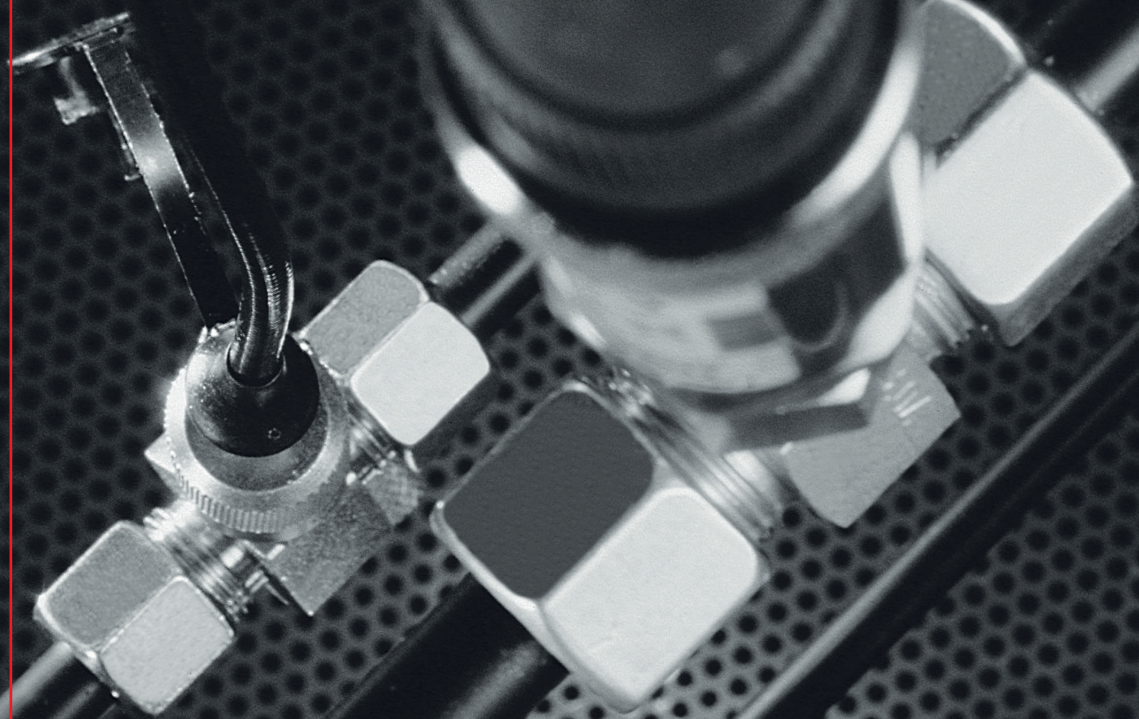


HYDAC

INTERNATIONAL

TestPoint.

The compact, quick fastening
measurement coupling



TestPoint connects...

TestPoints are test couplings with a very small nominal bore and a check valve. The opening valve for the test coupling is located on hose ends or as adaptors on pressure sensors. When connecting the test coupling, the check valve opens and gives direct contact to the fluid.

The most important features of the TestPoint are:

- Coupling and uncoupling without system shut down
- Pressure and pressure peaks can be measured using pressure sensors.
- Systems can be vented and samples taken.

Dedication to our customers has been the catalyst to developing a leak-free test point and to moving away from conventional technology, i.e. sealing by means of ball check valves.

The need for clean handling for the user whilst also protecting the environment resulted in a new, patented, leak-free test point using plate seat technology.

Since the successful launch of the "new sealing technology", the advanced design has achieved the following approvals as a result of further product development:

- Approval by the German Federal Institute for Material Testing (Bundesanstalt für Materialprüfung) for use with halon in fire extinguishers.
- Military standard approval for use with nitrogen accumulators.
- Approval of the gas coupling by the German Gas & Water Association (DVGW). The gas coupling is used for repeat testing in gas pressure regulation plants.

NOTE:

Only available in given pack sizes.



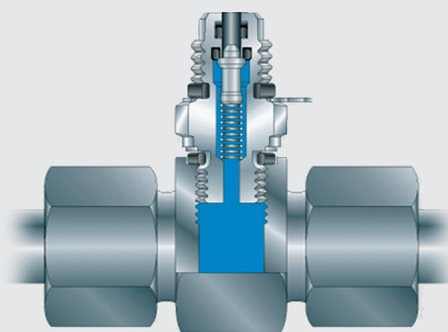
Portable measuring unit HMG ...



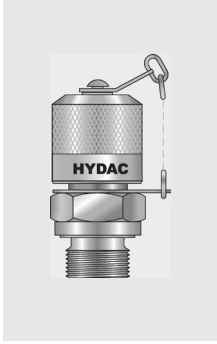
Pressure transmitter



Adaptor

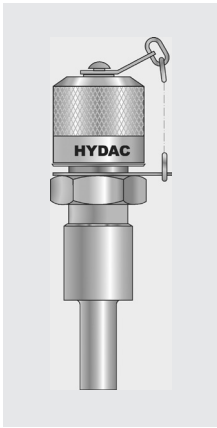


Guide to the TestPoint Product Range

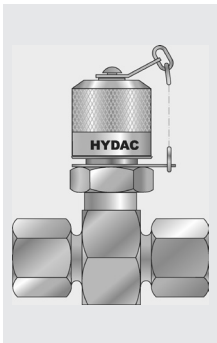


TestPoint screw coupling

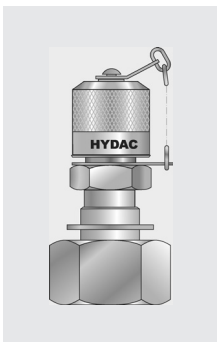
- with metal cap
- or plastic cap



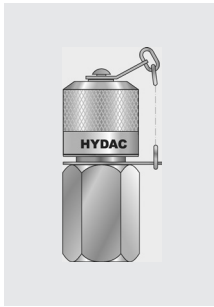
Standpipe Adaptor



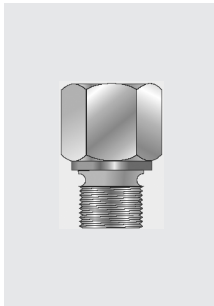
T-piece, screw-type



DKO adaptor



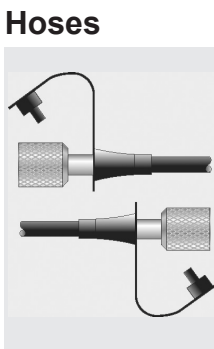
Standpipe adaptor 37° edged cone SAE J 514



Reducer

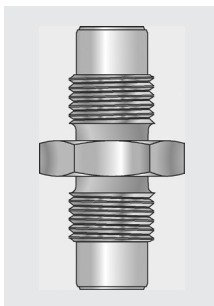


Weld adaptor

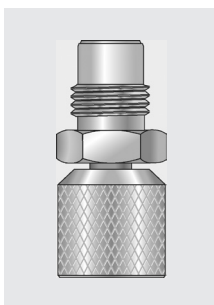


Hoses

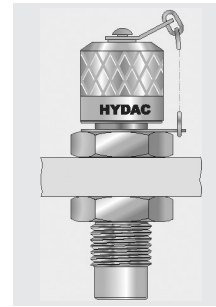
Microbore hose DN 2



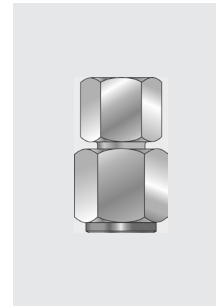
Connecting adaptor for hoses



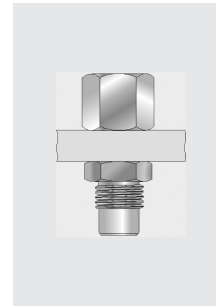
TestPoint adaptor for connecting different thread series 1620-1615-1215



Bulkhead coupling with TestPoint screw coupling

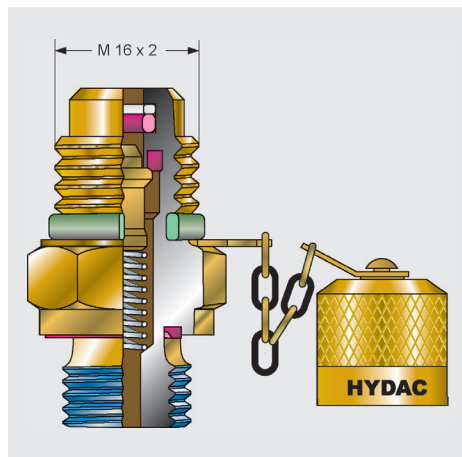


Direct gauge connection



Pressure gauge connection for bulkhead pipe fitting

Technical specifications TestPoint 1620



Max. operating pressure 63 MPa (9000 psi)

Fluids

Suitable for hydraulic and other mineral based oils

Material

Coupling body and metal cap in steel 1.0718

Note:

Unless stated otherwise, all products shown in this catalogue are made from free-cutting steel 1.0718

Seals

Internal primary and secondary seals and seals for screw thread in NBR. Option: Viton.

Screw-thread

Different kinds of thread are available

Option: Safety devices against vibration Additional NBR O-ring to prevent the metal cap from loosening.

Temperature ranges

When used with metal cap (standard)

Seals in NBR.

-25 °C to +100 °C (-13 °F to +212 °F)

short-term to +120 °C (+248 °F)

Seals in Viton (option):

-20 °C to +200 °C (-4 °F to +392 °F)

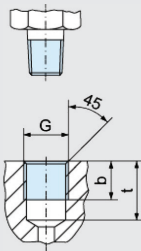
When used with plastic cap (option)

for both sealing materials:

-20 °C to +100 °C (-4 °F to +212 °F)

Hole dimensions and sealing details

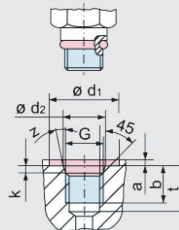
Form C



G	b	t
ISO 7 / I-R1/8	5.5	9.5
ISO 7 / I-R1/4	8.5	13.5

Hole dimensions according to DIN 3852 part 1 and part 2, form Z (sealing by means of suitable sealant)

Form E



SAE J 514 (UNF)

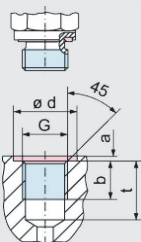
G	d ₁	d ₂	b	k	t	a	z°
7/16-20 UNF	21	12.4	11.5	2.4	14	1.6	12
9/16-18 UNF	25	15.6	12.7	2.5	15.5	1.6	12

ISO 6149-1

M 10 x 1	19	11.1	10	1.6	11.5	1	12
M 12 x 1.5	19	13.8	11.5	2.4	14	1.5	15
M 14 x 1.5	21	15.8	11.5	2.4	14	1.5	15
M 16 x 1.5	24	17.8	13	2.4	15.5	1.5	15

Hole dimensions according to SAE J 514 (UNF) or according to ISO 6149-1 (sealing by O-ring)

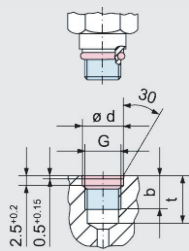
Form F



G	d	a	b	t
ISO 228-G 1/8	15	1	8	13
ISO 228-G 1/4	20	1.5	12	18.5
M 12 x 1.5	18	1.5	12	18.5
M 14 x 1.5	20	1.5	12	18.5

Hole dimensions (apart from Ø d) according to DIN 3852 part 1 and part 2, form X (square section seal)

Form G

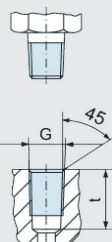


G	d	b	t
M 10 x 1	11.5	9	13
M 8 x 1	9.5	9	13

Drill bit on request

Hole dimensions according to HYDROTECHNIK factory standard N 901-01-14 (sealing by O-ring)

Form H

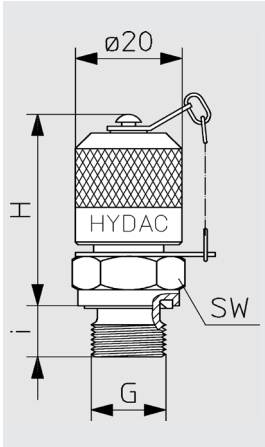


G	t		
1/8 NPTF	12		
1/4 NPTF	17.5		

Hole dimensions according to ANSI/ASME B 1.20.1-1983 (self sealing thread)

TestPoint 1620 Series

Standard design: Screw-on metal cap



Thread	Sealing details	p_{max}	Torque [Nm]	H [mm]	i [mm]	SW**	Order number with metal cap
G							
M 8 x 1 *	O-Ring/Form G	25 MPa (3600 psi)	6	41	8.5	17	06003731
M 10 x 1			15	37.5	8.5	17	00629237
M 12 x 1.5	Gi-Ring/Form F square section seal	63 MPa (9000 psi)	30	36	10	17	00632615
M 14 x 1.5			40	36	10	19	00632248
M 16 x 1.5			60	36	10	22	06003732
ISO 228-G 1/8	Gi-Ring/Form F square section seal	40 MPa (5800 psi)	18	38	8	17	00689901
ISO 228-G 1/4			40	36	10	19	00680107
ISO 228-G 3/8			60	36	10	22	06003733
1/8 NPTF	self sealing thread/form H	40 MPa (5800 psi)	–	33	9.5	17	06003734
1/4 NPTF			–	33	16.5	17	00639645
7/16-20 UNF	O-Ring/Form E	63 MPa (9000 psi)	20	37	11	17	06003735
9/16-18 UNF			35	36	12	17	06003737
ISO 7/I-R 1/8	Sealing by suitable sealant	40 MPa (5800 psi)	–	33	13	17	06003738
ISO 7/I-R 1/4			63 MPa (9000 psi)	–	33	13	17
M 10 x 1	O-Ring/Form E to ISO 6149-2	63 MPa (9000 psi)	12	38	9.5	17	06003740
M 12 x 1.5			30	35.5	11	17	06003741
M 14 x 1.5			45	35.5	11	19	06003742
M 16 x 1.5			55	35.5	12.5	22	06003743

* M 8 x 1 - for spares only, please do not use for new designs

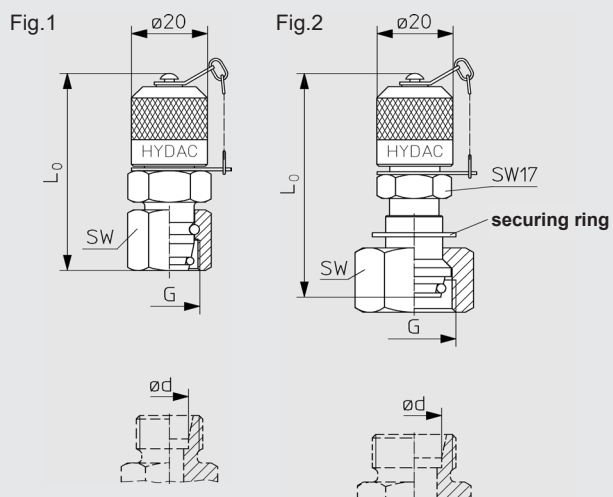
** AF width

**Threaded couplings with EPDM seal for brake fluid
or for other media on request.**

We reserve the right to make technical modifications.

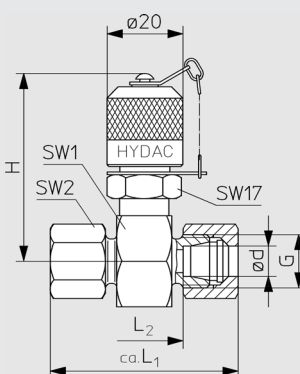
DKO adaptor, T-piece (screw-type), Standpipe adaptor for solder-free screw-in pipe connections to DIN 2353

DKO adaptor



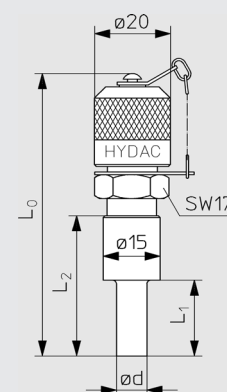
DKO adaptor with 24 ° sealing cone and coupling fitted.
Elastic NBR O-ring on sealing cone.

T-piece, screw-type



T-piece with coupling fitted and
cutting rings with union nuts.

Standpipe adaptor



DKO adaptor

Model ø d	p _{max}	Thread G
L 6	31.5 MPa 4500 psi	M 12 x 1.5
L 8		M 14 x 1.5
L 10		M 16 x 1.5
L 12		M 18 x 1.5
L 15		M 22 x 1.5
L 18		M 26 x 1.5
L 22	16 MPa 2300 psi	M 30 x 2
L 28		M 36 x 2
L 35		M 45 x 2
L 42		M 52 x 2

Fig.	L ₀	SW	Order number
1	52	14	06003774
	52	17	06003775
	52	19	06003776
	52	22	00637510
	52	27	06003777
	52	32	06003778
2	60	36	06003779
	61	41	06003780
	63	50	06003781
	63	60	06003782

S 6	63 MPa 9000 psi	M 14 x 1.5
S 8		M 16 x 1.5
S 10		M 18 x 1.5
S 12		M 20 x 1.5
S 14		M 22 x 1.5
S 16	40 MPa 5800 psi	M 24 x 1.5
S 20		M 30 x 2
S 25		M 36 x 2
S 30	31.5 MPa 4500 psi	M 42 x 2
S 38		M 52 x 2

1	52	17	06003045
	52	19	06003044
	52	22	06003783
	52	24	06003784
2	63	27	06003785
1	52	30	00625518
	63	36	06003787
	64.5	46	06003788
	66	50	06003789
	69	60	06003790

T-piece, screw-type

L ₁	L ₂	H	SW ₁	SW ₂	Order number
50.5	20.5	49.5	24	14	06003747
50.5	20.5	49.5	24	17	06003748
52.5	22.5	49.5	24	19	00632341
52.5	22.5	49.5	24	22	00638340
54.5	24.5	52.5	30	27	06003749
56.5	23.5	53.5	32	32	00689068
60.5	27.5	55.5	36	36	06003750
60.5	27.5	58	41	41	06003751
68.5	25.5	60.5	46	50	06003752
70.5	24.5	65	55	60	06003753

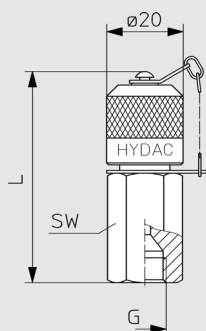
54.5	24.5	49.5	24	17	06003755
54.5	24.5	49.5	24	19	06003756
56.5	23.5	49.5	24	22	06003757
56.5	23.5	49.5	24	24	00689069
62.5	26.5	51	27	27	06003758
62.5	25.5	52.5	30	30	06003759
68.5	25.5	55.5	36	36	00689245
74.5	26.5	58	41	46	06003770
80.5	27.5	60.5	46	50	06003771
91	29	65	55	60	06003772

Standpipe adaptor

L ₁	L ₂	L ₀	Order number
20	37	74.5	06003744
20	37	74.5	00617881
22	39	76.5	06003745
22	39	76.5	00632922
-	28	65.5	06003746

20	37	74.5	06003744
20	37	74.5	00617881
22	39	76.5	06003745
22	39	76.5	00632922

Standpipe adaptor 37° edged cone SAE J514

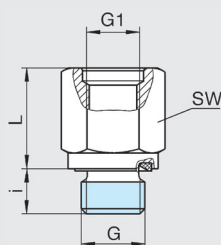


Thread G	p max	Pipe ø		L [mm]	SW**	Order number
		[mm]	in inches			
7/16-20 UNF	60 MPa (8700 psi)	6	1/4"	55	17	06003792
1/2 -20 UNF	42 MPa (6000 psi)	8	5/16"	56.5	17	06003793
9/16-18 UNF	31.5 MPa (4500 psi)	10	3/8"	57.5	19	06003794
3/4- 16 UNF		12	1/2"	60.5	22	06003795

Further threads on request

** AF width

Reducer

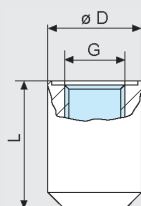


Ext. thread G	Type of seal	p max	L [mm]	i [mm]	SW**	Order number
M 12 x 1.5	Form F	63 MPa (9000 psi)	19	10	17	06003797
M 16 x 1.5			19	10	22	06003798
ISO 228-G 1/8		40 MPa (9000 psi)	19	8	17	06003799
ISO 228-G 1/2		10	14	27	06003800	
ISO 228-G 3/4		63 MPa (9000 psi)	13	12	32	06003765
1/2 NPTF	Form H		10	18	24	06003766

Thread in reducer G1: M 10 x 1, form G, acc. to HYDROTECHNIK company standard N 901-01-14

** AF width

Weld adaptor



Thread G	Hole	p max	L [mm]	ø D [mm]	Order number
M 14 x 1.5	Form F	63 MPa (9000 psi)	30	22	06003796
ISO 228-G 1/4					0683922

Micro bore flexible hoses DN 2

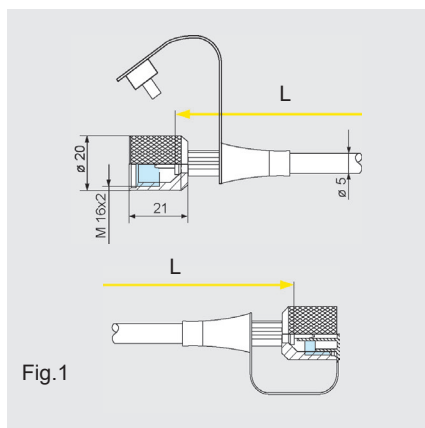


Fig.1

Technical specifications:

Bending radius:

min. 20 mm
(lower than -20 °C: 30 mm)

Pressure utilization factor:

Temperature	Pressure utilization factor
0 °C	122 %
30 °C	110 %
50 °C	100 %
80 °C	86 %
100 °C	77 %
120 °C	68 %

Hose construction:

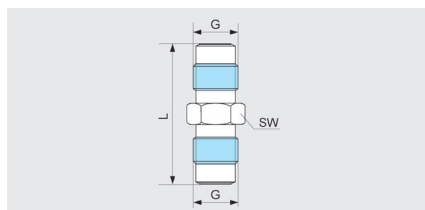
Hose core and hose cover
Polyamid

Inner reinforcement:
Polyester fibre

L [mm]	p max	Order number (Fig. 1)	p max	Order number (Fig. 1)
200	40 MPa 5800 psi	00680606	63 MPa 9000 psi	06003723
300		06003715		06003724
400		00680607		00632633
500		06003716		06003725
630		06003717		06003726
800		06003718		00682857
1000		00687886		00632634
1250		06003719		06003727
1500		00637338		00682858
2000		00685962		00682859
2500		00688088		00682860
3200		06003720		06003728
4000		06003721		06003729
5000		06003722		06003730

TestPoint Connection, Hydrotechnik "AC".
Other combinations on request.

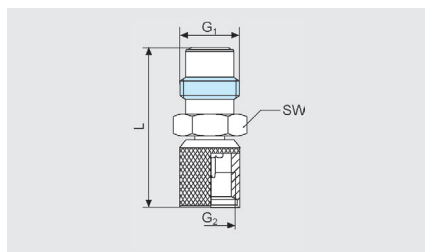
Adaptor for connection of measurement hoses



Thread G	L [mm]	SW [AF width]	p max	Order number
M 16 x 2	42	17	63 MPa (9000 psi)	00687889

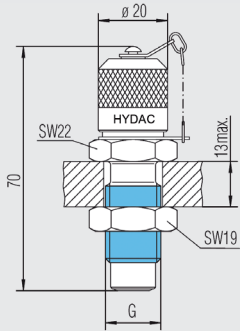
Note: without check value

Adaptor for connection of measurement hoses different thread series: 1620-1615-1215



Thread G ₁	Thread G ₂	L [mm]	SW [AF width]	Order number
retaining thread 12	M 16 x 2	25.2	17	—
M 16 x 2	retaining thread 12	32		00629635
M 16 x 1.5	M 16 x 2	31.4		—
M 16 x 2	M 16 x 1.5	31.4		00629636

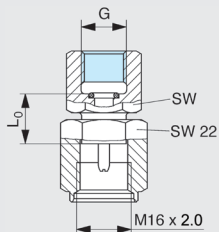
Bulkhead coupling



For solderfree screw-in pipe connection acc. to DIN 2353, opposite end: TestPoint 1620 connection (M16 x 2)

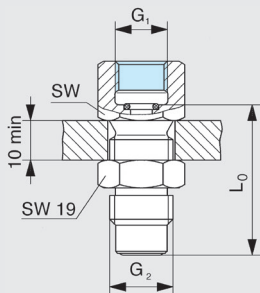
Thread G	p max	Connection	Order number
M 16 x 2	63 MPa (9000 psi)	both ends for series 1620	06003767

Direct gauge connection



Internal thread G	p max	L _o [mm]	SW [AF width]	Order number
ISO 228-G 1/4	63 MPa (9000 psi)	14.5	19	06003824
ISO 228-G 1/2		17	27	06003825
1/4 NPT		—	19	06003769

Pressure gauge connection for bulkhead pipe fitting



Internal thread G ₁	External thread G ₂	L _o [mm] (approx.)	SW [AF width]	Order number
ISO 228-G 1/4	1620 / M 16 x 2	38	19	06003822
ISO 228-G 1/2		42.5	27	06003823
1/4 NPT		—	19	06003768

Note: without check valve

NOTE

The information in this brochure relates to the operating conditions and applications described. For applications and operating conditions not described, please contact the relevant technical department.

The operator is always responsible for determining the product suitability for the specific application. Quantified values for product characteristics are average values for a new product that undergo a time deterioration process. Subject to technical modifications and errors.

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