

DMU-01

Main features

- Measuring ranges -1...2.5 bar, or 1...4 bar
- All standard signals for industry, hydraulics and pneumatics
- Temperature range of media -40°C to 125°C
- Shock and vibration resistance > 1000 g shock, > 20 g vibration
- No internal transmission media (fully welded, "dry" measuring cell)
- Protection class IP67 (special version up to IP69K)
- Compact and rugged model in stainless steel
- High flexibility for options thanks to modular design
- Plug systems MVS/A acc. to DIN EN 175301-803 A, MVS/C acc. to DIN EN 175301-803 E,

Applications

- generally to be used in industrial applications
- Hydraulics
- Pneumatics
- Engineering
- Industrial Equipment and Automation technology



Pressure transducer for industrial application

Thanks to its stainless steel membrane and to its semiconductor thin-film technology, the transducer has excellent properties that suggest its advantageous use in most industrial applications.

Its robust design guarantees high reliability even in very rugged conditions. Its modular design permits cost-effective production, also in small batches, and offers a multitude of signal, thread and connecting options that can be supplied within very short time.

Specifications

PRESSURE RANGE

PRESSURE RANGE		
Measuring range*	p [bar]	2.5
Overload pressure	p [bar]	10
Burst pressure	p [bar]	15
Measuring range*	p [bar]	60
Overload pressure	p [bar]	200
Burst pressure	p [bar]	300
Measuring range	* p [bar]	1000
Overload pressure	p [bar]	1200
Burst pressure	p [bar]	1500

ELECTRICAL PARAMETER

		signal	$U_s [V_{DC}]$	$R_L [k\Omega]$	RA [Ω]
Output signal* and	R_A in Ohm	4...20 mA (2-wire, 3-wire)	9...32		acc. to $R_A = < (U_s - 10V) / 0,02 A$
maximum acceptable burden	R_A A DC	0...10 V_{DC} (3-wire)	12...32	> 5,0	
		0...5 V_{DC}	8...32	> 2,5 DC	
		1...5 V_{DC}	8...32	> 2,5 DC	
		0,5...4,5 V_{DC} ratiometric	5 \pm 10%	> 4,7 DC	
Response time* (10...90%)	t [ms]	< 1			
Withstand voltage	U [V_{DC}]	350 option 710			

ACCURACY

Accuracy @ RT	% of the range $\leq 0,50^{**}$	option 0,25	** incl. nonlinearity, hysteresis, repeatability, zero-offset-and final-offset (acc. to IEC 61298-2)
	BFSL $\leq 0,125$		
Non-linearity	% of the range $\leq 0,15$		
Repeatability	% of the range $\leq 0,10$		
Stability/year	% of the range $\leq 0,10$		

ACCEPTABLE TEMPERATURE RANGES

Measuring medium	T [$^{\circ}C$]	-40...125
Ambience	T [$^{\circ}C$]	-40...105 (option -55)
Storage	T [$^{\circ}C$]	-40...125
Compensated range*	T [$^{\circ}C$]	-20...85

Temperature coefficient within the compensated range	
Mean TC offset	% of the range $\leq 0,15 / 10K$
Mean TC range	% of the range $\leq 0,15 / 10K$
Total error	% of the range -40 $^{\circ}C$ 2,00%
	% of the range 105 $^{\circ}C$ 2,00%

MECHANICAL PARAMETER

Parts in contact with the measuring medium*		stainless steel
Housing*		stainless steel
Shock resistance	g	1000 acc. to IEC 68-2-32
Vibration resistance	g	20 acc. to IEC 68-2-6 und IEC 68-2-36
Mass	m [g]	80-120 depending on design
CE - conformity		EC Directive 89/336/EWG
IP system of protection		The IP system of protection as specified in the data sheets generally applies, with their mating plug connected. Relative pressure transmitters usually require a ventilated mating plug and/or cable to allow for pressure compensation. From a pressure range of 60bar, a ventilated mating plug and/or cable is not necessarily required.

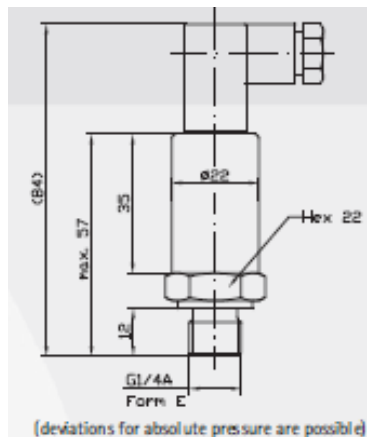
* others upon request a ventilated mating plug and/or cable is not necessarily required.

Configurations -examples-

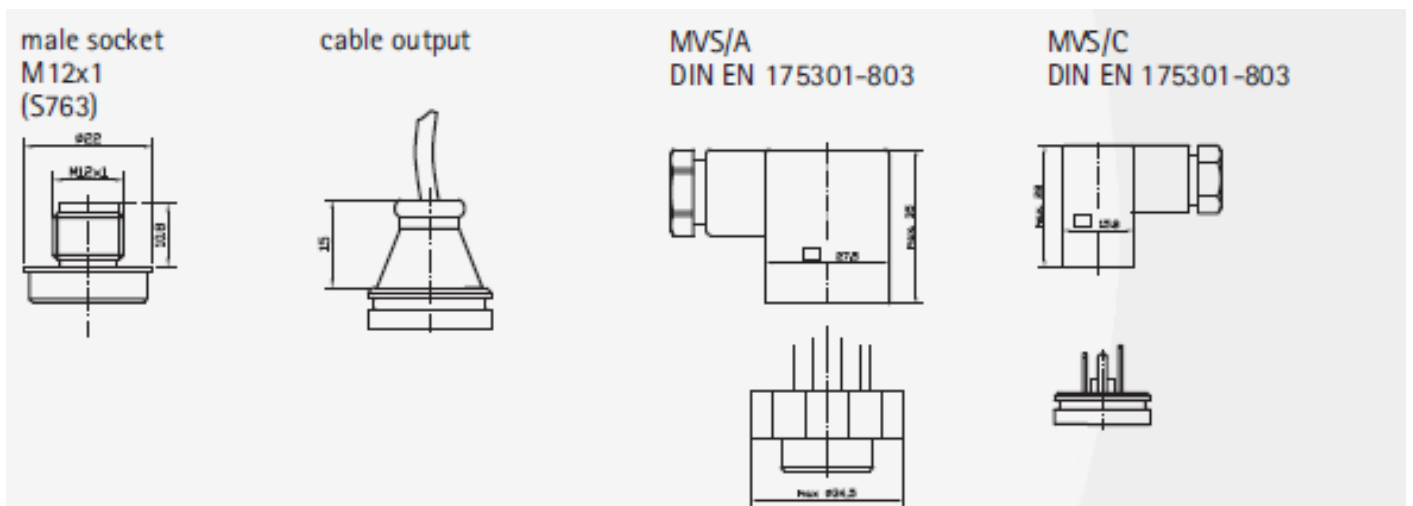


DMU-01 / 0-2.5 bar absolut

SML (MVS/C Conn.)



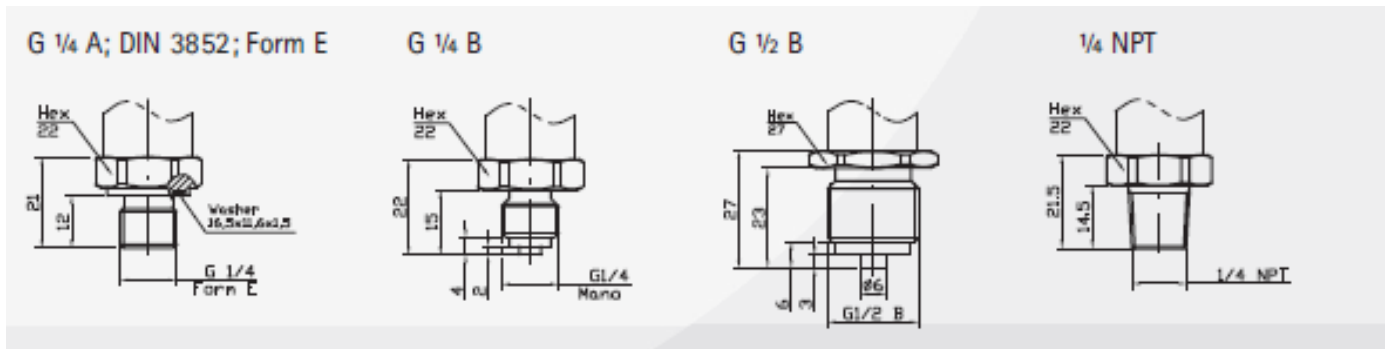
Connectors*



Pressure Transducer

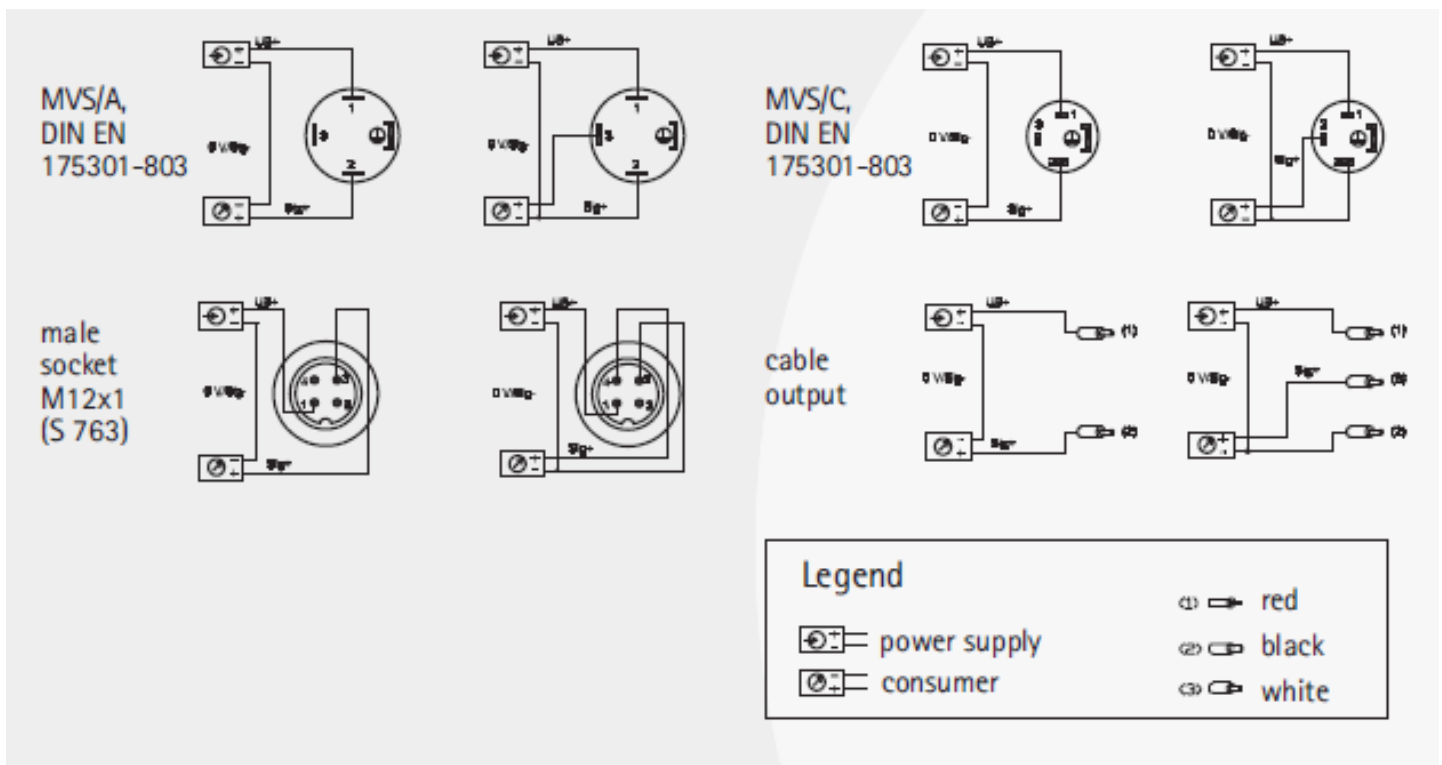
DMU-01

Pressure Connections*



* custom-made adjustments acc. to pressure connections and connecting options are possible

Electrical Connections* (left: 2-wire, right: 3-wire)

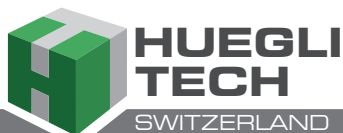


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Product line

DS4	Electronic Pressure Switch	SMC	Pressure Transmitter with CANopen Interface
DPSX9I	Intrinsically Safe Electronic Pressure Switch for Current	SME	Pressure Transmitter in Miniature Design
DPSX9U	Intrinsically Safe Electronic Pressure Switch for Voltage	SMF	Pressure Transmitter with Flush Diaphragm
PS1	Level Sensor	SMH	High Pressure Transmitter
PSX2	Intrinsically Safe Level Sensor	SML	Pressure Transmitter for Industrial Application
SHP	High Precision Pressure Transmitter	SMO	Pressure Transmitter in Mobile Hydraulics
SIS	Low Pressure Transmitter in Short and Compact Design	SMS	OEM Pressure Transmitter for Hydraulics and Pneumatics
SIL	Low Pressure Transmitter for Industrial Application	SMX	Intrinsically Safe Pressure Transmitter for Industrial Application
SKE	High Temperature Pressure Transmitter with Detached Electronics	TPS	Multi-Function Transmitter for Pressure and Temperature
SKL	High Temperature Pressure Transmitter with Cooling Fins		

Local Distributor / Partner:



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