CLOGGING INDICATORS

CATALOGUE

MPFILTRI®

PASSION TO PERFORM

Clogging indicators are devices that check the life time of the filter elements. They measure the pressure drop through the filter element directly connected to the filter housing.
These devices trip when the clogging of the filter element causes a pressure drop increasing across the filter element.
Filter elements are efficient only if their Dirt Holding Capacity is fully exploited. This is achieved by using filter housings equipped with clogging indicators.
The indicator is set to alarm before the element becomes fully clogged.

MP Filtri can supply indicators of the following designs:
- Vacuum switches and gauges
- Pressure switches and gauges
- Differential pressure indicators

These type of devices can be provided with a visual, electrical or both signals. The electronic differential pressure clogging indicator is also available. It provides both analogical 4-20 mA output and digital warning (75% of clogging) and alarm (clogging) outputs.

In the following pages you can find a reference guide about the types of clogging indicators available in the different families of MP Filtri's Hydraulic Filtration range of products.

Clogging Indicators

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QUICK REFERENCE GUIDE

Ordering codes

Filter family	Filter series		Visual indicators	Electrical indicators	Electronic / Electrical-Visual indicators
SUCTION FILTERS	With bypass valve 0.3 bar	ELIXIR® SFEX060-080-110-160	VVB20P01 VVS20P01	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01
		SF2 250 - 350 SF2 500 - 501 - 503 - 504 - 505 SF2 510 - 535 - 540	VVA20P01 VVR20P01	VEA21xA50P01	VLA21xA51P01 VLA21xA52P01 VLA21xA53P01 VLA21xA71P01
RETURN FILTERS	With bypass 1.75 bar	ELIXIR® RFEX060-080-110-160	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01
	Without bypass	ELIXIR® RFEX060-080-110-160	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01
	With bypass 1.75 bar	MDH 250	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01 DVS12HP01	BEA15HA50P01 BEM15HA41P01 DES12HA10P01 DES12HA30P01 DES12HA80P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01
	With bypass 3 bar	MDH 250	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01 DVS25HP01	BEA20HA50P01 BEM20HA41P01 DES25HA10P01 DES25HA30P01 DES25HA80P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01
	With bypass 1.75 bar	MPFX MPTX MPF MPT MPH	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01
	With bypass 3 bar	MPFX MPTX MPF MPT	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01
	With bypass 2.5 bar	MPH			
	With bypass 4.5 bar	MPLX	DVA20xP01 DVM20xP01	DEA20xA50P01 DEM20XX10P01 DEM20XX20P01 DEM20XX30P01 DEM20XX35P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01 DTA20xF70P01
	With bypass 2.4 bar	FRI			

Ordering codes

Filter family	Filter series		Visual indicators	Electrical indicators	Electronic / Electrical-Visual indicators
RETURN / SUCTION FILTERS		MRSX 116 - 165 - 166 Suction line	VVB20P01 VVS20P01	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01
	With bypass valve 2.5 bar	MRSX 116 - 165 - 166 Return line	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01	BEA20HA50P01 BEM20HA41P01 BET25HF10P01 BET25HF30P01 BET25HF50P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01
	With bypass valve 2.5 bar	LMP 124 MULTIPORT	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01 DVA20xP01 DVM20xP01	BEA20HA50P01 BEM20HA41P01 BET25HF10P01 BET25HF30P01 BET25HF50P01 DEA20xA50P01 DEM20XX10P01 DEM20XX20P01 DEM20XX30P01 DEM20XX35P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01 DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01 DTA20xF70P01
SPIN-ON FILTERS	Suction line	MPS 050 - 070 - 100 - 150 MPS 200 - 250 - 300 - 350	VVB20P01 VVS20P01	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01
	Return line	MPS 050 - 070 - 100 - 150 MPS 200 - 250 - 300 - 350 MST 050 - 070 - 100 - 150	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01
	In-line	MPS 051 - 071 - 101 - 151 MPS 301 - 351 MSH 050 - 070 - 100 - 150	DVA12xP01 DVM12xP01	DEA12xA50P01 DEM12xAxxP01	DLA12xA51P01 DLA12xA52P01 DLA12xA71P01 DLE12xA50P01 DLE12xF50P01 DLE20xF50P01 DLE20xF50P01 DTA12xA70P01 DTA12xF70P01 DTA20xA70P01 DTA20xF70P01

QUICK REFERENCE GUIDE

Ordering codes

Filter family	Filter series		Visual indicators	Electrical indicators	Electronic / Electrical-Visual indicators
LOW & MEDIUM PRESSURE FILTERS		ELIXIR® LFEX060-080-110-160	DVS25HP01	DES25HA10P01 DES25HA30P01 DES25HA80P01	
	With bypass valve 3.5 bar	LMP 110 - 112 - 116 - 118 - 119 MULTIPORT LMP 120 - 122 - 123 MULTIPORT LMP 210 - 211 - LDP LMP 400 - 401 & 430 - 431 LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954 LMD 211 - 400 - 401 - 431 - 951 - LDD	DVA20xP01 DVM20xP01	DEA20xA50P01 DEM20xx10P01 DEM20xx20P01 DEM20xx30P01 DEM20xx35P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01 DTA20xF70P01
		ELIXIR® LFEX060-080-110-160	DVS40HP01	DES40HA10P01 DES40HA30P01 DES40HA80P01	
	Without bypass valve	LMP 110 - 112 - 116 - 118 - 119 MULTIPORT LMP 120 - 122 - 123 MULTIPORT LMP 210 - 211 - LDP LMP 400 - 401 & 430 - 431 LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954 LMD 211 - 400 - 401 - 431 - 951 - LDD	DVA50xP01 DVM50xP01	DEA50xA50P01 DEM50xx10P01 DEM50xx20P01 DEM50xx30P01 DEM50xx35P01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01 DTA50xF70P01
HIGH PRESSURE FILTERS	With bypass valve 6 bar	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 351 - 500 FMMX 050 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DVA50xP01 DVM50xP01	DEA50xA50P01 DEM50xx10P01 DEM50xx20P01 DEM50xx30P01 DEM50xx35P01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01
	Without bypass valve	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 351 - 500 FMMX 050 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DVA70xP01 DVA95xP01 DVM70xP01 DVM95xP01	DEA70xA50P01 DEA95xA50P01 DEM70xx10P01 DEM70xx20P01 DEM70xx30P01 DEM70xx35P01 DEM95xx10P01 DEM95xx20P01 DEM95xx30P01 DEM95xx35P01	DLA70xA51P01 DLA70xA52P01 DLA70xA71P01 DLA95xA51P01 DLA95xA52P01 DLA95xA71P01 DLE70xA50P01 DLE70xF50P01 DLE95xA50P01 DLE95xF50P01 DTA70xF70P01 DTA95xF70P01

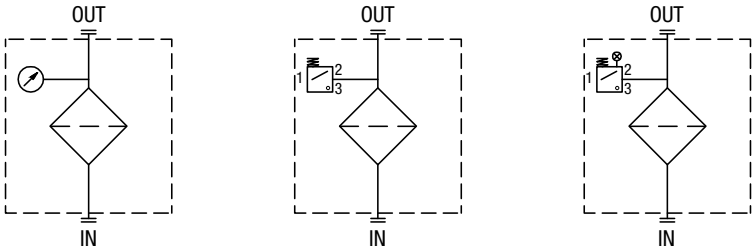
Ordering codes

Filter family	Filter series		Visual indicators	Electrical indicators	Electronic / Electrical-Visual indicators
STAINLESS STEEL HIGH PRESSURE FILTERS	With bypass valve 6 bar	FZH 012 - 040	DVZ50xP01	DEZ50xA50P01	DLZ50xA50P01 DLZ70xA50P01 DLZ95xA50P01
	Without bypass valve	FZH 012 - 040	DVZ70xP01 DVZ95xP01	DEZ70xA50P01 DEZ95xA50P01	
	With bypass valve 6 bar	FZP 039 - 136 FZB 039 FZM 039 FZD 051	DVX50xP01 DVY50xP01	DEX50xA50P01	DLX50xA51P01 DLX50xA52P01
	Without bypass valve	FZP 039 - 136 FZB 039 FZM 039 FZD 010 - 021 - 051	DVX70xP01 DVX95xP01 DVY70xP01 DVY95xP01	DEX70xA50P01 DEX95xA50P01	DLX70xA51P01 DLX70xA52P01 DLX95xA51P01 DLX95xA52P01
FILTERS FOR POTENTIALLY EXPLOSIVE ATMOSPHERE	With bypass valve 6 bar	FMMX 050 FMM 050 -150	DVA50xP01 DVM50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01	
	Without bypass valve	FMMX 050 FMM 050 -150	DVA70xP01 DVA95xP01 DVM70xP01 DVM95xP01	DEH70xA48P01 DEH70xA49P01 DEH70xA70P01 DEH95xA48P01 DEH95xA49P01 DEH95xA70P01	
	With bypass valve 6 bar	FZP 039 - 136	DVX50xP01 DVY50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01	
	Without bypass valve	FZP 039 - 136	DVX70xP01 DVX95xP01 DVY70xP01 DVY95xP01	DEH70xA48P01 DEH70xA49P01 DEH70xA70P01 DEH95xA48P01 DEH95xA49P01 DEH95xA70P01	
	With bypass valve 6 bar	FZH 012 - 040	DVZ50xP01		
	Without bypass valve	FZH 012 - 040	DVZ70xP01 DVZ95xP01		

Suitable indicator types

V ACUUM INDICATORS

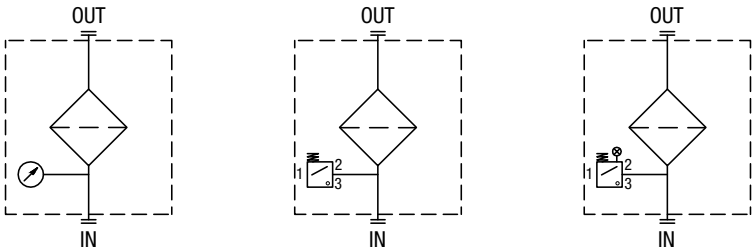
Vacuum indicators are used on the Suction line to check the efficiency of the filter element.
They measure the pressure downstream of the filter element.
Standard items are produced with R 1/4" EN 10226 connection.
Available products with R 1/8" EN 10226 to be fitted on MPS series.
Vacuum indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "V".



Example:
V VVB20P01

B AROMETRIC INDICATORS

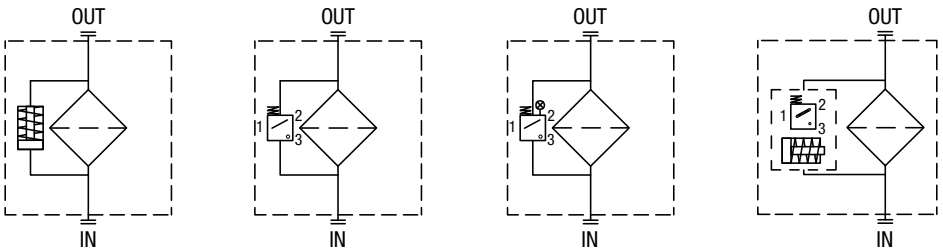
Pressure indicators are used on the Return line to check the efficiency of the filter element.
They measure the pressure upstream of the filter element.
Standard items are produced with R 1/8" EN 10226 connection.
Barometric indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "B"



Example:
B BVA14P01

D IFFERENTIAL INDICATORS

Differential indicators are used on the Pressure line to check the efficiency of the filter element.
They measure the pressure upstream and downstream of the filter element (differential pressure).
Standard items are produced with special connection G 1/2" size.
Also available in Stainless Steel models.
Differential indicators are identified in the Hydraulic Filtration catalogue and in the Quick Reference Guide table by the letter "D"



Example:
D DVA20xP01

Designation & Ordering code

VACUUM INDICATORS

Configuration example 1:	VE	A	21	V	A	50	P01
Configuration example 2:	VL	A	21	A	A	71	P01
Configuration example 3:	VV	R	20				P01

Series

VE	Electrical vacuum indicator
VL	Electrical/Visual vacuum indicator
VV	Vacuum gauge

Type VE - VL

A	Connection EN 10226 - R1/4”
B	Connection EN 10226 - R1/8”

Type VV

		SF2	SFEX
A	Axial connection EN 10226 - R1/4”	•	-
B	Axial connection EN 10226 - R1/8”	-	•
R	Radial connection EN 10226 - R1/4”	•	-
S	Radial connection EN 10226 - R1/8”	-	•

Vacuum setting

		VE	VL	VV
20	-0.16 bar	-	-	•
21	-0.21 bar	•	•	-

Seals

		VEA - VLA	VEB - VLB
A	NBR	•	•
V	FPM	•	-

Thermostat

		VE	VL
A	Without	•	•

Electrical connections

		VE	VL
50	Connection EN 175301-803	•	-
51	Connection EN 175301-803, transparent base with lamps 24 Vdc	-	•
52	Connection EN 175301-803, transparent base with lamps 110 Vdc	-	•
53	Connection EN 175301-803, transparent base with lamps 230 Vdc	-	•
71	Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	•

Option

P01	MP Filtri standard
Pxx	Customized

Designation & Ordering code

BAROMETRIC INDICATORS

Configuration example 1:	BE	M	15	H	A	41	P01
Configuration example 2:	BL	A	20	H	A	71	P01
Configuration example 3:	BV	R	14				P01
Configuration example 4:	BV	P	20	H			P01

Series

BE Electrical pressure indicator
BL Electrical/Visual pressure indicator
BV Visual pressure indicator

Type	BE	BL
A Standard type	•	•
M With wired electrical connection	•	-
T With thermal switch	•	-

BV	
A	Axial connection pressure gauge
R	Radial connection pressure gauge
P	Visual indicator with automatic reset
Q	Visual indicator with manual reset

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
14 1.4 bar	-	-	-	•	-
15 1.5 bar	•	-	•	-	-
20 2.0 bar	•	•	•	-	•
25 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVA-BVR	BVP-BVQ
H HNBR	•	•	-	•

Thermostat	BEA-BEM	BET	BLA
A Without	•	-	•
F With	-	•	-

Electrical connections	BEA	BEM	BET	BL
10 Connection AMP Superseal series 1,5	-	-	•	-
30 Connection Deutsch DT-04-2-P	-	-	•	-
41 Connection via four-core cable	-	•	-	-
50 Connection EN 175301-803	•	-	-	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vdc	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option	
P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	M	20	H	F	50	P01
Configuration example 2:	DL	E	20	V	A	71	P01
Configuration example 3:	DT	A	20	H	F	70	P01
Configuration example 4:	DV	M	20	V			P01

Series

DE	Electrical differential indicator
DL	Electrical/Visual differential indicator
DT	Electrical differential indicator
DV	Visual differential indicator

Type	DE	DL	DT
A Standard type	•	•	•
M With wired electrical connection	•	-	-
E For high power supply	-	•	-
S Compact version	•	-	-

DV	
A	With automatic reset
M	With manual reset
S	With automatic reset

Pressure setting	DE	DL	DT	DV
12 1.2 bar	•	•	•	•
20 2.0 bar	•	•	•	•
25 2.5 bar	•	-	-	•
40 4.0 bar	•	-	-	•
50 5.0 bar	•	•	•	•
70 7.0 bar	•	•	•	•
95 9.5 bar	•	•	•	•

Seals	DEA	DEM	DES	DL	DT	DVA	DVM	DVS
H HNBR	•	•	•	•	•	•	•	•
V FPM	•	•	-	•	•	•	•	-

Thermostat	DEA	DEM	DES	DLA	DLE	DT
A Without thermostat	•	•	•	•	•	-
F With thermostat	-	•	-	-	•	•

Electrical connections	DEA	DEM	DES	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-	-
50 Connection EN 175301-803	•	-	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•	-	-
80 Connection Stud #10-32 UNF	-	-	•	-	-	-

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUGS

Configuration example	T2	H

Series	DEA	DEM	DES	DL	DT	DVA	DVM	DVS
T2 Differential Indicator plug	•	•	-	•	•	•	•	-
T4 Differential Indicator plug	-	-	•	-	-	-	-	•

Seals	T2	T4
A NBR	-	•
H HNBR	•	-
V FPM	•	-

Designation & Ordering code

VACUUM INDICATORS

Configuration example 1:	VE	A	21	V	A	50	P01
Configuration example 2:	VL	B	21	A	A	71	P01
Configuration example 3:	VV	R	20				P01

Series

VE	Electrical vacuum indicator
VL	Electrical/Visual vacuum indicator
VV	Vacuum gauge

Type VE - VL

A	Connection EN 10226 - R1/4”
B	Connection EN 10226 - R1/8”

Type VV

A	Axial connection EN 10226 - R1/4”
B	Axial connection EN 10226 - R1/8”
R	Radial connection EN 10226 - R1/4”
S	Radial connection EN 10226 - R1/8”

Vacuum setting	VE	VL	VV
20 -0.16 bar	-	-	•
21 -0.21 bar	•	•	-

Seals	VEA - VLA	VEB - VLB
A NBR	•	•
V FPM	•	-

Thermostat	VE	VL
A Without	•	•

Electrical connections	VE	VL
50 Connection EN 175301-803	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vdc	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	•

Option

P01	MP Filtri standard
Pxx	Customized

BAROMETRIC INDICATORS

Configuration example 1:	BE	M	15	H	A	41	P01
Configuration example 2:	BL	A	20	H	A	71	P01
Configuration example 3:	BV	R	14				P01
Configuration example 4:	BV	P	20	H			P01

Series

BE	Electrical pressure indicator
BL	Electrical/Visual pressure indicator
BV	Visual pressure indicator

Type	BE	BL
A Standard type	•	•
M With wired electrical connection	•	-
T With thermal switch	•	-

BV

A	Axial connection pressure gauge
R	Radial connection pressure gauge
P	Visual indicator with automatic reset
Q	Visual indicator with manual reset

Pressure setting	BEA-BEM	BET	BLA	BVA-BVR	BVP-BVQ
14 1.4 bar	-	-	-	•	-
15 1.5 bar	•	-	•	-	-
20 2.0 bar	•	•	•	-	•
25 2.5 bar	-	•	-	•	-

Seals	BE	BLA	BVP-BVQ
H HNBR	•	•	•

Thermostat	BEA-BEM	BET	BLA
A Without	•	-	•
F With	-	•	-

Electrical connections	BEA	BEM	BET	BL
10 Connection AMP Superseal series 1.5	-	-	•	-
30 Connection Deutsch DT-04-2-P	-	-	•	-
41 Connection via four-core cable	-	•	-	-
50 Connection EN 175301-803	•	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vdc	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	M	12	H	F	50	P01
Configuration example 2:	DL	E	20	V	A	71	P01
Configuration example 3:	DT	A	50	H	F	70	P01
Configuration example 4:	DV	M	70	V			P01

Series

DE	Electrical differential indicator
DL	Electrical/Visual differential indicator
DT	Electronic differential indicator
DV	Visual differential indicator

Type	DE	DL	DT	DV	
A Standard type	•	•	•	**A**	With automatic reset
M With wired electrical connection	•	-	-	**M**	With manual reset
E For high power supply	-	•	-		

Pressure setting

12	1.2 bar
20	2.0 bar
50	5.0 bar
70	7.0 bar
95	9.5 bar

Seals

H	HNBR
V	FPM

Thermostat	DEA	DEM	DLA	DLE	DT
A Without	•	•	•	•	-
F With thermostat	-	•	-	•	•

Electrical connections	DEA	DEM	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-
50 Connection EN 175301-803	•	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	•	-	-

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUGS

Configuration example	T2	H

Series

T2	Differential indicator plug

Seals

H	HNBR
V	FPM

Designation & Ordering code

VACUUM INDICATORS

Configuration example 1:	VE	B	21	A	A	50	P01
Configuration example 2:	VL	B	21	A	A	71	P01
Configuration example 3:	VV	S	20				P01

Series
- **VE** Electrical vacuum indicator
- **VL** Electrical/Visual vacuum indicator
- **VV** Vacuum gauge

Type VE - VL
- **B** Connection EN 10226 - R1/8”

Type VV
- **B** Axial connection EN 10226 - R1/8”
- **S** Radial connection EN 10226 - R1/8”

Vacuum setting	VE	VL	VV
20 -0.16 bar	-	-	•
21 -0.21 bar	•	•	-

Seals	VE	VL
A NBR	•	•

Thermostat	VE	VL
A Without	•	•

Electrical connections	VE	VL
50 Connection EN 175301-803	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vdc	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	•

Option
- **P01** MP Filtri standard
- **Pxx** Customized

BAROMETRIC INDICATORS

Configuration example 1:	BE	M	15	H	A	41	P01
Configuration example 2:	BL	A	20	H	A	71	P01
Configuration example 3:	BV	R	14				P01
Configuration example 4:	BV	P	20	H			P01

Series
- **BE** Electrical pressure indicator
- **BL** Electrical/Visual pressure indicator
- **BV** Visual pressure indicator

Type	BE	BL
A Standard type	•	•
M With wired electrical connection	•	-

BV
- **A** Axial connection pressure gauge
- **R** Radial connection pressure gauge
- **P** Visual indicator with automatic reset
- **Q** Visual indicator with manual reset

Pressure setting	BEA-BEM	BLA	BVA-BVR	BVP-BVQ
14 1.4 bar	-	-	•	-
15 1.5 bar	•	•	-	-
20 2 bar	•	•	-	•
25 2.5 bar	-	-	•	-

Seals	BE	BLA	BVA-BVR	BVP-BVQ
H HNBR	•	•	-	•

Thermostat	BEA-BEM	BLA	BV
A Without	•	•	-

Electrical connections	BEA	BEM	BL
10 Connection AMP Superseal series 1.5	-	-	-
30 Connection Deutsch DT-04-2-P	-	-	-
41 Connection via four-core cable	-	•	-
50 Connection EN 175301-803	•	-	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	•
53 Connection EN 175301-803, transparent base with lamps 230 Vdc	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	•

Option
- **P01** MP Filtri standard
- **Pxx** Customized

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	M	12	H	F	50	P01
Configuration example 2:	DL	E	20	V	A	71	P01
Configuration example 3:	DT	A	12	H	F	70	P01
Configuration example 4:	DV	M	20	V			P01

Series

DE	Electrical differential indicator
DL	Electrical/Visual differential indicator
DT	Electronic differential indicator
DV	Visual differential indicator

Type	DE	DL	DT	DV	
A Standard type	•	•	•	**A**	With automatic reset
M With wired electrical connection	•	-	-	**M**	With manual reset
E For high power supply	-	•	-		

Pressure setting

12	1.2 bar
20	2.0 bar
50	5.0 bar
70	7.0 bar
95	9.5 bar

Seals

H	HNBR
V	FPM

Thermostat	DEA	DEM	DLA	DLE	DT
A Without	•	•	•	•	-
F With thermostat	-	•	-	•	•

Electrical connections	DEA	DEM	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-
50 Connection EN 175301-803	•	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	•	-	-

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUG

Configuration example	T2	H

Series

T2	Differential indicator plug

Seals

H	HNBR
V	FPM

Designation & Ordering code

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	M	20	H	F	50	P01
Configuration example 2:	DL	E	50	V	A	71	P01
Configuration example 3:	DT	A	20	H	F	70	P01
Configuration example 4:	DV	M	50	V			P01

Series

DE	Electrical differential indicator
DL	Electrical/Visual differential indicator
DT	Electronic differential indicator
DV	Visual differential indicator

Type	DE	DL	DT	DV	
A Standard type	•	•	•	**A**	With automatic reset
M With wired electrical connection	•	-	-	**M**	With manual reset
E For high power supply	-	•	-	**S**	With automatic reset
S Compact version	•	-	-		

Pressure setting

12	1.2 bar
20	2.0 bar
50	5.0 bar
70	7.0 bar
95	9.5 bar

Seals

H	HNBR
V	FPM

Thermostat	DEA	DEM	DLA	DLE	DT
A Without	•	•	•	•	-
F With thermostat	-	•	-	•	•

Electrical connections	DEA	DEM	DES	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-	-
50 Connection EN 175301-803	•	-	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	-	•	-	-
80 Connection Stud #10-32 UNF	-	-	•	•	-	-

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUG

Configuration example	T2	H							

Series	DEA	DEM	DES	DL	DT	DVA	DVM	DVS
T2 Differential Indicator plug	•	•	-	•	•	•	•	-
T4 Differential Indicator plug	-	-	•	-	-	-	-	•

Seals	T2	T4
A NBR	-	•
H HNBR	•	-
V FPM	•	-

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	M	12	H	F	50	P01
Configuration example 2:	DL	E	20	V	A	71	P01
Configuration example 3:	DT	A	12	H	F	70	P01
Configuration example 4:	DV	M	20	V			P01

Series

DE	Electrical differential indicator
DL	Electrical/Visual differential indicator
DT	Electronic differential indicator
DV	Visual differential indicator

Type	DE	DL	DT	DV
A Standard type	•	•	•	**A** With automatic reset
M With wired electrical connection	•	-	-	**M** With manual reset
E For high power supply	-	•	-	

Pressure setting

12	1.2 bar
20	2.0 bar
50	5.0 bar
70	7.0 bar
95	9.5 bar

Seals

H	HNBR
V	FPM

Thermostat	DEA	DEM	DLA	DLE	DT
A Without	•	•	•	•	-
F With thermostat	-	•	-	•	•

Electrical connections	DEA	DEM	DLA	DLE	DT
10 Connection AMP Superseal series 1.5	-	•	-	-	-
20 Connection AMP Timer Junior	-	•	-	-	-
30 Connection Deutsch DT-04-2-P	-	•	-	-	-
35 Connection Deutsch DT-04-3-P	-	•	-	-	-
50 Connection EN 175301-803	•	-	-	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	•	-	-
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	•	-	-
70 Connection IEC 61076-2-101 D (M12)	-	-	-	-	•
71 Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc	-	-	•	-	-

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUG

Configuration example	T2	H

Series

T2	Differential indicator plug

Seals

H	HNBR
V	FPM

STAINLESS STEEL HIGH PRESSURE FILTERS

Designation & Ordering code

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	Z	50	H	A	50	P01
Configuration example 2:	DL	X	70	V	A	52	P01

Series

DE	Electrical differential indicator
DL	Electrical / Visual differential indicator
DV	Visual differential indicator

Type	DE	DL	DV
X Standard type 420 bar	•	•	•
Y Optional type 420 bar	-	-	•
Z 700 bar (only for FZH)	•	•	•

Pressure setting

12	1.2 bar
20	2.0 bar
50	5.0 bar
70	7.0 bar
95	9.5 bar

Seals	DEX	DEZ	DL	DV
H HNBR	•	•	•	•
V FPM	•	•	•	•
F MFQ	-	•	-	-

Thermostat	DEX	DEZ	DL	DV
A Without thermostat	•	•	•	-

Electrical connections	DEX	DEZ		DL
		HNBR	FPM	
50 Connection EN 175301-803	•	•	•	-
51 Connection EN 175301-803, transparent base with lamps 24 Vdc	-	-	-	•
52 Connection EN 175301-803, transparent base with lamps 110 Vdc	-	-	-	•

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUG

Configuration example	X2	H

Series

X2	Differential indicator plug 420 bar
X3	Differential indicator plug 700 bar (only for FZH)

Seals

H	HNBR
V	FPM
F	MFQ

FILTERS FOR POTENTIALLY EXPLOSIVE ATMOSPHERE

Designation & Ordering code

DIFFERENTIAL INDICATORS

Configuration example 1:	DE	H	50	F	A	48	P01
Configuration example 2:	DV	X	70	V	A	49	P01

Series

DE	Electrical differential indicator
DV	Visual differential indicator

Type	DE	DV
A With automatic reset	-	•
M With manual reset	-	•
H Hazardous area	•	-
X Standard type 420 bar	-	•
Y Optional type 420 bar	-	•

Pressure setting	DEH	DV
12 1.2 bar	-	•
20 2.0 bar	•	•
50 5.0 bar	•	•
70 7.0 bar	•	•
95 9.5 bar	-	•

Seals	DEH	DV
H HNBR	-	•
V FPM	•	•
F MFQ	•	-

Thermostat	DEH	DV
A Without	•	-

Electrical connections

48	Connection via three-core cable - fitting M20x1.5
49	Connection via four-core cable - fitting 1/2” NPT
70	Connection IEC 61076-2-101 D (M12)

Option

P01	MP Filtri standard
Pxx	Customized

DIFFERENTIAL INDICATOR PLUG

Configuration example	X2	H

Series

T2	Differential indicator plug
X2	Differential indicator plug 420 bar
X3	Differential indicator plug 700 bar (only for FZH)

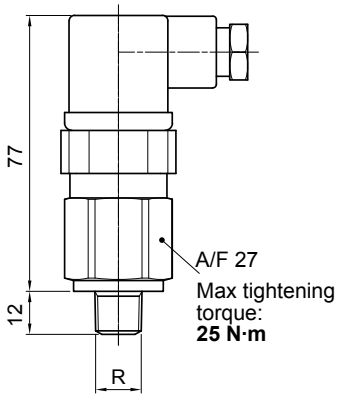
Seals

H	HNBR
V	FPM
F	MFQ

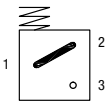
VE*50

Electrical Vacuum Indicator
Connection: EN 175301-803

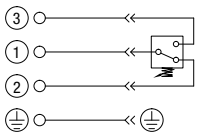
R	Ordering code
EN 10226 - R1/4"	VE A 21 x A 50 P01
EN 10226 - R1/8"	VE B 21 A A 50 P01



Hydraulic symbol



Electrical symbol



- Certification / Approvals: ATEX
- Certification included as standard

Materials

- Body:	Brass
- Base:	Black polyamide
- Contacts:	Silver
- Seal:	VEA: NBR/FPM VEB: NBR

Technical data

- Vacuum setting:	-0.21 bar ±10%
- Max working pressure:	10 bar
- Proof pressure:	15 bar
- Working temperature:	From -25 °C to +80 °C
- Compatibility with fluids:	Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection:	IP65 according to EN 60529

Electrical data

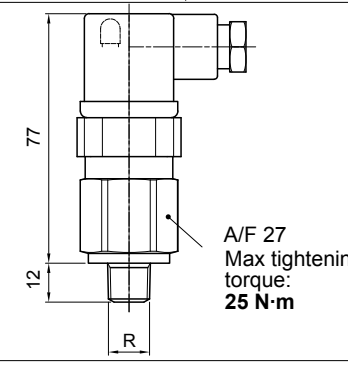
- Electrical connection:	EN 175301-803
- Resistive load:	5 A / 14 Vdc 4 A / 30 Vdc 5 A / 125 Vac 4 A / 250 Vac
- CE certification	
- Available Atex product:	II 1GD Ex ia IIC Tx Ex ia IIIC Tx °C X

VL*51 - VL*52 - VL*53

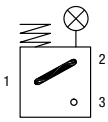
Electrical/Visual Vacuum Indicator

51: Connection EN 175301-803, transparent base with lamps 110 Vdc
52: Connection EN 175301-803, transparent base with lamps 24 Vdc
53: Connection EN 175301-803, transparent base with lamps 230 Vdc

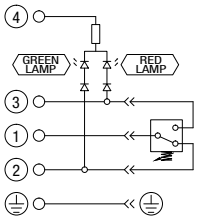
R	Ordering code
EN 10226 - R1/4"	VL A 21 x A xx P01
EN 10226 - R1/8"	VL B 21 A A xx P01



Hydraulic symbol



Electrical symbol



Materials

- Body:	Brass
- Base:	Transparent polyamide
- Contacts:	Brass - Polyamide
- Seal:	VLA: NBR/FPM VLB: NBR

Technical data

- Vacuum setting:	-0.21 bar ±10%
- Max working pressure:	10 bar
- Proof pressure:	15 bar
- Working temperature:	From -25 °C to +80 °C
- Compatibility with fluids:	Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection:	IP65 according to EN 60529

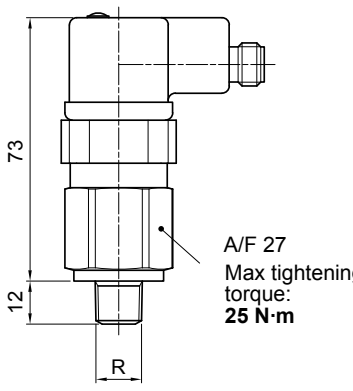
Electrical data

- Electrical connection:	EN 175301-803		
- Type	51	52	53
- Lamps	24 Vdc	110 Vdc	230 Vac
- Resistive load:	1 A / 24 Vdc	1 A / 110 Vdc	1 A / 230 Vac

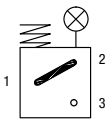
VL*71

Electrical/Visual Vacuum Indicator
Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc

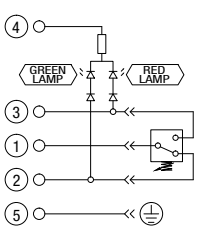
Connections	Indicator code
EN 10226 - R1/4"	VL A 21 x A 71 P01
EN 10226 - R1/8"	VL B 21 A A 71 P01



Hydraulic symbol



Electrical symbol



Materials

- Body:	Brass
- Base:	Black polyamide
- Contacts:	Silver
- Seal:	VLA: NBR/FPM VLB: NBR

Technical data

- Vacuum setting:	-0.21 bar ±10%
- Max working pressure:	10 bar
- Proof pressure:	15 bar
- Working temperature:	From -25 °C to +80 °C
- Compatibility with fluids:	Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection:	IP65 according to EN 60529

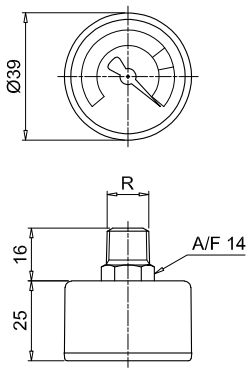
Electrical data

- Electrical connection:	IEC 61076-2-101 D (M12)
- Lamps	24 Vdc (black base)
- Resistive load:	0.4 A / 24 Vdc

VVA - VVB

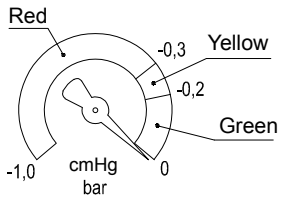
Axial Vacuum Gauge

R	Ordering code
EN 10226 - R1/4"	VVA 20 P01
EN 10226 - R1/8"	VVB 20 P01



Hydraulic symbol

Dial scale



Conversion to SI units

[cmHg]	[bar]
-12	-0.16
-18	-0.24
-76	-1.01

Materials

- Case:	Black plastic
- Window:	Clear plastic
- Dial:	White plastic
- Pointer:	Black plastic
- Pressure connection:	Cu-alloy
- Pressure element:	Bourdon tube Cu-alloy soft soldered, C type
- Movement:	Cu-alloy

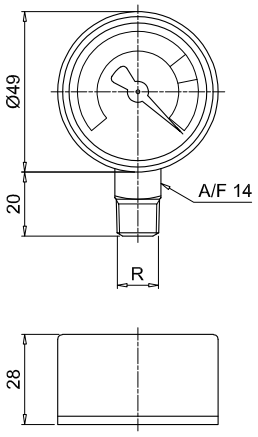
Technical data

- Max working pressure:	Steady: -0.7 bar Fluctuating: -0.6 bar Short time: -1.0 bar
- Working temperature:	Ambienti from -40 °C to +60 °C Fluid max + 60 °C Storage from -40 °C to +60 °C
- Compatibility with fluids:	Mineral oils, Synthetic fluids HFA, HFB and HFC according to ISO 2943
- Accuracy:	Class 2.5 according to EN 13190
- Degree of protection:	IP31 according to EN 60529

VVR - VVS

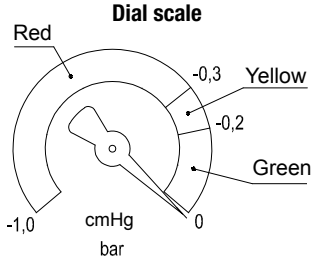
Radial Vacuum Gauge

R	A/F	Ordering code
EN 10226 - R1/4"	14	VVR 20 P01
EN 10226 - R1/8"	11	VVS 20 P01



Hydraulic symbol

Dial scale



Conversion to SI units

[cmHg]	[bar]
-12	-0.16
-18	-0.24
-76	-1.01

Materials

- Case:	Black plastic
- Window:	Clear plastic
- Dial:	White plastic
- Pointer:	Black plastic
- Pressure connection:	Cu-alloy
- Pressure element:	Bourdon tube Cu-alloy soft soldered, C type
- Movement:	Cu-alloy

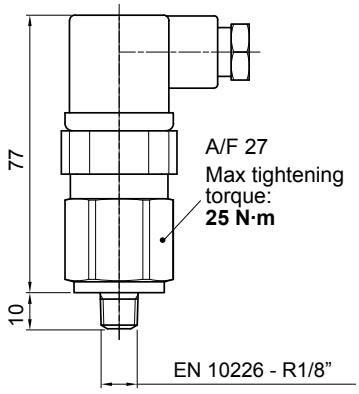
Technical data

- Max working pressure:	Steady: -0.7 bar Fluctuating: -0.6 bar Short time: -1.0 bar
- Working temperature:	Ambienti from -40 °C to +60 °C Fluid max + 60 °C Storage from -40 °C to +60 °C
- Compatibility with fluids:	Mineral oils, Synthetic fluids HFA, HFB and HFC according to ISO 2943
- Accuracy:	Class 2.5 according to EN 13190
- Degree of protection:	IP31 according to EN 60529

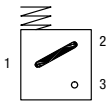
BEA*50

Electrical Pressure Indicator
Connection EN 175301-803

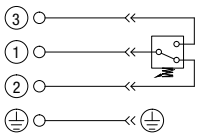
Settings	Ordering code
1.5 bar ±10%	BE A 15 H A 50 P01
2.0 bar ±10%	BE A 20 H A 50 P01



Hydraulic symbol



Electrical symbol



- Certification / Approvals: ATEX
- Certification included as standard

Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR

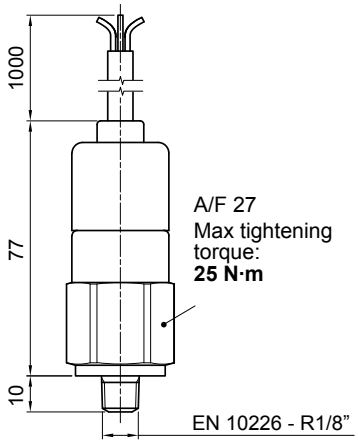
Technical data
- Max working pressure: 40 bar
- Proof pressure: 60 bar
- Working temperature: From -25 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

Electrical data
- Electrical connection: EN 175301-803
- Resistive load: 5 A / 14 Vdc; 4 A / 30 Vdc; 5 A / 125 Vac; 4 A / 250 Vac
- CE certification
- Available Atex product: I M1 Ex ia I Ma; II 1GD Ex ia IIC Tx Ex ia IIIC Tx °C X

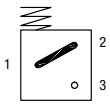
BEM*41

Electrical Pressure Indicator
Connection via four-core cable

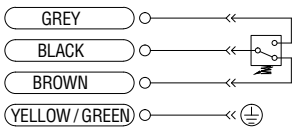
Settings	Ordering code
1.5 bar ±10%	BE M 15 H A 41 P01
2.0 bar ±10%	BE M 20 H A 41 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR

Technical data
- Max working pressure: 40 bar
- Proof pressure: 60 bar
- Working temperature: From -25 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP67 according to EN 60529

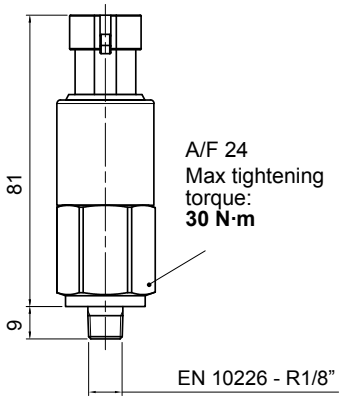
Electrical data
- Electrical connection: Four-core cable
- Resistive load: 5 A / 14 Vdc; 4 A / 30 Vdc; 5 A / 125 Vac; 4 A / 250 Vac
- CE certification

On request this indicator can be provided with main connectors in use for wirings.

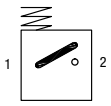
BET*10

Electrical Pressure Indicator
Connection AMP Superseal series 1.5

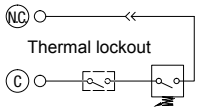
Settings	Ordering code
2.0 bar ±10%	BE T 20 H F 10 P01
2.5 bar ±10%	BE T 25 H F 10 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR

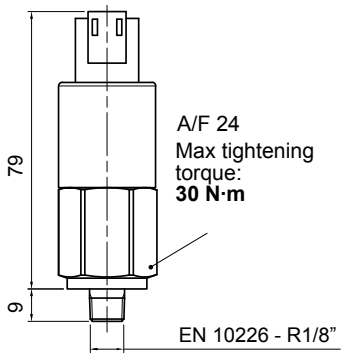
Technical data
- Max working pressure: 10 bar
- Proof pressure: 15 bar
- Working temperature: From -25 °C to +100 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

Electrical data
- Electrical connection: AMP Superseal series 1.5
- Resistive load: 0.5 A / 48 Vdc
- Thermostat condition: Open up to 30 °C
- CE certification

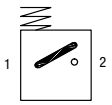
BET*30

Electrical Pressure Indicator
Deutsch DT-04-2-P

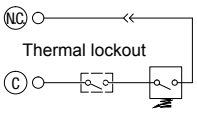
Settings	Ordering code
2.0 bar ±10%	BE T 20 H F 30 P01
2.5 bar ±10%	BE T 25 H F 30 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR

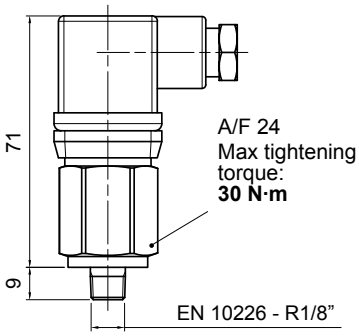
Technical data
- Max working pressure: 10 bar
- Proof pressure: 15 bar
- Working temperature: From -25 °C to +100 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

Electrical data
- Electrical connection: Deutsch DT-04-2-P
- Resistive load: 0.5 A / 48 Vdc
- Thermostat condition: Open up to 30 °C
- CE certification

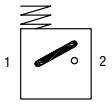
BET*50

Electrical Pressure Indicator
Connection EN 175301-803

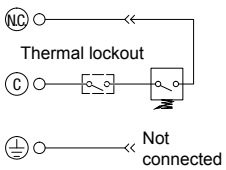
Settings	Ordering code
2.0 bar ±10%	BE T 20 H F 50 P01
2.5 bar ±10%	BE T 25 H F 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR

Technical data
- Max working pressure: 10 bar
- Proof pressure: 15 bar
- Working temperature: From -25 °C to +100 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

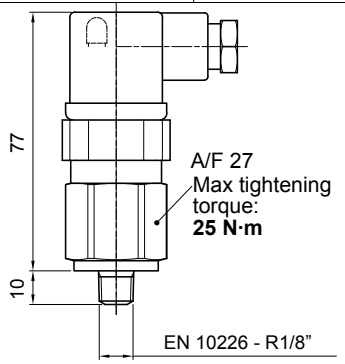
Electrical data
- Electrical connection: EN 175301-803
- Resistive load: 0.5 A / 48 Vdc
- Thermostat condition: Open up to 30 °C
- CE certification

BL*51 - BL*52 - BL*53

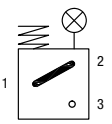
Electrical/Visual Pressure Indicator

51: Connection EN 175301-803, transparent base with lamps 110 Vdc
52: Connection EN 175301-803, transparent base with lamps 24 Vdc
53: Connection EN 175301-803, transparent base with lamps 230 Vdc

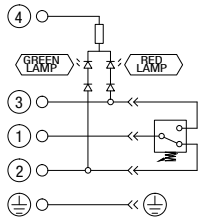
Settings	Ordering code
1.5 bar ±10%	BL A 15 H A xx P01
2.0 bar ±10%	BL A 20 H A xx P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Transparent polyamide
- Contacts: Silver
- Seal: HNBR

Technical data
- Max working pressure: 40 bar
- Proof pressure: 60 bar
- Working temperature: From -25 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

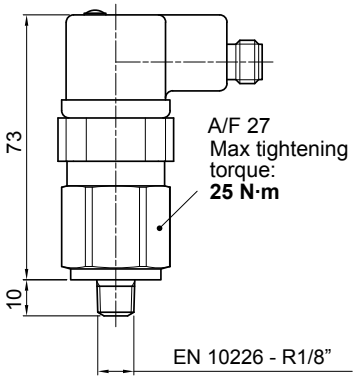
Electrical data

- Electrical connection:	EN 175301-803		
- Type	51	52	53
- Lamps	24 Vdc	110 Vdc	230 Vac
- Resistive load:	1 A / 24 Vdc	1 A / 110 Vdc	1 A / 230 Vac

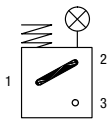
BL*71

Electrical/Visual Pressure Indicator
Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc

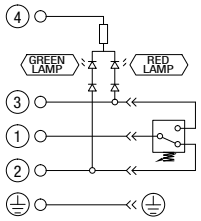
Settings	Ordering code
1.5 bar ±10%	BL A 15 H A 71 P01
2.0 bar ±10%	BL A 20 H A 71 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR

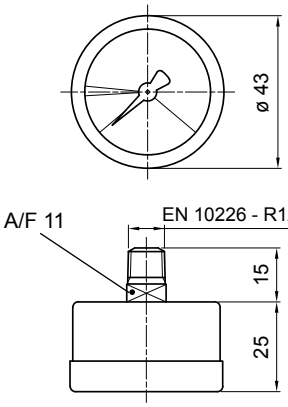
Technical data
- Max working pressure: 40 bar
- Proof pressure: 60 bar
- Working temperature: From -25 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP65 according to EN 60529

Electrical data
- Electrical connection: IEC 61076-2-101 D (M12)
- Lamps: 24 Vdc (black base)
- Resistive load: 0.4 A / 24 Vdc

BVA

Axial Pressure Gauge

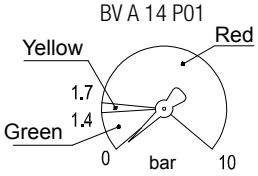
Settings	Ordering code
1.4 bar ±10%	BV A 14 P01
2.5 bar ±10%	BV A 25 P01



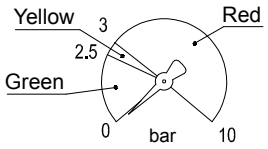
Hydraulic symbol

Dial scale

BV A 14 P01



BV A 25 P01



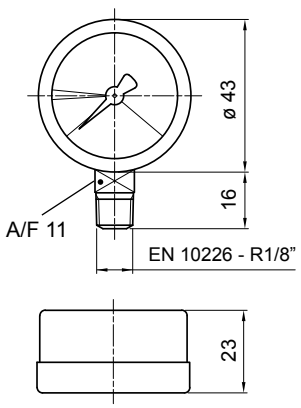
Materials
- Case: Painted Steel
- Window: Clear plastic
- Dial: Painted Steel
- Pointer: Black plastic
- Pressure connection: Brass
- Pressure element: Bourdon tube Cu-alloy sof t soldered, C type

Technical data
- Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar
- Working temperature: Ambient from -40 °C to +60 °C Fluid max +60 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Accuracy: Class 2.5 according to EN 13190
- Degree of protection: IP31 according to EN 60529

BVR

Radial Pressure Gauge

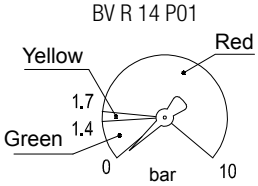
Settings	Ordering code
1.4 bar ±10%	BV R 14 P01
2.5 bar ±10%	BV R 25 P01



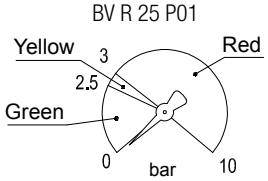
Hydraulic symbol

Dial scale

BV R 14 P01



BV R 25 P01



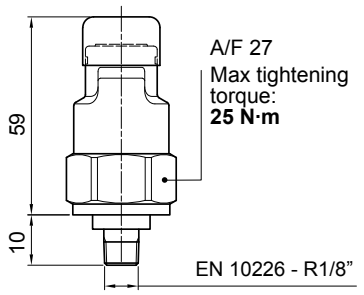
Materials
- Case: Painted Steel
- Window: Clear plastic
- Dial: Painted Steel
- Pointer: Black plastic
- Pressure connection: Brass
- Pressure element: Bourdon tube Cu-alloy sof t soldered, C type

Technical data
- Max working pressure: Static: 7 bar Fluctuating: 6 bar Short time: 10 bar
- Working temperature: Ambient from -40 °C to +60 °C Fluid max +60 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Accuracy: Class 2.5 according to EN 13190
- Degree of protection: IP31 according to EN 60529

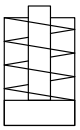
BVP - BVQ

Visual Pressure Indicator
BVP - Automatic reset
BVQ - Manual reset

Setting	Ordering code
1.5 bar ±10%	BV P 15 H P01
	BV Q 15 H P01
2.0 bar ±10%	BV P 20 H P01
	BV Q 20 H P01



Hydraulic symbol



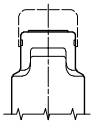
Materials

- Body: Brass
- Cover / internal parts: Nylon
- Caps: VMQ
- Seal: HNBR

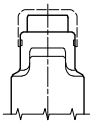
Technical data

- Reset: BVP - Automatic reset; BVQ - Manual reset
- Max working pressure: 10 bar
- Proof pressure: 15 bar
- Working temperature: From -25 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree of protection: IP45 according to EN 60529

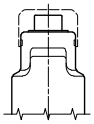
Signals



Absence of pressure (no indicator)



Presence of pressure (green button rises gradually)



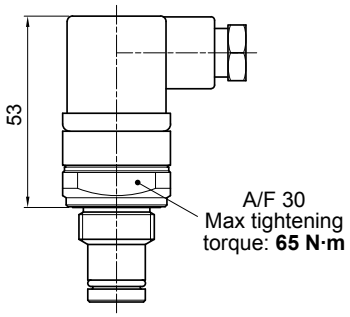
Clogged filter element (red button risen)

Dimensions

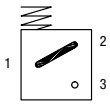
DEA*50

Electrical Differential Indicator
Connection: EN 175301-803

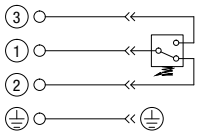
Settings	Ordering code
1.2 bar ±10%	DE A 12 x A 50 P01
2.0 bar ±10%	DE A 20 x A 50 P01
5.0 bar ±10%	DE A 50 x A 50 P01
7.0 bar ±10%	DE A 70 x A 50 P01
9.5 bar ±10%	DE A 95 x A 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

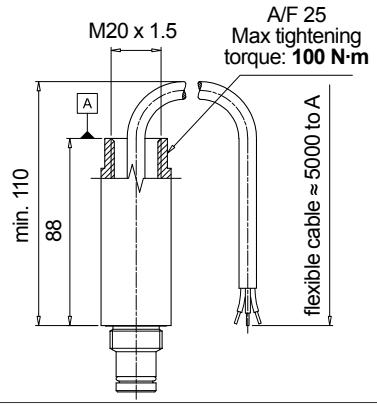
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529 IP69K according to ISO 20653

Electrical data
- Electrical connection: EN 175301-803
- Resistive load: 0.2 A / 115 Vdc

DEH*48

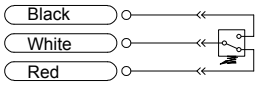
Hazardous Area
Electrical Differential Indicator
Connection via three-core cable - fitting M20x1.5

Settings	Ordering code
2.0 bar ±10%	DE H 20 x A 48 P01
5.0 bar ±10%	DE H 50 x A 48 P01
7.0 bar ±10%	DE H 70 x A 48 P01



Hydraulic symbol

Electrical symbol



- Certification / Approvals: ATEX, IECEx, EAC TR CU, INMETRO
- Certification included as standard

Materials
- Body: AISI 316L
- Contacts: Rhodium
- Seal: FPM - MFQ

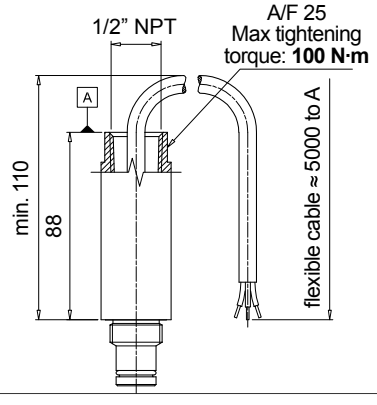
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -60 °C to +125 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Temperature class: T4 (135 °C) and T6 (85 °C)
- Degree of protection: IP 66/67/68 according to EN 60529
- Connection type:Three-core cable, fitting M20x1.5
- Contact type: SPCO/SPDT (Hermetically sealed - Volt-free contacts)

Electrical data
- Connection via three-core cable - fitting M20x1.5
- Resistive Load: 830 mA / 24 Vdc - 180 mA / 110 Vac
- Electrical Ratings: Ui = 30 Vdc / Ii = 250 mA / Pi = 1.3 W
- Available ATEX product: II 1 GD Ex ia IIC T6 Ga -60°C ≤ Ta ≤ 80°C
  Ex ia IIC T4 Ga -60°C ≤ Ta ≤ 125°C
  II 2 GD Ex db IIC T6* Gb Ex tb IIIC T85°C* Db
  (Tamb : = -60°C to +70°C)* IP66/67
  * alternative T/Class and ambients T4, T135°C
  (Tamb = -60°C to +120°C)

DEH*49

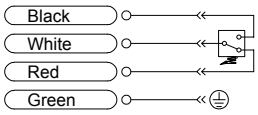
Hazardous Area
Electrical Differential Indicator
Connection via four-core cable - fitting 1/2" NPT

Settings	Ordering code
2.0 bar ±10%	DE H 20 x A 49 P01
5.0 bar ±10%	DE H 50 x A 49 P01
7.0 bar ±10%	DE H 70 x A 49 P01



Hydraulic symbol

Electrical symbol



- Certification / Approvals: ATEX, IECEx, EAC TR CU, INMETRO, UL/CSA Class I Division 1 Groups A-D, UL/CSA Class II Division 1 Groups E-G
- Certification included as standard

Materials
- Body: AISI 316L
- Contacts: Rhodium
- Seal: FPM - MFQ

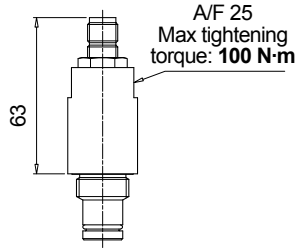
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -60 °C to +120 °C : ATEX, IECEx, EAC TR CU, INMETRO
  From -60 °C to +105 °C : UL/CSA
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Temperature class: T4 (135 °C) and T6 (85 °C)
- Degree of protection: IP 66/67/68 according to EN 60529
- Connection type:Four-core cable, fitting 1/2" NPT
- Contact type: SPCO/SPDT (Hermetically sealed - Volt-free contacts)

Electrical data
- Connection via four-core cable - fitting 1/2" NPT
- Resistive Load: 830 mA / 24 Vdc - 180 mA / 110 Vac
- Max voltage 150 Vac/dc
- Power 20 W
- Available ATEX product: II 1 GD Ex ia IIC T6 Ga -60°C ≤ Ta ≤ 80°C
  Ex ia IIC T4 Ga -60°C ≤ Ta ≤ 125°C
  II 2 GD Ex db IIC T6* Gb Ex tb IIIC T85°C* Db
  (Tamb : = -60°C to +70°C)* IP66/67
  * alternative T/Class and ambients T4, T135°C
  (Tamb = -60°C to +120°C)

DEH*70

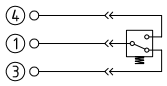
Hazardous Area
Electrical Differential Indicator
Connection IEC 61076-2-101 D (M12)

Settings	Ordering code
2.0 bar ±10%	DE H 20 x A 70 P01
5.0 bar ±10%	DE H 50 x A 70 P01
7.0 bar ±10%	DE H 70 x A 70 P01



Hydraulic symbol

Electrical symbol



- Certification / Approvals:
  ATEX, IECEx, EAC TR CU, INMETRO
- Certification included as standard

Materials
- Body: AISI 316L with internal engineered resin switch
- Contacts: Rhodium
- Seal: FPM - MFQ

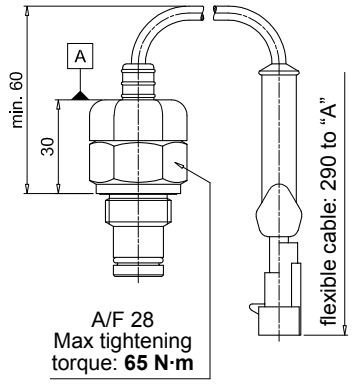
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -60 °C to +80 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Temperature class: T6 (85 °C)
- Degree of protection: IP 66/67 according to EN 60529
- Connection type:IEC 61076-2-101 D (M12)
- Contact type: SPCO/SPDT (Hermetically sealed - Volt-free contacts)

Electrical data
- Connection IEC 61076-2-101 D (M12)
- Resistive Load: 830 mA / 24 Vdc - 180 mA / 110 Vdc
- Electrical Ratings: Ui = 30 Vdc, Ii = 250 mA, Pi = 1.3 W
- Available ATEX product: II 1 GD Ex ia IIC T6 Ga -60°C ≤ Ta ≤ 80°C; Ex ia IIC T4 Ga -60°C ≤ Ta ≤ 125°C; II 2 GD Ex db IIC T6* Gb Ex tb IIIC T85°C* Db (Tamb : = -60°C to +70°C)* IP66/67; * alternative T/Class and ambients T4, T135°C (Tamb = -60°C to +120°C)

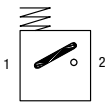
DEM*10

Electrical Differential Indicator
Connection: AMP Superseal series 1.5

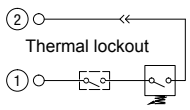
Settings	Ordering code
1.2 bar ±10%	DE M 12 x x 10 P01
2.0 bar ±10%	DE M 20 x x 10 P01
5.0 bar ±10%	DE M 50 x x 10 P01
7.0 bar ±10%	DE M 70 x x 10 P01
9.5 bar ±10%	DE M 95 x x 10 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

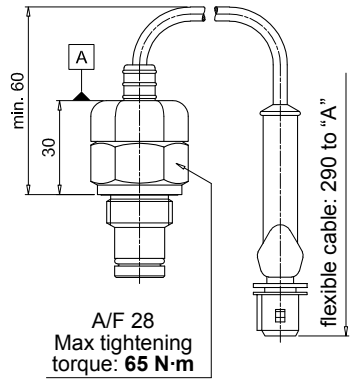
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529

Electrical data
- Electrical connection: AMP Superseal series 1.5
- Resistive load: 0.2 A / 115 Vdc
- Switching type: Normally open contacts (NC on request)
- Thermal lockout: Normally open up to 30 °C (option "F")

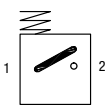
DEM*20

Electrical Differential Indicator
AMP Time junior

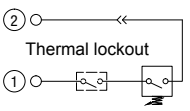
Settings	Ordering code
1.2 bar ±10%	DE M 12 x x 20 P01
2.0 bar ±10%	DE M 20 x x 20 P01
5.0 bar ±10%	DE M 50 x x 20 P01
7.0 bar ±10%	DE M 70 x x 20 P01
9.5 bar ±10%	DE M 95 x x 20 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529

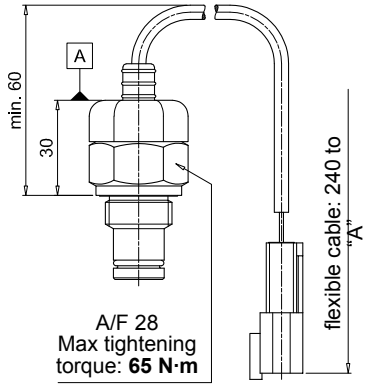
Electrical data
- Electrical connection: AMP Time junior
- Resistive load: 0.2 A / 115 Vdc
- Switching type: Normally open contacts (NC on request)
- Thermal lockout: Normally open up to 30 °C (option "F")

Dimensions

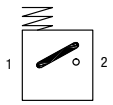
DEM*30

Electrical Differential Indicator
Deutsch DT-04-2-P

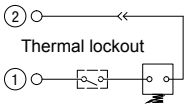
Settings	Ordering code
1.2 bar ±10%	DE M 12 x x 30 P01
2.0 bar ±10%	DE M 20 x x 30 P01
5.0 bar ±10%	DE M 50 x x 30 P01
7.0 bar ±10%	DE M 70 x x 30 P01
9.5 bar ±10%	DE M 95 x x 30 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

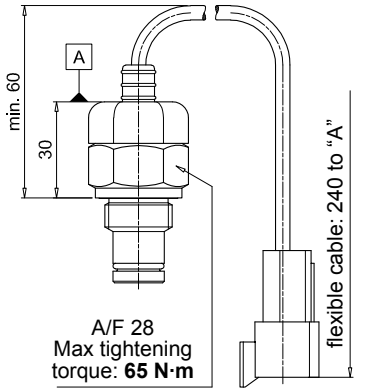
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529

Electrical data
- Electrical connection: Deutsch DT-04-2-P
- Resistive load: 0.2 A / 115 Vdc
- Switching type: Normally open contacts (NC on request)
- Thermal lockout: Normally open up to 30 °C (option "F")

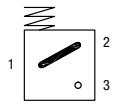
DEM*35

Electrical Differential Indicator
Deutsch DT-04-3-P

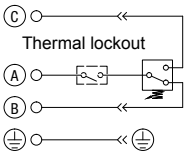
Settings	Ordering code
1.2 bar ±10%	DE M 12 x x 35 P01
2.0 bar ±10%	DE M 20 x x 35 P01
5.0 bar ±10%	DE M 50 x x 35 P01
7.0 bar ±10%	DE M 70 x x 35 P01
9.5 bar ±10%	DE M 95 x x 35 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

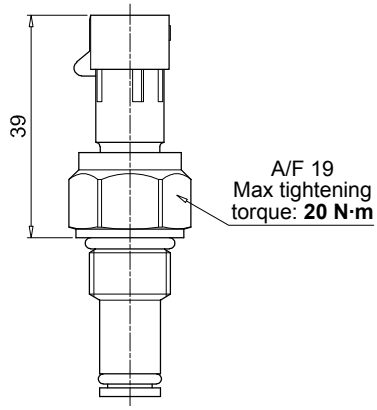
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529

Electrical data
- Electrical connection: Deutsch DT-04-3-P
- Resistive load: 0.2 A / 115 Vdc
- Switching type: SPDT contact
- Thermal lockout: Normally open up to 30 °C (option "F")

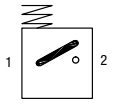
DES*10

Electrical Differential Indicator
AMP Superseal series 1.5

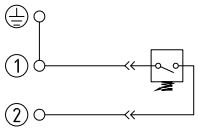
Settings	Ordering code
1.2 bar ±10%	DE S 12 H A 10 P01
2.5 bar ±10%	DE S 25 H A 10 P01
4.0 bar ±10%	DE S 40 H A 10 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR

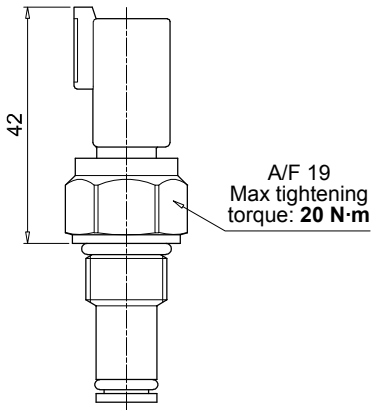
Technical data
- Max working pressure: 16 bar
- Proof pressure: 24 bar
- Burst pressure: 48 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP67 according to EN 60529

Electrical data
- Electrical connection: AMP Superseal series 1.5
- Resistive load: 0.2 A / 24 Vdc
- Switching type: Normally open contacts (NC on request)

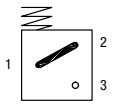
DES*30

Electrical Differential Indicator
Deutsch DT-04-2-P

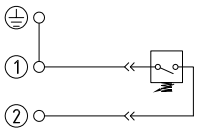
Settings	Ordering code
1.2 bar ±10%	DE S 12 H A 30 P01
2.5 bar ±10%	DE S 25 H A 30 P01
4.0 bar ±10%	DE S 40 H A 30 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR

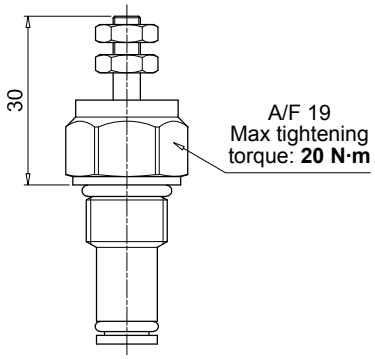
Technical data
- Max working pressure: 16 bar
- Proof pressure: 24 bar
- Burst pressure: 48 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP67 according to EN 60529

Electrical data
- Electrical connection: Deutsch DT-04-2-P
- Resistive load: 0.2 A / 24 Vdc
- Switching type: Normally open contacts (NC on request)

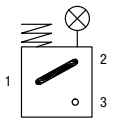
DES*80

Electrical Differential Indicator
Stud #10-32 UNF

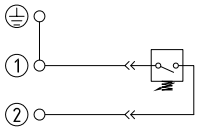
Settings	Ordering code
1.2 bar ±10%	DE S 12 H A 80 P01
2.5 bar ±10%	DE S 25 H A 80 P01
4.0 bar ±10%	DE S 40 H A 80 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR

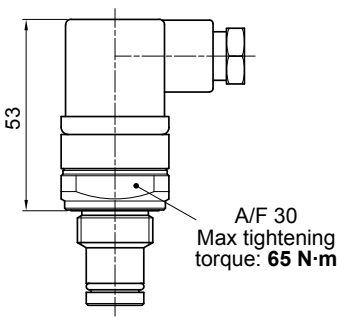
Technical data
- Max working pressure: 16 bar
- Proof pressure: 24 bar
- Burst pressure: 48 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP67 according to EN 60529

Electrical data
- Electrical connection: Stud #10-32 UNF
- Resistive load: 0.2 A / 24 Vdc
- Switching type: Normally open contacts (NC on request)

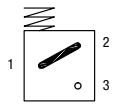
DEX*50

Electrical Differential Indicator
Connection: EN 175301-803

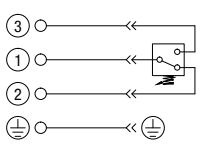
Settings	Ordering code
1.2 bar ±10%	DE X 12 x A 50 P01
2.0 bar ±10%	DE X 20 x A 50 P01
5.0 bar ±10%	DE X 50 x A 50 P01
7.0 bar ±10%	DE X 70 x A 50 P01
9.5 bar ±10%	DE X 95 x A 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: AISI 316L
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529 IP69K according to ISO 20653

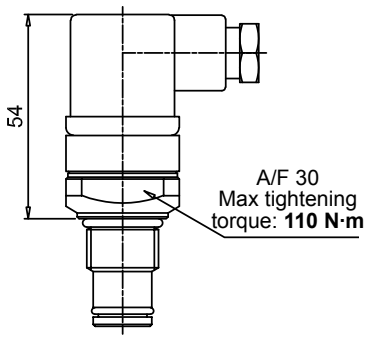
Electrical data
- Electrical connection: EN 175301-803
- Resistive load: 0.2 A / 115 Vdc

Dimensions

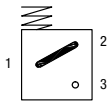
DEZ*50

Electrical Differential Indicator
Connection: EN 175301-803

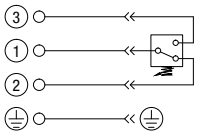
Settings	Ordering code
1.2 bar ±10%	DE Z 12 x A 50 P01
2.0 bar ±10%	DE Z 20 x A 50 P01
5.0 bar ±10%	DE Z 50 x A 50 P01
7.0 bar ±10%	DE Z 70 x A 50 P01
9.5 bar ±10%	DE Z 95 x A 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: AISI 316L
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

Technical data
- Max working pressure: 700 bar
- Proof pressure: 1050 bar
- Burst pressure: 2100 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529 IP69K according to ISO 20653

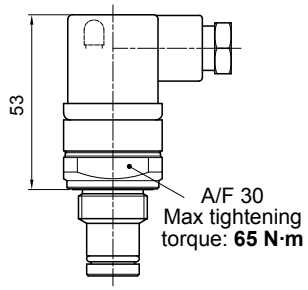
Electrical data
- Electrical connection: EN 175301-803
- Resistive load: 0.2 A / 115 Vdc

DLA*51 - DLA*52

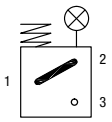
Electrical/Visual Differential Indicator

51: Connection EN 175301-803, transparent base with lamps 24 Vdc
52: Connection EN 175301-803, transparent base with lamps 110 Vdc

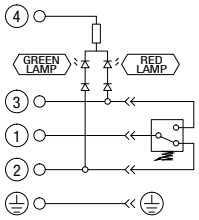
Settings	Ordering code
1.2 bar ±10%	DL A 12 x A xx P01
2.0 bar ±10%	DL A 20 x A xx P01
5.0 bar ±10%	DL A 50 x A xx P01
7.0 bar ±10%	DL A 70 x A xx P01
9.5 bar ±10%	DL A 95 x A xx P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Transparent polyamide
- Contacts: Silver
- Seal: HNBR - FPM

Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529 IP69K according to ISO 20653

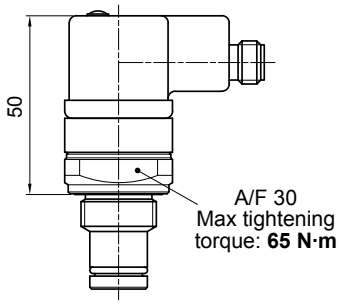
Electrical data

- Electrical connection:	EN 175301-803	
- Type	51	52
- Lamps	24 Vdc	110 Vdc
- Resistive load:	1 A / 24 Vdc	1 A / 110 Vdc

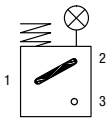
DLA*71

Electrical/Visual Differential Indicator
Connection IEC 61076-2-101 D (M12), black base with lamps 24 Vdc

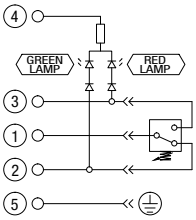
Settings	Ordering code
1.2 bar ±10%	DL A 12 x A 71 P01
2.0 bar ±10%	DL A 20 x A 71 P01
5.0 bar ±10%	DL A 50 x A 71 P01
7.0 bar ±10%	DL A 70 x A 71 P01
9.5 bar ±10%	DL A 95 x A 71 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

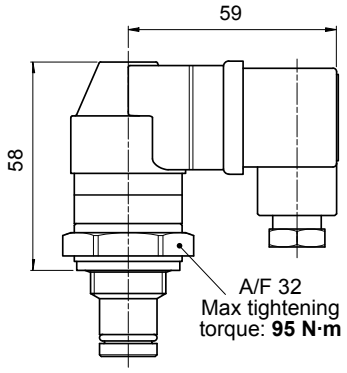
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529 IP69K according to ISO 20653

Electrical data
- Electrical connection: IEC 61076-2-101 D (M12)
- Lamps 24 Vdc (black base)
- Resistive load: 0.4 A / 24 Vdc

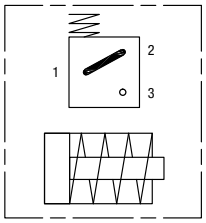
DLE*A50

Electrical/Visual Differential Indicator
Without term. Connections: EN 175301-803

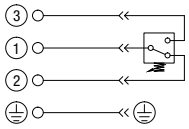
Settings	Ordering code
1.2 bar ±10%	DL E 12 x A 50 P01
2.0 bar ±10%	DL E 20 x A 50 P01
5.0 bar ±10%	DL E 50 x A 50 P01
7.0 bar ±10%	DL E 70 x A 50 P01
9.5 bar ±10%	DL E 95 x A 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

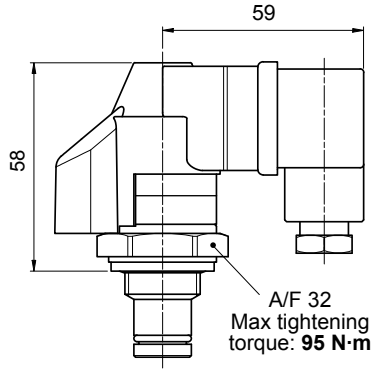
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

Electrical data
- Electrical connections: EN 175301-803
- Resistive load: 5 A / 250 Vac
- Available the connector with lamps

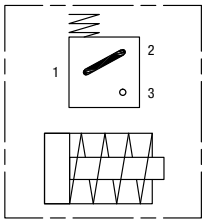
DLE*F50

Electrical/Visual Differential Indicator
With term. Connections: EN 175301-803

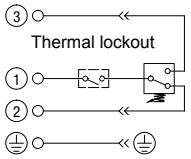
Settings	Ordering code
1.2 bar ±10%	DL E 12 x F 50 P01
2.0 bar ±10%	DL E 20 x F 50 P01
5.0 bar ±10%	DL E 50 x F 50 P01
7.0 bar ±10%	DL E 70 x F 50 P01
9.5 bar ±10%	DL E 95 x F 50 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Base: Black polyamide
- Contacts: Silver
- Seal: HNBR - FPM

Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

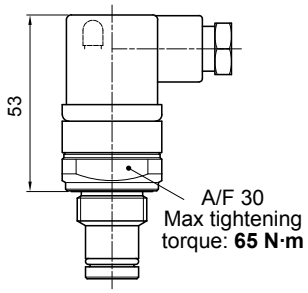
Electrical data
- Electrical connections: EN 175301-803
- Resistive load: 5 A / 250 Vac
- Thermal lockout setting: +30 °C

DLX*51 - DLX*52

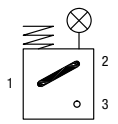
Electrical/Visual Differential Indicator

51: Connection EN 175301-803,
transparent base with lamps 24 Vdc
52: Connection EN 175301-803,
transparent base with lamps 110 Vdc

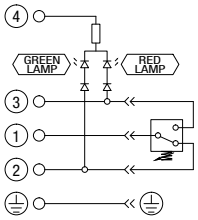
Settings	Ordering code
1.2 bar ±10%	DL X 12 x A 5x P01
2.0 bar ±10%	DL X 20 x A 5x P01
5.0 bar ±10%	DL X 50 x A 5x P01
7.0 bar ±10%	DL X 70 x A 5x P01
9.5 bar ±10%	DL X 95 x A 5x P01



Hydraulic symbol



Electrical symbol



Materials
- Body: AISI 316L
- Base: Transparent polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529 IP69K according to ISO 20653

Electrical data

- Electrical connection:	EN 175301-803	
- Type	51	52
- Lamps	24 Vdc	110 Vdc
- Resistive load:	1 A / 24 Vdc	1 A / 110 Vdc

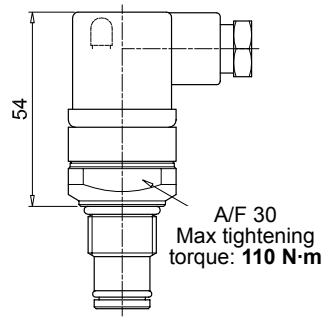
DIFFERENTIAL INDICATORS

Dimensions

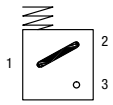
DLZ*51 - DLZ*52

Electrical/Visual Differential Indicator
Connection EN 175301-803

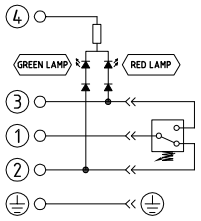
Settings	Ordering code
1.2 bar ±10%	DL Z 12 x A 5x P01
2.0 bar ±10%	DL Z 20 x A 5x P01
5.0 bar ±10%	DL Z 50 x A 5x P01
7.0 bar ±10%	DL Z 70 x A 5x P01
9.5 bar ±10%	DL Z 95 x A 5x P01



Hydraulic symbol



Electrical symbol



Materials
- Body: AISI 316L
- Base: Transparent polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

Technical data
- Max working pressure: 700 bar
- Proof pressure: 1050 bar
- Burst pressure: 2100 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP66 according to EN 60529 IP69K according to ISO 20653

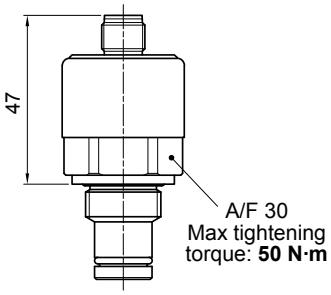
Electrical data

- Electrical connection:	EN 175301-803	
- Type	51	52
- Lamps	24 Vdc	110 Vdc
- Resistive load:	1 A / 24 Vdc	1 A / 110 Vdc

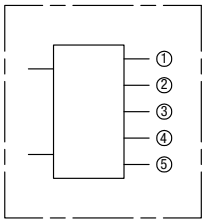
DTA*70

Electronic Differential Indicator
Connection: IEC 61076-2-101 D (M12)

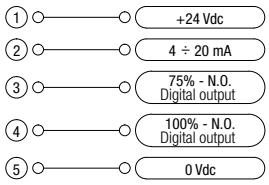
Settings	Ordering code
1.2 bar ±10%	DT A 12 x x 70 P01
2.0 bar ±10%	DT A 20 x x 70 P01
5.0 bar ±10%	DT A 50 x x 70 P01
7.0 bar ±10%	DT A 70 x x 70 P01
9.5 bar ±10%	DT A 95 x x 70 P01



Hydraulic symbol



Electrical symbol



Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR - FPM

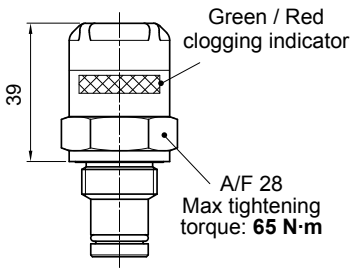
Technical data
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP67 according to EN 60529

Electrical data
- Electrical connection: IEC 61076-2-101 D (M12)
- Power supply: 24 Vdc
- Analogue output: From 4 to 20 mA
- Thermal lockout: 30 °C (all output signals stalled up to 30 °C)

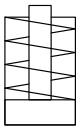
DVA

Visual Differential Indicator

Settings	Ordering code
1.2 bar ±10%	DV A 12 x P01
2.0 bar ±10%	DV A 20 x P01
5.0 bar ±10%	DV A 50 x P01
7.0 bar ±10%	DV A 70 x P01
9.5 bar ±10%	DV A 95 x P01



Hydraulic symbol



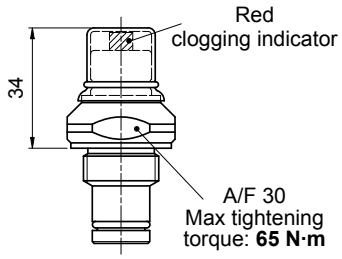
Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR - FPM

Technical data
- Reset: Automatic reset
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

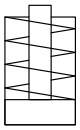
DVM

Visual Differential Indicator

Settings	Ordering code
1.2 bar ±10%	DV M 12 x P01
2.0 bar ±10%	DV M 20 x P01
5.0 bar ±10%	DV M 50 x P01
7.0 bar ±10%	DV M 70 x P01
9.5 bar ±10%	DV M 95 x P01



Hydraulic symbol



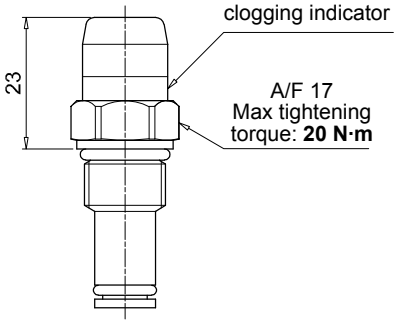
Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR - FPM

Technical data
- Reset: Manual reset
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

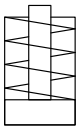
DVS

Visual Differential Indicator

Settings	Ordering code
1.2 bar ±10%	DV S 12 H P01
2.5 bar ±10%	DV S 25 H P01
4.0 bar ±10%	DV S 40 H P01



Hydraulic symbol



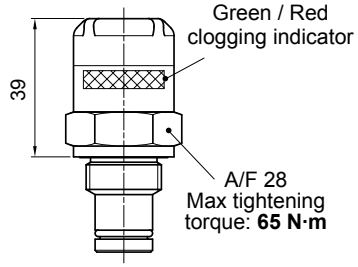
Materials
- Body: Brass
- Internal parts: Brass - Polyamide
- Contacts: Silver
- Seal: HNBR

Technical data
- Reset: Automatic reset
- Max working pressure: 16 bar
- Proof pressure: 24 bar
- Burst pressure: 48 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP67 according to EN 60529

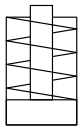
DVX

Visual Differential Indicator

Settings	Ordering code
1.2 bar ±10%	DV X 12 x P01
2.0 bar ±10%	DV X 20 x P01
5.0 bar ±10%	DV X 50 x P01
7.0 bar ±10%	DV X 70 x P01
9.5 bar ±10%	DV X 95 x P01



Hydraulic symbol



Materials
- Body: AISI 316L
- Internal parts: AISI 316L - Polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

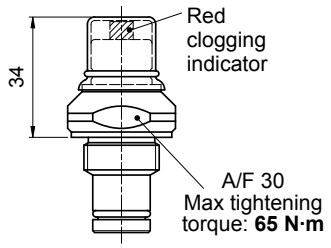
Technical data
- Reset: Automatic reset
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

Dimensions

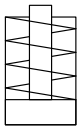
DVY

Visual Differential Indicator

Settings	Ordering code
1.2 bar ±10%	DV Y 12 x P01
2.0 bar ±10%	DV Y 20 x P01
5.0 bar ±10%	DV Y 50 x P01
7.0 bar ±10%	DV Y 70 x P01
9.5 bar ±10%	DV Y 95 x P01



Hydraulic symbol



Materials

- Body: AISI 316L
- Internal parts: AISI 316L - Polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

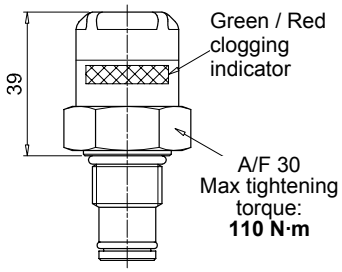
Technical data

- Reset: Manual reset
- Max working pressure: 420 bar
- Proof pressure: 630 bar
- Burst pressure: 1260 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

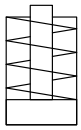
DVZ

Visual Differential Indicator

Settings	Ordering code
1.2 bar ±10%	DV Z 12 x P01
2.0 bar ±10%	DV Z 20 x P01
5.0 bar ±10%	DV Z 50 x P01
7.0 bar ±10%	DV Z 70 x P01
9.5 bar ±10%	DV Z 95 x P01



Hydraulic symbol



Materials

- Body: AISI 316L
- Internal parts: AISI 316L - Polyamide
- Contacts: Silver
- Seal: HNBR - MFQ

Technical data

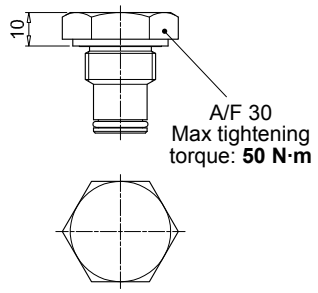
- Reset: Automatic reset
- Max working pressure: 700 bar
- Proof pressure: 1050 bar
- Burst pressure: 2100 bar
- Working temperature: From -25 °C to +110 °C
- Compatibility with fluids: Mineral oils, Synthetic fluids HFA, HFB, HFC according to ISO 2943
- Degree protection: IP65 according to EN 60529

Dimensions

T2

Differential Indicator plug

Seal	Ordering code
HNBR	T2 H
FPM	T2 V

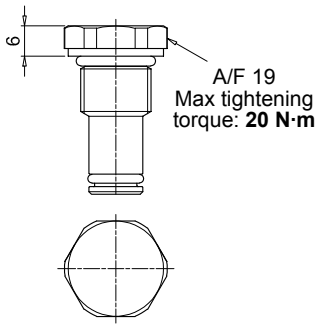


Materials
- Body:
  Phosphatized steel
- Seal:
  HNBR / FPM

T4

Differential Indicator plug

Seal	Ordering code
NBR	T4 A

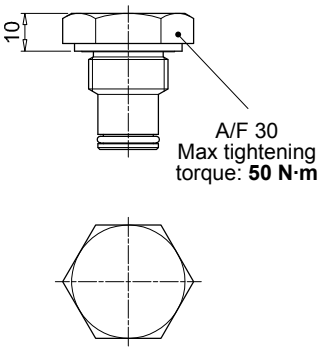


Materials
- Body:
  Anodized aluminium
- Seal:
  NBR

X2

Differential Indicator plug 420 bar

Seal	Ordering code
HNBR	X2 H
FPM	X2 F
MFQ	X2 Q

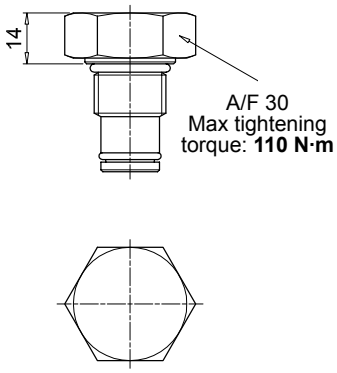


Materials
- Body:
  AISI 316L
- Seal:
  HNBR / FPM / MFQ

X3

Differential Indicator plug 700 bar (only for FZH)

Seal	Ordering code
HNBR	X3 H
FPM	X3 F
MFQ	X3 Q



Materials
- Body:
  AISI 316L
- Seal:
  HNBR / FPM / MFQ

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