

YDAC INTERNATION



1. TECHNICAL SPECIFICATIONS

1.1 GENERAL

HYDAC clogging indicators are designed to indicate visually and/or electrically when the filter elements must be cleaned or changed. The operational safety of a system and efficient utilisation of a filter element can only be guaranteed if clogging indicators are used.

Depending on the type of filter, vacuum, return line or differential pressure clogging indicators are used.

1.2 SEALS

NBR (= Perbunan) or V (= Viton)

1.3 INSTALLATION

Some users install filters without clogging indicators and prefer instead to replace or clean the elements according to a specified time schedule or according to a set number of operating hours. However, this involves some risk.

Fitting a clogging indicator has two main advantages:

- The operator no longer has to estimate when the element is clogged.
- The unnecessary costs of changing the element too early are avoided. All standard filters can be fitted with a clogging indicator at any time, by simply screwing it in.

Filter Clogging Indicators

1.4 DESIGN

Return line indicators

These are used for return line and suction filters. In return line filters they react to the increasing static pressure before the filter element, and in suction filters to the decreasing pressure after the filter element, which is caused by increasing contamination.

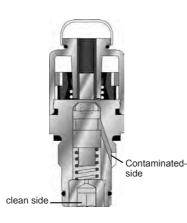


Differential pressure indicators

These are used for all inline filters and react to the increasing pressure differential caused by increasing contamination of the filter element. The simplest installation of the

differential clogging indicator is via G 1/2" cavity (according to HYDAC works standard HN 28-22)

The differential pressure indicator type V02 is piped up separately.



1.5 SPECIAL INDICATORS

Mobile indicators These indicators have been developed for special applications and are fitted with AMP Junior Power Timer, AMP Superseal or Deutsch plugs. **ATEX indicators**

These indicators are used in potentially explosive locations and are subject to the ATEX Equipment Directive 2014/34/EU and the ATEX Operator Directive 1999/92/EG.



UL and CSA indicators Indicators which are exported to the USA and Canada often require classification according to current UL and CSA standards. The UL and CSA symbols are found on many products, particularly in the field of electrical engineering.



1.6 TABLE OF CONTENTS

Contents	Page:
Quick selection table:	
by indicator type	2
Quick selection table:	
by filter type	3
Standard indicators	
Vacuum	4
Return line	7
Differential pressure	21
Indicator (VLGW.x) for	
Condition Monitoring	24
Mobile indicators	
Return line	29
Differential pressure	31
ATEX indicators	
Return line	34
Differential pressure	36
UL/CSA indicators	
Differential pressure	38
Return line	39
Model code - Standard	40
Adapters	42
DESINA Specification	44

E 7.050.15/11.16

HYDAC 1



2. QUICK SELECTION TABLES FOR CLOGGING INDICATORS

2.1 BY INDICATOR TYPE

Please select the type of indicator you require from the table.

Туре		Vacuum indicator	Permitt. operating pressure [bar]	Return line indicator	Permitt. operating pressure [bar]	Differential pressure indicator	Permitt. operating pressure [bar
Visual	В			٠	7	٠	210/420
	BF					٠	40
	BM			٠	7	٠	210/420
	E			٠	7 (11)		
	ES			٠	7		
	K	•	*	٠	*		
	R			٠	7		
	UBM	•	0				
	UE	•	0				
	UED	•	0				
	V					٠	100
Electrical	С			•	40	•	210/420
	D			•	40	•	210/420
	F			•	40		
	LE			•	7	•	420
	LZ			•	7	•	420
	UF	•	0				
	VE					•	100
	VZ					•	100
Electronic	GC			•	7	•	420
	GW					•	25
Mobile	CD					•	210
	CJ					•	210/420
	CM			•	40	•	210
	CS					•	210/420
	FD			•	40		
	FJ			•	40		
	FS			•	40		
	LEM			•	7	•	420
	М					٠	210
ATEX	В			•	7	٠	210/420
	С			•	40	•	210/420
UL Approval (=CRUUS)	С					•	210/420
CSA Approval	С			•	40		1

* Dependent on application.

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2 HYDAC



2 2 BY FILTER TYPE

pe	BF	BL	BLT	DF	DFDK	DF	DFM	DFN	DFP	DFZ	ELF	FLN	FLND	HDF	HDP	HFM	LF	LFM	LFN
				DFF	DFDKN	MA/QE MP		DFNF	DFPF DFFX				FMND	HDFF			LFF		LFNF
				•	•	•	•	•				•	•			•	٠	•	•
F			<u> </u>																
M				•	•	•	•	•	•	•		•	•	•		•	•	•	•
S																			
<	•	•	•								•								
R/RS																			
JBM	٠	٠	•								•								
JE			<u> </u>									•1)					•1)		
JED /															•				
/ C				•	•	•	•	•	•	•		•	•	•		•	•	•	•
))				•	•	•	•	•	•	•		•	•	•		•	•	•	•
=																			
E				•	•	•	•	•	•	•		•	•	•		•	•	•	•
_Z			<u> </u>	•	•	•	•	•	•	•		•	•	•		•	•	•	•
UF VE												● ¹⁾					● ¹⁾		
VE VZ			-																
GC				•	•	•	•	•	•	•		•	•	•		•	•	•	•
GW																			
CD				•	•	•	•	•	•	٠		•	•	٠		•	٠	•	•
CJ/CS			<u> </u>	•	•	•	•	•	•	•		•	•	•		•	•	•	•
CM FJ/FD/				•	•	•	•	•	•	•		•	•	•			•	•	•
-J/FD/ -S																			
M																	•	•	
LEM												•	•				-	-	•
				٠	•	•	•	•	•	•		•	•	•		•	•	•	•
				•	•	٠	•	•	•	٠				•		•			
	LPF	MDF	MF	• MFD	MFM	ı	• NF	• NFD	RF	• RFD	RFL		•	RFND	RFM	RKM			
В	•	MDF	MF			MFX					RFL	•	•		RFM		٠	•	•
3 BF	•	•	MF		MFM	MFX	NF	NFD	RF	RFD	•	RFLD	RFN	RFND	•	RKM	٠	•	•
3 3F 3M	•			MFD	MFM	MFX			RF •	RFD •	1	• RFLD	 RFN 0 0 0 0 	RFND •	•	RKM	٠	•	•
B BF BM	•	•	MF		MFM	MFX	NF	NFD	RF	RFD	•	RFLD	RFN	RFND	•	RKM	٠	•	•
B BF BM E ES	•	•		MFD	MFM	MFX	NF	NFD	RF • •	RFD • •	•	RFLD	• RFN • •	RFND •	•	RKM	٠	•	•
3 3F 3M 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	•	•		MFD	MFM	MFX	NF	NFD	RF • •	RFD • •	•	RFLD	• RFN • •	RFND •	•	RKM	٠	•	•
B BF BM E ES K R/RS UBM	•	•	•2)	MFD	MFM	MFX	NF	NFD	RF • •	RFD • •	•	RFLD	• RFN • •	RFND •	•	RKM •	٠	•	•
B BF BM E ES K R/RS UBM JE	•	•		MFD	MFM	MFX	NF	NFD	RF • •	RFD • •	• • •	RFLD	• RFN • •	RFND •	•	RKM •	٠	•	•
3 3F 3M E S S S S R/RS JBM JE V	• • •	•	•2)	● ²)	MFM •	MFX	•	•	RF • • • •	RFD • •	• • • • • • •	RFLD • • • • • • • • • • • • • • • • • •	RFN •	RFND • • •	• • • • • • • • • • • • • • • • • • • •	RKM • • • • •	• SF	SFF	• SFM
Type B BF BM E S K K R/RS UBM UE V C C	• • • • • •	•	•2)	● ²)	MFM •	MFX	NF	•	RF • • • • • • • • • • • • •	RFD • • • • • •	• • • •	• RFLD • • • • • • • • • •	• RFN • • • • • • • • • • • • • • • •	RFND	• • • • • • • • • • • • • • • • • • • •	RKM	• SF	SFF	• SFM
B BF BM E ES K R/RS UBM UE V C C	• • •	•	•2) •1)	● ²)	MFM •	MFX	•	•	RF • • • • • • • • • •	RFD • • • • • • •	• • • • • • •	RFLD • • • • • • • • • • • • • • • • • •	• RFN • • • • • • • • • • • • • • • • • • •	RFND	• • • •	RKM • • • • • • • •	• SF	SFF	• SFM
B BF BM E ES ES K K R/RS UBM UE V V C D D	• • • • • •	•	•2)	● ²)	MFM •	MFX	NF	•	RF • • • • • • • • • • • • •	RFD • • • • • •	• •	• RFLD • • • • • • • • • •	• RFN • • • • • • • • • • • • • • • •	RFND	• • • • • • • • • • • • • • • • • • • •	RKM • •	• SF	SFF	• SFM
B BF BM E ES K R/RS UBM UE V C C	• • • • • •	•	•2) •1)	● ²)	MFM •	MFX	NF	NFD	RF • • • • • • • • • • • • •	RFD • • • • • • • • • • • • •	• • • • • • • • • • • • •	• RFLD •	• RFN •	RFND	• • • •	RKM •	• SF	SFF	• SFM
3 3 3 3 3 3 3 3 3 3 3 3 3 3	• • • • • • • • • •	•	•2) •1)	● ²)	MFM •	MFX	NF	NFD	RF • • • • • • • • • • • • •	RFD • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • •	RFLD •	• RFN •	RFND	• • • • • • • • • •	RKM •	• SF	SFF	• SFM
3 3F 3M 5 5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	• • • • • • • • • • • • •	•	•2) •1)	MFD	MFM •	MFX	NF	NFD	RF • • • • • • • • • • • • •	RFD • • • • • • • • • • •	• •	RFLD •	• RFN •	RFND	• • • • •	RKM •	• SF	• SFF	• SFM
B BF BM E ES K K V UBM UE V C C C C C C C C C C C C C C C C C C	•	• • • • • • •	•2) •1)	MFD	 MFM • 	MFX	NF	NFD •	RF	RFD	• •	• RFLD •	• RFN •	RFND	• • • • • • • • • • • •	RKM •	• SF	• SFF	• SFM
3 BF SM SS SS SS SS SS SS SS SS SS SS SS SS	• •	•	•2) •1)	MFD	MFM •	MFX	NF	NFD	RF • • • • • • • • • • • • •	RFD • • • • • • • • • • •	• •	• RFLD •	• RFN •	RFND	• • • • •	RKM •	• SF	• SFF	• SFM
3 BF SM E SS K K R/RS JBM JE C C C C C C C C C C C C C C C C C C	• •	• • • • • • • • • •	•2) •1)	MFD	MFM MFM	MFX	NF	NFD 	RF •	RFD	• •	• RFLD •	• RFN •	RFND		RKM •	• SF	• SFF	• SFM
B BF BM E ES K K R/RS JBM JE V C C C C C C C C C C C C C C C C C C	• •	• • • • • • •	•2) •1)	MFD	 MFM • 	MFX	NF	NFD	RF •	RFD	• •	• RFLD •	• RFN •	RFND		RKM •	• SF	• SFF	• SFM
B BF BM E ES K R/RS JBM JE V C C C C C C C C C C C C C C C C C C	• •	• • • • • • • • • • • • • • • • • • •	•2) •1)	MFD	MFM MFM	MFX	NF	NFD 	RF •	RFD	• •	RFLD 0	RFN 0	RFND		RKM	• SF	• SFF	• SFM
B BF BM E ES K R/RS UBM JE V C D C C C C C C C C C C C C C C C C C	• •	• • • • • • • • • • • • • • • • • • •	• 2) • 2) • 1) • 1] •	MFD	MFM MFM	MFX	NF	NFD 	RF	RFD	 • •	• RFLD •	• RFN •	RFND		RKM	• SF	• SFF	• SFM
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3 5 5 5 5 5 5 5 5 5 5 5 5 5	• •	• • • • • • • • • • • • • • • • • • •	• 2) • 2) • 1) • 1] •	MFD	MFM MFM	MFX	NF	NFD 	RF	RFD	• •	• RFLD •	• RFN •	RFND		RKM	• SF	• SFF	• SFM

HYDAC 3



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3. SPECIFICATIONS 3.1 VACUUM INDICATORS VMF x UE.x

Type of indication

B A B

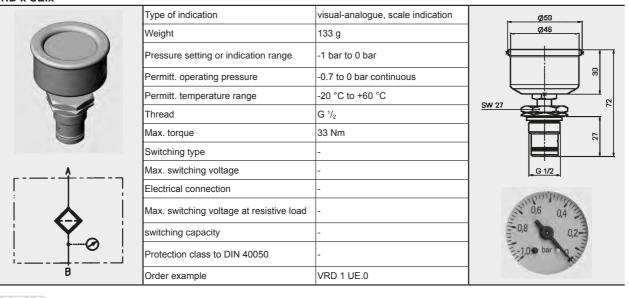
Weight	53 g	
Pressure setting or indication range	-1 bar to 0 bar	
Permitt. operating pressure	-0.7 to 0 bar continuous	
Permitt. temperature range	-20 °C to +60 °C	SW 12
Thread	G 1/8	
Max. torque	10 Nm	
Switching type	-	1 → - • -
Max. switching voltage	-	
Electrical connection	-	0.6 04
Max. switching voltage at resistive load	-	0,8 0,4
switching capacity	-	=-1,0 o bar
Protection class to DIN 40050	-	
Order example	VMF 1 UE.0	

visual-analogue, scale indication

VR x UE.x

Type of indication	visual-analogue, scale indication	Ø 50 Ø 46
Weight	125 g	
Pressure setting or indication range	-1 bar to 0 bar	
Permitt. operating pressure	-0.7 to 0 bar continuous	<u>5W 12</u>
Permitt. temperature range	-20 °C to +60 °C	Seal ring 1/8
Thread	G 1/2	O-ring 18x2.5
Max. torque	30 Nm	G 1/2
Switching type	-	
Max. switching voltage	-	and and and and
Electrical connection	-	0,0 0,4 M
Max. switching voltage at resistive load	-	-100 bar 0,2
switching capacity	-	the pro-
Protection class to DIN 40050	-	
Order example	VR 1 UE.0	

VRD x UE.x

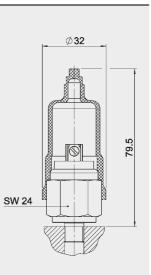


4 | HYDAC

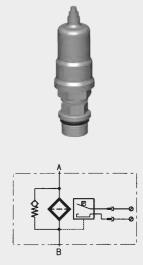
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VMF x UF.x		
	Type of indication	electrical switch
	Weight	75 g
	Pressure setting or indication range	-0.2 bar ±0.1 bar
	Permitt. operating pressure	40 bar
	Permitt. temperature range	-30 °C to +100 °C
	Thread	G ¹ / ₈
	Max. torque	10 Nm
T	Switching type	N/O contact (N/C as an option)
	Max. switching voltage	48 V
······	Electrical connection	threaded connection
	Max. switching voltage at resistive load	60 W = 100 VA ~
	switching capacity	ohmic 2.5 A at 24 V = ohmic 2.5 A at 42 V ~
	Protection class to DIN 40050	IP 65, terminals IP 00
В	Order example	VMF 0.2 UF.1



VR x UF.x



Type of indication	electrical switch	
Weight	146 g	Ø 32
Pressure setting or indication range	-0.2 bar ±0.1 bar	
Permitt. operating pressure	40 bar	
Permitt. temperature range	-30 °C to +100 °C	
Thread	G ¹ / ₂	
Max. torque	30 Nm	
Switching type	N/O contact (N/C as an option)	104.5
Max. switching voltage	48 V	
Electrical connection	threaded connection	SW 18
Max. switching voltage at resistive load	60 W = 100 VA ~	
switching capacity	ohmic 2.5 A at 24 V = ohmic 2.5 A at 42 V ~	
Protection class to DIN 40050	IP 65, terminals IP 00	G 1/2
Order example	VR 0.2 UF.1	

VRD x UF.x

B	

1		1
Type of indication	electrical switch	
Weight	154 g	\$32 •
Pressure setting or indication range	-0.2 bar ±0.1 bar]
Permitt. operating pressure	40 bar	
Permitt. temperature range	-30 °C to +100 °C	
Thread	G ¹ / ₂	
Max. torque	33 Nm	
Switching type	N/O contact (N/C as an option)	112.5
Max. switching voltage	48 V	
Electrical connection	threaded connection	SW 27
Max. switching voltage at resistive load	60 W = 100 VA ~	
switching capacity	ohmic 2.5 A at 24 V = ohmic 2.5 A at 42 V ~	
Protection class to DIN 40050	IP 65, terminals IP 00	G 1/2
Order example	VRD 0.2 UF.1	

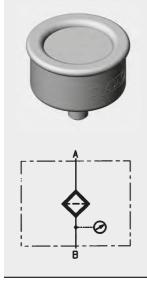


HYDAC | 5



	Type of indication	visual, yellow pin	_, _, M10x1
	Weight	54 g	
	Pressure setting or indication range	-0.035 bar	
	Permitt. operating pressure	1 bar	
(HYDAC)	Permitt. temperature range	-30 °C to +100 °C	
	Thread	M10 x 1	
	Max. torque	2 Nm	
	Switching type	-	Ø46,5
	Max. switching voltage	-	
	Electrical connection	-	
	Max. switching voltage at resistive load	-	
	switching capacity	-	
	Protection class to DIN 40050	-	<u> </u>
	Order example	VMF 0.035 UBM.0	

VMF x UED.x



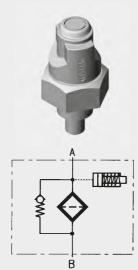
Type of indication	visual-analogue, scale indication (filled with silicone oil)	<i>ø</i> 50
Weight	85 g	
Pressure setting or indication range	-1 bar to 0 bar	
Permitt. operating pressure	-0.7 to 0 bar continuous	34
Permitt. temperature range	-20 °C to +90 °C	5W 12
Thread	G ¹ / ₈	
Max. torque	10 Nm	G 1/8
Switching type	-	
Max. switching voltage	-	
Electrical connection	-	
Max. switching voltage at resistive load	-	
switching capacity	-	-0.0 -0.2
Protection class to DIN 40050	-	-1.0 bar
Order example	VMF 1 UED.0	

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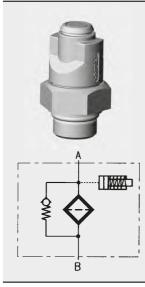
3.2 RETURN LINE INDICATORS

VMF x B.x



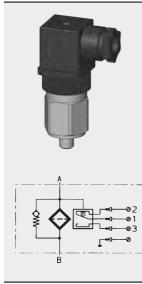
	Type of indication	visual, red pin	
	Weight	81 g	
	Pressure setting or indication range	2 bar -0.2 bar	φ10 γ
	Permitt. operating pressure	7 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G ¹ / ₈	
	Max. torque	10 Nm	89
	Switching type	-	
	Max. switching voltage	-	
י ו ו	Electrical connection	-	<u>SW 30</u>
	Max. switching voltage at resistive load	-	3
	switching capacity	-	G 1/8
	Protection class to DIN 40050	-	
	Order example	VMF 2 B.1	

VR x B.x



Type of indication	visual, red pin	
Weight	42 g	
Pressure setting or indication range	2 bar -0.2 bar]
Permitt. operating pressure	7 bar	
Permitt. temperature range	-10 °C to +100 °C	
Thread	G 1/2	
Max. torque	15 Nm	\$w30
Switching type	-	
Max. switching voltage	-	
Electrical connection	-	
Max. switching voltage at resistive load	-	
switching capacity	-	G1/2
Protection class to DIN 40050	-	
Order example	VR 2 B.1	

VMF x C.x



Type of indication	electrical switch	
Weight	121 g	
Pressure setting or indication range	2 bar -0.3 bar	
Permitt. operating pressure	40 bar	
Permitt. temperature range	-30 °C to +100 °C	~ 34
Thread	G ¹ / ₈	
Max. torque	10 Nm	
Switching type	N/C or N/O (change-over contacts)	*8°. 8°.
Max. switching voltage	230 V	SW 27
Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
Max. switching voltage at resistive load	250 W = 300 VA ~	<u>G 1/8</u>
switching capacity	Ohmic 6 A at 24 V = Ohmic 0.03 to 6 A at max. 230 V ~	
Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
Order example	VMF 2 C.1	

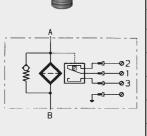
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HYDAC 7



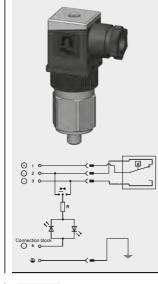
G 1/2

/R x C.x					
	Type of indication	electrical switch			
	Weight	192 g	1		
	Pressure setting or indication range	2 bar -0.3 bar			
	Permitt. operating pressure	40 bar		□28	~ 34
	Permitt. temperature range	-30 °C to +100 °C			
	Thread	G ¹ / ₂		(\bigcirc)	
	Max. torque	33 Nm			
	Switching type	N/C or N/O (change-over contacts)	~ 103.5		
۵	Max. switching voltage	230 V			LII.
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803			
	Max. switching voltage at resistive load	250 W = 300 VA ~		G 1/2	
	switching capacity	Ohmic 6 A at 24 V Ohmic 0.03 to 6 A at max. 230 V ~			
B	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)			
	Order example	VR 2 C.1			
RD x C.x					
	Type of indication	electrical switch			
	Weight	208 g	1		
	Pressure setting or indication range	2 bar -0.3 bar			
	Permitt. operating pressure	40 bar		□28	~ 34
	Permitt. temperature range	-30 °C to +100 °C			
	Thread	G 1/2	Į Į	\forall	
	Max. torque	33 Nm			
	Switching type	N/C or N/O (change-over contacts)	~ 111.5		ţ Į
	Max. switching voltage	230 V			SW 27
A	Electrical connection	Male connection M20			



	r ernitt. operating pressure	
	Permitt. temperature range	-30 °C to +100 °C
	Thread	G 1/2
	Max. torque	33 Nm
	Switching type	N/C or N/O (change-over contacts)
	Max. switching voltage	230 V
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803
— @2 —@1	Max. switching voltage at resistive load	250 W = 300 VA ~
ø	switching capacity	Ohmic 6 A at 24 V Ohmic 0.03 to 6 A at max. 230 V ~
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)
	Order example	VRD 2 C.1

VMF x D.x /-L...



Type of indication visual indicator and electrical switch Weight 127 g Pressure setting or indication range 2 bar -0.3 bar Permitt. operating pressure 40 bar Permitt. temperature range -30 °C to +100 °C Thread G 1/6 Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Female connector to DIN EN 175301-803 Max. switching voltage 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted DIN 40050 Order example VMF 2 D.1 /-L24		·				
Pressure setting or indication range 2 bar -0.3 bar Permitt. operating pressure 40 bar Permitt. temperature range -30 °C to +100 °C Thread G 1/8 Max. torque 10 Nm Switching type N/C or N/O (change-over contacts)) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Type of indication				
indication range 2 bar -0.3 bar Permitt. operating pressure 40 bar Permitt. temperature range -30 °C to ±100 °C Thread G 1/8 Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Weight	127 g			
Permitt. temperature range -30 °C to +100 °C Thread G ¹ / ₈ Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)			2 bar -0.3 bar			
Thread G ¹ / ₈ Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Permitt. operating pressure	40 bar		□28	~ 34
Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Permitt. temperature range	G ¹ / ₈			
Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Thread				
Switching type (change-over contacts) Max. switching voltage 24, 48, 115, 230 V (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Max. torque			V	
Max. switching voltage (depending on the type of light insert) Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Switching type		~ 90.5		÷
Electrical connection Male connection M20 Female connector to DIN EN 175301-803 Max. switching voltage at resistive load 250 W = 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)	7	Max. switching voltage				SW 27
at resistive load 300 VA ~ switching capacity Ohmic 6 A at 230 V = Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)		Electrical connection				
switching capacity Ohmic 0.03 to 6 A at max. 230 V ~ Protection class to DIN 40050 IP 65 (only if the connector is wired and fitted correctly)					G 1/8	
DIN 40050 correctly)		switching capacity				
Order example VMF 2 D.1 /-L24						
		Order example	VMF 2 D.1 /-L24			

E 7.050.15/11.16 8 HYDAC

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VR x D.x /-L...

	Type of indication	visual indicator and	
		electrical switch	
	Weight	200 g	
	Pressure setting or indication range	2 bar -0.3 bar	
	Permitt. operating pressure	40 bar	~ 34
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	33 Nm	
	Switching type	N/C or N/O (change-over contacts)	~101.5 2 2 3 2 3
	Max. switching voltage	24, 48, 115, 230 V (depending on the type of light insert)	SW 27
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	250 W = 300 VA ~	<u> </u>
	switching capacity	Ohmic 6 A at 24 V = Ohmic 0.03 to 6 A at max. 230 V ~	
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VR 2 D.1 /-L110	

VRD x D.x /-L...

	Type of indication	visual indicator and electrical switch			
	Weight	215 g			
	Pressure setting or indication range	2 bar -0.3 bar			~ 34
	Permitt. operating pressure	40 bar			
	Permitt. temperature range	-30 °C to +100 °C			
	Thread	G 1/2			
	Max. torque	33 Nm			
	Switching type	N/C or N/O (change-over contacts)	~ 115.5		SW 27
	Max. switching voltage	24, 48, 115, 230 V (depending on the type of light insert)			
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	27	Ħ	
	Max. switching voltage at resistive load	250 W = 300 VA ~			
×x ↓	switching capacity	Ohmic 6 A at 24 V = Ohmic 0.03 to 6 A at max. 230 V ~		_ G 1/2	
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)			
	Order example	VRD 2 D.1 /-L110			

VMF x D.x /-LED

-				
-	Type of indication	visual indicator and electrical switch		
	Weight	120 g		
2	Pressure setting or indication range	2 bar -0.3 bar		
	Permitt. operating pressure	40 bar	- 28 -	~ 34
	Permitt. temperature range	-30 °C to +100 °C		
	Thread	G ¹ / ₈		
	Max. torque	10 Nm		\$ 5 5 5 5 5 5 5 5 7 5 7 5 7 7 7 7 7 7 7
T	Switching type	N/O contact		
	Max. switching voltage	24 V		
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803		
	Max. switching voltage at resistive load	250 W = 300 VA ~	G 1/8	
	switching capacity	Ohmic 6 A at 24 V =	-	
Connection block	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)		
	Order example	VMF 2 D.1 /-LED		

E 7.050.15/11.16

HYDAC 9



VR x D.x /-LED				
24	Type of indication	visual indicator and electrical switch		
	Weight	191 g		
	Pressure setting or indication range	2 bar -0.3 bar	□28	~ 34
	Permitt. operating pressure	40 bar		
	Permitt. temperature range	-30 °C to +100 °C		
	Thread	G 1/2		
	Max. torque	33 Nm		
	Switching type	N/O contact	~ 107.5	SW 27
	Max. switching voltage	24 V		
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803		
	Max. switching voltage at resistive load	250 W = 300 VA ~	φ <u>20.96</u>	<u> </u>
	switching capacity	Ohmic 6 A at 24 V =		
Connection block	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)		
÷	Order example	VR 2 D.1 /-LED		

VRD x D.x /-LED

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⊙ ₃ • <u> </u>	sw
Connection block	Pro Di
÷	Or

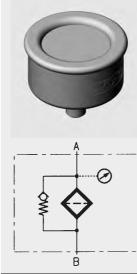
	Type of indication	visual indicator and electrical switch			
	Weight	207 g			
	Pressure setting or indication range	2 bar -0.3 bar]		~ 34
	Permitt. operating pressure	40 bar			
	Permitt. temperature range	-30 °C to +100 °C	1	(\oplus)	
	Thread	G 1/2	1		
	Max. torque	33 Nm			
	Switching type	N/O contact	~ 115.5		SW 27
	Max. switching voltage	24 V			
۲ 	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	27	Ħ	
_	Max. switching voltage at resistive load	250 W = 300 VA ~		G 1/2	
	switching capacity	Ohmic 6 A at 24 V =			
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)]		
	Order example	VRD 2 D.1 /-LED			

VMF x E.x

	Type of indication	visual-analogue, scale indication	<i>ø</i> 50
	Weight	54 g	
(\bigcirc)	Pressure setting or indication range	0 bar to +10 bar	
	Permitt. operating pressure	7 bar continuous	
19	Permitt. temperature range	-20 °C to +60 °C	5W 12
	Thread	G 1/8	
	Max. torque	10 Nm	G 1/8
Ą	Switching type	-	
	Max. switching voltage	-	
	Electrical connection	-	
	Max. switching voltage at resistive load	-	
	switching capacity	-	the star store
	Protection class to DIN 40050	-	(HADYO GANDAG)
В	Order example	VMF 2 E.0	

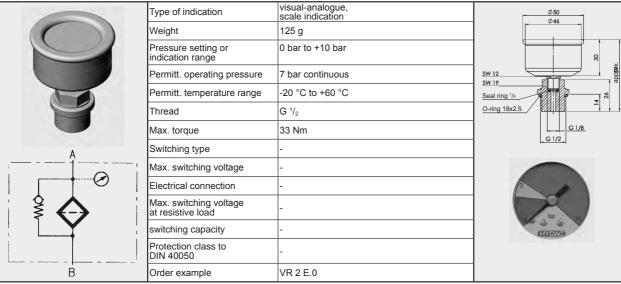




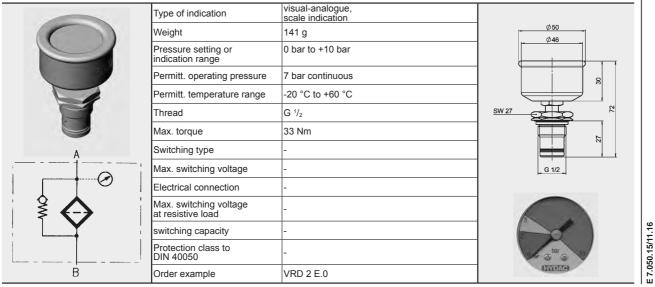


Type of indication	visual-analogue, scale indication	ø50
Weight	55 g	
Pressure setting or indication range	0 bar to +16 bar	
Permitt. operating pressure	11 bar continuous	3 1
Permitt. temperature range	-20 °C to +60 °C	SW 12
Thread	G ¹ / ₈	
Max. torque	10 Nm	G 1/8
Switching type	-	<u> </u>
Max. switching voltage	-	
Electrical connection	-	ALLETTER.
Max. switching voltage at resistive load	-	5 10
switching capacity	-	- har 15-
Protection class to DIN 40050	-	16 S
Order example	VMF 16 E.0	

VR x E.x



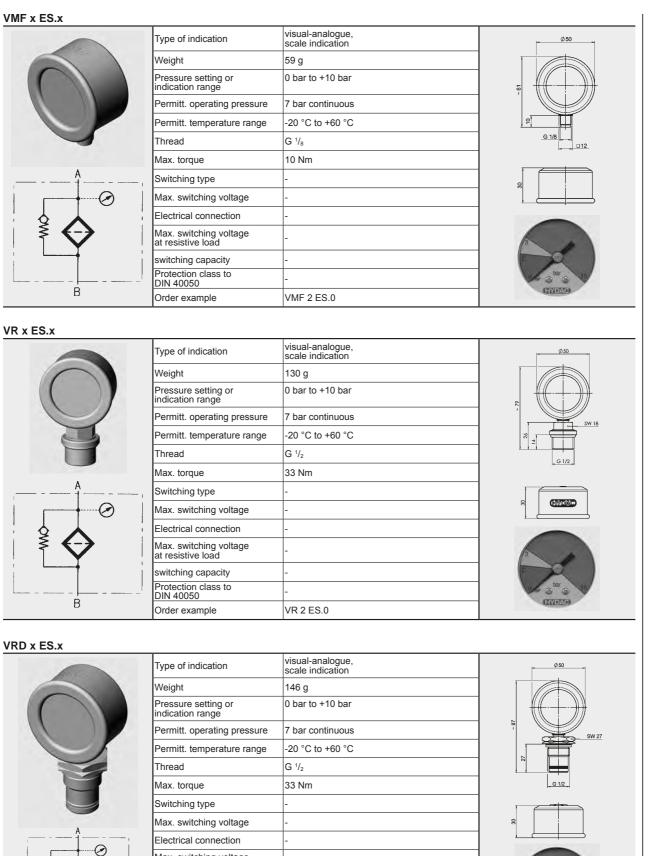
VRD x E.x



HYDAC | 11

Archivierung 01/2021





E 7.050.15/11.16

12 HYDAC

8

B

Archivierung 01/2021

VRD 2 ES.0

(TATA BAATA

Max. switching voltage at resistive load

switching capacity Protection class to DIN 40050

Order example

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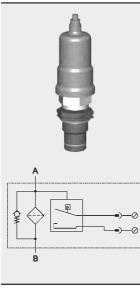
VMF x F.x			
	Type of indication	electrical switch	
	Weight	71 g	-
	Pressure setting or indication range	2 bar ±0.3 bar	∅ 32
	Permitt. operating pressure	40 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₈	
	Max. torque	10 Nm	
ับ	Switching type	N/O contact (N/C as an option)	
A	Max. switching voltage	42 V	
	Electrical connection	threaded connection	SW 24
	Max. switching voltage at resistive load	60 W = 100 VA ~	
	switching capacity	Ohmic 2.5 A at 24 V = Ohmic 2.5 A at 42 V ~	G 1/8
B	Protection class to DIN 40050	IP 65, terminals IP 00	
	Order example	VMF 2 F.0	
VR x F.x			
	Type of indication	electrical switch	
A	Weight	142 g	Ø 32
	Pressure setting or indication range	2 bar ±0.3 bar	
	Permitt. operating pressure	40 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₂	
	Thread Max. torque	G ¹ / ₂ 33 Nm	
			2 3 9 9 9
	Max. torque	33 Nm N/O contact	
	Max. torque Switching type	33 Nm N/O contact (N/C as an option)	SW 19
	Max. torque Switching type Max. switching voltage	33 Nm N/O contact (N/C as an option) 42 V	

Ohmic 2.5 A at 24 V = Ohmic 2.5 A at 42 V ~

IP 65, terminals IP 00

VR 2 F.0

V	RD) x	F.x



-0

switching capacity

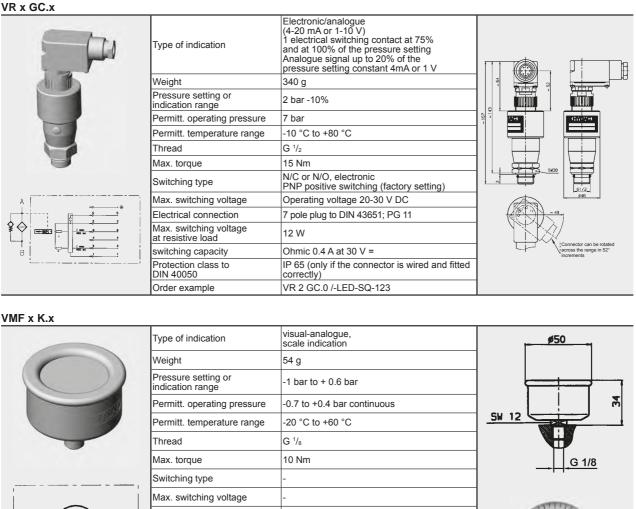
Protection class to DIN 40050

Order example

Type of indication	on	electrical switch				
Weight		158 g		φ32		
Pressure setting	g or	2 bar ±0.3 bar]		
Permitt. operati	ng pressure	40 bar		単		
Permitt. temper	ature range	-30 °C to +100 °C			1	
Thread		G 1/2				
Max. torque		33 Nm		│	4	
Switching type		N/O contact (N/C as an option)			114	
Max. switching	voltage	42 V			$\overline{\downarrow}$	
Electrical conne	ection	threaded connection		SW 27	2	
Max. switching at resistive load		60 W = 100 VA ~			52	
switching capac	city	Ohmic 2.5 A at 24 V = Ohmic 2.5 A at 42 V ~				7.050.15/11.16
Protection class DIN 40050	s to	IP 65, terminals IP 00		<u>G 1/2</u>		50.15
Order example		VRD 2 F.1				E 7.0
					13	

G 1/2







78.5

VMF x LE.x

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	Type of
	Weight
(),*,	Pressur indicatio
	Permitt.
	Permitt.
1.1	Thread
57	Max. to
U	Switchir
A	Max. sw
	Electrica
	Max. sw at resist
B	switchin
	Protecti DIN 400
	Order e

Electrical connection Max. switching voltage at resistive load switching capacity Protection class to

DIN 40050 Order example

Type of indication	visual, red pin and electrical switch 1 switching contact at 100% of the pressure setting	
Weight	176 g	
Pressure setting or indication range	2 bar -0.2 bar	
Permitt. operating pressure	7 bar	
Permitt. temperature range	-10 °C to +100 °C	<u>SW 30</u>
Thread	G 1/8	2
Max. torque	10 Nm	<u>2</u>
Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	<u>G 1/8</u>
Max. switching voltage	115 V	~ 79
Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
Max. switching voltage at resistive load	15 W = max. 15 VA ~	
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	M20x1.5
Order example	VMF 2 LE.1	

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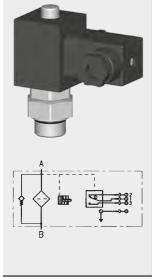
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VMF 0.6 K.0

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VR x LE.x



Type of indication	visual, red pin and electrical switch 1 switching contact at 100% of the pressure setting	- A
Weight	137 g	
Pressure setting or indication range	2 bar -0.2 bar	
Permitt. operating pressure	7 bar	
Permitt. temperature range	-10 °C to +100 °C	
Thread	G 1/2	
Max. torque	15 Nm	G 1/2
Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	- <u>-</u>
Max. switching voltage	115 V	~79
Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
Max. switching voltage at resistive load	15 W = max. 15 VA ~	
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	<u>M20x1.5</u>
Order example	VR 2 LE.1	

VMF x LZ.x

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting	
	Weight	230 g	-
	Pressure setting or indication range	2 bar -0.2 bar	
	Permitt. operating pressure	7 bar	
100	Permitt. temperature range	-10 °C to +100 °C	
U	Thread	G ¹ / ₈	<u>SW 30</u>
A	Max. torque	10 Nm	
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	<u>0 1/8</u>
	Max. switching voltage	115 V	~123
warring 75% alarm 100%	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VMF 2 LZ.1	

VR x LZ.x

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting	
	Weight	190 g	
	Pressure setting or indication range	2 bar -0.2 bar	
	Permitt. operating pressure	7 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	SW 30
^	Max. torque	15 Nm	
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	<u>G 1/2</u>
switch: switch: skitch: skitch	Max. switching voltage	115 V	~123
B	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	M20x1.5
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VR 2 LZ.1	

HYDAC | 15



VMF x LZ.x /-DB			
Charles (Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED constantly lit 1 yellow LED lights from 75% 1 red LED lights from 100% ∆p	
	Weight	170 g	
4 -	Pressure setting or indication range	2 bar -0.2 bar	
	Permitt. operating pressure	7 bar	<u>SW 30</u>
circuit board mounted	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G ¹ / ₈	G 1/8
	Max. torque	10 Nm	~86 PG 11
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
	Max. switching voltage	24 V	
B	Electrical connection	Male connection PG 11 Female connector to DIN 43651	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	~ 98
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VMF 2 LZ.1 /-DB	

VR x LZ.x /-DB

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED constantly lit 1 yellow LED lights from 75% 1 red LED lights from 100% ∆p	
	Weight	190 g	
	Pressure setting or indication range	2 bar -0.2 bar	
	Permitt. operating pressure	7 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	G 1/2
A circuit board mounted	Max. torque	15 Nm	- 86 PG 11
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
	Max. switching voltage	24 V	
	Electrical connection	Male connection PG 11 Female connector to DIN 43651	
B	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	~ 98
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VR 2 LZ.1 /-DB	

VMF x LZ.x /-CN

Charles (Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED goes out at 75% 1 yellow LED lights from 75% 1 red LED lights from 100% ∆p	
	Weight	170 g	
	Pressure setting or indication range	2 bar -0.2 bar	
	Permitt. operating pressure	7 bar	<u>sw 30</u>
٨	Permitt. temperature range	-10 °C to +100 °C	
Circuit board mounted	Thread	G 1/8	G 1/8
	Max. torque	10 Nm	~ <u>86</u> PG 11
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
	Max. switching voltage	24 V	
	Electrical connection	Male connection PG 11 Female connector to DIN 43651	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	~ 98
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VMF 2 LZ.1 /-CN	

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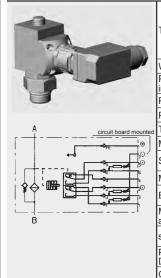


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PG 11

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VR x LZ.x /-CN



Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED goes out at 75% 1 yellow LED lights from 75% 1 red LED lights from 100% Δp	2
Weight	190 g	
Pressure setting or indication range	2 bar -0.2 bar	
Permitt. operating pressure	7 bar	
Permitt. temperature range	-10 °C to +100 °C	4
Thread	G 1/2	
Max. torque	15 Nm	PG
Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
Max. switching voltage	24 V	
Electrical connection	Male connection PG 11 Female connector to DIN 43651	
Max. switching voltage at resistive load	15 W = max. 15 VA ~	
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
Order example	VR 2 LZ.1 /-CN	

VMF x LZ.x /-BO

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting	
	Weight	120 g	
-	Pressure setting or indication range	2 bar (or 2.5 bar) -10%	73
	Permitt. operating pressure	7 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/8	
T	Max. torque	10 Nm	
A	Switching type	N/O (75%) N/C (100%)	
Switch 2	Max. switching voltage	24 V	SW 30
alarm 100%	Electrical connection	Male connection M12 x 1	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	<u>G 1/8</u>
warning 75%	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
B	Protection class to DIN 40050	IP 65	
-	Order example	VMF 2 LZ.1 /-BO	

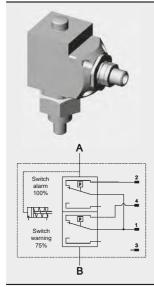
VR x LZ.x /-BO

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting	
	Weight	145 g	
	Pressure setting or indication range	2 bar (or 2.5 bar) -10%	73
	Permitt. operating pressure	7 bar	- 35
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	15 Nm	
A	Switching type	N/O (75%) N/C (100%)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Max. switching voltage	24 V	
Switch alarm 100%	Electrical connection	Male connection M12 x 1	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	G 1/2
Switch warning 75%	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
L	Protection class to DIN 40050	IP 65	
В	Order example	VR 2 LZ.1 /-BO	

HYDAC | 17

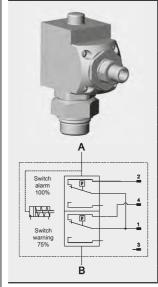


VMF x LZ.x /-AV



Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting	
Weight	120 g	
Pressure setting or indication range	2 bar (or 2.5 bar) -10%	73
Permitt. operating pressure	7 bar	
Permitt. temperature range	-10 °C to +100 °C	
Thread	G 1/8	
Max. torque	10 Nm	
Switching type	N/C (75% and 100%)	
Max. switching voltage	24 V	SW 30
Electrical connection	Male connection M12 x 1	
Max. switching voltage at resistive load	15 W = max. 15 VA ~	G 1/8
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050	IP 65	
Order example	VMF 2 LZ.1 /-AV	

VR x LZ.x /-AV



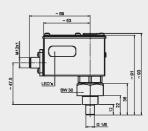
Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting		
Weight	145 g		
Pressure setting or indication range	2 bar (or 2.5 bar) -10%		73
Permitt. operating pressure	7 bar		
Permitt. temperature range	-10 °C to +100 °C		
Thread	G 1/2		
Max. torque	15 Nm	1	
Switching type	N/C (75% and 100%)	~ 87	
Max. switching voltage	24 V		SW 30
Electrical connection	Male connection M12 x 1	1	
Max. switching voltage at resistive load	15 W = max. 15 VA ~]	G 1/2
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~		
Protection class to DIN 40050	IP 65		
Order example	VR 2 LZ.1 /-AV		

VMF x LZ.x /-D4C

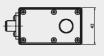
+24V 0V V A 1 3 4 4 2 tagn tage tage tage tage tage tage tage tage

100% of the pressure setting and suppression of the switching signal up to approx. 30 °C 2 green LED's light when below 30 °C 1 green LED lights from 30 °C 1 yellow LED lights from 75% 1 redLED lights from 100% Δp	
Weight 245 g	
Pressure setting or indication range 2.5 bar -10%	
Permitt. operating pressure 7 bar	47.5
Permitt. temperature range -10 °C to +100 °C	1
Thread G 1/8	
Max. torque 10 Nm	
Switching type N/O (75%) N/C (100%)	
Max. switching voltage 24 V	
Electrical connection Male connection M12 x 1	
Max. switching voltage 15 W = max. 15 VA ~	
switching capacity Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050 IP 65	
Order example VMF 2 LZ.2 /-D4C	

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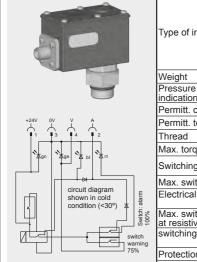


18 | HYDAC

E 7.050.15/11.16

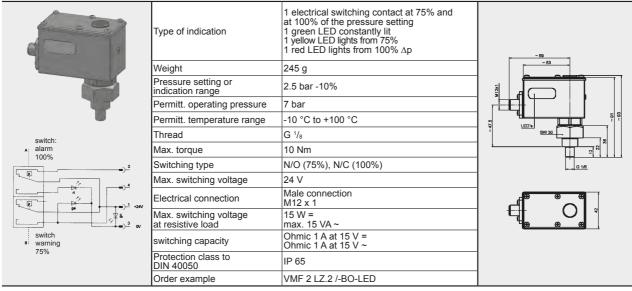


VR x LZ.x /-D4C



Type of indication	1 electrical switching contact at 75% and at 100% of the pressure setting and suppression of the switching signal up to approx. 30 °C. 2 green LED's light when below 30 °C 1 green LED lights from 30 °C 1 yellow LED lights from 75% 1 red LED lights from 100% Δp	-69
Weight	205 g	
Pressure setting or indication range	2.5 bar -10%	
Permitt. operating pressure	7 bar	
Permitt. temperature range	-10 °C to +100 °C	¹⁰ LED's SW 30
Thread	G 1/2	
Max. torque	15 Nm	
Switching type	N/O (75%) N/C (100%)	
Max. switching voltage	24 V	
Electrical connection	Male connection M12 x 1	
Max. switching voltage at resistive load	15 W = max. 15 VA ~	
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050	IP 65	
Order example	VR 2 LZ.2 /-D4C	

VMF x LZ.x /-BO-LED



VR x LZ.x /-BO-LED

	Type of indication	1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED constantly lit 1 yellow LED lights from 75% 1 red LED lights from 100% Δp	-69
	Weight	205 g	- 53
	Pressure setting or indication range	2.5 bar -10%	
	Permitt. operating pressure	7 bar	
switch:	Permitt. temperature range	-10 °C to +100 °C	
▲ alarm	Thread	G 1/2	2 LED's SW 30
100%	Max. torque	15 Nm	
	Switching type	N/O (75%), N/C (100%)	
	Max. switching voltage	24 V	
	Electrical connection	Male connection M12 x 1	
switch swarning	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
75%	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
	Protection class to DIN 40050	IP 65	
	Order example	VR 2 LZ.2 /-BO-LED	

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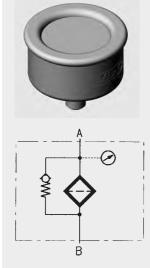
HYDAC | 19



VR x LZ.x /-GM

VR X LZ.X /-GM	Type of indication Weight Pressure setting or indication range Permitt. operating pressure	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting Indicator function possible in conjunction with the "No element" indicator 290 g 2.5 bar -10% 7 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	
<u> </u>	Max. torque	15 Nm	
	Switching type	-	SW30
	Max. switching voltage	24 V	
	Electrical connection	Male connection M12 x 1	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	57 _{±2}
switch: switch alarm warning	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
100% 75%	Protection class to DIN 40050	IP 65	
	Order example	VR 2 LZ.1 /-GM	

VMF x R.x



Type of indication	visual-analogue, scale indication	<u>\$50</u>
Weight	54 g	
Pressure setting or indication range	0 to 10 bar	
Permitt. operating pressure	7 bar continuous	m k
Permitt. temperature range	-20 °C to +60 °C	<u>SW 12</u>
Thread	G 1/8	
Max. torque	10 Nm	G 1/8
Switching type	-	
Max. switching voltage	-	
Electrical connection	-	
Max. switching voltage at resistive load	-	2_03
switching capacity	-	bar in
Protection class to DIN 40050	-	RUS
Order example	VMF 2 R.0	

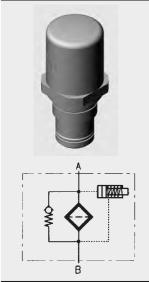
VR x R.x

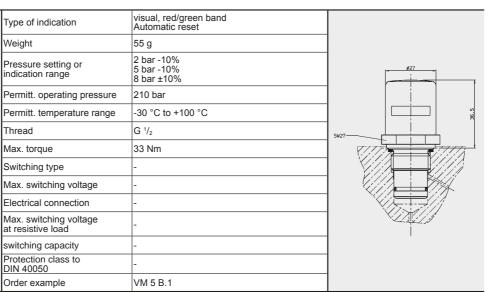
	Type of indication	visual-analogue, scale indication	Ø 50 Ø 46
	Weight	125 g	
	Pressure setting or indication range	0 to 10 bar	8
	Permitt. operating pressure	7 bar continuous	<u>SW 12</u> <u>SW 19</u>
	Permitt. temperature range	-20 °C to +60 °C	Seal ring 1/8
	Thread	G 1/2	O-ring 11x2.5
	Max. torque	33 Nm	G 1/2
	Switching type	-	
A	Max. switching voltage	-	
	Electrical connection	-	
	Max. switching voltage at resistive load	-	bar in
L	switching capacity	-	RIA
	Protection class to DIN 40050	-	
В	Order example	VR 2 R.0	



3.3 DIFFERENTIAL PRESSURE INDICATORS

VM x B.x





VD x B.x

	Type of indication	visual, red/green band Automatic reset		
	Weight	110 g		
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%		Ø27
	Permitt. operating pressure	420 bar		
	Permitt. temperature range	-30 °C to +100 °C		
	Thread	G ¹ / ₂		
	Max. torque	100 Nm	SW 27	
A	Switching type	-		
	Max. switching voltage	-		
	Electrical connection	-		
	Max. switching voltage at resistive load	-		
	switching capacity	-		_ G 1/2
⁻	Protection class to DIN 40050	-		
В	Order example	VD 5 B.1		

VM x BM.x

Ş

	Type of indication	visual, red/green band Manual reset	
	Weight	55 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%	
	Permitt. operating pressure	210 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	33 Nm	5W27
-	Switching type	-	
Γ	Max. switching voltage	-	
	Electrical connection	-	
	Max. switching voltage at resistive load	-	
	switching capacity	-	
	Protection class to DIN 40050	-	
В	Order example	VM 5 BM.1	

HYDAC | 21

36.5



	Type of indication	visual, red/green band Manual reset	
	Weight	110 g	Ø 27
	Pressure setting or indication range	2 bar -10 % 5 bar -10% 8 bar ±10%	
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₂	
	Max. torque	100 Nm	SW 27
A	Switching type	-	
	Max. switching voltage	-	
	Electrical connection	-	
	Max. switching voltage at resistive load	-	
	switching capacity	-	G 1/2
	Protection class to	-	
В	DIN 40050 Order example	VD 5 BM.1	
/// O			
/M x C.x	Tupo of indication	electrical awitch	
	Type of indication	electrical switch 120 g	
	Weight	2 bar -10%	~ 34
Y	Pressure setting or indication range	5 bar -10% 8 bar ±10%	
	Permitt. operating pressure	210 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₂	
	Max. torque	33 Nm N/C or N/O	SW 30 6
	Switching type	(change-over contacts)	
A	Max. switching voltage	230 V	1 I I I I I I I I I I I I I I I I I I I
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	60 W = 100 VA ~	
	Switching capacity 1)	Ohmic 3 A at 24 V = Ohmic 0.03 to 5 A at max. 230 V ~	G 1/2
B	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VM 5 C.0	
/D x C.x			
	Type of indication	electrical switch	
	Weight	220 g	
	Pressure setting or	5 bar -10%	
	indication range	8 bar ±10%	~ <u>34</u>
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	100 Nm	
	Switching type	N/C or N/O (change-over contacts)	8 <u>SW 30</u> ¹ / ₆
Α	Max. switching voltage	230 V	
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	60 W = 100 VA ~	
	Switching capacity 1)	Ohmic 3 A at 24 V = Ohmic 0.03 to 5 A at max. 230 V ~	G 1/2
B	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	



VM x D.x /-L..

L			
	Type of indication	visual indicator and electrical switch	
	Weight	150 g	~ 34
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%	
	Permitt. operating pressure	210 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	33 Nm	
T	Switching type	N/C or N/O (change-over contacts)	9 SW 30
	Max. switching voltage	24, 48, 115, 230 V (depending on the type of light insert)	
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	60 W = 100 VA ~	27
R	Switching capacity 1)	Ohmic 3 A at 24 V = Ohmic 0.03 to 5 A at max. 230 V ~	
*	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	_ G 1/2
±	Order example	VM 5 D.0 /-L24	

VD x D.x /-L...

the second	Type of indication	visual indicator and electrical switch	
	Weight	250 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%	34
	Permitt. operating pressure	420 bar	M20x1.5
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	100 Nm	
H	Switching type	N/C or N/O (change-over contacts)	€ . <u>SW 30</u> %
	Max. switching voltage	24, 48, 115, 230 V (depending on the type of light insert)	
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	60 W = 100 VA ~	5
Connection block	Switching capacity 1)	Ohmic 3 A at 24 V = Ohmic 0.03 to 5 A at max. 230 V ~	G 1/2
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VD 5 D.0 /-L24	

VM x D.x /-LED

-	Type of indication	visual indicator and electrical switch							
	Weight	150 g			⊢ □28	~ 3	4		
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%] -				.		
	Permitt. operating pressure	210 bar					1月-		
	Permitt. temperature range	-30 °C to +100 °C	1					t	
	Thread	G ¹ / ₂	1						
	Max. torque	33 Nm	1			===	SW 30	67	
	Switching type	N/C or N/O (change-over contacts)	~ 110		\vdash	격		ž	
9	Max. switching voltage	24 V			1				
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803		Ŧ		<u>_</u> _			
	Max. switching voltage at resistive load	60 W = 100 VA ~		27					
	Switching capacity 1)	ohmic 3 A at 24 V =	ļŁ	_	╷═╤	3			6
Connection block	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)			_ G 1/2	2			050.15/11.16
	Order example	VM 5 D.0 /-LED							20.

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¹⁾ Required amperage > 20 mA; for lower amperages, order "-SO135" indicators (see Supplementary details).

HYDAC 23

~ 67



	Type of indication	visual indicator and	
	51	electrical switch	4
	Weight	250 g	~ 34
CP	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%	
	Permitt. operating pressure	420 bar	M20x1.5
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
9	Max. torque	100 Nm	SW 30 6
	Switching type	N/C or N/O (change-over contacts)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	Max. switching voltage	24 V	
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	60 W = 100 VA ~	51
⊙ ₃ ,	Switching capacity 1)	ohmic 3 A at 24 V =	
o Connection block	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	_ G 1/2 _
÷	Order example	VD 5 D.0 /-LED	
/D x GC.x	r	Electronic/analogue	
	Type of indicator	Electronic/analogue (4-20 mA or 1-10 V) 1 electrical switching contact at 75% and at 100% of the pressure setting Analogue signal up to 20% of the pressure setting constant 4mA or 1 V	
	Weight	400 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
	Permitt. operating pressure	420 bar	2 29
	Permitt. temperature range	-30 °C to +80 °C	
	Thread	G 1/2	5¥30
	Max. torque	100 Nm	
	Switching type	N/C or N/O, electronic PNP positive switching (factory setting)	
	Max, awitabing valtage	Operating voltage	\$46
A	Max. switching voltage	20 to 30 V DC	(Kita)
A	Electrical connection	20 to 30 V DC 7 pole plug to DIN 43651; PG 11	
			Connector can be rotated
	Electrical connection Max. switching voltage at resistive load switching capacity Protection class to	7 pole plug to DIN 43651; PG 11 12 W ohmic 0.4 A at 30 V = IP 65 (only if the connector is wired and fitted	Connector can be rotated across the range in 52"
	Electrical connection Max. switching voltage at resistive load switching capacity	7 pole plug to DIN 43651; PG 11 12 W ohmic 0.4 A at 30 V =	Connector can be rotated ecross the range in 52° increments

		Type of indication	condition mo	alogue (4-20 mA nitoring filters ind switching conta of the pressure	l. bypass		
		Weight	157 g			5W 36	
	1 State 1	Pressure setting p (switching contact 100%)	2 bar ±5%	3 bar ±5%	5 bar ±5%		
		Indication range Δp	0 to 5 bar	0 to 5 bar	0 to 8 bar		
		Indication range "pressure before filter"	25 bar		·		7
		Type of switching switching outputs ∆p	electronic swi N/O or N/C co	tch, PNP positive ontacts (factory se	switching etting)		Ì
		Output Load	400 mA				Ĩ
		Max. switching voltage / operating voltage	20 to 30 V D	0			i
	A	Analogue outputs "press. before filter" & ∆p	4 to 20 mA (r	nax. resistance	600Ω)	6kt. SW 27	
Ш		Electrical connection	M12 x 1 / 8 p	ole			
		Protection class to DIN 40050	IP 65				
		Permitt. operating pressure	25 bar				
Ш	$\begin{array}{c c} p \\ 1 \\ - \\ \end{array} \begin{array}{c} & & \\ \hline \end{array} \begin{array}{c} & & \\ \end{array} \end{array} \begin{array}{c} & & \\ \end{array} \begin{array}{c} & & \\ \end{array} \end{array} \begin{array}{c} & & \\ \end{array} \begin{array}{c} & & \\ \end{array} \end{array} $	Permitt. temperature range	-40 °C to +85	5 °C			
Ш	B PAR-do not connect	Thread	G 1/2				
	L	Max. torque	33 Nm				
		Order example	VL 5 GW.0 /-	V-123			
	¹⁾ Required amperage > 20 mA	; for lower amperages, orde	er "-SO135" in	dicators (see	Supplementary	v details).	

24 HYDAC





	Type of indication	visual, red pin and electrical switch 1 switching contact at 100% of the pressure setting	
I I I I I I I I I I I I I I I I I I I	Weight	198 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
	Permitt. operating pressure	420 bar	SW 30
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	50 Nm	G 1/2
D	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	~ 79
A	Max. switching voltage	115 V	
	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	35
B	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	M20x1.5
	Order example	VD 5 LE.1	

VD x LZ.x

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting	
	Weight	240 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-10 °C to +100 °C	SW 30
	Thread	G 1/2	*
switch salarm	Max. torque	50 Nm	G 1/2
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
	Max. switching voltage	115 V	~ 123
ė	Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	M20x1.5
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VD 5 LZ.1	

VD x LZ.x /-DB

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED constantly lit 1 yellow LED lights from 75% 1 red LED lights from 100% Δp	
	Weight	245 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	50 Nm	Pg11
switch: alarm 100%	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
	Max. switching voltage	24 V	and a second sec
	Electrical connection	Male connection PG 11 Female connector to DIN 43651	
switch:	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
warning 3	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	#100
└ ───) ── 1+	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VD 5 LZ.1 /-DB	

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HYDAC | 25



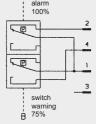
VD x LZ.x /-CN

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T- staal ho setter: se	ard

	Type of indication	visual, red pin and 1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED goes out at 75% 1 yellow LED lights from 75% 1 red LED lights from 100% ∆p	
	Weight	245 g	
	Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	
rd	Max. torque	50 Nm	~88
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
	Max. switching voltage	24 V	the second secon
	Electrical connection	Male connection PG 11 Female connector to DIN 43651	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	#100
	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	
	Order example	VD 5 LZ.1 /-CN	

VD x LZ.x /-BO





Type of indication	visual, red pin and one electrical switching contact at 75% and at 100% of the pressure setting	
Weight	197 g	
Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
Permitt. operating pressure	420 bar	- 035
Permitt. temperature range	-10 °C to +100 °C	
Thread	G 1/2	
Max. torque	50 Nm	
Switching type	N/O (75%) N/C (100%)	SW30
Max. switching voltage	24 V	
Electrical connection	Male connection M12 x 1	57 .2
Max. switching voltage at resistive load	15 W = max. 15 VA ~	
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	-
Protection class to DIN 40050	IP 65]
Order example	VD 5 LZ.1 /-BO	

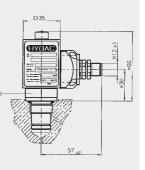
VD x LZ.x /-AV

A switch: alarm 100% 2 2 4 1 3 3 switch warning B 75%

E 7.050.15/11.16

26 HYDAC

Type of indication	visual, red pin and one electrical switching contact at 75% and at 100% of the pressure setting
Weight	197 g
Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%
Permitt. operating pressure	420 bar
Permitt. temperature range	-10 °C to +100 °C
Thread	G 1/2
Max. torque	50 Nm
Switching type	N/C (75% and 100%)
Max. switching voltage	24 V
Electrical connection	Male connection M12 x 1
Max. switching voltage at resistive load	15 W = max. 15 VA ~
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~
Protection class to DIN 40050	IP 65
Order example	VD 5 LZ.1 /-AV

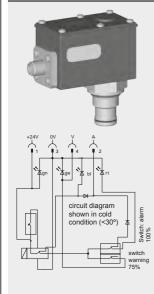


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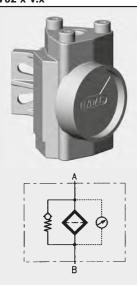


Type of indicator	1 electrical switching contact at 75% and at 100% of the pressure setting and suppression of the switching signal when operating temperature is below 30 °C 2 green LEDs light when below 30 °C 1 green LED lights from 30 °C 1 yellow LED lights from 75% 1 red LED lights from 100% Δp	~ 69 ~ 53
Weight	256 g	5
Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar -10%	
Permitt. operating pressure	420 bar	LED's
Permitt. temperature range	-10 °C to +100 °C	SW 30
Thread	G 1/2	
Max. torque	50 Nm	
Switching type	N/O (75%) N/C (100%)	<u>G 1/2</u>
Max. switching voltage	24 V	
Electrical connection	Male connection M12 x 1	
Max. switching voltage at resistive load	15 W = max. 15 VA ~	
switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
Protection class to DIN 40050	IP 65	
Order example	VD 5 LZ.2 /-D4C	

VD x LZ.x /-BO-LED

	Weight Pressure setting or indication range	1 electrical switching contact at 75% and at 100% of the pressure setting 1 green LED constantly lit 1 yellow LED lights from 75% 1 red LED lights from 100% Δp 250 g 2 bar -10% 5 bar -10% 8 bar -10% 420 bar -10 °C to +100 °C G ¹ / ₂	
		50 Nm	<u>SW 30</u>
100%	Switching type	N/O (75%) N/C (100%)	G 1/2
	Max. switching voltage	24 V	
		Male connection M12 x 1	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	
wanning		Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	
	Protection class to DIN 40050	IP 65	
	Order example	VD 5 LZ.2 /-BO-LED	

V02 x V.x



Type of indication visual-analogue Weight 580 g	
Pressure setting or indication range 0.8 bar ±10% 2.0 bar ±10% 4.3 bar ±10%	
Permitt. operating pressure 100 bar	4
Permitt. temperature range -30 °C to +100 °C	
Thread G 1/4	
Max. torque	
Switching type -	
Max. switching voltage -	
Electrical connection -	
Max. switching voltage at resistive load	9
switching capacity -	/11.1
Protection class to DIN 40050	7.050.15/11.16
Order example V02 2 V.0	E 7.0

HYDAC | 27

Archivierung 01/2021



		Hydrau	lik · Automation
V02 x VE.x			
	Type of indication	Visual/analogue indicator and electrical switching contact 100% of the pressure setting	
	Weight	640 g	-
	Pressure setting or indication range	0.8 bar ±10% 2.0 bar ±10% 4.3 bar ±10%	
(100)	Permitt. operating pressure	100 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₄	
	Max. torque	-	
•	Switching type	100% change-over contact	
A	Max. switching voltage	250 V	
	Electrical connection	threaded connection M16 x 1.5	
	Max. switching voltage at resistive load	100% contact 30 W = 60 VA ~	<u>in</u>
	switching capacity	Ohmic 2.5 A at 24 V = Ohmic 1 A at 220 V ~	
B	Protection class to DIN 40050	IP 65	
	Order example	V02 2 VE.0	
V02 x VZ.x			
	Type of indication	Visual/analogue indicator and 1 electrical switching contact at 75% and 100% of the pressure setting	
	Weight	650 g	_
	Pressure setting or indication range	0.8 bar ±10% 2.0 bar ±10% 4.3 bar ±10%	()()()()()()_
IMPO	Permitt. operating pressure	100 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₄	
	Max. torque	- 75% - N/O contact	
•	Switching type	100% - change-over contact	
A	Max. switching voltage	250 V threaded connection	
	Electrical connection	M16 x 1.5	
	Max. switching voltage at resistive load	75% contact 100% contact 120 W = 30 W = 120 VA ~ 60 VA ~	<u> </u>
	switching capacity	Ohmic 2.5 A at 24 V = Ohmic 1 A at 220 V ~	
B	Protection class to DIN 40050	IP 65	
	Order example	V02 2 VZ.0	-

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28 | HYDAC



3.4 MOBILE INDICATORS 3.4.1 RETURN LINE VMF x CM.x

3.4.1 RETURN LINE			
VMF x CM.x	L		
	Type of indication	electrical switch	
	Weight	90 g	
-	Pressure setting or indication range	2 bar ±0.3 bar	M12x1
	Permitt. operating pressure	10 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/8	
	Max. torque	10 Nm	
	Switching type	N/C or N/O (change-over contacts)	~ 68 ~ .
	Max. switching voltage	24V	SW 27
A 	Electrical connection	Male connection M12 x 1	502/ 502/ 502/ 502/ 502/ 502/ 502/ 502/
	Max. switching voltage at resistive load	250 W= 300 VA~	
	switching capacity	Ohmic 6 A at 24 V = Ohmic 0.03 to 6 A at max. 230 V ~	<u>G 1/8</u>
4	Protection class to DIN 40050	IP 67 (only if the connector is wired and fitted correctly)	
B	Order example	VMF 2 CM.1/-4M0	
VMF x FD.x (plug connection	on: Deutsch DT 04-2P)		
	Type of indication	electrical switch	
	Weight	70 g	
	Pressure setting or indication range	2 bar ±0.3 bar	Г <u>р†д</u> лт
	Permitt. operating pressure	11 bar continuous	
\smile	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G ¹ / ₈	× 20
	Max. torque	10 Nm	SW 24
	Switching type	N/O or N/C	
	Max. switching voltage	42 V	
A	Electrical connection	Deutsch DT 04-2P	<u>G 1/8</u>
	Max. switching voltage at resistive load	60 W = 100 VA ~	
	switching capacity	Ohmic 2.5 A at 24 V = Ohmic 1 A at 220 V ~	
	Protection class to DIN 40050	IP 67 (only if the connector is wired and fitted correctly)	T
В	Order example	VMF 2 FD.0 /-2M0	
VR x FD.x (plug connection	: Deutsch DT 04-2P)		
	Type of indication	electrical switch	
11T	Weight	90 g	<i>\$</i> 25
	Pressure setting or indication range	2 bar ±0.3 bar	
	Permitt. operating pressure	11 bar continuous	
	Permitt. temperature range	-30 °C to +100 °C	SW 24
	Thread	G 1/2	
	Max. torque	33 Nm	
9	Switching type	N/O or N/C	
	Max. switching voltage	42 V	
A	Electrical connection	Deutsch DT 04-2P	
	Max. switching voltage at resistive load	60 W = 100 VA ~	20.96
	switching capacity	Ohmic 2.5 A at 24 V = Ohmic 1 A at 220 V ~	
	Protection class to DIN 40050	IP 67 (only if the connector is wired and fitted correctly)	54
B	Order example	VR 2 FD.0 /-2M0	
		·	·

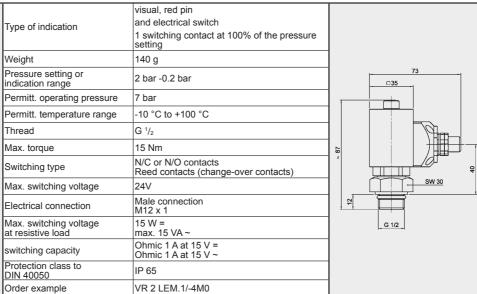
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(HYDAC) | 29



VR x LEM.x

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67.6

54

SW 30

Ø28

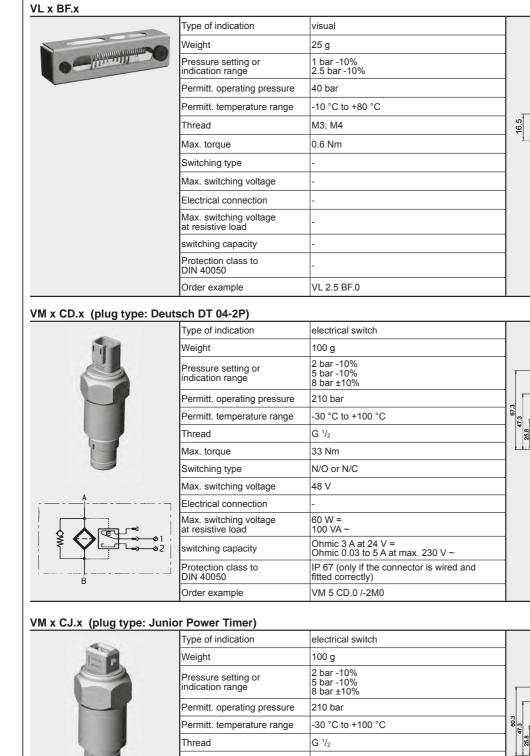
SW 30

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ug: Junior Power Timer 2P

Plug: Deutsch DT 04-2-P

3.4.2 DIFFERENTIAL PRESSURE



HYDAC | 31

Archivierung 01/2021

33 Nm

48 V

60 W =

100 VA ~

fitted correctly)

VM 5 CJ.0 /-2M0

N/O or N/C

Junior Power Timer

Ohmic 3 A at 24 V = Ohmic 0.03 to 5 A at max. 230 V ~

IP 54 (only if the connector is wired and

Max. torque

Switching type Max. switching voltage

Electrical connection

switching capacity

Protection class to DIN 40050

Order example

B

Max. switching voltage at resistive load

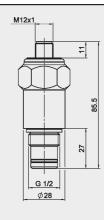


Type of indication	electrical switch	
Weight	200 g	
Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%	928 Plug: Junior Power Timer 2P
Permitt. operating pressure	420 bar	
Permitt. temperature range	-30 °C to +100 °C	
Thread	G 1/2	52
Max. torque	100 Nm	
Switching type	N/O or N/C	
Max. switching voltage	48 V	<u>G 1/2</u>
Electrical connection	Junior Power Timer	
Max. switching voltage at resistive load	60 W = 100 VA ~	
switching capacity	Ohmic 3 A at 24 V = Ohmic 0.03 to 5 A at max. 230 V ~	
Protection class to DIN 40050	IP 54 (only if the connector is wired and fitted correctly)	<u>SW 30 _</u>
Order example	VD 5 CJ.0 /-2M0	

VM x CM.x

В

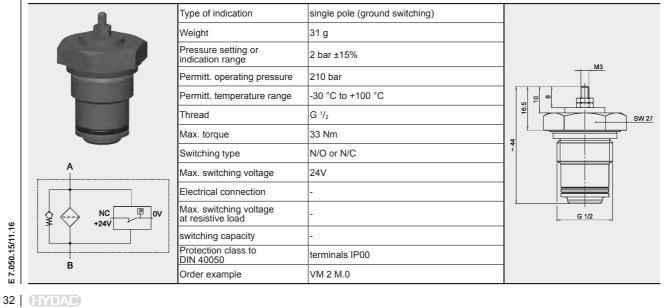
	Type of indication	electrical switch	
	Weight	70 g	
Pressure setting or		2 bar –10% 5 bar –10% 8 bar ±10%	
	Permitt. operating pressure	210 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	33 Nm	
	Switching type	N/C or N/O (change-over contacts)	
	Max. switching voltage	48 V	
	Electrical connection	Male connection M12 x 1	
	Max. switching voltage at resistive load	60 W = 100 VA ~	
	switching capacity	ohmic 2.5 A at 24 V = ohmic 2.5 A at 42 V ~	g
	Protection class to DIN 40050	IP 67 (only if the connector is wired and fitted correctly)	0E MS
	Order example	VM 2 CM.0/-4M0	





VM x M.x

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VD x LEM.x

VD X LEM.X	Type of indication	visual, red pin and electrical switch 1 switching contact at 100% of the pressure setting	
	Weight	350 g	
HYDAC	Pressure setting or indication range 2 bar -10% 5 bar -10% 8 bar -10%	73	
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-10 °C to +100 °C	
	Thread	G ¹ / ₂	
	Max. torque	50 Nm	
	Switching type	N/C or N/O contacts Reed contacts (change-over contacts)	
Ą	Max. switching voltage	24V	SW 30
	Electrical connection	Male connection M12 x 1	
	Max. switching voltage at resistive load	15 W = max. 15 VA ~	G 1/2
	switching capacity	Ohmic 1 A at 15 V = Ohmic 1 A at 15 V ~	_
	Protection class to DIN 40050	IP 65	
В	Order example	VD 5 LEM.1/-4M0	

E 7.050.15/11.16

HYDAC | 33



- 5 Hub



Permitt. temperature range

Thread

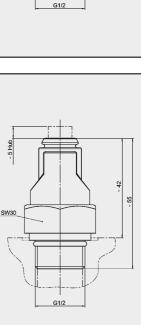
Max. torque

Switching type Max. switching voltage

Electrical connection Max. switching voltage at resistive load switching capacity

Protection class to DIN 40050

Order example



VMF x C.x /-Ex2G

R

Type of indication	electrical switch	
Weight	415 g	
Pressure setting or indication range	2 bar ±0.5 bar	
Permitt. operating pressure	200 bar	
Permitt. temperature range	-20 °C to +70 °C (T6)/-20 °C to +80 °C (T5)	
Thread	G ¹ / ₈	
Max. torque	10 Nm	───────────────────────────────────────
Switching type	N/C or N/O (change-over contacts)	
Max. switching voltage	250 V	
Electrical connection	Cable connection PG 9 Cable length 2 m	<u></u>
Max. switching voltage at resistive load	62.5 W = 250 VA ~	$\dot{\Phi}$
	Ohmic 0.25 A at 250 V = Ohmic 1 A at 250 V ~	
	IP 65	
ATEX designation	🕼 II 2G EEx d IIC T6 / T5	<u>G 1/8</u>
Order example	VMF 2 C.0 /-Ex2G	
	Weight Pressure setting or indication range Permit. operating pressure Permit. temperature range Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050 ATEX designation	Weight 415 g Pressure setting or indication range 2 bar ±0.5 bar Permitt. operating pressure 200 bar Permitt. temperature range -20 °C to +70 °C (T6)/-20 °C to +80 °C (T5) Thread G ¼ Max. torque 10 Nm Switching type N/C or N/O (change-over contacts) Max. switching voltage 250 V Electrical connection Cable connection PG 9 Cable length 2 m Max. switching voltage 62.5 W = 250 VA ~ switching capacity Ohmic 0.25 A at 250 V = Ohmic 1 A at 250 V ~ Protection class to DIN 40050 IP 65 ATEX designation W II 2G EEx d IIC T6 / T5

-10 °C to +100 °C

VR 2 B.0 /-2GC-SO174

G 1/2

15 Nm



103.5

SW 18

N.	Type of indication	electrical switch	
¥.	Weight	470 g	
A	Pressure setting or indication range	2 bar ±0.5 bar	
	Permitt. operating pressure	40 bar	
	Permitt. temperature range	-20 °C to +70 °C (T6)/-20 °C to +80 °C (T5)	
	Thread	G 1/2	
	Max. torque	33 Nm	
	Switching type	N/C or N/O (change-over contacts)	
3	Max. switching voltage	250 V	
	Electrical connection	Cable connection PG 9 Cable length 2 m	
	Max. switching voltage at resistive load	62.5 W = 250 VA ~	
	switching capacity	Ohmic 0.25 A at 250 V = Ohmic 1 A at 250 V ~	SW 19
	Protection class to DIN 40050	IP 65	
Ţ_,	ATEX designation	🚱 II 2G Ex d IIC T6 / T5	<u>_ G 1/2 _</u>
	Order example	VR 2 C.0 /-Ex2G	
EX) Can be u	sed on filters up to Zone 1	*	•
,	Type of indication	electrical switch	
	Weight	340 g	
	Pressure setting or indication range	2 bar ±0.3 bar	
	Permitt. operating pressure	40 bar	<u> </u>
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	

* The clogging indicator is simple electrical operating equipment according to DIN EN 60079-14 and may only be used in intrinsically safe circuits (supplied with manufacturer's declaration and operating instructions).

33 Nm

N/C or N/O (change-over contacts)

Male connection M20

VR 2 C.1 /-2GBC

Female connector to DIN EN 175301-803

IP 65 (only if the connector is wired and fitted correctly)

Max. torque

Г

Switching type

Max. switching voltage

Electrical connection

Max. switching voltage at resistive load switching capacity

Protection class to DIN 40050

Order example

E 7.050.15/11.16 HYDAC 35



3.5.2 DIFFERENTIAL PRESSURE

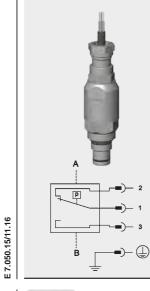
	Type of indication	visual, red/green band Automatic reset	
-	Weight	110 g	
	Pressure setting or indication range	5 bar -10% 8 bar ±10%	\$27 i
4	Permitt. operating pressure	210 bar	
	Permitt. temperature range	-30 °C to +100 °C	
	Thread	G 1/2	
	Max. torque	33 Nm	SW2?
	Switching type	-	
-	Max. switching voltage	-	
WW.	Electrical connection	-	
	Max. switching voltage at resistive load	-	
	switching capacity	-	
	Protection class to DIN 40050	-	
	Order example	VM 5 B.1 /-2GC	
) Can b	e used on filters up to Zone ′	1	
	Type of indication	visual, red/green band Automatic reset	
	Weight	110 g	
	Pressure setting or indication range	5 bar -10% 8 bar ±10%	<u>\$27</u>
	Permitt. operating pressure	420 bar	
	Permitt. temperature range	-30 °C to +100 °C	

VD

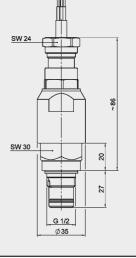
A A A B

Type of indication	visual, red/green band Automatic reset	
Weight	110 g	
Pressure setting or indication range	5 bar -10% 8 bar ±10%	<u>#27</u>
Permitt. operating pressure	420 bar	
Permitt. temperature range	-30 °C to +100 °C	
Thread	G 1/2	
Max. torque	100 Nm	SW27
Switching type	-	
Max. switching voltage	-	
Electrical connection	-	
Max. switching voltage at resistive load	-	
switching capacity	-	
Protection class to DIN 40050	-	
Order example	VD 5 B.1 /-2GC	

VD x C.x /-2GEXDIIC



Type of indication	electrical switch
Weight	from 600 g
Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%
Permitt. operating pressure	420 bar
Permitt. temperature range	-20 °C to +60 °C (setting) (media temperature max. 75 °C)
Thread	G 1/2
Max. torque	100 Nm
Switching type	Change-over
Max. switching voltage	250 V
Electrical connection	Cable connection
Max. switching voltage at resistive load	60 W = 100 VA ~
switching capacity	ohmic 3 A at 24 V = ohmic 0.03 A to 5 A at 250 V ~
Protection class to DIN 40050	IP 66
ATEX designation	🕼 II 2G Ex d IIC T6
Order example	VD 2 C.1 /-2GEXDIIC



36 HYDAC

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~ 34
M16x1
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SW 30 6
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SW 30 6
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E 7.050.15/11.16

HYDAC | 37



3.6 INDICATORS WITH UL OR CSA APPROVAL 3.6.1 DIFFERENTIAL PRESSURE

Type of indication Weight Pressure setting or indication range Permitt. operating pressure Permitt. temperature range Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050 Order example	electrical switch 120 g 2 bar -10% 5 bar -10% 8 bar $\pm 10\%$ 210 bar -30 °C to ± 100 °C G $\frac{1}{2}$ 33 Nm N/C or N/O (change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly) VM 5 C.0 /-CRUUS	× 36
Pressure setting or indication range Permitt. operating pressure Permitt. temperature range Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	2 bar -10% 5 bar -10% 8 bar \pm 10% 210 bar -30 °C to +100 °C G $\frac{1}{2}$ 33 Nm N/C or N/O (change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	27 5W 30 2 20 2 20 2 2 20 2 2 2 2 2 2 2 2 2 2
indication range Permitt. operating pressure Permitt. temperature range Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	$\begin{array}{l} 5 \text{ bar -10\%} \\ 8 \text{ bar } \pm 10\% \\ \hline \\ 210 \text{ bar} \\ -30 \ ^\circ\text{C} \ to \pm 100 \ ^\circ\text{C} \\ \hline \\ G \ ^{1/_2} \\ \hline \\ 33 \text{ Nm} \\ \hline \\ \text{N/C or N/O} \\ (change-over contacts) \\ \hline \\ 115 \ V \\ \hline \\ \text{Male connection M20} \\ \hline \\ \text{Female connector to DIN EN 175301-803} \\ \hline \\ 60 \ \text{W} = \\ 100 \ \text{VA} \sim \\ \hline \\ \text{ohmic 3 A at 24 V =} \\ \hline \\ \text{IP 65 (only if the connector is wired and fitted correctly)} \\ \end{array}$	~ 108 27 27 20 27 20 27
Permitt. temperature range Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	-30 °C to +100 °C G $\frac{1}{2}$ 33 Nm N/C or N/O (change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	27 2801
Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	G $\frac{1}{2}$ 33 Nm N/C or N/O (change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	27 2801
Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	33 Nm N/C or N/O (change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	
Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	N/C or N/O (change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	
Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	(change-over contacts) 115 V Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	
Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	Male connection M20 Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	
Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	Female connector to DIN EN 175301-803 60 W = 100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	
at resistive load switching capacity Protection class to DIN 40050	100 VA ~ ohmic 3 A at 24 V = IP 65 (only if the connector is wired and fitted correctly)	
Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	<u>G 1/2</u>
DIN 40050	correctly)	_G 1/2_
Order example	VM 5 C 0 /-CRUUS	
Type of indication	electrical switch	
Weight	120 g	~ 36
Pressure setting or indication range	2 bar -10% 5 bar -10% 8 bar ±10%	
Permitt. operating pressure	420 bar	
Permitt. temperature range	-30 °C to +100 °C	
Thread	G 1/2	
Max. torque	100 Nm	5 SW 30 R
Switching type	N/C or N/O	
Max. switching voltage	115 V	
Electrical connection	Male connection M20 Female connector to DIN EN 175301-803	
Max. switching voltage at resistive load	60 W = 100 VA ~	5
switching capacity	ohmic 3 A at 24 V =	
Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	<u>_ G 1/2</u>
Order example	VD 5 C.0 /-CRUUS	
	Weight Pressure setting or indication range Permitt. operating pressure Permitt. temperature range Thread Max. torque Switching type Max. switching voltage Electrical connection Max. switching voltage at resistive load switching capacity Protection class to DIN 40050	Weight120 gPressure setting or indication range $2 \text{ bar } -10\%$ $5 \text{ bar } -10\%$ $8 \text{ bar } \pm10\%$ Permitt. operating pressure 420 bar Permitt. temperature range $-30 \text{ °C to } +100 \text{ °C}$ Thread $G^{-1/2}$ Max. torque100 NmSwitching typeN/C or N/O (change-over contacts)Max. switching voltage115 VElectrical connectionMale connection M20 Female connector to DIN EN 175301-803Max. switching voltage at resistive load $60 \text{ W} =$ $100 \text{ VA} ~$ switching capacityohmic 3 A at 24 V =Protection class to DIN 40050IP 65 (only if the connector is wired and fitted correctly)



3.6.2 RETURN LINE VR x C.x (CSA)



	Type of indication	electrical switch			
	Weight	340 g	~ 33		
	Pressure setting or indication range	2 bar -0.3 bar			
	Permitt. operating pressure	40 bar			
	Permitt. temperature range	-5 °C to +120 °C			
	Thread	G 1/2			
	Max. torque	30 Nm			
	Switching type	N/C or N/O (change-over contacts)			
	Max. switching voltage	230 V			
	Electrical connection	Male connection PG 9 Female connector to DIN EN 175301-803	SW 18		
	Max. switching voltage at resistive load	250 W = 300 VA ~			
	switching capacity	ohmic 4 A at 24 V ohmic 0.3 to 4 A at max. 230 V ~			
0	Protection class to DIN 40050	IP 65 (only if the connector is wired and fitted correctly)	<u> </u>		
	Order example	VR 2 C.0 /-CSA			

E 7.050.15/11.16

HYDAC | 39



4. MODEL CODE 4.1 STANDARD CLOGGING INDICATORS	<u>VR 2 D . X /-V-L24</u>
Type VMF return line indicator; connection G ¹ / ₈ VR return line indicator; connection G ¹ / ₂ VRD return line indicator; for differential pressure cavity VM differential pressure indicator; up to 210 bar operating pressure VD differential pressure indicator; up to 420 bar operating pressure VL differential pressure indicator; up to 25 bar operating pressure V02 differential pressure indicator; piped separately; up to 100 bar operating pressure Pressure setting	
see particular clogging indicator	
Version B visual with automatic reset (for vertical installation only!)	
BF visual, mobile	
BM visual with manual reset	
C electrical CA electrical with AMP connector (Mark II) CD electrical with Deutsch connector (DT 04-2P) CJ electrical with AMP Junior Power Timer connector CM electrical with M12x1 connector CS electrical with AMP Superseal connector	
D visual/electrical E pressure gauge, horizontal	
ES pressure gauge, vertical	
 F pressure switch FD pressure switch with Deutsch connector (DT 04-2P) FJ pressure switch with AMP Junior Power Timer connector FS pressure switch with AMP Superseal connector GC electronic GW electronic 	
K pressure gauge, horizontal	
LE visual/mechanical with 100% switching contact	
LEM visual/mechanical with 100% switching contact and M12x1 connector LZ visual/mechanical with 75% and 100% switching contact	
M electrical, earth-switching	
R pressure gauge, horizontal	
RS pressure gauge, vertical	
UBM visual, negative pressure UE negative pressure gauge, horizontal	
UF negative pressure switch	
V visual/analogue	
VE visual/analogue with 100% switching contact VZ visual/analogue with 75% and 100% switching contact	
Modification number	
X the latest version is always supplied	
Supplementary details	
30C cold start suppression of switch outputs up to 30 °C ±5 °C (only for C-, D-, LZ indicators; power supply only with direct current – max. 24 volts;	
C and D indicators only for VD and VM; D and LZ indicators only as N/O contact)	
L lamp with appropriate voltage (24, 48, 110, 230 volts)	
LED 2 light-emitting diodes up to 24 volts version "D"	
OE N/C function SO135 indicator suitable for PLC control via gold crosspoint contacts	
W suitable for oil/water emulsions (HFA, HFC)	
V seal made from Viton (FKM), suitable for phosphate ester fluid (HFD-R) and biodegradable oils	
(must be specified for version "GW")	
Addition: For VMF indicators B, LE, LZ and C/-EX2G a "/-V" must be added for a Viton version. For all other VMF versions, the standard is V and is not specified.	
Supplementary details for "GC" type	
113 N/O function pressure peak suppression up to 10 sec. cold start suppression of switching outputs	
(PNP technique, positive switching) up to 25 °C Must be specified!	
123 N/C function pressure peak suppression up to 10 sec. Others on request	
cold start suppression of switching outputs	
(PNP technique positive switching) up to 25 °C $\begin{bmatrix} \\ \\ \\ \\ \\ \end{bmatrix}$	
30C cold start suppression of switching outputs up to 30 °C (other temperatures on request) LED 3 LEDs (green, yellow, red) in terminal box	
PF floating switching outputs (due to relay in the plug)	
SP analogue signal voltage output 1-10 V] if SP or SQ are not specified	
SQ analogue signal: voltage output 4 to 20 mA (current source) "current sink" model supplied	k
Supplementary details to "GW" type	
113 N/O function pressure peak suppression up to 10 sec.	
cold start suppression of switching outputs	
(PNP technique positive switching) up to 25 °C Must be specified!	
123 N/C function pressure peak suppression up to 10 sec. Others on request	
cold start suppression of switching outputs (PNP technique positive switching) up to 25 °C	

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- Supplementary details for "LZ" type AV plug and connector to AUDI, VW specification BO plug and connector to BMW, Opel, Ford specification BO-LEDas for BO, but with progressive LED strip

- CN electrical connection, 1 connector DIN 43651 with 3 LEDs (to CNOMO specification NF E 48-700) DB electrical connection, 1 connector to DIN 43651 with 3 LEDs (to Daimler-Benz and BMW specification)
- D4C plug and connector to Daimler-Chrysler specification with cold start suppression 30 °C

Supplementary details to "ATEX" type

- 2GC
- for visual indicator type "B" with ATEX certificate for electrical indicator type "C" with ATEX certificate (the switch used in the indicator is a passive component according 2GBC to EN 50020 and can therefore be used in intrinsically safe circuits as simple apparatus in accordance with EN 60079-14)
- 2GEXDIIC for electrical indicator suitable for use in Zone 1 (Category 2), gas atmosphere, Category d (Flameproof Enclosure), Explosive subdivision IIC to ATEX directive
- Ex-protection type for the return line indicator type "C" EX2G

Supplementary details for "UL" and "CSA" approval

- for electrical differential indicator type "C" CRUUS
- with UL approval
- CSA for electrical return line indicator type "C" with CSA approval



| 5. ADAPTERS

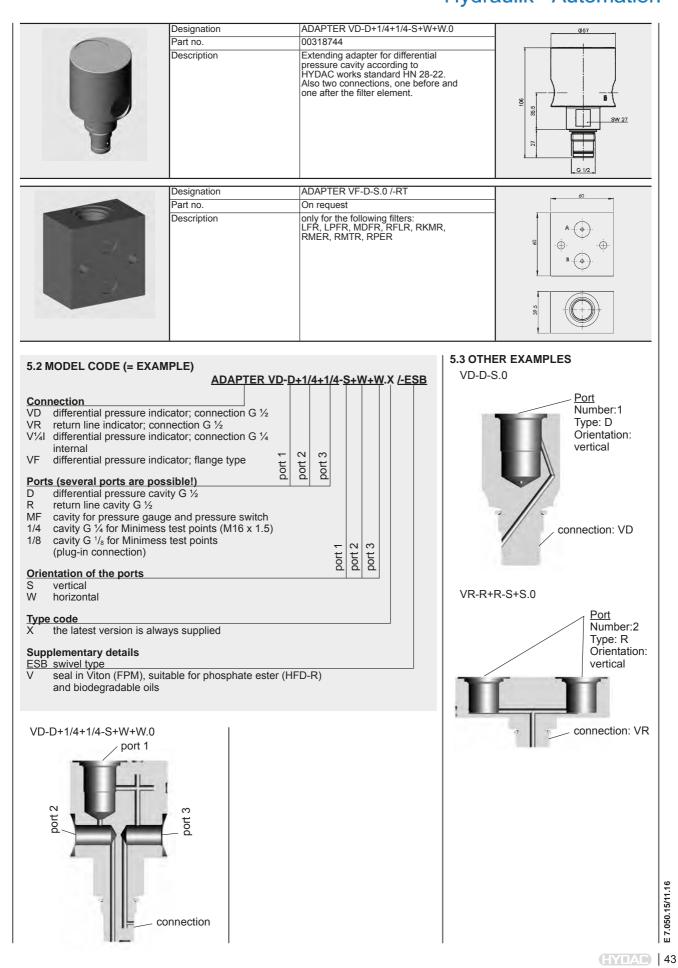
5.1	TYPES	
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	ADAPTER VD-D-S.0	AL 12
Part no.	00318736	G1/2
Description	Extending adapter for differential pressure cavity to HYDAC works standard HN 28-22	61/2
Part no. Description	Y-adapter to convert 1 differential pressure cavity into 2 differential pressure cavities according to HYDAC works standard HN 28-22. Swivel-type on request!	
Designation		
Part no. Description	00404337 Test adapter for different pressure cavity according to HYDAC works standard HN 28-22. To test the pressure before and after the filter element. Also available without minimess couplings (on request)!	
Part no. Description	00318741 Y-adapter to convert 1 return line cavity into 2 return line cavities (G ½) Swivel-type on request!	
Designation	ADAPTER V ¼ I-D-S.0	
Part no.		<u>G1/2</u>
Description	Connection adapter for piping clogging indicators separately with differential pressure cavity according to HYDAC works standard HN 28-22. Two connections G ¼ (one before and one after the filter element)	
	Designation Part no. Description Descriptio	HN 28-22 Designation ADAPTER VD-D+D-S+S.0 Part no. 00318732 Description V-adapter to convert 1 differential pressure cavily into 2 differential pressure cavily succording to HYDAC works standard HN 28-22. Swivel-type on request! Swivel-type on request! Description ADAPTER VD-1/4+1/4-W+W.0 /-00404337 Part no. 00404337 Description Test adapter for different pressure for adapter for different pressure test the pressure before and after the filter element. Also available without minimess couplings (on request)! ADAPTER VR-R+R-S+S.0 Part no. 00318741 Description Y-adapter to convert 1 return line cavity into 2 return line cavity into 2 return line cavity into 2 return line cavities (G ½) Swivel-type on request! Swivel-type on request! Description ADAPTER V1/1-D-S.0 Part no. 00318730 Description ADAPTER V1/1-D-S.0 Part no. 00318730 Description ADAPTER V1/1-D-S.0 Part no. 00318730 Description Xure tors adapter for piping clogging indicators separately with differential pressure cavity according to HYDAC works standard HN 28-22. Two connections G 1/2 (one before and one after the <

42 HYDAC

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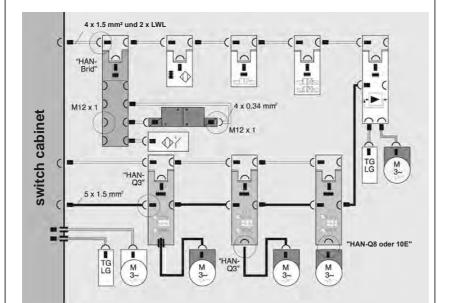


6. DESINA SPECIFICATION

DESINA is a fully comprehensive system intended to bring standardization and decentralization to the field of fluid technology and to electrical installation of machinery and systems. The system engineering, automotive and supply industries have worked together to draw up specifications of the necessary components. DESINA makes use of tried-and-tested solutions, such as open bus systems, standard industrial plugs etc.

By standardizing components, interfaces and connection systems, such as a hybrid field bus cable (Cu/LWL), a wide range of different field bus systems can be made compatible on a single physical base.

6.1. TOTAL CONCEPT FOR MACHINE TOOL INSTALLATION



| 6.2. CLOGGING INDICATORS

The following clogging indicators are approved to DESINA specification: VD 5 LZ.x /-D4C VR 2.5 LZ.x /-D4C VD 5 LZ.x /-BO VR 2.5 LZ.x /-BO VD 5 LZ.x /-AV VR 2.5 LZ.x /-AV VR 2.5 LZ.x /-AV VR 2.5 LZ.x /-GM all with M 12 x 1 connector!

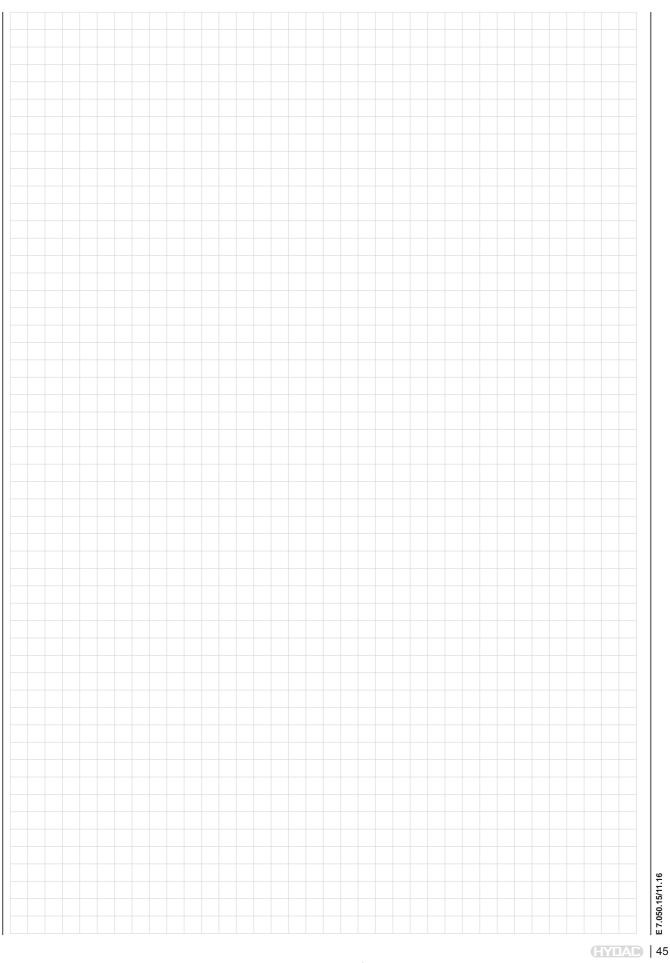


DESINA

The DESINA logo is shown on the type code label of approved clogging indicators.

44 HYDAC







NOTE

The information in this brochure relates to the operating conditions and applications described.

For applications or operating conditions not described, please contact the relevant technical department.

I ne information in this brochure re described.
 For applications or operating conditional department.
 Subject to technical modifications.

46 | HYDAC

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