

Multi-function Pressure & Temperature Transducers

HT-TPSE Series

TECHNICAL SPECIFICATIONS

Standard pressure ranges & signal outputs

Measuring range (bar)	4	6	10	40	60	100	400
Overload pressure	20	20	20	200	200	200	840
Burst pressure	30	30	30	300	300	300	1050
Measuring range (bar)	600						
Overload pressure	840						
Burst pressure	1050						

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

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

Temperature measurement

- External temperature sensing probe
- Media temperature -40°C to +125°C (-50°C to +200°C 15 mins duration max)
- Compensated range -20°C to +85°C
- Ambient temperature -40°C to +105°C

Performance

- Accuracy: Non-linearity, hysteresis and non-repeatability at room temperature according to IEC 61298-2 (or BSFL/Best Fit Straight Line) <0.5% FS range (<0.25% BFS) Optional <0.25% FS (<0.15% BFS)
- Temperature effects: Zero/Span typical thermal coefficients <0.15% FS range/ 10°C
- Total Error Band: 2% FS from room temperature to -40°C or +105°C
- Long term stability: <0.1% FS range/year
- Response time: pressure <1ms (from 10% to 90% FS range) temperature 10-20s
- Vibration resistance: 20g (according to IEC 68-2-6 and IEC 68-2-36)
- Shock resistance: 1000g (according to IEC to 68-2-32)

Physical

- Material: body - stainless steel, pressure inlet port - stainless steel
- Process connection: G 1/4 A, G 1/2 A M18 x 1.5 Other connections available on request
- Electrical connection: 1m integral cable, M12 x 1 male socket, M16 x 0.75 Other connections available on request
- Weight: approximately 120g (dependent upon configuration)
- Ingress protection: IP65 (for connector versions with their mating plug fitted)

Options

- Improved accuracy <0.25% FS Note: applies to pressure signal only
- additional cable (specify length) For further options or customised products please contact us.

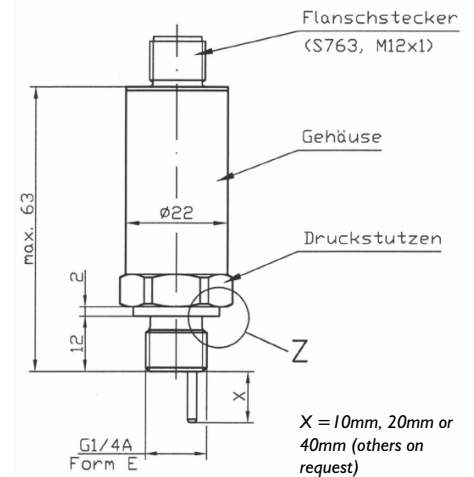
Related products

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

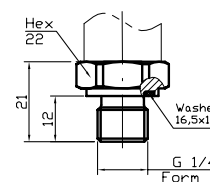
Dimensions

TPSE with M12 x 1 (S763) electrical connector

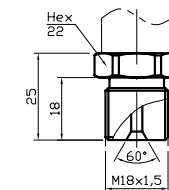


Mechanical Connections

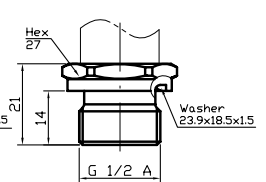
G 1/4 A; DIN 3852; Form E



M18x1.5

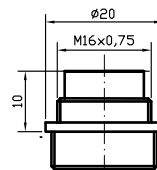


G 1/2 A; DIN 3852; Form E

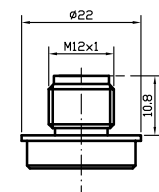


Electrical Connections

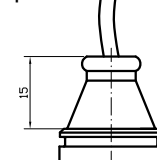
Male socket M16 x 0.75



Male socket M12 x 1



Cable output plastic



HT-TPSE ORDER CODES

Series	Output Signal	Pressure Range	Unit	Pressure Type	Process Connection	HEX	Electr. Connection	Extras
HT-TPSE	20.13	0001600	MPA	(sr)	G14E	22	M12	-

Pressure 4 ... 20 mA / 2 wires	10.4
Temperature 4 ... 20 mA / 2 wires	
Pressure 0 ... 10 V	20.13
Temperature 4 ... 20 mA / 2 wires	
Others	AAA

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

Relative Pressure	(g)
Sealed Reference	(sr)

G 1/4 A Shape A	G14A	22
G 1/4 A Shape E	G14E	22
G 1/2 A Shape E	G12E	27
1/4 NPT	I4NP	22
9/16-18 UNF-2A	U98M	22
M 14x1.5 ISO	M14O	22
M 18x1.5 male	M18M	22

Male Socket M12/ S763	M12
Male Socket M16/ S723	M16
Male Socket M18/ S714	M18
Flying Leads 1,0*	FLI
Cable Gland Plastic 1,0*	CPI
Cable Steel 1,0*	KSI
Cable Plastic 1,0*	KPI
Others	FFF

* e.g. with cable length 1 metre

Total Error 0.25% Only for Pressure	F25
Others (see below.)	GGG

		0 ... 10	0001000
		0 ... 16	0001600
		0 ... 20	0002000
		0 ... 25	0002500
0 ... 4	0000400	0 ... 60	0006000
		0 ... 100	0010000
		0 ... 160	0016000
		0 ... 200	0020000
		0 ... 250	0025000
		0 ... 400	0040000
		0 ... 600	0060000
		Others	BBB