25 1990 – 2015

HYDROTECHNIK UK LIMITED

High Precision Pressure Transducers & Transmitters

HT-SHP Series

- High accuracy & reliability
- Ranges 10 mbar to 2,000 barg
- 2 or 3 wire mA & voltage outputs
- Wide choice of connectors
- Accuracies of ±0.15% (<±0.1% BFSL)
- Compact and rugged design

For the highest level of measurement precision - typically in R&D, laboratory or workshop test rigs and systems. The HT-SHP series provides an exceptional performance with room temperature (RT) accuracy <0.15% FS according to IEC 61298-2 , <0.1% BFSL (combined non-linearity, hysteresis and repeatability).

Plant Engineering

Industrial Machinery

Agricultural Machinery

Hydraulics and Pneumatics

Automotive

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High Precision Pressure Transducers & Transmitters

HT-SHP Series

TECHNICAL SPECIFICATIONS

Standard pressure ranges & signal outputs

Measuring range*(mbar)	10	20	40	60	100	250	600	1000
Overload pressure	300	300	300	300	500	1250	1800	3000
Burst pressure	500	500	500	500	1500	3750	3000	5000
Measuring range (bar)	**1.6**	**2**	**2.5**	**4**	**6**	**10**	**16**	**20**
Overload pressure	6	6	6	10	20	20	40	40
Burst pressure	9	9	9	15	30	30	60	60
Measuring range (bar)	**25**	**40**	**60**	**100**	**160**	**200**	**250**	**400**
Overload pressure	100	100	200	200	400	400	750	750
Burst pressure	150	150	300	300	600	600	1000	1000
Meauring range (bar)	**600**	**1000**	**1600**	**2000**				
Overload pressure	840	1200	2400	2400				
Burst pressure	1050	1500	3000	3000				

**Gauge ranges shown - vacuum and absolute ranges available on request*

Electrical	2 wire / 3 wire	3 wire
Output signal	4-20mA	0-10Vdc
Supply voltage	9-32 Vdc	12-32 Vdc

- Media temperature -20°C to +85°C
- Compensated range -10°C to +80°C
- Ambient temperature -20°C to +85°C

Performance

- Accuracy: combined non-linearity, hysteresis non-repeatability and zero span offsets at room temperature according to IEC 61298-2 (or BSFL/Best Fit Straight Line)
  <0.15% FS range (<0.1% BFSL)
  Optional <0.1% FS range (<0.05% BFSL) available Autumn 2017
- Temperature effects:
  Zero/Span typical thermal coefficients
  <0.15% FS range / 10°C
- Total Error Band: 0.5% FS from room temperature to -40°C or +85°C
- Long term stability: <0.1% FS range/year
- Response time: <4mS (from 10% to 90%
  FS range)
- Vibration resistance: 20g (according to IEC 68-2-6 and IEC 68-2-36)
- Shock resistance: 1000g (according to IEC to 68-2-32)
- EMC Characteristics:
  EN61000-4-2 Level 3 & 4
  EN61000-4-4 Level 4
  EN61000-4-5 Level 3
  EN61000-4-6 Level 3
  EN61000-4-16 Level 3

Physical

- Material: body - stainless steel, pressure inlet port stainless steel (stainless steel silicon for ranges up to 1 bar)
- Process connection: G 1/4 A, G1/4B, G1/2B, 1/4NPT
  Other connections available on request
- Electrical connection: integral cable (1metre),
  M12 x 1 male socket, DIN plug/socket, mini DIN plug socket
  (DIN EN 175301-803)
  Other connections available on request
- Weight: approximately 120g (dependent upon configuration)
- Ingress protection: IP65 (for connector versions with their mating plug fitted)

Options

(1) Improved accuracy <0.1% FS (<0.05% BFSL)
(2) additional cable (specify length)
For further options or customised products please contact us.

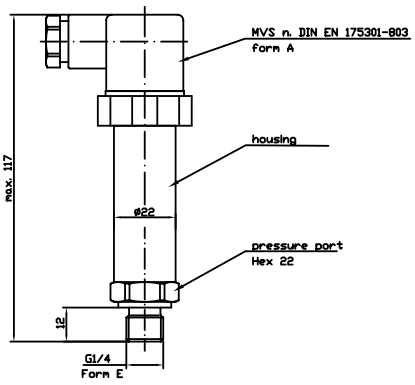
Related products

Hydrotechnik manufactures a wide range of sensors, test and measurement equipment. Contact us for further information or visit www.hydrotechnik.co.uk

Continuing development can necessitate specification changes without notice

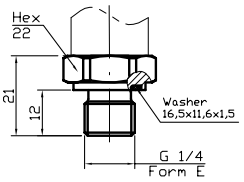
Dimensions

HT-SHP with MVS/A

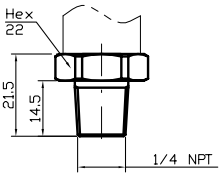


Mechanical Connections

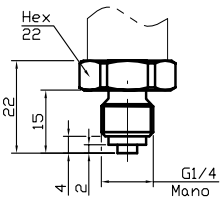
G 1/4" A; Form E



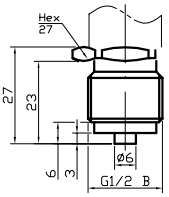
1/4" NPT



G 1/4" B

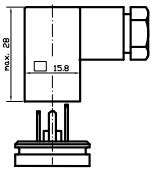


G 1/2" B

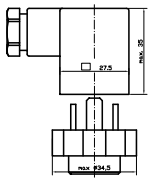


Electrical Connections

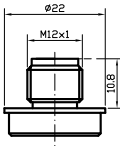
MVS/C
DIN EN 175301-803



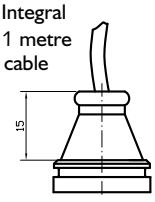
MVS/A DIN plug
EN 175301-803



Male socket
M12x1 (S763)



Integral
1 metre
cable



HT-SHP Series
ORDER CODES

Series	Output Signal	Pressure Range	Unit	Pressure Type	Process Connection	HEX	Electr. Connection	Extras
HT-SHP	20.20	0040000	BAR	(sr)	G14E	22	M12	PAR

4...20 mA / 2 wires	10.0
0...10 V	20.0
1...5 V	20.1
0...6 V	20.20
0...5 V	20.4
0.5...4.5 V not rat.	40.0
Others	AAA

bar	BAR
kPa	KPA
MPa	MPA
PSI	PSI
kg/cm2	KGC
m WC	MWS
in WC	IWS
others	CCC

Absolute Pressure	(a)
Relative Pressure	(g)
Sealed Reference	(sr)

-1 ... 0	9000100		
-1... +1	9000900		
0 ... 0.01	0000001	0 ... 10	0001000
0 ... 0.02	0000002	0 ... 16	0001600
0 ... 0.04	0000004	0 ... 20	0002000
0 ... 0.1	0000010	0 ... 25	0002500
0 ... 0.25	0000025	0 ... 60	0006000
0 ... 0.6	0000060	0 ... 100	0010000
0 ... 1,0	0000100	0 ... 160	0016000
0 ... 1,6	0000160	0 ... 200	0020000
0 ... 2,0	0000200	0 ... 250	0025000
0 ... 2,5	0000250	0 400	0040000
0 ... 4	0000400	0 600	0060000
0... 6	0000600	0 1000	0100000
		0 1600	0160000
		0 2000	0200000
-0.06 ... 0	9000006		
-0.1 ... 0	9000010		
-0.16 ... 0	9000016		
-0.2 ... 0	9000020		
-0.25 ... 0	9000025		
-0.4 ... 0	9000040		
-0.6 0	9000060		
		Others	BBB

G 1/8 A Shape A	G18A	22
G 1/4 A Shape A	G14A	22
G 1/4 A Shape E	G14E	22
G 1/4 B (Manom.)	G14B	22
G 1/2 B (Manom.)	G12B	27
G 1/2 A Shape E	G12E	27
1/8 NPT	18NP	22
1/4 NPT	14NP	22
7/16-18 UNF-2A	U72M	22
7/16-20 UNF-2A/C	U72C	22
7/16-20 UNF-2B	U72F	22
3/8-24 UNF-2A	U38M	22
3/8-24 UNF-2A/C	U38C	22
1/2-20 UNF-2A	U12M	22
M 8x1 male	M08M	22
M 10x1 Shape A	M10A	22
M 12x1 Shape E	M12E	22
M 12x1 konical	M12C	22
M 12x1,5 Ct-Ring	M12S	22
M 14x1,5 Shape A	M14A	22
M 14x1,5 Shape E	M14E	22
M 14x1,5 ISO	M14O	22
M 16x1,5 Shape A	M16A	22
M 16x1,5 female	M16F	22
M 18x1,5 male	M18M	22
M 20x1,5 Manom	M20B	22
R 1/4 male	R14M	22
Others	DDDD	EE

MVC/A	MVA
MVC/C	MVC
Hirschmann Mini	HIM
IS9 Industrial Socket	IS9
Packard	PA1
Male Socket M 5 / S707	M05
Male Socket M12/ S763	M12
Male Socket M16/ S723	M16
Male Socket M18/ S714	M18
Junior Timer	JTI
Bajonet DIN 72585	BJD
Super Seal	SUS
Deutsch 4-poles	D04
Flying Leads 1,0*	FL1
Cable Gland Plastic 1,0*	CP1
Cable Steel 1,0*	KS1
Cable Plastic 1,0*	KP1
Others	FFF

* e.g. with cable length 1 metre

Restrictor 0.6 mm	R06
Restrictors others	RXX
Total Error other	FXX
Cleaned for Oxygen use	O2C
Ext. Change of Parameters	PAR
Others (see below.)	GGG

** Necessary Number of Contacts:
Current: 4-poles / Voltage: 5-poles

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