain Test coupling end: 1 is diagnostic coupling counterpart, 1,2,3,4 and 5 is the design by manufacturer, our design as follow picture 1, 5 is vibration lock with o-ring, assembled test coupling end as picture 2.



Picture 1



Picture 2

### Working Pressure

The working pressure depends upon the materials, design, working conditions,application, etc. ISO 15171-2 standard specified a maximum working pressure of 63 MPa (630 bar), within a temperature range from  $-20^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ .

At a flow rate of 6 l/min, the pressure drop of the diagnostic coupling shall not exceed 20 MPa (200 bar).

Couplings shall meet at least a burst pressure of 252 MPa (2 520 bar) and a cyclic endurance (impulse) pressure of 84MPa(840 bar). Test shall be conducted in accordance with ISO 19879.

### Requirements of manufacturing

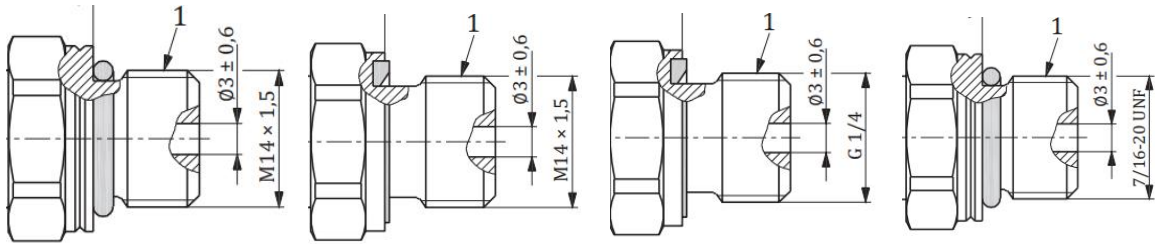
M16x2 threads conform to ISO 724, tolerance grade 6g for external and 6H for internal thread ISO 965-1.

Salt spray tests of test fitting is according to ISO 9227, Corrosion tests in artificial atmospheres.

Material is carbon steel, stainless steel.

Finished is White or Yellow Zinc Plated CrVI free.

## Test coupling M16x2 end to stud ends as follows



O-ring seal stud ends with Metric and UNF thread as follow:

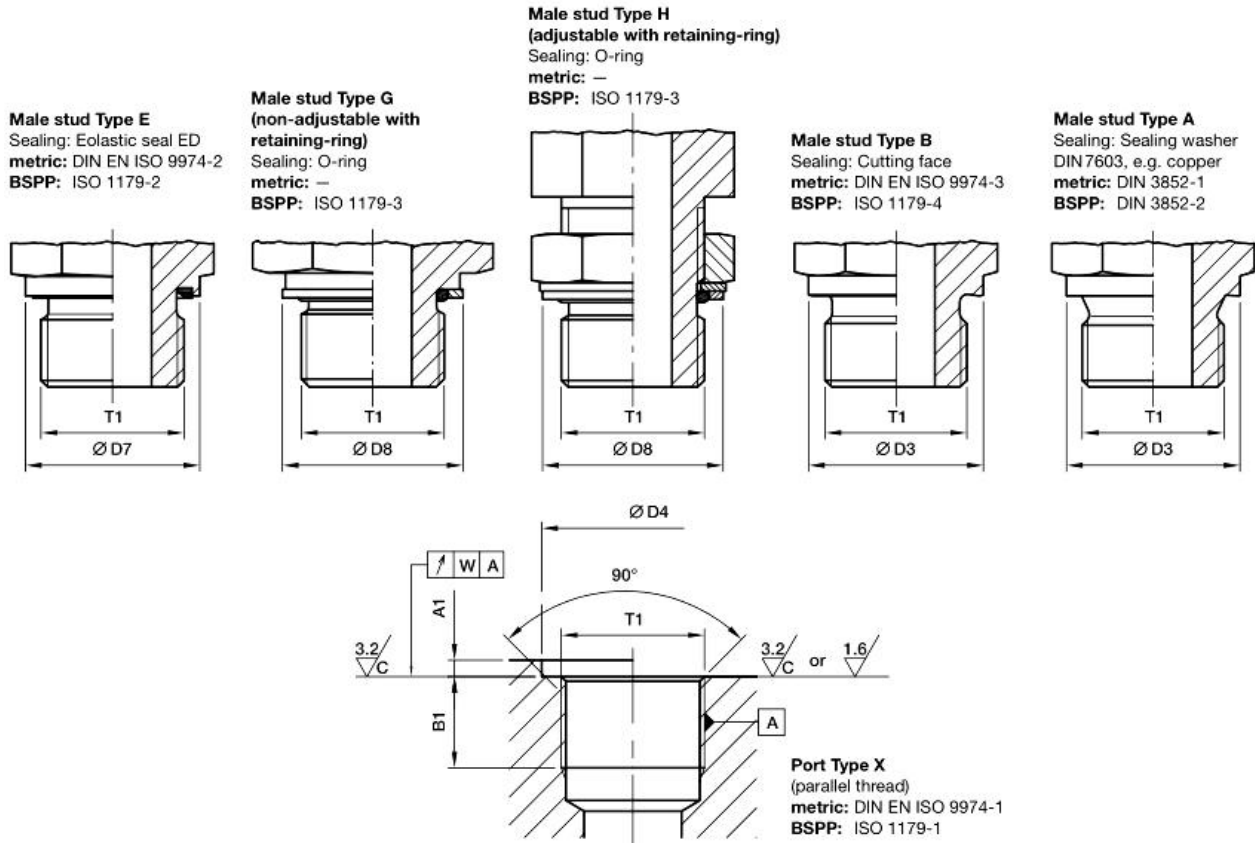
Diagnostic coupling to a stud end M 14x1,5 ISO 6149-2 O-ring seal type ORB

Diagnostic coupling to a stud end UNF 7/16-20 ISO 11926-2 O-ring seal type ORB

Flat face seal stud ends with Metric, BSPP thread as follows:

Diagnostic coupling to a stud end M 14x1,5 ISO 9974-2 Elastomeric seal ED type E

Diagnostic coupling to a stud end G1/4 ISO ISO 1179-2 Elastomeric seal ED type E



M16x2 test coupling end(16)-Stud end thread size-sealing type

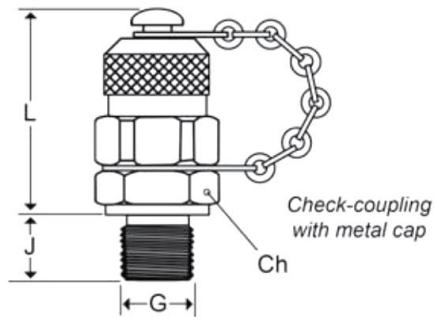
M162-M14x1.5-ORB: test coupling end M16x2 to M14x1.5 thread with o-ring seal ISO 6149-2.

M162-G1/4-E: test coupling end M16x2 to G1/4 thread with ED seal type E

Please feel free to contact us if you need other stud sealing.



**M162-SERIES Diagnostic coupling hydraulic test fitting**



- Features:
- Connects under full pressure
  - With protective metal cap
  - Stud end with O-ring sealing
  - 20 carbon steel, 316 stainless steel

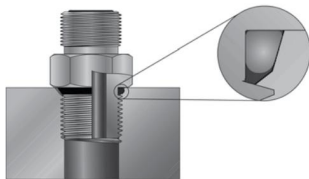
M16x2 test coupling to O-ring male stud ends/ports as chart:

To Metric Male stud DIN ISO 6149-2/3 for ISO 6149-1 port.

To UNF Male stud ISO 11926-2/3 for ISO 11926-1 port.

Part No.	G thread Size	L	J	CH	Remark
M162-M8x1-ORB	M8x1	37	8.5	17	
M162-M10x1-ORB	M10x1	37	8.5	17	
M162-M10x1.25-ORB	M10x1.25	37	9	17	
M162-M14x1.5-ORB	M14x1.5	37	10	19	
M162-1/16UNF-ORB	7/16" -20UNF	37	9	17	
M162-1/2UNF-ORB	1/2" -20UNF	37	10	17	
M162-9/16UNF-ORB	9/16" -18UNF	37	19	19	
M162-3/4UNF-ORB	3/4" -16UNF	37	22	20	

**O-ring seal male stud/port**

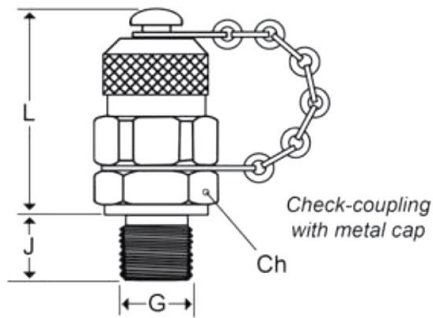


Other types of O-ring seal stud/ port standards we also offer:

PF thread port (G / BSPP thread) JIS B2351

BSPP thread port BS 5380.

**M162-SERIES Diagnostic coupling hydraulic test fitting**



- Features:
- Connects under full pressure
  - With protective metal cap
  - Stud end with various thread sealing
  - 20 carbon steel, 316 stainless steel

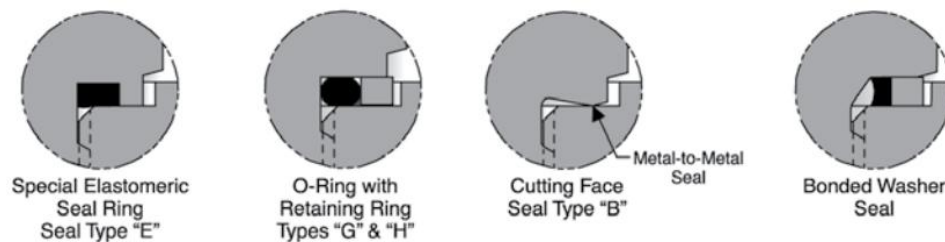
M16x2 test coupling to Flat face stud ends/ports as chart:

To Metric male stud: ED sealing DIN EN ISO 9974-2(Type E) for DIN EN ISO 9974-1 port.

To BSPP male stud: ED sealing ISO 1179-2(Type E) for ISO 1179-1 port.

Part No.	G thread Size	L	J	CH	Remark
M162-M10-E	M10x1	37	8	17	
M162-M12x1.25-E	M12x1.25	37	10	17	
M162-M14x1.5-E	M14x1.5	37	12	19	
M162-M16x1.5-E	M16x1.5	37	12	22	
M162-G1/8-E	G1/8"	37	8	17	
M162-G1/4-E	G1/4"	37	12	19	
M162-G3/8-E	G3/8"	37	14	22	
M162-G1/2-E	G1/2"	37	16	27	

Flat face seal stud / port:



Others For DIN EN ISO 9974-1 port: cutting face sealing DIN EN ISO 9974-3(Type B), Sealing washer or copper DIN 3852-1(Type A),

Others For ISO 1179-1 port: O-ring with retaining-ring ISO 1179-3(Type G), metal cutting face ISO 1179-4(Type B), Sealing bonded washer or copper DIN 3852-2(Type A),