Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
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Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97
Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

Россия +7(495)268-04-70 **Казахстан** +7(7172)727-132 **Киргизия** +996(312)96-26-47

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Технические характеристики на электронные реле давления пневматические, гидравлические, всежидкостные 34D, 51D, 54D компании IMI NORGREN

- **Port size: G1/8**
- **System pressure (unit bar, psi, Mpa, KPa, kgf/cm², mmHg, InHg or mmH_2O) selectable**
- **High accuracy and resolution**
- **Switching status indicated by LED**
- **Output: 2 x PNP or 2 x NPN**
- **Versions with analogue output signal on request**

Technical features

Medium:
Compressed air, filtered, lubricated or non-lubricated
Pressure range:
-1 ... 10 bar (-14,5 ... 145 psi)
-1 ... 1 bar (-14,5 ... 14,5 psi)
Display:
3 1/2 digit LED
Mounting position:
Optional
Repeatability (switch output):
⩽ ±0,2% of full scale (FS) ±1 digit - without temperature sensitivity

Response time:
±2,5 ms
Shockproof:
100 g (980 m/s²), xyz
Vibrationproof:
88 g, 10 - 55 Hz, xyz
Degree of protection acc. to DIN 40050:
IP65 (with mounted dust proof protector)
Weight:
83g

Temperature sensitivity:
⩽ 2% of full scale (FS) of detected pressure (+25°C, +77°F)
Ambient/Media temperature:
0 ... +50°C (32 ... +122°F)
Storage temperature:
-20 ... +60°C (-4 ... +140°F)
No condensation or freezing
Air supply must be dry enough to avoid ice formation at temperature below +2°C (+35°F)
FS = full scale

Materials:
Body: PC

Electronical parameters

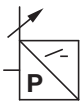
Electrical connection:
M12 x 1
Power supply:
12 ... 24 V d.c.
24 V d.c. (PNP) maximum
30 V d.c. (NPN) maximum
Residual voltage:
⩽ 1 V (load current 80 mA)

Permissible residual ripple:
10% or less (P-P)
Current consumption:
⩽ 50 mA
Load current:
80 mA maximum (with output short circuit protection)

Switching mode:
PNP or NPN
Indicator:
Green LED (OUT1),
Red LED (OUT2)

Insulation resistance:
50 MΩ min (at 500 V d.c. (between case and lead wire))
Electromagnetic compatibility:
According to EN 61326-1

Technical data

Symbol	Port size	Switching pressure range (bar)	(psi)	Over pressure *1) (bar)	(psi)	Output signal	Model
	G1/8	-1 ... 10	-14,5 ... 145	15	217	2 x PNP	0860810
	G1/8	-1 ... 10	-14,5 ... 145	15	217	2 x NPN	0860815
	G1/8	- 1 ... 1	-14,5 ... 14,5	3	43	2 x PNP	0860820
	G1/8	- 1 ... 1	-14,5 ... 14,5	3	43	2 x NPN	0860825

*1) Short-term pressure peaks are not allowed to exceed this limit value during operation. Operative utilization of the limit value is not permitted. The limit value corresponds to the maximum testing pressure.

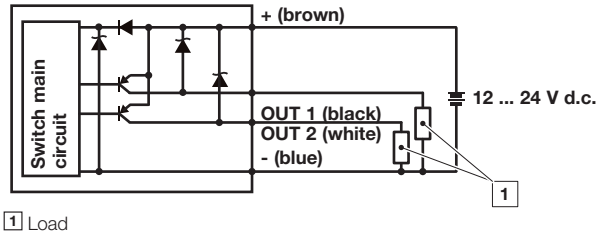
Accessories

Mounting bracket (wall mounting)	Mounting bracket (bottom mounting)	Panel mounting kit	Mounting (DIN rail clip)	ISO G - Expanding connector G1/8 ... G1/4
				
Page 3	Page 3	Page 3	Page 4	Page 4
0860000	0860001	0860002 + 0860003	0860007	160231828

Electrical connection M12 x 1

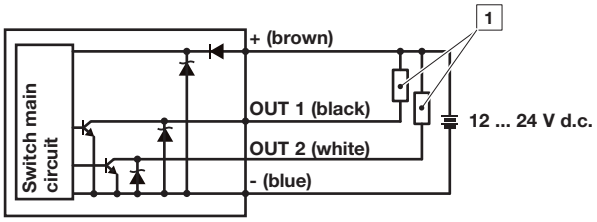
PIN-No.	Signal	Cable
1	+ UB	brown
2	Out 2	white
3	-	blue
4	Out 1	black

PNP



1 Load

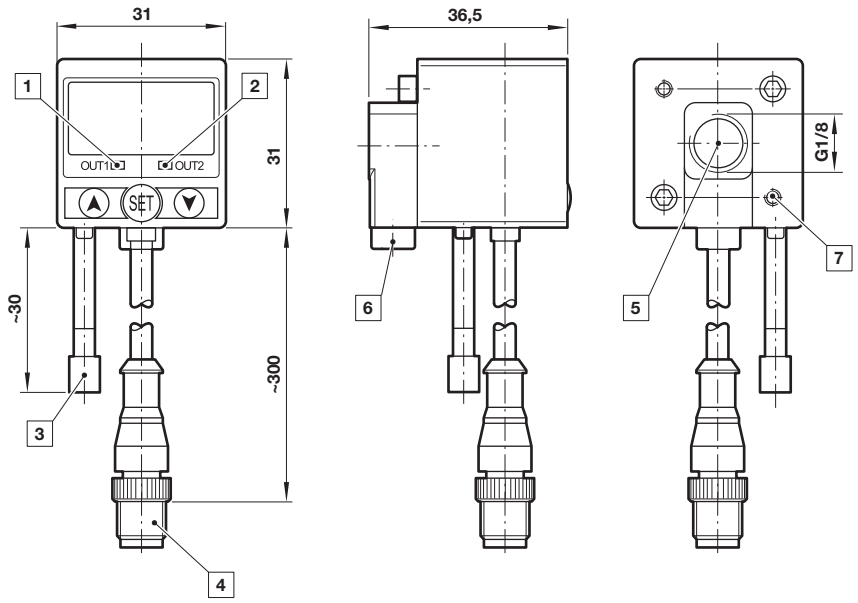
NPN



1 Load

Drawing - Pressure switch

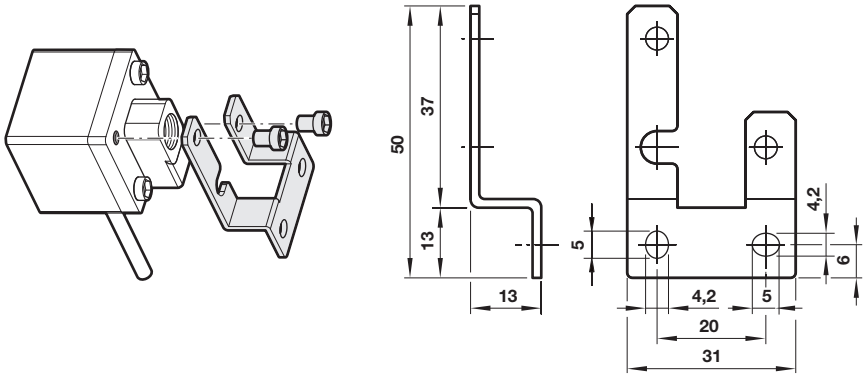
Dimensions in mm
Projection/First angle



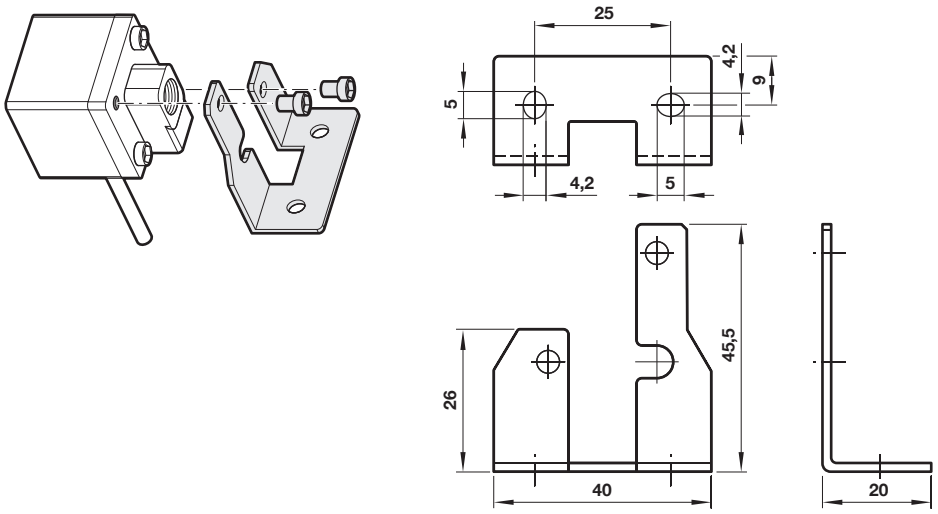
1 Switch OUT 1, green LED
2 Switch OUT 2, red LED
3 Dustproof protector
4 Connector M12 x 1
5 Inlet port
6 Alternative inlet port G1/8 plugged
7 Thread for mounting screw

Dimensions in mm
Projection/First angle

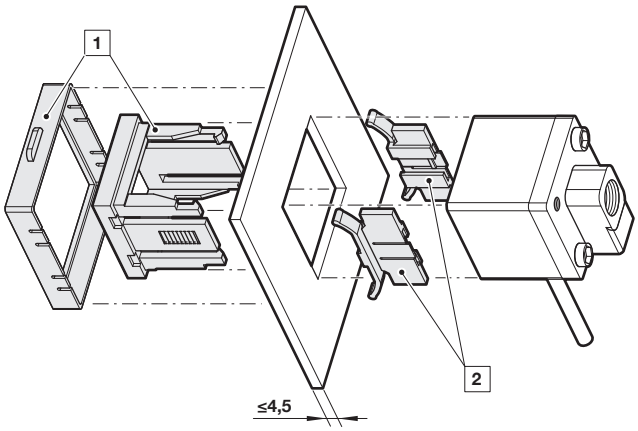
Drawing - Mounting bracket (wall mounting)



Drawing - Mounting bracket (bottom mounting)

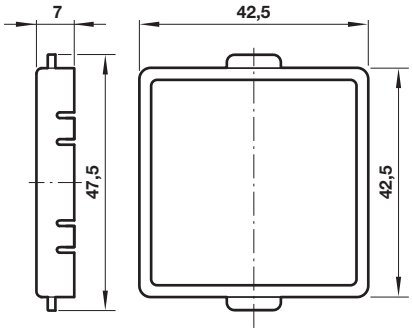


Drawing - Panel mounting kit

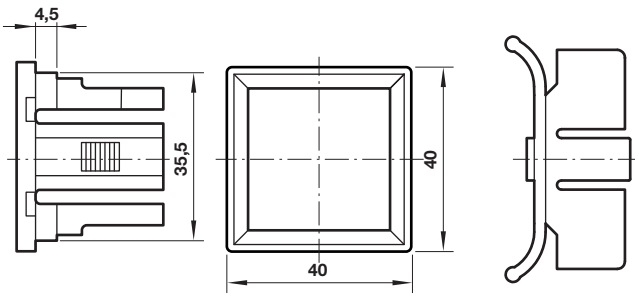


1 Front protection lid + Panel adaptor (0860003)
2 Safety adaptors (0860002)

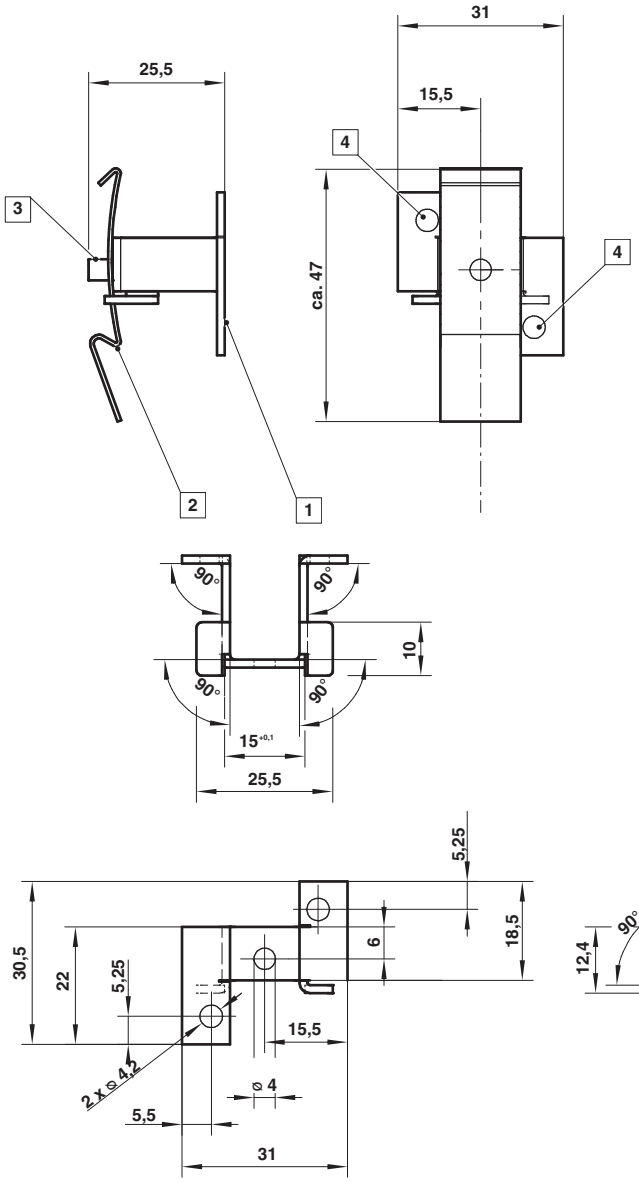
Drawing - Front protective lid



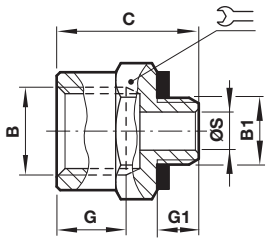
Drawing - Panel adapter



Drawing - Mounting (DIN rail clip)



Drawing - Expanding connector



B	B1	C	G	G1	Ø S	⌯	Model
G1/4	G1/8	20,5	12	6	5,5	17	160231828

1 Mounting angel
2 DIN-Mounting bracket
3 Fastening screw
4 Fastening screw (pressure switch)

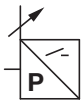
Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«.
Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult
IMI Precision Engineering, Norgren GmbH.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

34D Pneumatic/Hydraulic/Allfluid - electronic pressure sensor

- **-1 ... 600 bar in different pressure ranges**
- **Port size G1/4 or flange mounting with adapter**
- **Two output options; 2 x digital outputs or 1 x digital and 1 x Analogue (both options IO-Link configurable)**
- **Multicolour 4-digit display with configurable colour change (red/green) at set point**
- **Upper body can be rotated 345° relative to the process connection for easy alignment of the display**
- **Suitable for harsh industrial and process control environments**
- **High overpressure resistance**
- **UL-listed**



CE cULus LISTED IO-Link

Technical features

Medium:
For neutral and aggressive, gaseous and liquid fluids
Pressure range:
-1 ... 1 bar (-14,5 ... 14,5 psi)
-1 ... 10 bar (-14,5 ... 145 psi)
0 ... 16 bar (0 ... 232 psi)
0 ... 40 bar (0 ... 580 psi)
0 ... 100 bar (0 ... 1450 psi)
0 ... 160 bar (0 ... 2320 psi)
0 ... 250 bar (0 ... 3626 psi)
0 ... 400 bar (0 ... 5801 psi)
0 ... 600 bar (0 ... 8702 psi)
Pressure type:
Relative pressure
Switching pressure difference:
Programmable
Switching point:
Adjustable between
0 ... 100% of full scale (FS)
Reset point:
Adjustable between
0 ... 100% of full scale (FS)
(smallest adjustable pressure switching difference between switching point and reset point ≥ 0,5% of full scale (FS))

Display:
Alphanumeric display, 4-digit (red/green), programmable pressure units: bar, PSI, Mpa
Mounting position:
Optional
Total accuracy:
±0,5% of full scale (FS) - without temperature sensitivity
Linearity:
±0,25% + 1 display step size
Shock proof:
50 g, (11ms), DIN EN 60068-2-27
Vibration proof:
20 g, 10 ... 2000 Hz,
DIN EN 60068-2-6
Degree of protection acc. DIN EN 60529:
IP67 (with plug mounted)

Weight:
0,26 kg (0.57 lbs)
Temperature sensitivity:
Zero-point: ±0,2% of maximum operating pressure range (FS) per 10 Kelvin
Pressure range: ±0,2% of maximum operating pressure range (FS) per 10 Kelvin
Ambient/Media temperature:
Ambient:
-25 ... +80°C (-13 ... +176°F)
Media:
-25 ... +80°C (-13 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperature below +2°C (+35°F)

Materials:
Housing:
Stainless steel (1.4404 / 316L); PBT+PC-GF30; PBT-GF20; PC
Wetted parts: Stainless steel (1.4404 / 316L); Al2O3 (ceramics); FKM

Electrical parameters

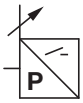
Electrical connection:
M12 x 1 (contacts gold plated)
Power supply:
UB = 18 ...30 VDC
reverse-polarity protected (according to EN 50178 SELV/PELV)
Permissible residual ripple:
10% (within UB)
Current consumption:
< 35 mA

Switching mode:
PNP/NPN
Output signal:
Switching signal; IO-Link (configurable)
Contact rating:
Imax
150 mA / -25 ...+80°C
200 mA / -25 ...+60°C
250 mA / -25 ...+40°C

Switching time:
< 3 ms
Signal delay:
On/Off 0 ... 50 s
Service life:
Min. 100 million switching cycles
Switching logic:
NO/NC programmable

Operating mode:
Hysteresis and window mode separately selectable for each output
Electromagnetic compatibility:
EN 61000-6-2; EN 61000-6-3

Technical data - Output Signal 2 x PNP (1 x IO-Link, configurable)

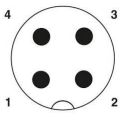
Symbol	Port size	Pressure range (bar)	(psi)	Over pressure*1 (bar)	(psi)	Output Signal	Model
	G1/4	- 1 ... 1	-14.5 ... 14.5	10	145	2 x PNP	34D-V101G-DD1-AA
	G1/4	-1 ... 10	-14,5 ... 145	75	1090	2 x PNP	34D-V110G-DD1-AA
	G1/4	0 ... 16	0 ... 232	85	1225	2 x PNP	34D-P016G-DD1-AA
	G1/4	0 ... 40	0 ... 580	200	2900	2 x PNP	34D-P040G-DD1-AA
	G1/4	0 ... 100	0 ... 1450	300	4350	2 x PNP	34D-P100G-DD1-AA
	G1/4	0 ... 160	0 ... 2320	350	5075	2 x PNP	34D-P160G-DD1-AA
	G1/4	0 ... 250	0 ... 3625	500	7250	2 x PNP	34D-P250G-DD1-AA
	G1/4	0 ... 400	0 ... 5800	800	11580	2 x PNP	34D-P400G-DD1-AA
	G1/4	0 ... 600	0 ... 8700	800	11580	2 x PNP	34D-P600G-DD1-AA

Technical data - Output Signal 1 x PNP (1 x IO-Link, configurable), 1 x Analogue

Symbol	Port size	Pressure range (bar)	(psi)	Over pressure*1 (bar)	(psi)	Output Signal	Model
	G1/4	- 1 ... 1	-14.5 ... 14.5	10	145	1 x PNP / 1 x analogue	34D-V101G-DA1-AA
	G1/4	-1 ... 10	-14,5 ... 145	75	1090	1 x PNP / 1 x analogue	34D-V110G-DA1-AA
	G1/4	0 ... 16	0 ... 232	85	1225	1 x PNP / 1 x analogue	34D-P016G-DA1-AA
	G1/4	0 ... 40	0 ... 580	200	2900	1 x PNP / 1 x analogue	34D-P040G-DA1-AA
	G1/4	0 ... 100	0 ... 1450	300	4350	1 x PNP / 1 x analogue	34D-P100G-DA1-AA
	G1/4	0 ... 160	0 ... 2320	350	5075	1 x PNP / 1 x analogue	34D-P160G-DA1-AA
	G1/4	0 ... 250	0 ... 3625	500	7250	1 x PNP / 1 x analogue	34D-P250G-DA1-AA
	G1/4	0 ... 400	0 ... 5800	800	11580	1 x PNP / 1 x analogue	34D-P400G-DA1-AA
	G1/4	0 ... 600	0 ... 8700	800	11580	1 x PNP / 1 x analogue	34D-P600G-DA1-AA

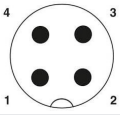
*1) Short-term pressure peaks are not allowed to exceed this limit value during operation.
Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure

Electrical connection M12 x 1 (2 x PNP)



PIN-No.	Signal	Cable
1	+ UB	brown
2	Out 2 (PNP)	white
3	0 Volt	blue
4	Out 1 (PNP)/ IO-Link	black

Electrical connection M12 x 1 (1 x PNP, 1 x analogue)



PIN-No.	Signal	Cable
1	+ UB	brown
2	Analogue 4 ... 20 mA / 0...10V	white
3	0 Volt	blue
4	Out 1 (PNP)/ IO-Link	black

Option selector

34D-★★★★★-★★ 1-AA

Pressure range (bar)	Substitute
- 1 ... 1	**V101G**
-1 ... 10	**V110G**
0 ... 16	**P016G**
0 ... 40	**P040G**
0 ... 100	**P100G**
0 ... 160	**P160G**
0 ... 250	**P250G**
0 ... 400	**P400G**
0 ... 600	**P600G**

Analogue-Type	Substitute
IO-Link, configurable	**1**
Output Signal	**Substitute**
2 x PNP	**DD**
1 x PNP / 1 x Analogue	**DA**

Mounting accessories

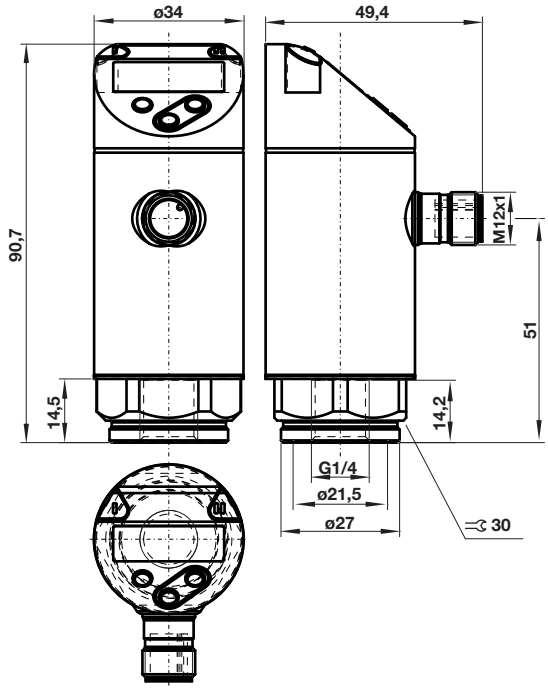
Flange adapter	Wall mounting kit	Mounting clamp	Label Tag Holder	Cover protection	Throttle screw	Adapter G1/4 - G1/4	Adapter G1/4 - 1/4 NPT
							
34D-FLANGE-ADPT	34D-BRKT-ANGLED	34D-BRKT-BODY	34D-LABEL-TAG	34D-COVER-PROTEC	34D-DAMPING-SCRW	34D-14G-G-ADPT	34D-14G-NPT-ADPT

Accessories

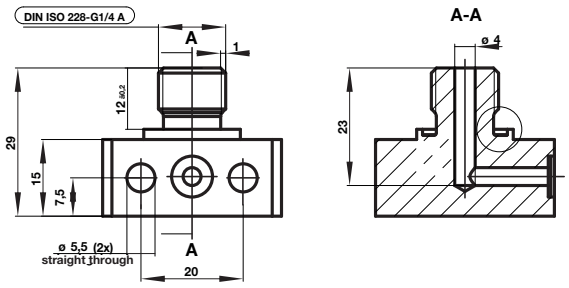
Connector M12 x 1			
4-pin, 90°	**4-pin, 90°**	**4-pin, straight**	**4-pin, straight**
			
0523058000000000 (2 m cable, 4-pin)	0523056000000000 (wireable without cable)	0523057000000000 (2 m cable, 4-pin)	0523055000000000 (wireable without cable)
0523053000000000 (5 m cable, 4-pin)		0523052000000000 (5 m cable, 4-pin)	

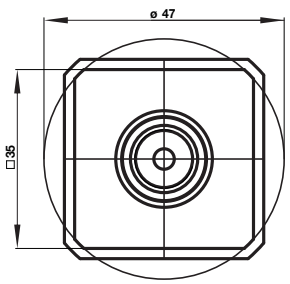
Dimensions pressure switch

Dimensions in mm
Projection/First angle

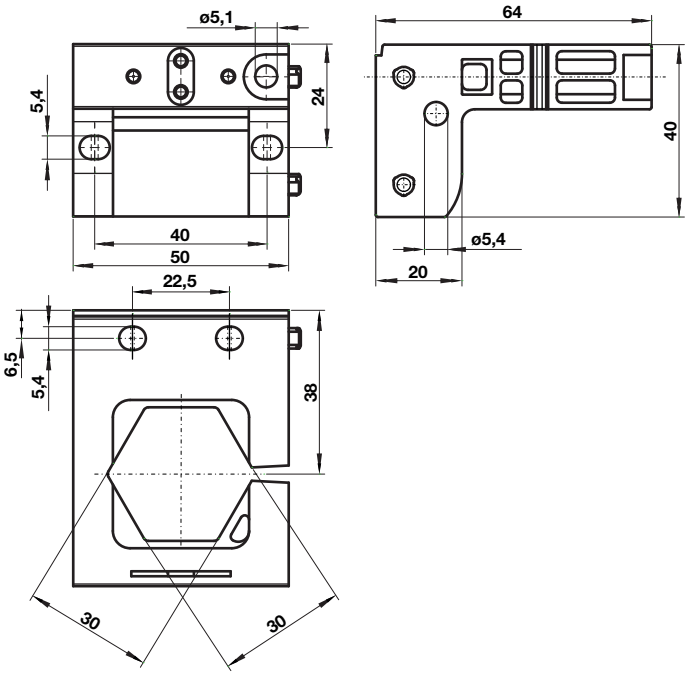


Dimensions accessories
Flange adapter
34D-FLANGE-ADPT



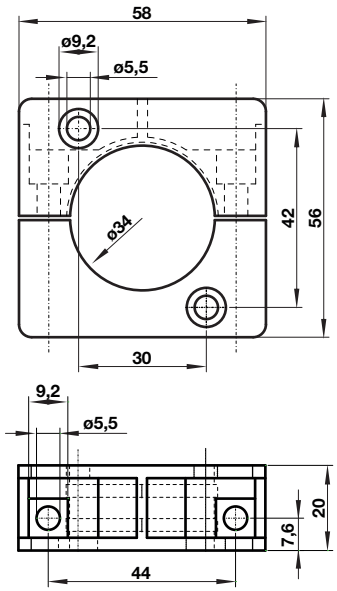


Wall mounting kit
34D-BRKT-ANGLED

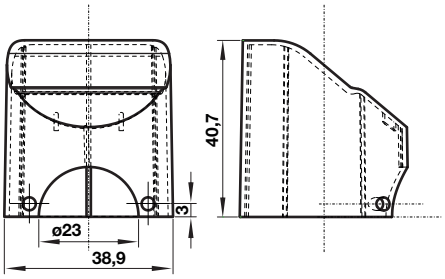


Mounting clamp
34D-BRKT-BODY

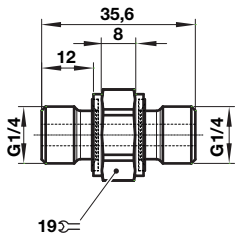
Dimensions in mm
Projection/First angle



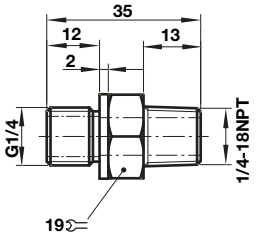
Cover protection
34D-COVER-PROTEC



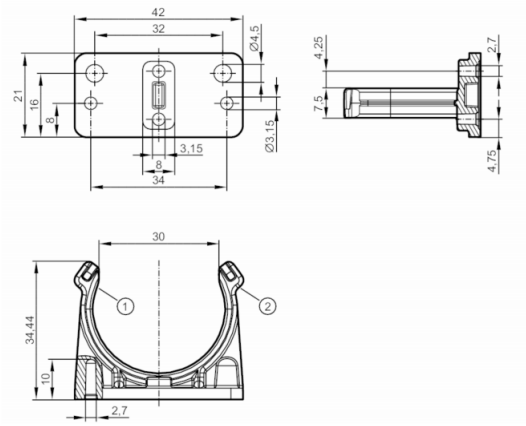
Adapter 34D-14G-G-ADPT



Adapter
34D-14G-NPT-ADPT

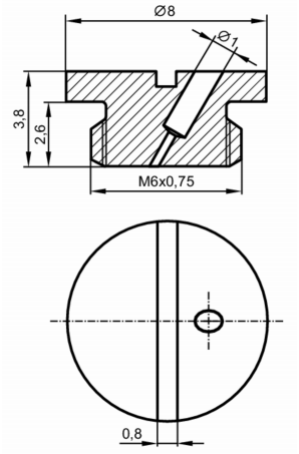


Label tag holder
34D-LABEL-TAG



Throttle screw
34D-DAMP-ING-SCRW

Dimensions in mm
Projection/First angle



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54D Pneumatic - electronic pressure sensor

- **-1 ... 16 bar, with three pressures ranges**
- **Compact, robust and light weight with G1/8 port**
- **2 switching outputs or 1 switching output (IO-Link configurable), 1 analogue (4 ... 20mA)**
- **Pressure display colour change configurable at switching point (red/ green)**
- **High overpressure and vacuum resistance**
- **Option for set up as a differential pressure sensor**
- **UL-listed**

Technical features

Medium:
Compressed air (filtered/lubricated/non-lubricated)
Pressure range:
- 1 ... 1 bar (-14,5 ... 14,5 psi)
- 1 ... 10 bar (-14,5 ... 145 psi)
0 ... 16 bar (0 ... 232 psi)
Pressure type:
Relative, and option for differential pressure
Switching pressure difference:
Programmable
Switching point:
Adjustable between
0 ... 100% of full scale (FS)
Reset point:
Adjustable between
0 ... 100% of full scale (FS)
(smallest adjustable pressure switching difference between switching point and reset point ≥ 0,5% of full scale (FS))

Display:
Alphanumeric display, 4-digit (red/green), programmable pressure units: bar, kPa, psi, inHg
Mounting position:
Optional
Total accuracy:
±0,5% of full scale (FS) - without temperature sensitivity
Linearity:
±0,25% + 1 display step size
Shock proof:
50 g, (11ms), DIN EN 60068-2-27
Vibration proof:
20 g, 10 ... 2000 Hz,
DIN EN 60068-2-6
Degree of protection acc. DIN EN 60529:
IP65

Weight:
0,087 kg (0.19 lbs)
Temperature sensitivity:
Zero-point: ±0,2% of maximum operating pressure range (FS) per 10 Kelvin
Pressure range: ±0,2% of maximum operating pressure range (FS) per 10 Kelvin (at 0 ... 60°C)
Ambient/Media temperature:
Ambient:
0 ... +70°C (+32 ... +158°F)
Media:
0 ... +70°C (+32 ... +158°F)
Air supply must be dry enough to avoid ice formation at temperature below +2°C (+35°F)

Materials:
Housing:
PBT, FKM, Polyester
Wetted parts: Brass, FKM, Silicon (coated), PBT

Electronic features

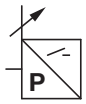
Electrical connection:
M8
Power supply:
UB = 18 ...32 VDC
reverse-polarity protected (according to EN 50178 SELV/ PELV)
Permissible residual ripple:
10% (within UB)
Current consumption:
< 50 mA

Switching mode:
PNP
Output signal:
Switching signal; IO-Link (configurable)
Contact rating:
Imax VDC = 100 mA

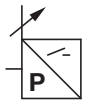
Switching time:
< 6 ms
Adjustable signal delay dS, dr[s]:
0; 0,002 ... 5
Service life:
Min. 50 million switching cycles
Switching logic:
NO/NC programmable

Operating mode:
Hysteresis and window mode separately selectable for each output
Electromagnetic compatibility:
EN 61000-6-2; EN 61000-6-3

Technical data - Output Signal 2 x PNP

Symbol	Port size	Pressure range (bar)	(psi)	Over pressure*1 (bar)	(psi)	Type of Pressure	Output Signal	Model
	G1/8	- 1 ... 1	-14.5 ... 14.5	20	290	Relative	2 x PNP	54D-V101G-DD0-AA
	G1/8	-1 ... 10	-14,5 ... 145	20	290	Relative	2 x PNP	54D-V110G-DD0-AA
	G1/8	0 ... 16	0 ... 232	20	290	Relative	2 x PNP	54D-P016G-DD0-AA

Technical data - Output Signal 1 x PNP (optional to be IO-Link configurable)/ 1 x analogue

Symbol	Port size	Pressure range (bar)	(psi)	Over pressure*1 (bar)	(psi)	Type of Pressure	Output Signal	Model
	G1/8	- 1 ... 1	-14.5 ... 14.5	20	290	Relative & differential	1 x PNP / 1 x analogue	54D-V101G-DA1-AA
	G1/8	-1 ... 10	-14,5 ... 145	20	290	Relative & differential	1 x PNP / 1 x analogue	54D-V110G-DA1-AA
	G1/8	0 ... 16	0 ... 232	20	290	Relative & differential	1 x PNP / 1 x analogue	54D-P016G-DA1-AA

*1) Short-term pressure peaks are not allowed to exceed this limit value during operation.
Operative utilization of the over pressure is not permitted. The over pressure corresponds to the maximum testing pressure

Electrical connection M8 x 1 (2 x PNP)

PIN-No.	Signal	Cable
1	+ UB	brown
2	Out 2 (PNP)	white
3	0 Volt	blue
4	Out 1 (PNP)	black

Electrical connection M8 x 1 (1 x PNP, 1 x analogue)

PIN-No.	Signal	Cable
1	+ UB	brown
2	analogue (4...20 mA)	white
3	0 Volt	blue
4	Out 1 (PNP)/IO-Link	black

Option selector

54D-★★★★★-★★ ★-AA

Pressure range (bar)	Substitute
- 1 ... 1	**V101G**
-1 ... 10	**V110G**
0 ... 16	**P016G**

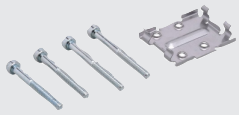
Analogue-Type	Substitute
Without IO-Link	**0**
IO-Link configurable	**1**
Output Signal	**Substitute**
2 x PNP	**DD**
1 x PNP / 1 x Analogue	**DA**

Accessories

Connector M8 x 1

0523449000000000 (1,5 m Cable,4-pin)	0523446000000000 (1,5 m Cable,4-pin, 90° angled)
0523447000000000 (5 m Cable,4-pin)	0523448000000000 (5 m Cable,4-pin, 90° angled)

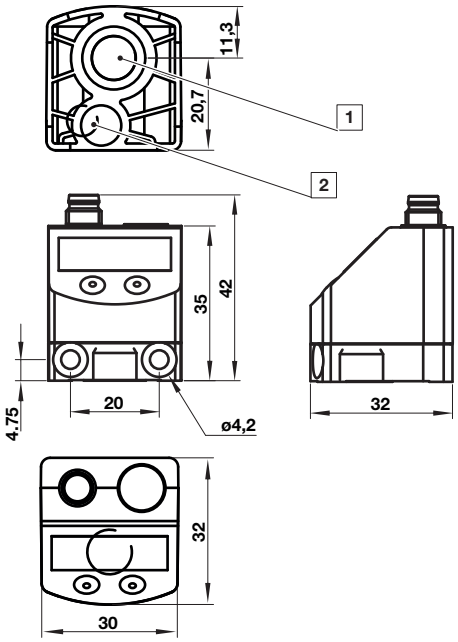
DIN-Railclip



54D-DINRAIL-CLIP

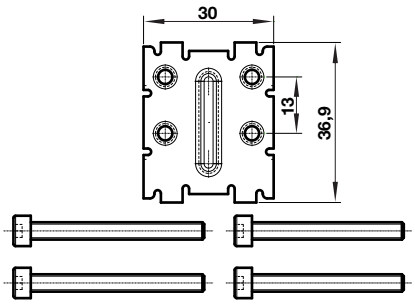
Dimensions pressure switch

Dimensions in mm
Projection/First angle



1 Main pressure connection (G1/8)
2 Auxiliary pressure connection for differential pressure sensing (M5)

Dimensions accessories
DIN-Railclip
54D-DINRAIL-CLIP



1 Mounting screws (Stainless steel, 1.4310/301)
2x M4 x 35
2x M4 x 40

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