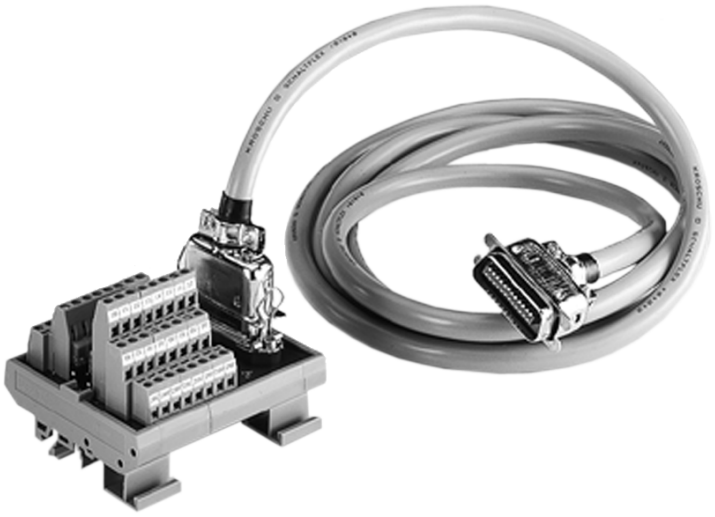
034035

I/O terminal



Design

The terminals for 8 inputs and 8 outputs are combined in a basic unit. In addition, distributor terminals are provided for 0 V and 24 V for the supply of sensors and actuators. The base unit can be clipped onto top-hat rails. All contact points and the current supply are linked to the 24-pin plug. The I/O terminal is connected to the control cabinet by means of an I/O cable, which is not part of the scope of delivery (Order No. 34031).

Function

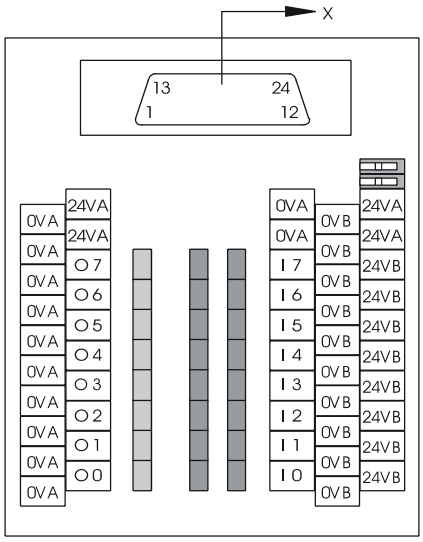
The I/O terminal provides 8 inputs and 8 outputs on screw terminals. 24 LEDs are available for status display to indicate the status of the I/Os.

Technical data

Electric	
Number of inputs with LED	8
Number of outputs with LED	8
Number of terminals 0 V	22
Number of terminals 24 V	12
Connector	Amphenol-Tuchel 24-pin, 57 GE series

034035

I/O terminal



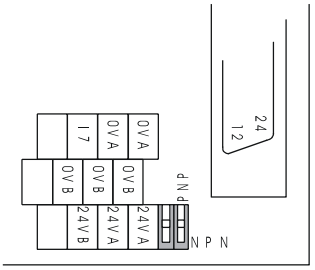
PIN 1	O0
PIN 2	O1
PIN 3	O2
PIN 4	O3
PIN 5	O4
PIN 6	O5
PIN 7	O6
PIN 8	O7
PIN 9	24 VA
PIN 10	24 VA
PIN 11	0 VA
PIN 12	0 VA
PIN 13	I0
PIN 14	I1
PIN 15	I2
PIN 16	I3
PIN 17	I4
PIN 18	I5
PIN 19	I6
PIN 20	I7
PIN 21	24 VB
PIN 22	24 VB
PIN 23	0 VB
PIN 24	0 VB

Pin assignment

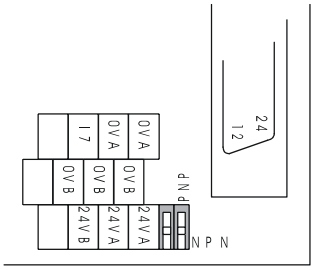
Note

The inputs of the I/O terminal can be switched for the connection of either positive switching (PNP) or negative switching (NPN) sensors via two slide switches.

Connection of positive switching sensors (PNP): both switches in PNP position



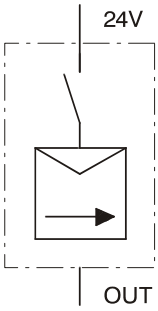
Connection of negative switching sensors (NPN): both switches in NPN position

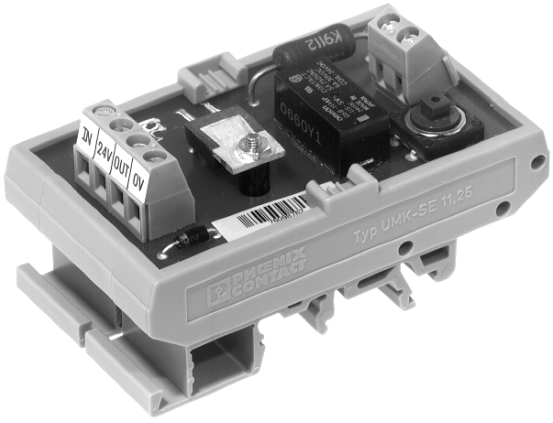


Slide switch positions

150768

Starting current limiter





Design

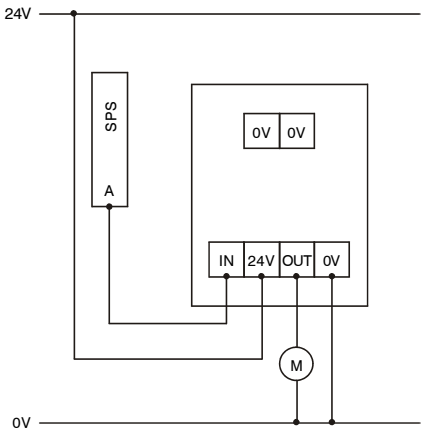
A relay and an electronic current limiter have been integrated on a circuit board. The circuit board can be fitted via the attachments on the reverse side. Electrical connection is effected via screw terminals.

Function

The device limits the surge current to a maximum of 2A the moment it is switched on. Otherwise, the module operates in the same way as a relay.

Note

This module must only be used to operate consuming devices with a maximum static current requirement of 1A. The current limiting effect must not be used for the continuous current limiting of a consuming device.



Connection diagram

150768

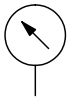
Starting current limiter

Technical data

Electric	
Control voltage	24 V DC
Current	1.0 A
Current limitation	2 W
Max. limitation duration	50 ms
Max. switching frequency	1/s

162844

Manometer



Description

Pressure gauges are used to measure and indicate pressure values at pneumatic control systems.

Pressure gauges may not be loaded to more than ¾ of their full scale value during continuous operation.

162844

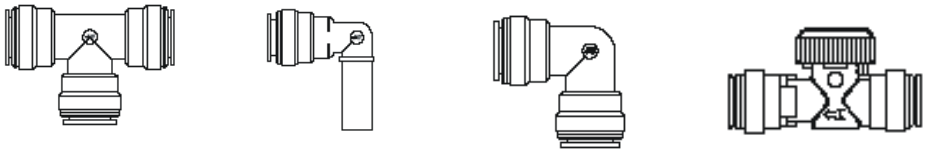
Manometer

Technical data

Feature	Data/description
Nominal size of pressure gauge	63 mm
Indicating range [bar] Indicating range [psi]	0 ... 1 bar 0 ... 14.5 psi
Continuous load factor	0.75
Alternating load factor	0.66
Operating medium	Liquid and gaseous media (no oxygen, no acetylene)
Design structure	Bourdon-tube pressure gauge
Pneumatic connection	G1/4
Position of connection	Rear side central
Ambient temperature	-20 ... +60 °C
Measurement accuracy class	2.5
Protection class	IP43
Materials information connecting thread housing viewing window	 Brass ABS PS
Conforms to standard	DIN EN 837-1

170701, 170702, 170703

Push-fit piping system



Function

Piping of process engineering systems is quick, reliable and leak-proof using the piping and push-fit connector system. The individual components of the piping system are:

- Straight piping sections
  available in different lengths — Order No. 304518
- Blanking plug — Order No. 170704
- Push-in T-connector (see above) — Order No. 170702
- Push-in L-connector 90° (see above) — Order No. 690590
- Push-in L-connector 90° (see above) — Order No. 170701
- Hand lever valve (see above.) — Order No. 170703

Design

The piping system consists of pipes and push-fit connectors made of plastic.

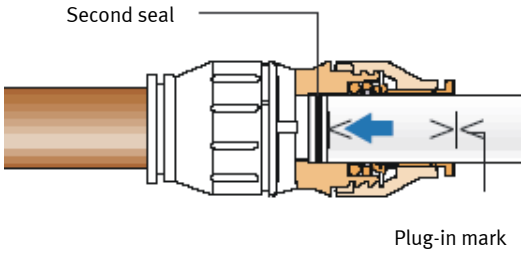
Technical data

Parameter	Value
Operating characteristics Cold water system Hot water system Central heating system	 20 °C/10 bar 65 °C/7 bar 82 °C/4 bar
Withdrawal force	> 1200 N/20 °C
Bursting pressure	> 40 bar/20 °C
Flow media	Water, miscellaneous gases
Operating pressure	Max. 6 bar at 80 °C
Material	Plastic PEM (Polymerelectrolytmembranes)
Piping diameter, external	15 mm

Assembly/dismantling

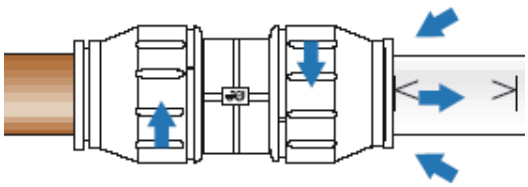
- A pipe cutter is required to cut the piping to length.
- Piping is assembled without the need for tools.
-
- **Assembly**:

– Simply cut the piping to length using plastic pipe cutters and ensure that the pipe is free of sharp edges, longitudinal grooves or other damage.
– Prior to pushing-in, the fitting must be in the „unlocked“ position, whereby a narrow gap exists between the screw cap and the body of the fitting.
– Insert the piping past the O-ring up to the stop in the connector. The O ring in the support sleeve ensures additional sealing of the connection.
– Tighten the screw cap up to the stop on the housing. This presses the O-ring onto the piping, thereby securing the connector.
– Check the established connection by attempting to withdraw the piping.



- **Dismantling**:

– Unscrew the screw cap until a narrow gap is created and the two arrows snap into the opposite position. Press back and hold the retaining element using your fingers or with the help of releasing tool. The pre-fitted piping can now be pulled out.



170712

Pump

Typical areas of application

- Recirculating pump for water, antifreeze compounds in heating systems for motor vehicles, boats, caravans, etc.
- Recirculating pump for fresh water cooling in vehicles.
- All-purpose pump for applications where self-priming is not required.

Mounting instructions

These pumps are standard intake centrifugal pumps and must be filled with the pumping medium prior to commissioning.

These pumps must not be operated dry. A brief period of dry operation does not damage the pump. Please note that if the pump is operated dry for more than 30 minutes, it will be rendered unusable. If run dry, a noise will become audible.

Important: This pump must always operate in the specified direction of rotation.

The pumps are designed for continuous operation and voltage fluctuations of ±20%. They must not be used for waste water containing coarse dirt particles.

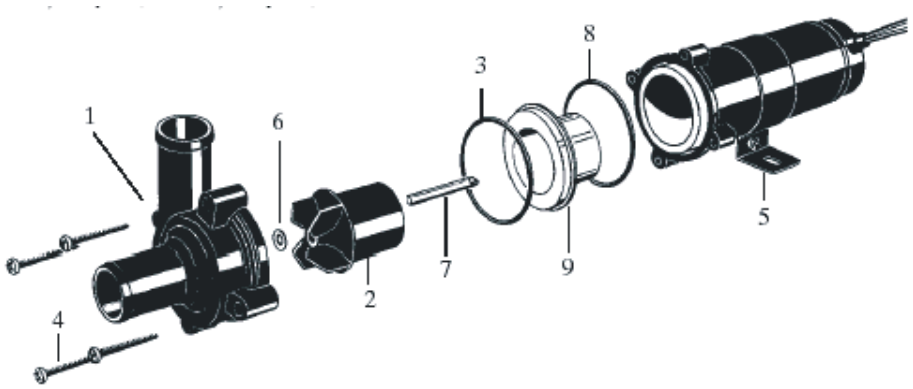
The pumps can be installed in any working position – horizontal or vertical. In order to avoid the formation of air pockets, the pump outlet should be turned upwards in the case of horizontal mounting or aligned so that it is positioned at the upper side of the pump.

170712

Pump

Design

The pump is held within a clamping ring and is mounted onto a profile plate using two screws and T-head nuts.



Individual components of the pump:

1)	Housing, ∅ 20	2)	Impeller	3)	O-ring
4)	Screw	5)	Clamping ring	6)	Washer
7)	Shaft	8)	Seal	9)	Magnet housing

Note

When in operation, note the polarity of the voltage applies. The cable connections are colour coded:

Operating voltage	Positive terminal	red
	Negative terminal	black

The maximum cable length is 44 m at:
Cable cross section: 1.0 mm^2
Operating voltage: 24 V

Technical data

Parameter	Value
Pump housing	Fibreglass reinforced plastic (PPA, GF 30 %)
Shaft	Stainless steel
Wearing plate	Stainless steel
O-ring	EPDM
Impeller	Body: Fibreglass reinforced plastic (PPS, GF 40 %) Magnet: Ferrite Bearing: Resin-bound carbon
Magnet housing	Fibreglass reinforced plastic (PSU, GF 30 %)
Motor flange	Fibreglass reinforced plastic (PA66, GF 30 %)
Motor housing	Steel, iron-zinc treated,
Motor cover	Fibreglass reinforced plastic (PA 66, GF 30 %)
Schrauben	Steel, iron-zinc treated,
Motor	Bearing mounted, permanent magnet motor 12/24 V
Motor bracket?	Aluminium, varnished
Protection class	IP 67 (DIN 40050)
Connection Push-in connection for piping diameter, external	20 mm (¾“) 15 mm
Interference supressed	EN 55014
Temperature range Fluidt Environment	 –40°C – + 100°C –40°C – +70°C
Max. system pressure	2.5 bar
Operating voltage	24V DC
Power	26 W
Max. flow	10 l/min
Dimensions: Length Width Height	 170 mm 62 mm 75 mm
Weight	0.53 Kg

170712

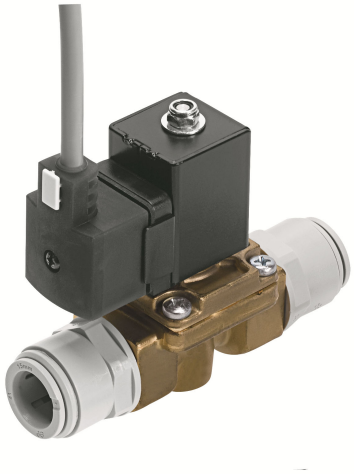
Pump

Pressure and performance

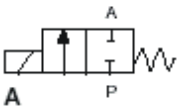
Pressure (bar)	Delivery rate (l/min)	Current at 24 V (A)
0.1	26	1.1
0.2	19,5	1.0
0.3	9,0	0.75
Measured values apply for a tubing connection of ¾“ (20 mm)		

170715

2/2 way solenoid valve DN10



2/2 way solenoid valve

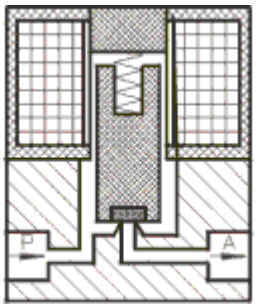


Symbol

Function

The 2/2-way solenoid valve is a direct controlled valve. If electrical current is not flowing through the coil, the valve is closed by spring power. There is no pilot pressure necessary to open the valve.

Functional principle



In normal position the armature with seal is pressed from spring power on the valve seat.
The medium reinforces the seal effect. Engaging the selenoid coil the armature is lifted from the valve seat whereby it is released. The medium is possible to flow unchecked from P to A. Deactivating the selenoid coil the clip presses on the armature whereby the valve is locked.

Design

The 2/2-way solenoid valve is mounted with plug connectors into the piping.

170715

2/2 way solenoid valve DN10

Assembly position — The assembly position of the valve is in any direction, preferably vertical position.

Medium — Neutral gases, liquids and steam.

Electrical connection — Plug vanes to DIN 43650 A for a connector socket Type 2508.

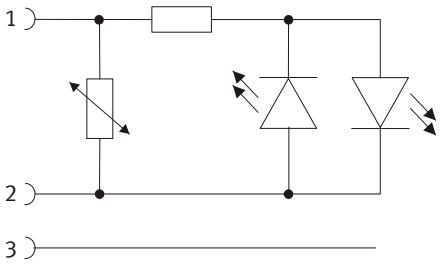
Note — For a firm attachment, a pipe clamp may be fitted in front and behind the valve.

Technical data

Parameter	Wert
Nominal diameter	10 mm (DN10)
Connection	G 1/2
Pressure difference	0...0,3 bar
Static pressure	max. 10 bar
Max. anbiant air temperature	50 °C
Body material	Brass
Cores	Stainless steel (1.4105)
Assembly position	Arbitrary, preferably vertical position
Operating voltage	24 VDC ±10 %
Operating cycles	max. 360/min.
Viscosity of usable media	max. 21 mm^2/s (3 °E)
Power consumption	8 W
Kv-Value (water, +20°C)	1,2 m^3/h (measurement 1 bar valve input free outlet
Protection class	IP 54
Weight	0,415 kg
Subject to change	

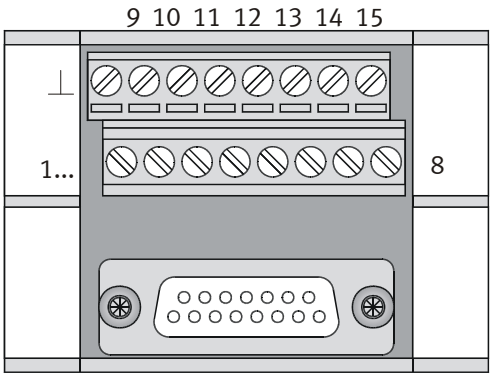
Electrical pin assignment

1 24 V (black)
2 Ground (black)
3 PE (gn/ge)



526213

Analogue terminal



Function

The analogue terminal is an optimised terminal strip for the connection of analogue sensors and actuators to a control unit (PLC, EasyPortDA, Simu-Box etc.) via 15 pin Sub-D interfaces. A 15-pin cable (not included) with a core cross-section of 0.25 mm^2 connects the analogue terminal parallel to the control unit. 4 analogue input signals and 2 analogue output signals can be connected.

Design

The analogue terminal is to be mounted on an H-rail.

Technical data

Parameter	Value
Number of analogue inputs	4
Number of analogue outputs	2
Number of earth for inputs and outputs	2
Nominal voltage V_N	125 V
Max. Current-carrying capacity per branch	2.5 A
Number of pins	15
Dimensions Length Width Height	 45 mm 65 mm 42 mm
Ambient temperature (operation)	-20 °C – 50 °C

The function of the terminals is described in general in the allocation list and subject to the function scope of the industrial controller.
Therefore please observe the notes regarding the connection procedure of the controller.

526213

Analogue terminal

Pin allocation

PIN allocation		**Analogue terminal**
Analogue	**Function**	**Terminal**
OUT	VO1	1
	VO2	2
	AGNDO	3
IN	II2	4
	II1	5
	AGNDI	6
	VI2	7
	VI1	8
OUT	IO2	9
	IO1	10
IN	II4	12
	II3	13
	VI4	14
	VI3	15

U = Voltage
I = Current
E = Input
A = Output
GND = Earth

541150

Motor controller

Function

The Maxi-1Q-4-30 controller is a motor controller with speed adjustment for 24V DC motors. It ensures the reliable switching on and off of motors.

In the off status, the dynamic braking is active. The IxR amplification can be adjusted by means of a bridge between GND and terminal 3 (amplification 1) or terminal 4 (amplification 2).

Design

The motor controller is to be mounted on an H-rail.

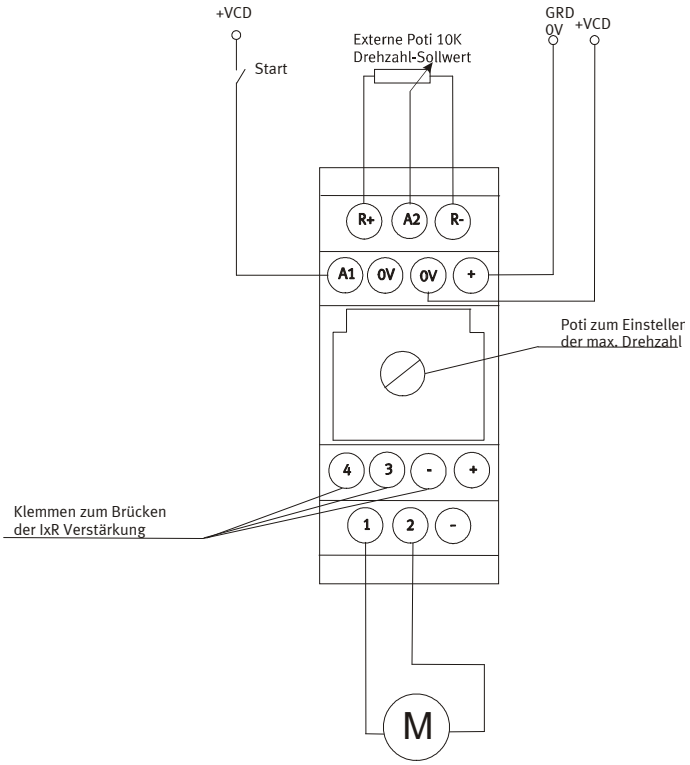
IxR amplification

Bridges	**Function**
None	Minimum amplification
GND and terminal 3	Adjustable amplification
GND and terminal 4	Maximum amplification, fixed

541150

Motor controller

Anschlussbelegung



R+	Ref. 10V	Externe potentiometer 10 kΩ. Speed setpoint adjustment
A2	n-setpoint	
R-	Ref. 0V	
A1	Start	
0V	Earth	
0V	AGNDO (Analogue earth for outputs)	
+	+VCC (supply voltage)	
4	IxR amplification 2	
3	IxR amplification 1	
-	GND (earth) amplification 1+2	
+	Supply voltage	
1	Motor (+)	Motor connection
2	Motor (-)	
-	Earth	

Technical data: Input circuit

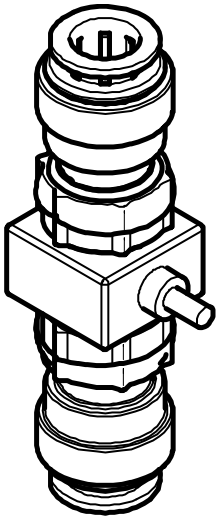
Parameter	Value
Nominal voltage/triggering voltage	24V DC
Nominal voltage range min./max.	18V – 35V DC
Input current for Vn	10 mA
Analogue input voltage range	0V – 10V DC

Technical data: Output circuit

Parameter	Value
Switching voltage range / motor voltage	18V – 35V DC
Max. Permanent-load current	3.5 A
Current limiter up to therm. cut-off	15 A
Speed	0V – V CC adjustable
Power driver	MOS-FET

544245

Flow sensor Type 2



Function

The transparent liquid flowing-in in the direction of the arrow adopts a centrifugal motion via the rotating body in the measuring chamber and directed onto the light-weight, three-vane rotor. The speed of the rotor is proportional to flow and is sensed contactlessly via the built-in optoelectronic infrared system (diode and photo transistor).

The integral amplifier supplies a steady square-wave signal, whereby the signal level is dependent on the applied supply voltage (8 – 24V DC). Thanks to the special configuration of the rotor, any potential gas bubbles in the liquid (trapped air) are not dispersed, but are transported with the liquid.

The assembly position is arbitrary. The direction of flow is indicated by an arrow on the sensor housing. Stabilizing sections upstream or downstream of the measuring device are not required. Volumetric flow rate fluctuations or pulsation does not have a negative effect on the measuring result. A protective filter is mounted on the inlet side.

All sensor housing components in contact with media are made of polyvinylidene fluoride (PVDF).

Design

The flow sensor is to be fitted into piping with the help of adapters.

Note

Design in use: B.S.P. (British Standard Pipe Thread = Abbreviation for British pipe thread)

544245

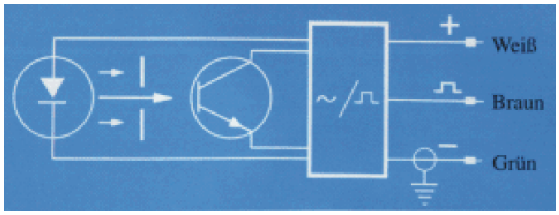
Flow sensor Type 2

Note

The polarity of the applied voltage is to be observed during operation. The cable connections are colour coded:

• Operating voltage	Positive terminal	white
	Negative terminal	green
• Output signal	Square wave signal	brown

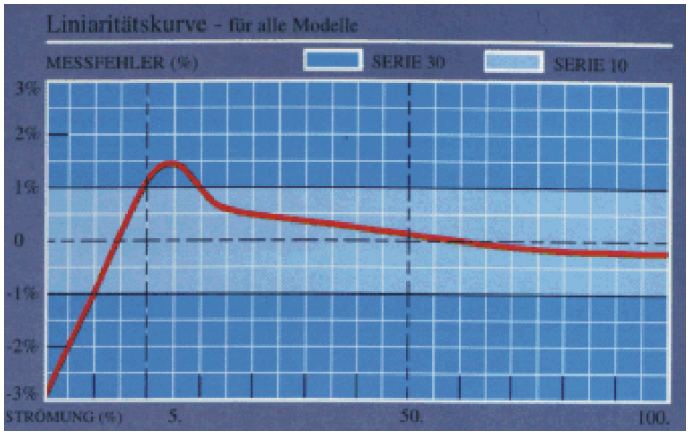
Electrical design



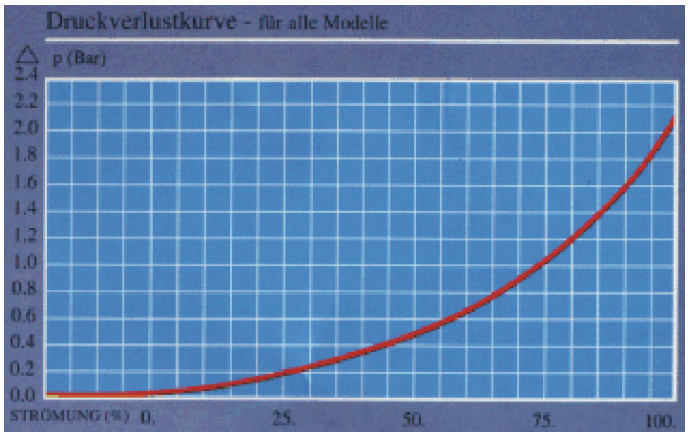
Technical data

Parameter	Value
Permissible operating voltage	8 – 24V DC
Current consumption	18 – 30 mA
Frequency range (output)	40 – 1200 Hz
Max. Load	2.2 kΩ
Signal pick-up	Infrared (optoelectronic)
K-Factor (pulse / dm3)	8000
Measuring range	0.3 – 9.0 l/min
Measurement uncertainty	± 1 % of measured value, at 20 °C
Linearity	± 1 % of measured value
Viscosity	Max. 15 cSt (je nach Messbereich)
Operating pressure	Max. 10 bar
Standard temperature range	–40 °C – +85 °C
Polarity-reversal protection	Yes
Materials: all components in contact with media Seals	 PVDF Viton
Dimensions Length Connecting thread	 47 mm G ½“
Push-in connection for piping diameter, external	15 mm
Electrical connection	Cable

Characteristic curves and scales



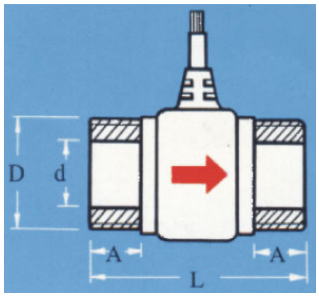
Sensor



Pressure loss curve

544245

Flow sensor Type 2



Dimensions for B.S.P (British Standard Pipe Thread = Abbreviation for British pipe thread) and N.P.T. (National Standard Taper Pipe Thread = American tapered pipe thread.) design

A	12.7 mm
L	47 mm
D	½“
d	13 mm

Maintenance

The protective filter on the inlet side requires cleaning.

549826

Pressure sensor

Pressure sensor

Function	The pressure measurement transducer uses ceramic measurement cell as sensor. The electronics transduces the measured signal into output signals of 0...10 V. Because of its robust design, this sensor is for use in rough industry environment as well. The maximum process temperature range must not exceed 100 °C.
Design	To protect the electronics against vibrations and humidity it is infused. The sensor can be connected with 2 wire or 3 wire technology. The pressure compensation is realized by a hole at top of the sensor.
Note	Watch the polarity of connected voltage supply.

549826

Pressure sensor

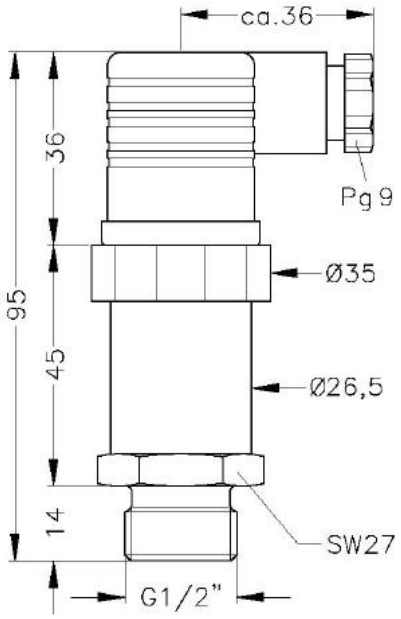
Technical data

Parameter	Value
Measurement range	0 ... 400 mbar
Electrical connection	Push-in elbow connector to DIN 43650
Protection class	IP 65
Process connection	G ½
Parts in contact with measured substance	Ceramic, stainless steel, NBR-sealing ring
Measurement system	Ceramic cell
Temperature ranges Process temperature (at max. environment temperature of 50°C) Storage temperature permissible environment temperature compensated temperature range	 -25 °C..+100 °C -40 °C..+85 °C -25 °C..85 °C -10 °C..55 °C
Temperature influence on zero point on range	 ‹0,25 % f.E./10 K ‹0,15 % f.E./10 K
Power supply nominal voltage voltage range max. permissible voltage supply	 24 V DC 11 V DC..40 V DC 40 V DC
Signal output 2-wire technology 3-wire technology	 4..20 mA 0..20 mA or 0..10 V
Current limiting at output signal	At 110 % of pressure range
Adjustment range	Zero point ± 10 %
Characteristic curve deviation (Linearity, hysteresis, repeatability)	‹ 0,5% f.E. (zero point adjustment)
Response time	‹ 3 ms
Load R_L max	$(U_{sup\,ply} - 11) / 0{,}02$
Load at signal output 0..10 V	› 2,5 kΩ
Weight	approx. 300 g
Noise immunity	to DIN 50082
Subject to change	

Pin assignment

Parameter	Value
2-wire technology (4..20mA)	
1	positive terminal
2	negative terminal
3	not used
Ground	connected
3-wire technology (0..20mA / 0..10V)	
1	output signal
2	negative terminal / output signal
3	positive terminal
Ground	connected
Subject to change	

Technical diagram

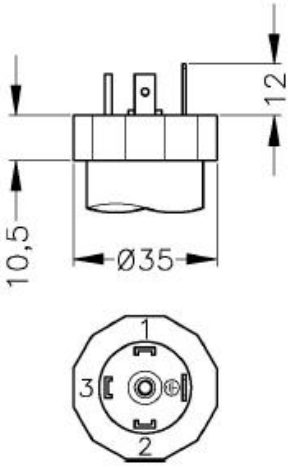


G1/2" DIN 3852

549826

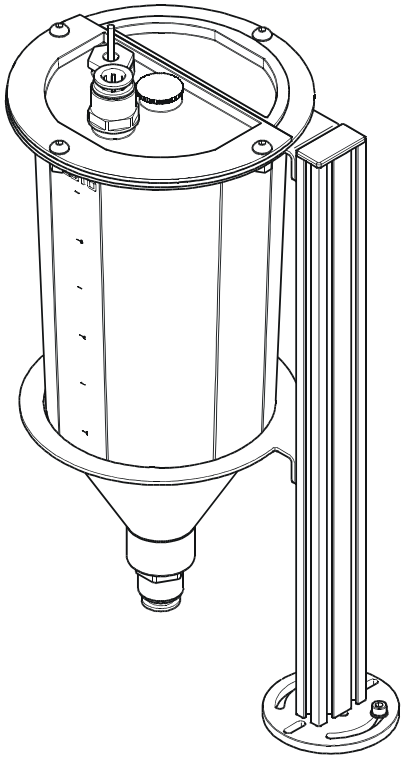
Pressure sensor

Electrical connections



689200

Tank, round



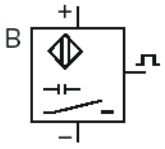
Function	The round tank has a capacity of 3 l (effective operating capacity) and can be used for liquids and solids. The tank cover is provided with several holes with threaded connection for inflow and for sensors. Holes not required are provided with a blanking plug. A connector d40 is fitted at the lower end of the container for discharge.
Design	The container is attached laterally to a profile column via brackets, using screws and T-head screws and is then mounted to the profile plate. Different design variants with different profile feet can be used within MPS-PA.
Note	Carefully tighten the mounting screws.

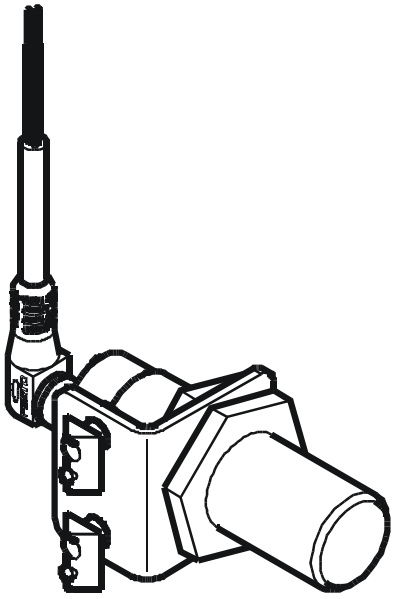
689200

Tank, round

Technical data

Parameter	Value
Material	Macrolon 2805
Permissible operating temperature	Max. +65 °C
Capacity Effective operating capacity Container scaling	Max. 4 l total volume of container- 3 l 0.5 – 3 l
Dimensions of cylinder approx. Diameter external/internal Height external/internal	 150 mm/140 mm 210 mm/200 mm
Dimensions of frustum (below) approx. Diameter external/internal Height external/internal	 60 mm/50 mm 90 mm/80 mm
Push-in connections for piping diameter, external	15 mm





Function

The operational principle of a capacitive proximity sensor is based on the evaluation of a change in capacitance of a capacitor in an RC resonant circuit. If a material approaches the proximity sensor, the capacitance of the capacitor increases. This leads to a change in vibration response of the RC circuit which is then evaluated. The change in capacitance depends mainly on the distance, dimensions and the dielectric constants of the respective materials.

The proximity sensor has a PNP output, i.e. the signal line is switched to a positive potential in the switched status. The switch is designed in the form of a normally open contact. The connection of the load is effected between proximity sensor signal output and earth.

A yellow light emitting diode (LED) indicates the switching status and the green light emitting diode (LED) the ready status. The sensitivity of the sensor can be individually adapted with the help of a small adjusting screw.

The capacitive proximity sensor cannot be fitted flush.

Design

The capacity proximity sensor can be fitted in a mounting bracket using two locking nuts. The proximity sensor is of cylindrical design and has an M 18x1 thread.

690588

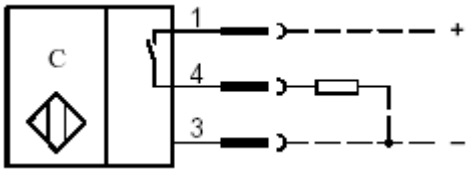
Capacitive proximity sensor

Note

The polarity of the applied voltage is to be monitored during operation. The cable connections are colour coded.

Parameter	Value
Operating voltage	
1 Positive terminal	Brown
3 Negative terminal	Blue
4 Load output	Black

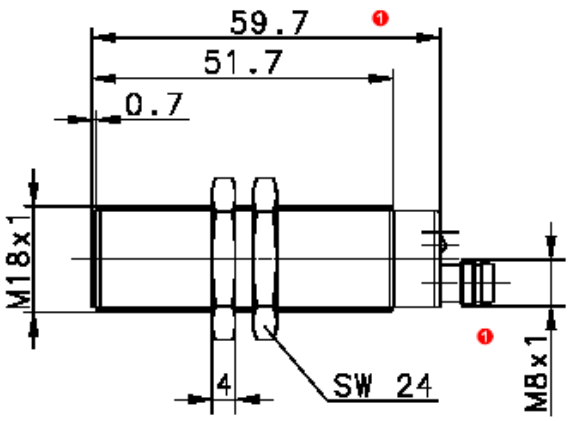
Connection diagram



Technical data

Parameter	Value
Permissible operating pressure	12 – 48V DC
Switch output	PNP, normally open contact
Nominal switching distance (adjustable)	9.5 – 10 mm
Hysteresis (regarding nominal switching distance)	1.9 – 2 mm
Maximum current on contact	200 mA
Maximum switching frequency	25 Hz
Current consumption when idling (at 55 V)	≤ 20 mA
Permissible operating/ambient temperature	-10 °C – +50 °C
Protection class	IP 65
Polarity reversal protection, short-circuit proof	Resistant to sustained short-circuit and overload-proof
Materials Front cap Housing	 PTFE Brass, nickel-plated
Dimensions of housing	M18 x 59.7 mm
Type of mounting	Flush
Displays Supply voltage LED Switching element „ON“ LED	 Green Yellow
Type of connection	Connectors M8 3-ping
Weight	55 g
Electrical connection	Cable, 2000 mm long

Dimensions



691225

Float flow sensor

Function

The device consists of a vertically arranged tapered glass tube opening at the top, through which the fluid to be measured flows. A conical float within the tube is lifted by the flow of liquid and kept afloat, if equilibrium exists between the downwards directed weight of the float on the one hand and the upwards directed force of flow and buoyancy force on the other.

The volumetric flow can be read off via an externally fitted scale and the float level marking. Bevelled notches on the float cause the float to rotate and prevent any jamming.

Design

The flow meter downstream of the flow sensor is fitted with a metering tube made of Trogamid –T, which is suitable for use with neutral or aggressive media. The threaded connectors moulded at the ends of the meter tube are used to receive valve fittings. O-rings embedded at the front ensure a reliable seal between the meter tube and valve fitting without generating radial forces which could cause the tube to burst.

The graduated scale printed on the meter tube is adjusted according to the respective flow medium and indicates the flow volume in l/h or m³/h. Moulded dovetailed groovess are provided to fit nominal value pointers, limit value and signal devices.

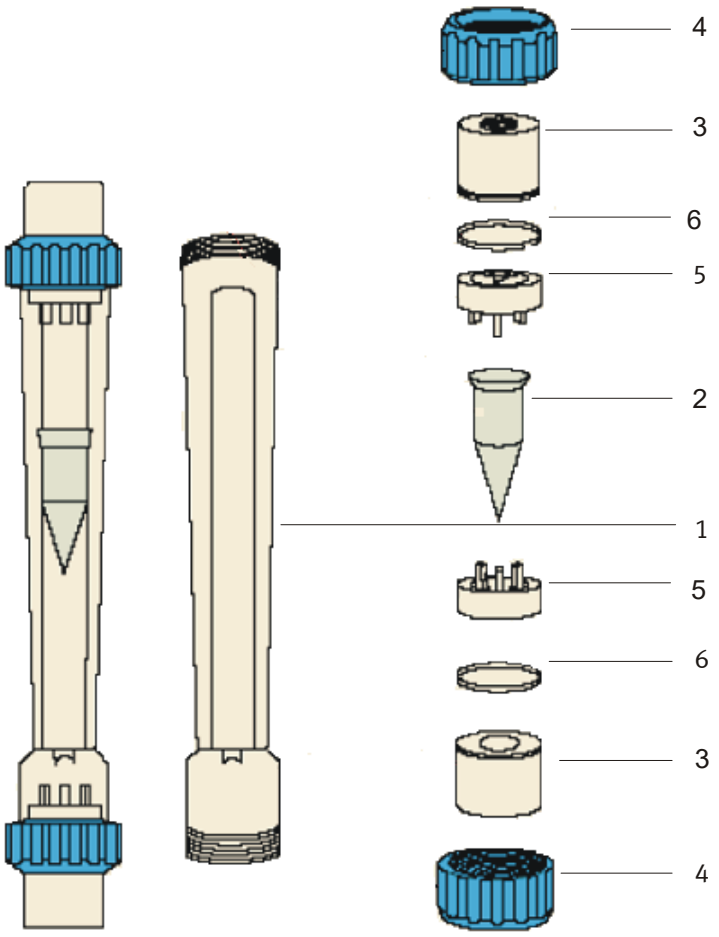
691225

Float flow sensor

Note

The use of float flow sensors is limited to the measurement of small to medium volumetric flow of low viscosity liquids without solid particles or of gas flow at low pressures

Technical drawing



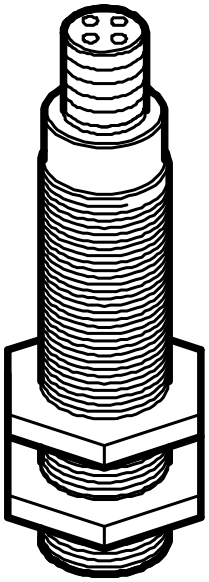
1 Meter tube
2 Float
3 Screwed connector
4 Locking nut
5 Float trap
6 O-ring (seal)

Technical data

Parameter	Value
Measuring range for water.	20 – 250 l/h
Housing shape	Tapered bodyr
Meter tube size – nominal size	15 mm
Materials Meter tube Connecting piece	 Trogamid-T PVC-U
Type of connection	Threaded connector ends with valve fitting
Sealing material	EPDM
Operating pressure	Max. 10 bar
Dimensions Internal diameter x length	 20 mm x 208 mm (L4)
Weight	0.12 Kg
Push-in connector for piping diameter, external	15 mm

691326

Ultrasonic sensor



Function

The functional principle of an ultrasonic sensor is based on the generation of acoustic waves and their detection following reflection via an object.

The carrier of acoustic waves is normally the atmospheric air. An ultrasonic generator is actuated for a brief period and emits a pulse of ultrasonic energy which is inaudible to the human ear. Once emitted, the pulse of ultrasonic energy is reflected via an object located within range and bounced back to the receiver. The duration of the ultrasonic pulse is evaluated by means of downstream electronics.

Within a certain range the output signal is proportional to the signal duration of the ultrasonic pulse.

The object to be detected can be of different materials. Neither shape or colour, nor liquid or powdery condition, have any or only a minimal effect on detection. In the case of an object with a smooth, even surface, the surface must be aligned vertically to the ultrasonic beam.

In its factory condition, the output signal increases with growing distance between sensor and the object to be measured.

This setting is not suitable for level measurement in a container.
With increasing filling level, the distance between the sensor and the item to be measured (water surface), the distance is reduced, whereas the gauge signal should increase. This is why the setting of the increasing output signal has been reversed. Similarly the measuring range of the sensor has been adjusted to the container.

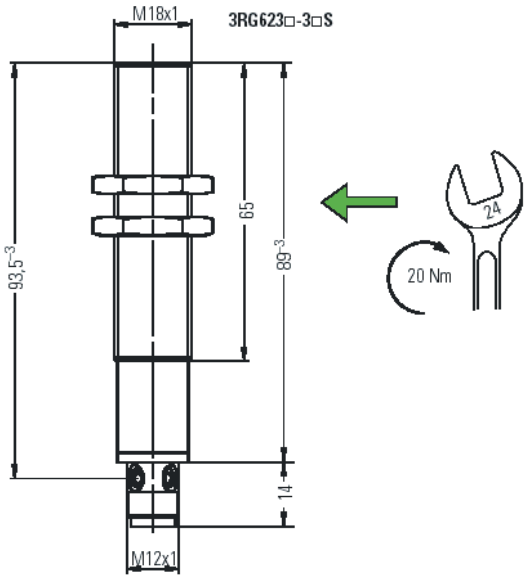
691326

Ultrasonic sensor

Technical data

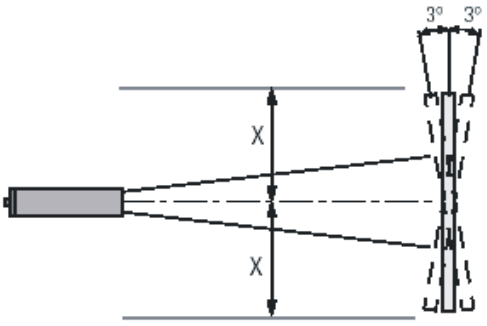
Parameter	Value
Analogue output (VO) Voltage range	 0 – 10 V
Protection class	IP 67
Weight	Max. 67 g
Ambient temperature	-25 – 70 °C
Switching point error	± 2.5 % (-25 to 70 °C)
Rated operating voltage Ve	24V DC
Operating voltage range V_B	10 – 35 V DC (at 12 – 20V DC, sensitivity reduced by up to 20 %)
Permissible residual ripple	10 %
Idle current I0	< 50 mA
Measuring range programmed factory setting	 48 – 270 mm 50 – 300 mm
Characteristic curve programmed factory setting	 Falling Rising

Installation



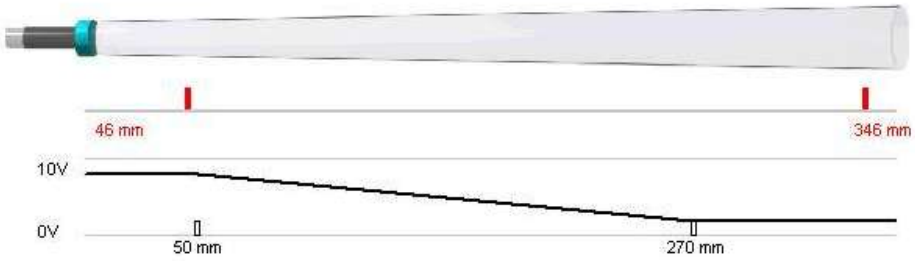
Dimensions diagram, all dimensions in mm

Free spaces



Keep free space within distance "x" around the sound cone clear of interfering objects. Angular misalignment of 3° applies for smooth surfaces.

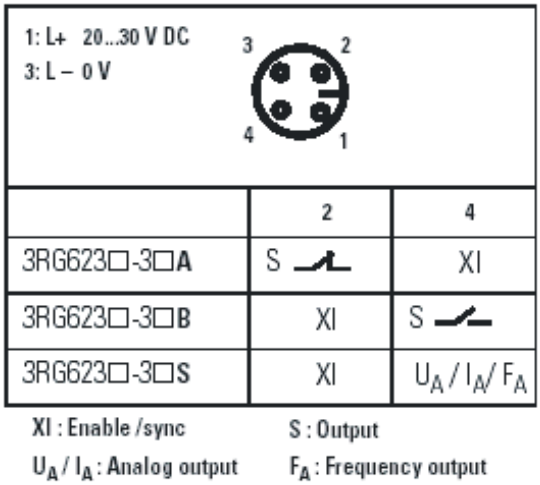
Switching range
(Vendor settings)



691326

Ultrasonic sensor

Connection



	2	4
3RG623□-3□**A**	S	XI
3RG623□-3□**B**	XI	S
3RG623□-3□**S**	XI	U_A / I_A/ F_A

XI : Enable /sync
S : Output
U_A / I_A : Analog output
F_A : Frequency output

Pin assignment:

1 24V (brown)
2 n. c.
3 0V (blue)
4 Analogue output (black)

f / U

Function

The measuring transducer converts the measured value of the flow sensor into a voltage within a range of 0 to 10 V. It is operated using a DC voltage of 24 V.
It can be plugged into the basic terminal block and simply removed using this again by pulling out.

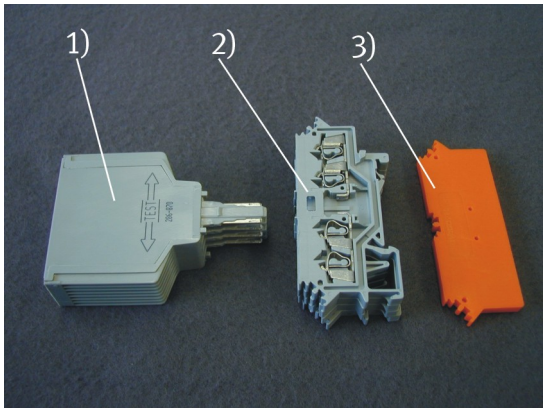
Technical data measuring transducer

Parameter	**Value**
Permissible ambient temperature	55 °C
Operating voltage	20 – 30V DC
Current consumption	12 mA
Linearity error	<0.1 %
Transmission error	<0.1 %
Input Square-wave frequency generator Signal level Peak time	 0 – 1kHz $6V_{SS}$ – $30V_{SS}$ 3s
Output Output signal Output load	 0 – 10 V >2kΩ
Colour	Grey

Measuring transducer - frequency/voltage

Note regarding basic terminal block

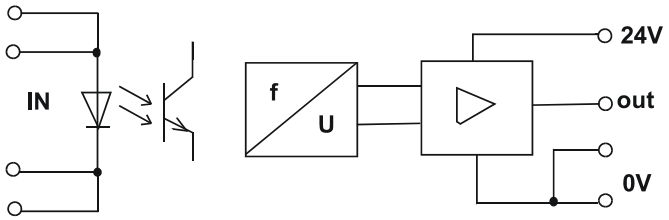
The basic terminal block has a lateral inscription plate. It is equipped with 2-wire terminals. Front wiring; connections: CAGE CLAMP connection



Measuring converter f/V with basic terminal block:

1) Measuring converter f/V (plug)
2) Basic terminal block
3) Inscription plate

Electrical pin allocation



Technical data
basic terminal block

Parameter	Value
Cross-section	0.08 – 2.5 mm² 28 – 14 AWG
Rated voltage EN	400 V
Rated transient voltage	6 kV
Degree of contamination	3
Nominal current	10 A
Weight	21.028 g
Colour	Grey
Type of wiring	Front wiring
Total number of connection points	2
Total number of potentials	2
Height	28 mm/1.1 in
Width	22 mm/0.866 in
Depth	50 mm/1.97 in
Strip length	8 – 9 mm/0.33 in