OEM Mobile Hydraulic Pressure Transmitter Model MH-2

Applications

- Mobile hydraulic systems
- Automotive industry
- Compressor systems

Special Features

- Pressure ranges from 1000 PSI to 8000 PSI
- 4-20 mA, 1-5V, 0-10V, 0.5-4.5V ratiometric outputs available
- Durable thin film sensor technology
- CDS system for protection from pressure spikes and cavitation
- IP 69K high pressure steam wash down protection available

MH-2 pressure transmitters

Description

MH-2 pressure transmitters are precision engineered for off road and mobile hydraulic applications where performance and durability are critical. Extreme shock and vibration resistance, available high pressure steam wash down protection, and the WIKA CDS system (cavitation dampening system) provide one of the most rugged pressure transmitters available today. Pressure ranges from 1000PSI to 8000PSI meet all standard mobile hydraulic pressure applications.

The all welded thin film measuring cell eliminates the need for additional soft sealing materials that may deteriorate over time. The thin film sensor uses sputtered technology that provides excellent long-term stability in applications producing frequent pressure cycles. The rugged glass reinforced PBT plastic case has been used in under hood automotive applications for many years.

A metal sleeve inside the case provides excellent EMI protection to 100v/m. Several NEMA 4 / IP 67 electrical connections are available. The cable version provides environmental protection to IP 69K for resistance to high-pressure steam wash down cleaning procedures.

The MH-2 is specifically designed for OEM applications in the mobile hydraulics and automotive industry. It is manufactured on a fully automated production line to provide large quantities of transmitters with consistent quality and highly competitive pricing.

Custom modifications are available for large quantity requirements.

WIKA
Part of your business

Specifications — Model MH-2

Pressure range	1000PSI	1500PSI	2000PSI	3000PSI	5000PSI	7500PSI	8000PSI
Maximum pressure*	2900PSI	2900PSI	4640PSI	7250PSI	11,600PSI	17,400PSI	17,400PSI
Burst pressure**	11,600PSI	11,600PSI	14,500PSI	17,400PSI	24,650PSI	34,800PSI	34,800PSI

*Pressure applied up to the maximum rating will cause no permanent change in specifications but may lead to zero and span shifts

**Exceeding the burst pressure may result in destruction of the transmitter and possible loss of media

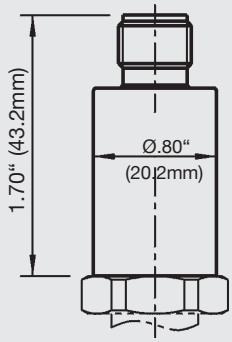
Materials:				
■ Wetted parts		Stainless steel		
■ Case		Fiberglass-reinforced polybutylene terephthalate (PBT)		
Power supply U_B		Signal output	Power supply U_B	Maximum load R_A
Signal output and		4 ... 20 mA, 2-wire	10 ... 36 DC V	$R_A \leq (U_B - 10\ V) / 0.02\ A$ with
Maximum load R_A				R_A in Ohm and U_B in Volt
		1 ... 5 V, 3-wire	8 ... 36 DC V	$R_A > 2.5$ kOhm
		0 ... 10 V, 3-wire	14 ... 36 DC V	$R_A >$ 5 kOhm
		0.5 ... 4.5 V, ratiometric	5 ± 0,5 DC V	$R_A >$ 4.5 kOhm
		Others on request		
Response time (10 ... 90 %)	ms	≤ 2		
Isolation voltage	DC V	500		
Accuracy	% of span	≤ 0.5 (BFSL)		
	% of span	≤ 1.0 (limit point calibration)		
		(Includes linearity, hysteresis and repeatability.)		
Repeatability	% of span	≤ 0.2		
1-year stability	% of span	≤ 0.3 (at reference conditions)		
Permissible temperature of:				
■ Media *)		-40 ... +257 °F	-40 ... +125 °C	
■ Ambient *)		-40 ... +212 °F	-40 ... +100 °C	
■ Storage *)		-40 ... +248 °F	-40 ... +120 °C	
	*) Also complies with EN 50178, Tab. 7, Operation (C) 4K4H, Storage (D) 1K4, Transport (E) 2K3			
Compensated temperature range		+32 ... +176 °F	0 ... + 80 °C	
Temperature coefficients (TC) within				
compensated temperature range:				
■ Mean TC of zero	% of span	≤ 0.15 / 10K (special pressure ranges may have increased zero TC)		
■ Mean TC of range	% of span	≤ 0.15 / 10K		
CE conformity		89/336/EWG interference emission and immunity see EN 61 326		
		interference emission limit class A and B		
		97/23/EG Pressure equipment directive		
Shock resistance	g	500 according to IEC 60068-2-27 (mechanical shock)		
Vibration resistance	g	20 according to IEC 60068-2-6 (vibration under resonance)		
Wiring protection		Protected against short circuiting signal+ to U_B- / 0V		
		Protected against reverse polarity except ratiometric output signals		
Weight	oz	Approximately 2.1		

Dimensions in inches (mm)

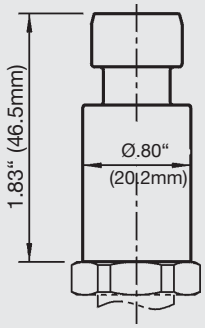
Electrical connections

Ingress Protection (IP) per IEC 60 529

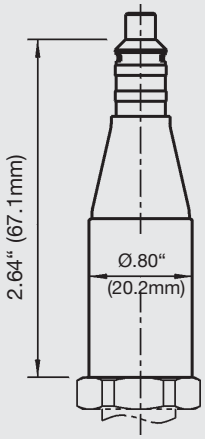
Circular connector
M12 x 1, 4 pin,
NEMA 4 / IP 67
Order code: M4



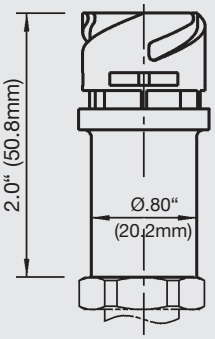
Metri Pack Connector
Series 150
NEMA 4 / IP 67
Order code: R3



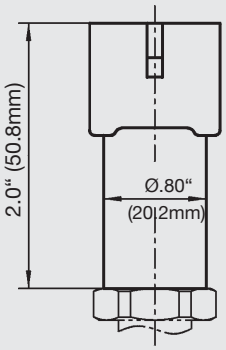
Cable with free ends
IP69K high pressure
steam washdown
Order code: FN



Bayonet connector
DIN 72 585, 4 pin
IP 69K high pressure
steam washdown
Order code: V4

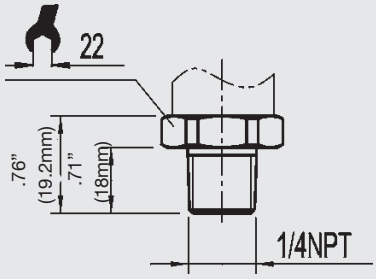


Connector
AMP Superseal 1.5
NEMA 4 / IP 67
Order code: S3

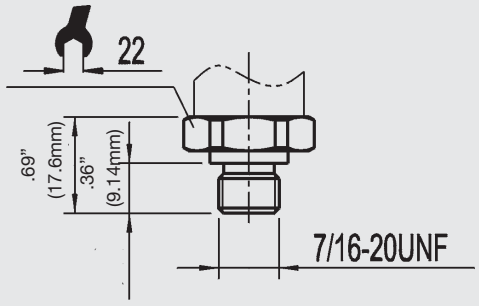


Pressure connections *)

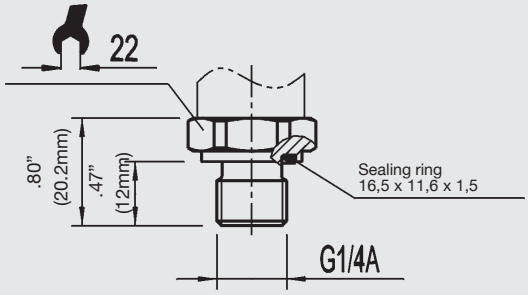
1/4 NPT male
Order code: NB



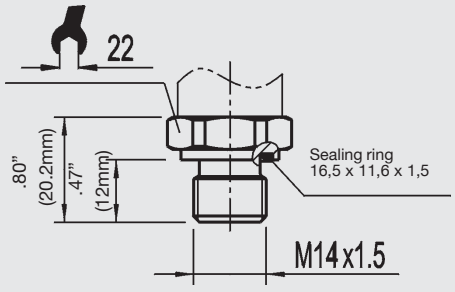
SAE #4 7/16-20 UNF-2A
male o-ring boss
Order code: UA



G 1/4 per DIN 3852-E
Order code: HD

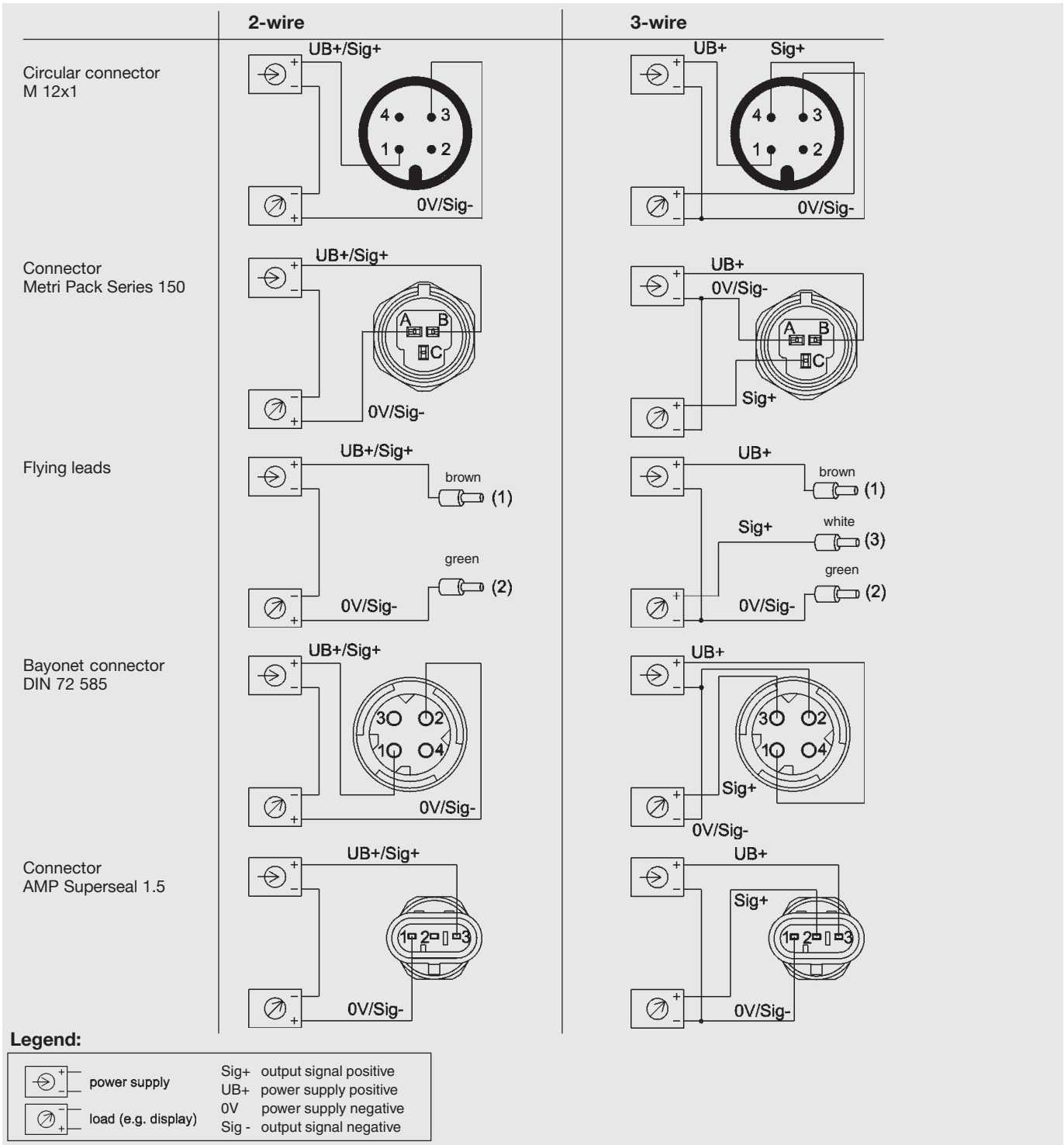


M 14x1,5per DIN 3852-E
Ordercode: HN



*) pressure connections incorporate the WIKA CDS system. This includes a reduced diameter pressure port for protection against pressure spikes and cavitation.

Electrical connection



Specifications and dimensions given in this data sheet represent the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.

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