16 mm Miniature Rocker Solenoid Valve with Isolating Diaphragm for Technical Applications

Type 6125/6126
(2/2- 3/2-way)

M5, sub-base

Advantages/Benefits

- **Hermetic isolation of fluid from the actuator**
- **Insensitive to contamination**
- **High pressure and back-pressure rating of 10 bars**
- **Low internal volume**
- **Body materials: PPS, Brass, Stainless steel**
- **Seal materials: FPM or EPDM**
- **Normally closed, normally opened and 3-way universal functions**
- **Flow diagnosis on request**

Design/Function

A unique rocker designed actuating mechanism operates an isolating diaphragm that separates the actuator itself and the coil from the fluid.
The actuator is hermetically isolated from the coil by a stainless steel plate and the coil can be rotated or replaced without disturbing the process.

No friction, no risk of sticking and a strong and rugged diaphragm provide a high reliability and long service life.
The valve has a minimal internal volume that is easily purged.
No cross-contamination occurs and the control of critical fluids are possible.

Heat transfer is virtually eliminated as the coil is not directly in contact with the diaphragm.
A high accuracy and the control of critical fluids are possible.

The valves are ideal for manifold mounting and are available with a simplified common wiring system.
Custom manifolds are available to satisfy specific application requirements.

Applications

- Ink Jet
- Technical applications
- Analytical instruments
- Difficult and slightly aggressive media

bürkert
Easy Fluid Control Systems

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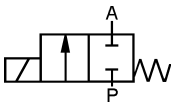
16 mm Miniature Rocker Solenoid Valve with Isolating Diaphragm for Technical Applications

Type 6125/6126
(2/2- 3/2-way)

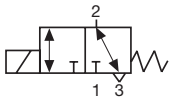
Technical Data **Type 6125: 2/2-Way** **Type 6126: 3/2-Way**

Circuit Function

A 2/2-way valve, normally closed



T 3/2-way valve, direct acting, universal function, any flow direction



Valve Specification

Pressure range max.	0 - 10 bar (see specifications)
Body material	PPS for sub-base body; PPS, brass or stainless steel 316L for M5 valve body
Seal material	FPM or EPDM
Isolating plate body/coil	Stainless steel
Fluids	Ink, difficult and slightly aggressive media
Fluid temperature	0°C to +50°C
Ambient temperature	Max. +50 °C
Max. viscosity	Approx. 21 mm²/s
Response time	Approx. 25 ms

Solenoid Specification

Nominal voltages	12, 24 V/DC 110, 230 V/DC and AC
Voltage tolerance	±10 %
Power consumption	3.4 W at 12 and 24 V/DC 4 W at 110-120 V/DC 4 W at 230-240 V/DC
Cycling rate	Approx. 200/min.
Duty cycle	100% continuously rated
Protection class	IP 65 with leads or cable plug 2506, IP 20 without cable plug

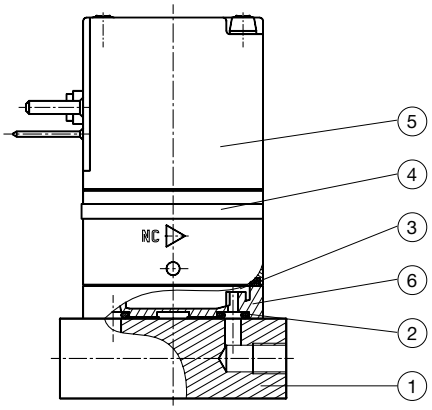
Installation / Accessories

Installation	As required, but preferably with solenoid system upright
Fixation	M2.5 from the the top
Electrical connection	• side or top tag connector to DIN 43 650 • rectangular connector
Cable plug	Type 2506, DIN 43650, form C (standard delivery with valve) Type 2505, rectangular plug (as accessory, separate to order)

Manifolds

Manifolds according to specific application demands are available.

Materials



1	Sub-base:	Brass or Stainless steel 1.4404(316L)
2	O-Rings:	FPM or EPDM
3	Diaphragm:	FPM or EPDM
4	Isolating plate:	Stainless steel
5	Coil body:	PA (Polyamide)
6	Body:	PPS

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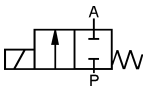
Specifications - Ordering Chart (Other Versions on Request)



2/2-Way, direct acting,
normally closed

PPS valve body

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q_{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [kg]	Item-No. Voltage / Frequency [V/Hz] 12/DC[1]	24/DC[1]	110/DC/AC[2]	230/DC/AC[2]
Sub-base	0.8	0.01	11	0-10	10.0	FPM	cab. plug 2506	0.06	139 151 U	139 088 Z	139 152 V	139 153 W
Sub-base	0.8	0.01	11	0-10	10.0	FPM	rect. plug 2505	0.06	--- ---	139 236 Z	--- ---	--- ---
Sub-base	0.8	0.01	11	0-10	10.0	EPDM	cab. plug 2506	0.06	139 154 X	139 155 Y	--- ---	--- ---

[1] Side tag connector, [2] Top tag connector, universal coil (AC/DC) with integrated rectifier.

Brass / PPS valve body

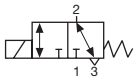
Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q_{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [kg]	Item-No. Voltage / Frequency [V/Hz] 12/DC[1]	24/DC[1]	110/DC/AC[2]	230/DC/AC[2]
M 5	0.8	0.01	11	0-10	10.0	FPM	cab. plug 2506	0.12	--- ---	431 568 T	431 569 U	431 570 Z

[1] Side tag connector, [2] Top tag connector, universal coil (AC/DC) with integrated rectifier.

Stainless steel 1.4404 (316L) / PPS valve body

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q_{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [kg]	Item-No. Voltage / Frequency [V/Hz] 12/DC[1]	24/DC[1]	110/DC/AC[2]	230/DC/AC[2]
M 5	0.8	0.01	11	0-10	10.0	FPM	cab. plug 2506	0.12	--- ---	431 575 J	431 576 K	431 577 L

[1] Side tag connector, [2] Top tag connector, universal coil (AC/DC) with integrated rectifier.



3/2-Way, direct acting
universal functions, any flow direction

PPS valve body

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q_{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [kg]	Item-No. Voltage / Frequency [V/Hz] 12/DC[1]	24/DC[1]	110/DC/AC[2]	230/DC/AC[2]
Sub-base	0.8	0.01	11	0- 6	6.0	FPM	cab. plug 2506	0.06	139 158 B	139 159 C	139 160 H	139 161 W
Sub-base	0.8	0.01	11	0- 6	6.0	FPM	rect. plug 2505	0.06	--- ---	139 237 S	--- ---	--- ---
Sub-base	0.8	0.01	11	0- 6	6.0	EPDM	cab. plug 2506	0.06	139 162 X	139 163 Y	139 164 Z	139 165 S

[1] Side tag connector, [2] Top tag connector, universal coil (AC/DC) with integrated rectifier.

Brass / PPS valve body

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q_{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [kg]	Item-No. Voltage / Frequency [V/Hz] 12/DC[1]	24/DC[1]	110/DC/AC[2]	230/DC/AC[2]
M 5	0.8	0.01	11	0- 6	6.0	FPM	cab. plug 2506	0.12	--- ---	431 582 A	431 583 B	431 584 C

[1] Side tag connector, [2] Top tag connector, universal coil (AC/DC) with integrated rectifier.

Stainless steel 1.4404 (316L) / PPS valve body

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q_{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [kg]	Item-No. Voltage / Frequency [V/Hz] 12/DC[1]	24/DC[1]	110/DC/AC[2]	230/DC/AC[2]
M 5	0.8	0.01	11	0- 6	6.0	FPM	cab. plug 2506	0.12	--- ---	431 589 R	431 590 N	431 591 B

[1] Side tag connector, [2] Top tag connector, universal coil (AC/DC) with integrated rectifier.

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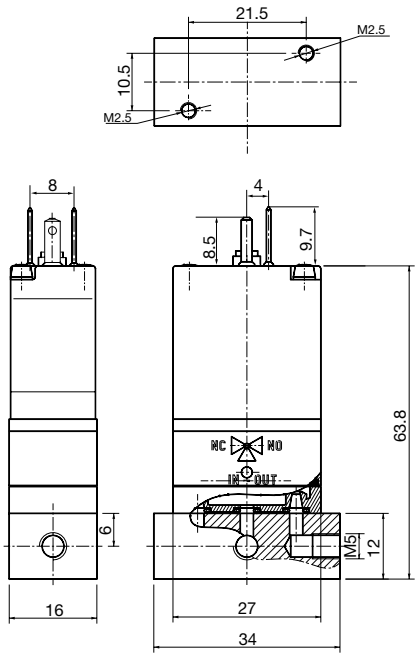
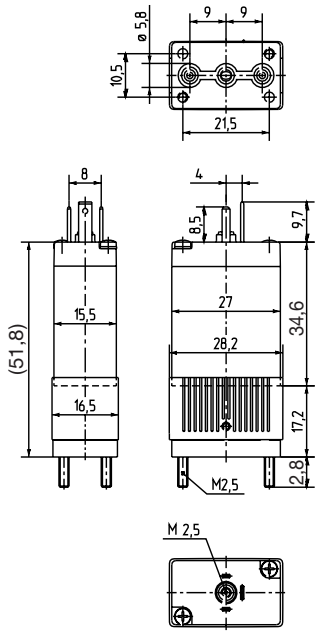
Coil with Top Plug 2506 - Dimensions [mm]

Thread connection M5

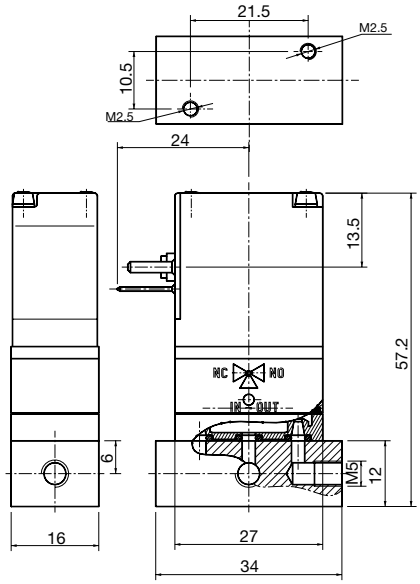


Sub-base connection

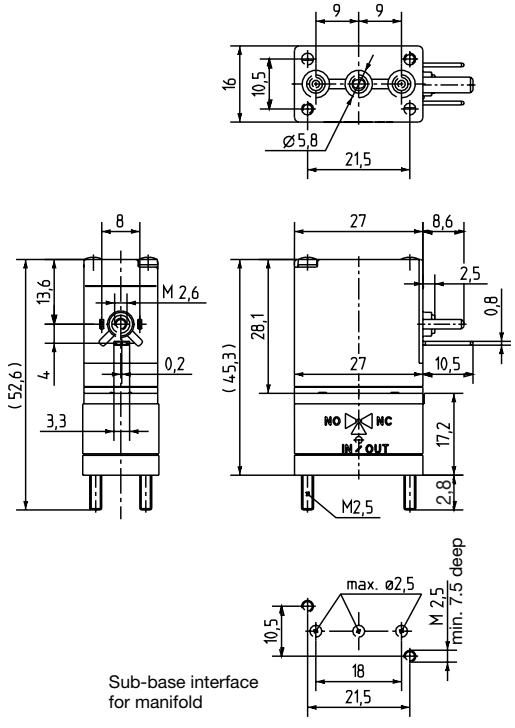


Coil with Side Plug 2506 - Dimensions [mm]

Thread connection M5

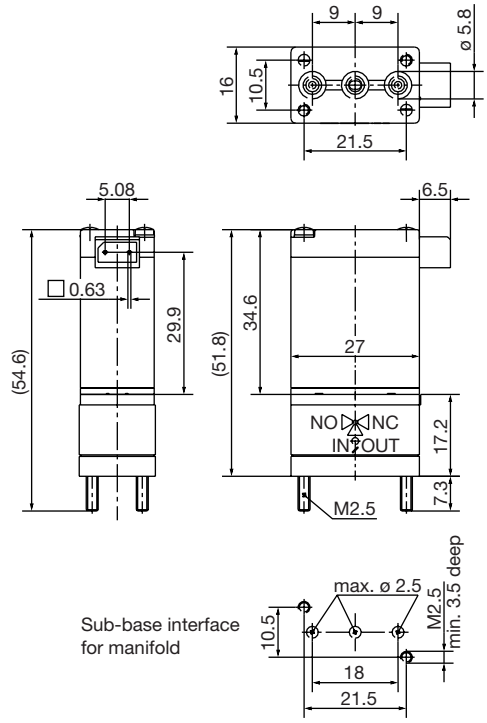


Sub-base connection



Coil with Rectangular Plug 2505 - Dimensions [mm]

Sub-base connection



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Type 2505 - Rectangular Cable Plug

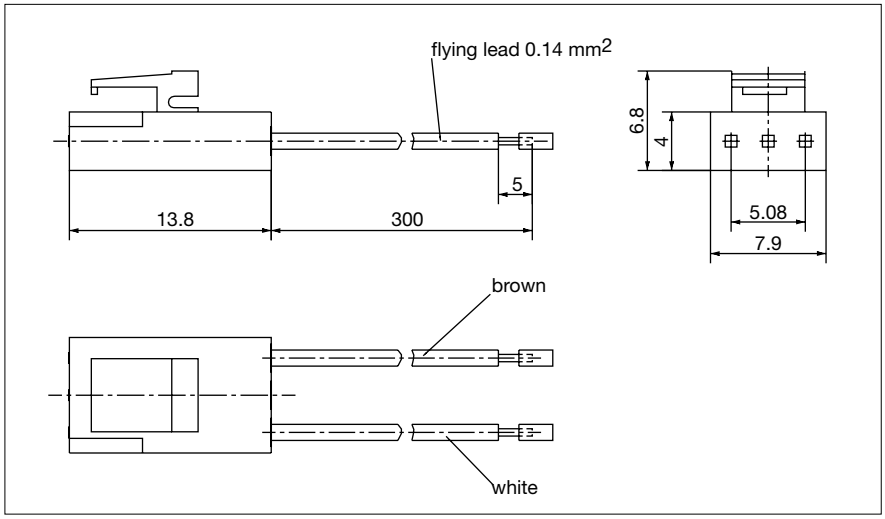
Technical Data

Protection class	IP 20
Operating voltage	24 V
Power consumption	3 W
Operating temperature	0-50 °C

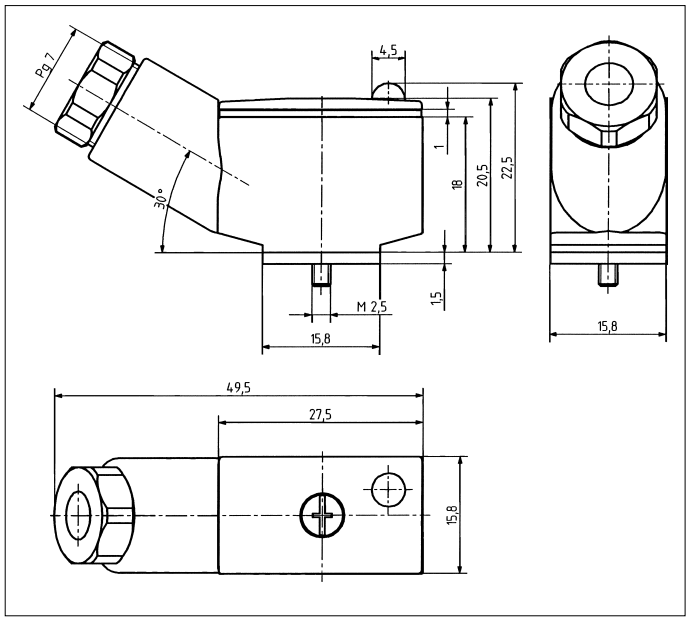
Ordering[1)]	Item-No.
cable length 300 mm	644 068 N
cable length 3 m	133 486 F

[1)] Please order separately (no standard delivery)

Dimensions [mm]



Type 2506 - Cable plug DIN 43650, Form C



Technical Data

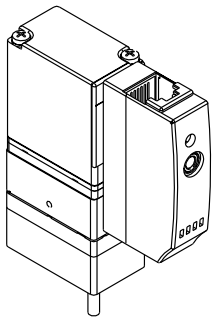
Body material	PA (polyamide)
Contact material	Brass, electro-silverplated
Isolation between cable plug and coil	Gasket 1.5 mm
Continuous limit temp.	+125 °C
Cable diameter	5–6 mm
Electr. connection	Terminal screws Max. 0.75 mm²
Poles	2-pole + protective earth
Nominal voltage	0–250 V

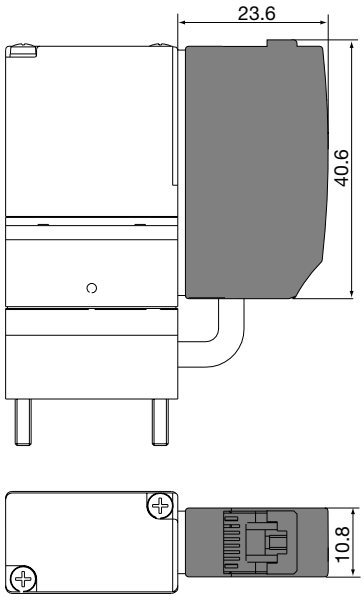
Ordering	Item-No.
Cable plug 2506	008 353 P [2)]

[2)] Standard delivery with the valve

Diagnosis valve (available on request)

- Flow / low flow signal with adjustable level
- Valve position signal
- LED´s and binary outputs
- for 2/2-way and 3/2-way valves





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