

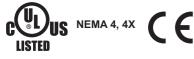






ROTEX LAUNCHES, THE NEW HIGHLY RELIABLE, ADVANCED VALVE POSITION LIMIT.....

DXLW



WEATHER PROOF

FEATURES

- Aluminium Diecast, Housing and cover with powder coating, for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- A special PCB, eliminates all the wiring from the switch element to the terminals. Complete protection against short circuit.
- Three cable entries are provided as a standard
- Cable entries M20X1.5, 1/2" NPT
- Complies to NAMUR Mounting standards
- Solenoid termination provided inside the switch boxAdditional mounting holes are threaded as per the
- UNC seriesRange of Mounting Accessories having the
- compatibility with the various Actuator manufacturers available
- A Stainless Steel bracket is available as an option
 The switch box conforms to the UL508, UL file no.
- E249752 • Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C • IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

INDICATOR

The two piece unique indicator, ensures a life long visibility





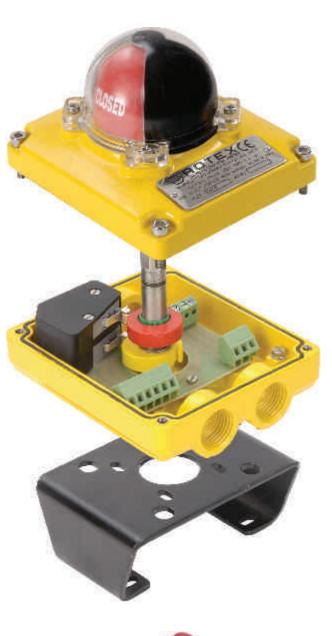








Specifications are subject to change without notice





Standard Red and Yellow



Optional Red and Green



SWITCH BOXES, TO ENHANCE THE PERFORMANCE OF THE VALVE AUTOMATION SYSTEMS

DNLF



EXPLOSION PROOF

FEATURES

- · Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensure the secured • settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety
- Cable Entry M20, 1/2" NPT or 3/4" NPT •
- A special PCB, eliminates all the wiring from the switch element to the terminals. Complete protection against short circuit.
- All fasteners in Stainless Steel
- Additional mounting holes are threaded as per the . **UNC** series
- ATEX, certified by Baseefa United Kingdom . Certification no. Baseefa09ATEX0126
- UL Certified conforms to file no. UL1203 and UL508, File no. 246615
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry
- Optional 4 cable entry

DOME

- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

dome, ensuring an extra long life



The Dome is an unique "two piece" arrangement. The Black transparent plastic is the integral part of the

Standard dome







EC94/9 Ex d, IIC, T6

EN/IS/IEC 60079-1



3 Way dome

Only 90° segment is transparent rest all 270° is black

3



ROTEX LAUNCHES, THE NEW HIGHLY RELIABLE, ADVANCED VALVE POSITION LIMIT.....

DNLF-B5

NEMA 4, 4X, 7 & 9 CLASS I, GROUP C & D, CLASS II, GROUP E, F & G, DIVISION 1 & 2







EXPLOSION PROOF

- Stainless Steel CF8M housing and cover
- Shatterproof Polycarbonate Dome
- · Easily settable colour coded cam
- The locked Serrated cams, ensures the secured settings against any vibration
- The switch box conforms to Ex d IIC, T6 Highest level of safety
- Cable entry M20, 1/2" NPT or 3/4" NPT
- A special PCB, eliminates all the wiring from the switch element to the terminals. Complete protection against short circuit.
- All fasteners in Stainless Steel
- Additional mounting hole is threaded as per the UNC series
- ATEX, certified by Baseefa United Kingdom Certification no. Baseefa09ATEX0126
- UL Certified conforms to file no. UI1203 and UL508, File no. 246615
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
 Cable entry
- Cable entry
 Dual cable entry
 Optional 4 cable entry
- Stainless Steel bracket is recommended
- · IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request





SWITCH BOXES TO ENHANCE THE PERFORMANCE OF VALVE AUTOMATION SYSTEMS DXLW-B5

CE

WEATHER PROOF

- Stainless Steel CF8M housing and cover for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- A special PCB, eliminates all the wiring from the switch element to the terminals. Complete protection against short circuit.
- Three cable entries are provided as a standard
- Cable entries M20X1.5, 1/2" NPT
- Complies to NAMUR Mounting standards
- Solenoid termination provided inside the switch box
- Additional mounting holes are threaded as per the UNC series
- Range of Mounting Accessories having the compatibility with the various Actuator manufacturers available
- A Stainless Steel bracket is recommended
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- IP67 : Water, Rain and Dust Proof
- · IP68 : Upto 100m on request





ROTEX LAUNCHES, THE NEW HIGHLY RELIABLE, ADVANCED VALVE POSITION LIMITSWITCH

DXLW-B11

CE

WEATHER PROOF

- Engineering plastic, with High impact strength excellent corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration A special PCB, eliminates all the wiring from the
- switch element to the terminals. Complete protection against short circuit.
- Three cable entries are provided as a standard
- Cable entries M20X1.5, 1/2" NPT Complies to NAMUR Mounting standards
- Solenoid termination provided inside the switch box
- Additional mounting holes are threaded as per the **UNC** series
- Range of Mounting Accessories having the compatibility with the various Actuator manufacturers available
- A Stainless Steel bracket is available as an option Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request



B132, M132, B1, M1, B21, M21

MOUNTING BRACKET



FEATURES

- As per ISO 5211
- 4 Basic varieties of bracket for entire range of Actuators
 - 80 X 30 Height 20, 30
 - 130 X 30 Height 20, 30, 40, 50
- Two different material

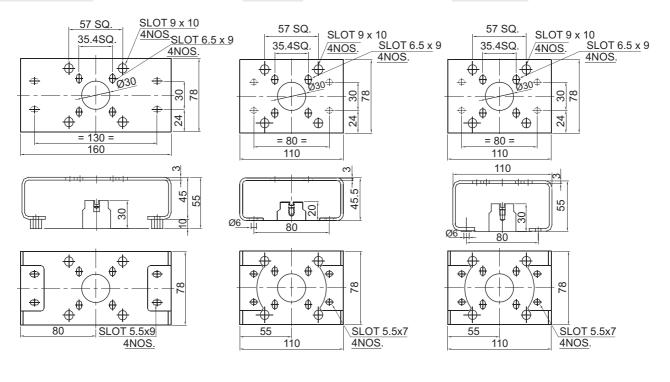
 Mild steel, Formed, Powder coated for general purpose use
 SS316, formed for high corrosion resistance Grade of the material to be chosen on the given application (Consult Rotex, if required)
- Brackets with unique slots along X and Y adjustment for perfect alignment
- For Stainless Steel Limitswitch box, use Stainless Steel brackets

B132, M132

1

B1, M1

B21, M21



Specifications are subject to change without notice





IP67

WEATHER PROOF, MICROSWITCH





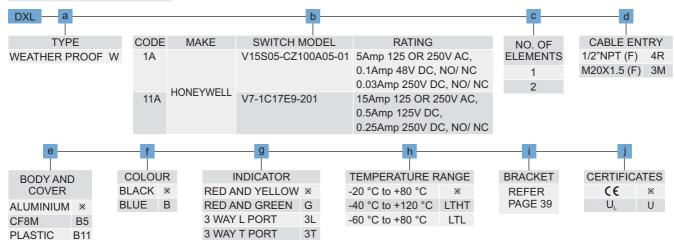
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FEATURES

- Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- · Easily settable colour coded cam
- The locked serrated settings cams, ensures the secured setting against any vibration
- A special PCB, eliminates all wiring from the switch element to the terminals. Complete protection against short circuit.
- · Three cable entries are provided as a standard
- Cable Entry M20X1.5, 1/2" NPT
- Complies to NAMUR Mounting standard
- · Solenoid termination inside the switch box is possible
- Additional mounting hole is threaded as per the UNC series
- Range of Mounting Accessories have compatibility with various Actuator manufacturers available
- · Stainless Steel Brackets are available as an option
- The Customer can choose any other V3 configuration Micro Switch
- Certified by UL to UL508, File no. E249752
- Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request



ORDERING OPTIONS



- DXLW-1A2-4R-B1
- Weather proof switch box is provided, with Honeywell 5 Amp switches 2 nos, each, with 1 NO and 1 NC, use 5 Amps Max. 1/2" NPT cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and a 20mm pinion height

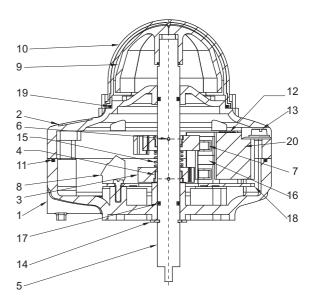


DXLW1

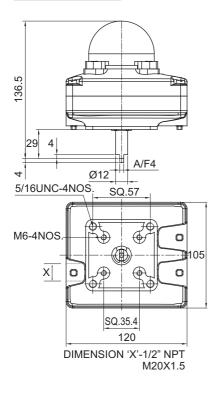
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY
2	COVER	1	ALUMINIUM ALLOY
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	MICROSWITCH (SPDT)	2	HONEYWELL
8	THREE WAY TERMINAL BLOCK	4	-
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
13	NON FALLING SCREW	4	STAINLESS STEEL
14	'E' TYPE CIRCLIP	1	SPRING STEEL
15	SPRING	1	STAINLESS STEEL
16	PAD	1	POLYAMIDE
17	O-RING	2	NBR
18	PRINTED CIRCUIT BOARD	1	-
19	O-RING	1	NBR
20	COVER FOR MICROSWITCH	1	POLYAMIDE

CROSS SECTION



DIMENSIONS (In mm)



1

WIRING DIAGRAM

		P	
		SOLENOID VALVE	SOLENOID CONTROL SIGNAL
Valve open Yellow cam	BOTTOM SWITCH		Ø COM Ø NO Ø NC Ø COM

Valve closed	TOP
Red cam	SWITC

closed	TOP
am	SWITCH

	~	
COM °NO	0	NO
NC NC	0	NC
-	0	CON
COM °NO	0	NO
NC	Ø	NC



(Ex

Engineering For The Future

EXPLOSION PROOF, MICROSWITCH

DNLF1



FEATURES

- Explosion proof to I, IIA, IIB, and IIC
- As per UL1203 and UL508, File no. E246615
- Shatterproof Ploycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety

 $\mathbf{C}\mathbf{E}$

- Cable entries M20, 1/2" NPT, or 3/4" NPT
- All fasteners are in Stainless Steel
- Additional mounting hole is threaded as per the UNC series
- The customer can choose any other V3 mounting micro switch. Current above 10 Amp PCB will not be provided
- ATEX, certified by Baseefa United Kingdom Certification no. Baseefa09ATEX0126
- UL Certified, conforms to UL1203 and UL508, File no. 246615
- Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry
- Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

ORDERING OPTIONS



NO. OF

ELEMENTS

1

2

3

CABLE ENTRY

1/2"NPT (F) 4R 3/4" NPT (F) 6R

M20X1.5 (F) 3M

DGMS

D

DNL CODE MAKE SWITCH MODEL TYPE Ex PROOF IIA, IIB, IIC F 1A V15S05-CZ100A05-01 5Amp 125 OR 250V AC, 0.1Amp 48V DC, NO/ NC 0.03Amp 250V DC, NO/ NC HONEYWELL V7-1C17E9-201 11A 15Amp 125 OR 250V AC, 0.54mn 125\/ D(

							0.57	anp 125	v DC,		4		
							0.25	5Amp 25	0V DC, NO/	NC			
e		f -		g		<mark>h</mark>			<mark>i</mark>		j	<mark>k</mark>	
BODY AND		COLO	JR	INDICATOR		TEMPERATU	RE F	ANGE	CABLE EN	TRY	BRACKET	CERTIFICA	TES
COVER		BLACK	ж	RED AND YELLOW	ж	-20 °C to +80	°C	*	DUAL	*	REFER	BIS	Ж
ALUMINIUM *	×	BLUE	В	RED AND GREEN	G	-40 °C to +120	°C	LTHT	4 ENTRY	4Q	PAGE 39	CMRI	С
CF8M B	5			3 WAY L PORT	3L	-60 °C to +80	°C	LTL				ATEX	А
				3 WAY T PORT	3T							UL	U
												CCOE	CC
												INMETRO	I
Note : (1) Fo	or C	CMRI an	d DG	MS IIA, IIB Certific	ate v	will be applicab	e					GOST	G

RATING

(2) CCOE Certificate with KLPL test report

- DNLF-11A2-4R-B1-D
- Explosion proof to I, IIA, IIB and IIC and Weather proof is provided with Honeywell 15 Amp switches 2 nos, each with 1 NO and 1 NC, 1/2" NPT cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height with DGMS certificate

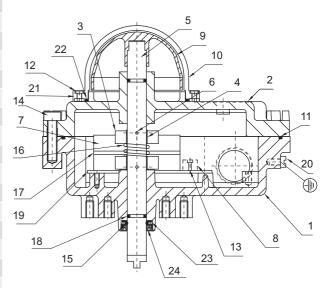


DNLF1

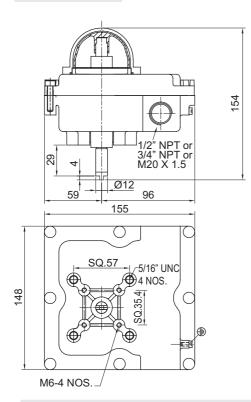
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	MICROSWITCH (SPDT)	2	HONEYWELL
8	CONNECTOR STRIP-6 WAY	1	POLYAMIDE
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
13	SCREW FOR CONN. STRIP	2	STAINLESS STEEL
14	NON FALLING SCREW	8	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
17	PAD	1	POLYAMIDE
18	O-RING	2	NBR
19	PRINTED CIRCUIT BOARD	1	-
20	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
22	O-RING	1	NBR
23	WASHER	1	SS304
24	CUP SEAL	1	NBR

CROSS SECTION



DIMENSIONS (In mm)



WIRING DIAGRAM

		P • • • • • • • • • • • • • • • • • • •	- @ → P - @ → N - @ → GND
		SOLENOID VALVE	SOLENOID CONTROL SIGNAL
Valve open Yellow cam Valve closed Red cam	BOTTOM SWITCH TOP SWITCH		Ø COM Ø NO Ø NC Ø COM Ø NO Ø NO



Engineering for The Future

WEATHER PROOF, CYLINDRICAL SENSOR

DXLW2

CULUS CE EEX ia

INDESTRUCTIBLE INDUCTIVE PROXIMITY LIMIT SWITCH

Innovative solution fool-proofs the switch operation & prevents damage either of the cam or the Switch while offering the most compact mounting dimensions.

FEATURES

- Aluminium Diecast, with powder coating for superior corrosion resistance
- Shatterproof polycarbonate Dome
- Easily settable colour coded cam
- P&F cylindrical inductive proximity Sensors (EEx ia)
- The proximity switches are available in NAMUR and NO/ NC type
- Customer can choose proximity switch from wide choice
- Three cable entries provided are standard
- Cable entries M20X1.5, 1/2" NPT
- Complies to NAMUR Mounting standards
- Additional mounting Accessories have compatibility with various Actuator manufacturers available
- Stainless Steel bracket available as an option
- Switch box conforms to UL508, UL file no. E249752
- Temperature range -20 °C to +80 °C
 On request -40 °C to +120 °C, -60 °C to +80 °C
- IP67 : Water, Rain and Dust Proof
- · IP68 : Upto 100m on request
- · Special proximity switch can be installed on request



ORDERING OPTIONS

DXL — a			b			C	d
TYPE	CODE	MAKE	SWITCH MODEL	RATING	TYPE	NO. OF	CABLE ENTRY
WEATHER PROOF	W 2A		NJ2-12-GM-N	8V DC, NC	EEx ia	ELEMENTS	1/2"NPT (F) 4R
	12A		NCB2-12GM35-NO	8V DC, NC	EEx ia	1	M20X1.5 (F) 3M
	22A		NBN4-12GM40-ZO	5-60V, 100mA, NO		2	
	32A		NCN4-12GM35-NO	8V DC, NC	EEx ia		
	302A	P & F	NJ4-12GM50-WS	20-253V AC, 200mA			
				50Hz, 60Hz, NO			
	22A		NJ5-18GM-N	8V DC, NC	EEx ia		
	282A		NBB5-18GM50-ZO	6-60V DC, 100mA,NO			
	292A		NJ4-12GK-N	8V DC, NC	EEx ia		
	2C	:6	NF5003	8V DC, NC	EEx ia		
	12C	ifm	IF5718	10-36V DC, 150mA, NO			
e	f		g	h		i	j
BODY AND	COLOL	JR	INDICATOR	TEMPERATURE I	RANGE	BRACKET	CERTIFICATES
COVER	BLACK	*	RED AND YELLOW >>	 -20 °C to +80 °C 	*	REFER	CE *
ALUMINIUM *	BLUE	В	RED AND GREEN C	-40 °C to +120 °C	LTHT	PAGE 39	U _L U
CF8M B5			3 WAY L PORT 3	-60 °C to +80 °C	LTL		
PLASTIC B11			3 WAY T PORT 3	т			

- DXLW-12A2-4R-B-U
- UL approved, a weather proof box provided, with PEPPERL+FUCHS switches 2 nos, 8V DC out put, each with 1 NC, 1/2" cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height

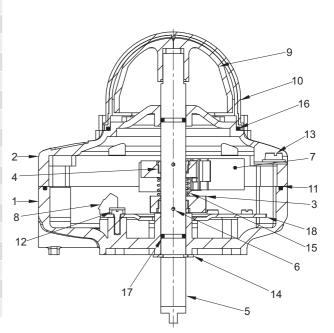


DXLW2

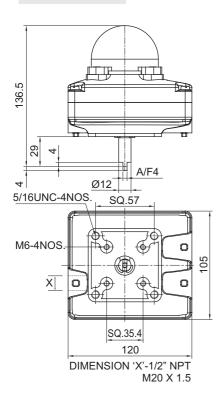
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY
2	COVER	1	ALUMINIUM ALLOY
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	PROXIMITY SENSOR	2	P & F, ifm
8	THREE WAY TERMINAL BLOCK	4	-
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR BRACKET	2	STAINLESS STEEL
13	NON FALLING SCREW	4	STAINLESS STEEL
14	'E' TYPE CIRCLIP	1	SPRING STEEL
15	SPRING	1	STAINLESS STEEL
16	O-RING	1	NBR
17	O-RING	2	NBR
18	PRINTED CIRCUIT BOARD	1	-

CROSS SECTION

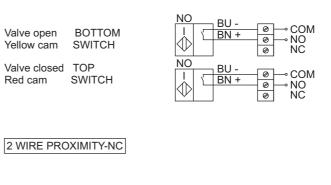


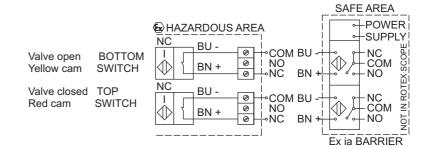
DIMENSIONS (In mm)



WIRING DIAGRAM

2 WIRE PROXIMITY-NO





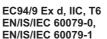


EXPLOSION PROOF, CYLINDRICAL SENSOR

DNLF2









INDESTRUCTIBLE INDUCTIVE PROXIMITY LIMIT SWITCH

Innovative solution fool-proofs the switch operation & prevents damage either of the cam or the Switch while offering the most compact mounting dimensions.

FEATURES

- Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof polycarbonate Dome
- · Easily settable colour coded cam
- Switch Box conforms to Ex d IIC, T6 Highest level of safety
- P&F cylindrical inductive proximity Sensors (EEx ia)
- Up to Maximum 2 Sensor Elements
- Explosion proof to I, IIA, IIB and IIC
- Proximity switches are available in NAMUR and NO/ NC type
- The customer can choose any M12 proximity switch
- Cable entries M20, 1/2" NPT or 3/4" NPT
- · All fasteners in Stainless Steel
- ATEX, Certified by Baseefa United Kingdom, Certification no.Bassefa09ATEX0126
- UL Certified, conforms UL1203 and UI508, File no. 246615
- Temperature range -20 °C to +80 °C
 On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable Entry
 Dual cable entry
 Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

ORDERING OPTIONS

DNLa						b					- c	d	
TYPE Ex PROOF IIA, II	B, IIC F		CODE	MAKE	PROXIMITY SWITCH MODEL			RATING			NO. OF EMENTS	CABLE EN 1/2"NPT (F)	TRY 4R
			2A		NJ2-12G	GM-N	8V DC, NC	;	EEx ia		1	3/4"NPT (F)	6R
			12A		NCB2-12	2GM35-N	0 8V DC, NC	;	EEx ia		2	M20X1.5 (F)	3M
			22A		NBN4-12	2GM40-Z0	5-60V, 100	mA, NO			3		
			32A		NCN4-12	2GM35-N	O 8V DC, NC	;	EEx ia		4		
			302A	P & F	NJ4-12G	GM50-WS	20-253V A 50Hz, 60H	,	Ą				
			82A		NJ5-18GM-N		8V DC, NC	8V DC, NC					
			282A		NBB5-18GM50-ZO		6-60V DC,100mA, NO		10				
			892A		NJ4-12GK-N		8V DC, NC		EEx ia				
			2C	ifm	NF5003		8V DC, NC	8V DC, NC					
			12C		IF5718		10-36V DC, 150mA, NO		, NO				
е	f			g			h		<mark>i</mark> -		—— j —	k	
BODY AND	COLO	UR		INDICA	TOR	TEM	PERATURE F	RANGE	CABLE EN	ITRY	BRACKE		ATES
COVER	BLACK	*	RED	AND YE	LLOW *	-20 °	C to +80 °C	*	DUAL	*	REFER		*
ALUMINIUM *	BLUE	В	RED	AND GR	EEN G	-40 °	C to +120 °C	LTHT	4 ENTRY	4Q	PAGE 3	9 CMRI	С
CF8M B5			3 WA	Y L POR	T 3L	-60 °	C to +80 °C	LTL				ATEX	Α
			3 WA	Y T POF	RT 31	Г						UL	U
Note : (1) For CMRI and DGMS IIA, IIB Certificate will be applicable								CCOE	CC				
(2) CCOE Certificate with KLPL test report								INMETRO	1				
					report							GOST	G

ORDERING EXAMPLE

• DNLF-12A2-4R-B1-U

 UL approved, Explosion proof to UL1203 and UL528, and a weather proof box is provided with PEPPERL+FUCHS switches 2 nos, 8V DC out put, each with 1 NC, 1/2" cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height

DGMS

D

14

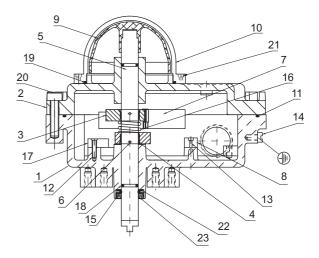


DNLF2

MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	PROXIMITY SENSOR	2	P & F, ifm
8	TERMINAL BLOCK-6 WAY	1	-
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR BRACKET	2	STAINLESS STEEL
13	SCREW FOR CONN. STRIP	2	STAINLESS STEEL
14	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
17	BRACKET	1	M.S.
18	O-RING	2	NBR
19	O-RING	1	NBR
20	NON FALLING SCREW	8	STAINLESS STEEL
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
22	WASHER	1	SS304
23	CUP SEAL	1	NBR

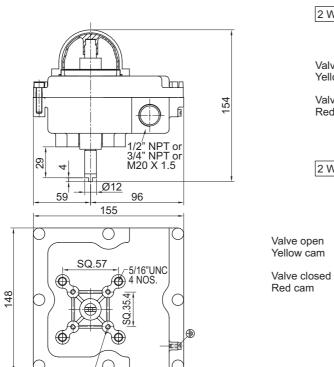
CROSS SECTION



DIMENSIONS (In mm)

M6-4 NOS.-

WIRING DIAGRAM



2 WIRE PROXIMITY-NO

		e open ow cam	BOT SWIT			NO	BU - BN +	0 0 0	→ COI → NO NC	M	
		e closed cam	TOP SWIT	СН			BU - BN +	0 0 0]— COI — NO] NC	M	
	2 W	IRE PRC	XIMIT	Y-NC	RDOU	SAREA	Ą	ſ	SAFE	AREA -POWE	
	en am	BOTTO SWITCH			BU - BN +	 Ø Ø	⊡ F°COM I NO I⊸NC	BU -+		-SUPPI - NC - COM - NO	
o n	sed	TOP SWITCH	l	NC	BU - BN +	0 0 0	⊷COM NO NC	BU		- NC - COM - NO	NOT IN ROTEX SCOPE
							1	L			!

Ex ia BARRIER



Engineering For The Future

WEATHER PROOF, FLAT SENSOR

DXLW3



FEATURES

- Intrinsically safe
- Weather Proof enclosure, IP67
- P&F flat type inductive proximity Sensors (EEx ia)
- Up to Maximum 2 Sensor Elements
- Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated settings cams, ensures the secured setting against any vibration
- Special PCB eliminates all wiring from the switch element to the terminals. Complete protection against short circuit.
- Three cable entries provided as a standard Cable entries M20 X 1.5, 1/2" NPT
- Complies to NAMUR Mounting standards
- Solenoid termination inside the switch box is possible
- Proximity switches are available in NAMUR and NO/ NC type
- The customer can choose any flat V3 proximity switch
- Additional mounting hole is threaded as per the UNC series Range of Mounting Accessories having compatibility with various Actuator manufactures available
- Stainless Steel bracket available as an option
- Switch box conforms to UL508, UL file no. E249752
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request



ORDERING OPTIONS

DXL — a —			b			C	d
TYPE	CODE	MAKE	SWITCH MODEL	RATING	TYPE	NO. OF	CABLE ENTRY
WEATHER PROOF	W 3A	P&F	NJ2-V3-N	8V DC, 3mA, NC	EEx ia	ELEMENTS	1/2"NPT (F) 4R
	13A	P&F	NBB3-V3-Z4	10-60V DC, 100mA, NO		1	M20X1.5 (F) 3M
	3C			5-36V DC, 200mA, OPTIONAL NO/ NC		2	
	13C	ifm	NS5002	NS5002 8V DC, NC			
	23C		IN0073	20-250V AC/ DC, NO			
e	f -		g	h		ii	j
BODY AND	COLOU		INDICATOR	TEMPERATURE I	RANGE	BRACKET	CERTIFICATES
COVER	BLACK	*	RED AND YELLOW	* -20 °C to +80 °C	*	REFER	CE *
ALUMINIUM *	BLUE	В	RED AND GREEN	G -40 °C to +120 °C	LTHT	PAGE 39	U _L U
CF8M B5			3 WAY L PORT	3L -60 °C to +80 °C	LTL		
PLASTIC B11			3 WAY T PORT	3T			

Note : (1) The range is not limited to ones listed above. Other versions can be offered as per the requirement

(2) Does not require an Exproof enclosure as a standard

- DXLW-13A2-4R-B1-U
- UL approved, Explosion proof to UL1203 and UI528, and a weather proof box is provided with PEPPERL+FUCHS switches 2 nos, 10-60V DC out put, each with 1 NO, 1/2" cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height



οP -∘ N

⊸ GND

- COM

COM

⊸ NO NC

0

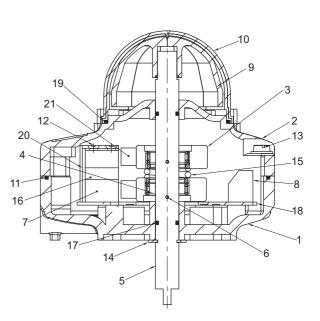
⊸ NO NC

DXLW3

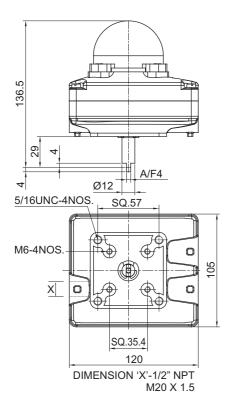
MATERIAL OF CONSTRUCTION

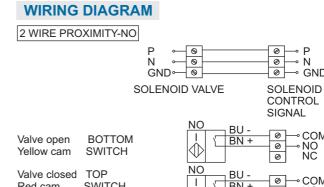
S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY
2	COVER	1	ALUMINIUM ALLOY
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	PROXIMITY SENSOR	2	P & F, ifm
8	THREE WAY TERMINAL BLOCK	4	-
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
13	NON FALLING SCREW	2	STAINLESS STEEL
14	'E' TYPE CIRCLIP	1	SPRING STEEL
15	SPRING	1	STAINLESS STEEL
16	PAD	1	POLYAMIDE
17	O-RING	2	NBR
18	PRINTED CIRCUIT BOARD	1	-
19	O-RING	1	NBR
20	COVER FOR MICROSWITCH	1	POLYAMIDE
21	CAP FOR SENSOR	2	STAINLESS STEEL

CROSS SECTION

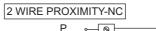


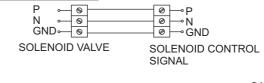
DIMENSIONS (In mm)





SWITCH Red cam

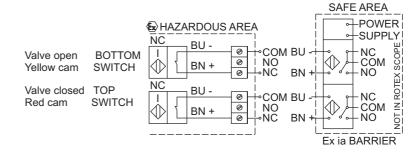




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1 BN +





IECEx

EC94/9 Ex d, IIC, T6

EN/IS/IEC 60079-0, EN/IS/IEC 60079-1

EXPLOSION PROOF, FLAT SENSOR

DNLF3



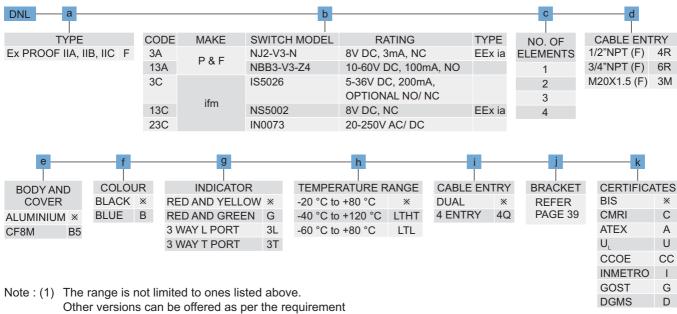
FEATURES

- Intrinsically safe
- Flat inductive proximity sensors (Ex ia)

ſF

- Aluminium Diecast, with powder coating, for superior corrosion resistance
- A weatherproof enclosure to IP67
- A switch box conforms to Ex d IIC, T6 highest level of safety
- Explosion proof to I, IIA, IIB, and IIC ATEX certified by Baseefa United Kingdom, Certification no. Baseefa09ATEX0126
- ATEX as per EN/ IEC 60079
- UL Certified, conforms to UL1203 & UL508, File no. 246615
- Shatterproof Polycarbonate Dome
- Red and Yellow Indicator
- Color coded cams easy to identify, and easy to set
- Solenoid termination inside the switch box, is standard
- The locked serrated settings cams, ensures the secured setting against any vibration
- Conduit entry options 1/2" NPT 3/4" NPT, M20 X1.5
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- Bracket available as an option
- Cable entry Dual cable entry Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

ORDERING OPTIONS



(2) Does not require an Exproof enclosure as a standard

- DNLF-13A2-4R-B1-U
- UL approved, Explosion proof to UL1203 and UL528, and a weather proof box is provided with PEPPERL+FUCHS switches 2 nos, 10-60V DC out put, each with 1 NO, 1/2" cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height

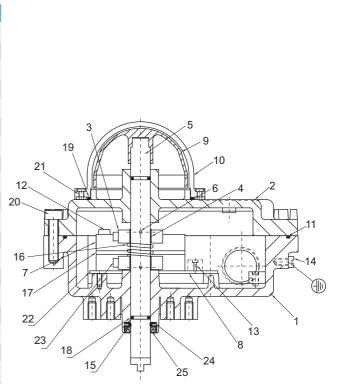




DNLF3

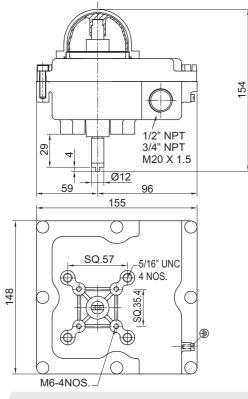
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	PROXIMITY SENSOR	2	P & F, ifm
8	TERMINAL BLOCK-6 WAY	1	-
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	ABS PLASTIC
12	SCREW FOR PROXIMITY	2	STAINLESS STEEL
13	SCREW FOR CONN. STRIP	2	STAINLESS STEEL
14	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
17	BRACKET	1	M.S.
18	O-RING	2	NBR
19	O-RING	1	NBR
20	NON FALLING SCREW	8	STAINLESS STEEL
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
22	PRINTED CIRCUIT BOARD	1	-
23	CAP FOR SENSOR	2	STAINLESS STEEL
24	WASHER	1	SS304
25	CUP SEAL	1	NBR

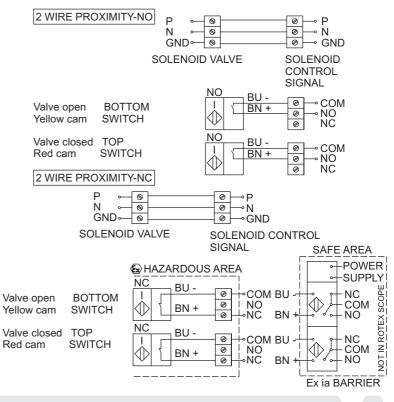


CROSS SECTION

DIMENSIONS (In mm)



WIRING DIAGRAM



Specifications are subject to change without notice



WEATHER PROOF, SLOT SENSOR

DXLW4



FEATURES

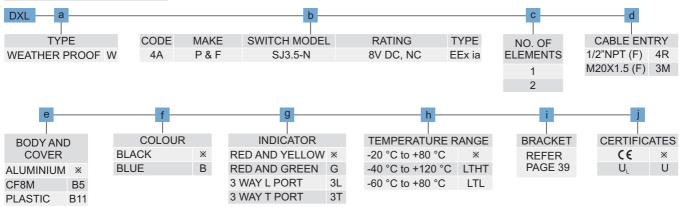
- Weather Proof enclosure, IP67
- P&F slot type inductive proximity Sensors (EEx ia)

EEx ia

- Up to Maximum 2 Sensor Elements
- Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam The locked serrated cams, ensures the secured settings
- against any vibration Special PCB eliminates all wiring from the switch element to the terminals. Complete protection against short circuit.
- Three cable entries provided as a standard
- Cable entries M20 X 1.5, 1/2" NPT
- Proximity switches available in NAMUR Complies to NAMUR Mounting standards
- Solenoid termination inside the switch box is possible Additional mounting holes are threaded as per the UNC series
- Range of Mounting Accessories having compatibility with various Actuator manufacturers available
- Stainless Steel bracket available as an option
- Switch box conforms to UL508, UL file no. E249752
- Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C
- IP67 : Water, Rain and Dust Proof IP68 : Upto 100m on request



ORDERING OPTIONS



Note : (1) The range is not limited to ones listed above. Other versions can be offered as per the requirement (2) Does not require an Exproof enclosure as a standard

- DXLW-4A2-4R-B1-U
- UL approved, Explosion proof to UL1203 and UL528, and a weather proof box is provided with PEPPERL+FUCHS switches 2 nos, 8V DC out put, each with 1 NC, 1/2" cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height

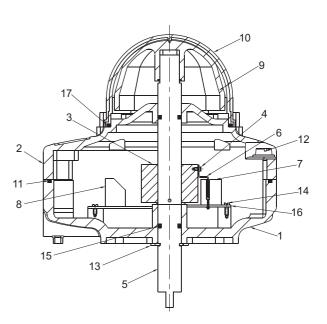


DXLW4

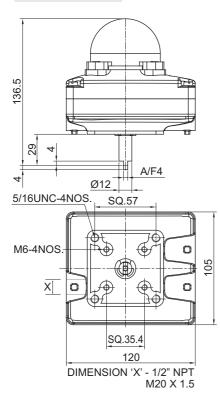
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY
2	COVER	1	ALUMINIUM ALLOY
3	CAM	1	ALUMINIUM
4	SCREW FOR CAM	2	STAINLESS STEEL
5	SHAFT	1	STAINLESS STEEL
6	SENSOR PLATE	1	MILD STEEL
7	PROXIMITY SENSOR	2	P & F, ifm
8	THREE WAY TERMINAL BLOCK	4	-
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	NON FALLING SCREW	4	STAINLESS STEEL
13	'E' TYPE CIRCLIP	1	SPRING STEEL
14	SCREW FOR PCB	2	STAINLESS STEEL
15	O-RING	2	NBR
16	PRINTED CIRCUIT BOARD	1	-
17	O-RING	1	NBR

CROSS SECTION



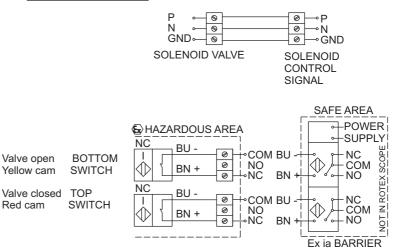
DIMENSIONS (In mm)



1

WIRING DIAGRAM

2 WIRE PROXIMITY-NC



Valve open

Yellow cam

Red cam



Engineering For The Future

EXPLOSION PROOF, DPDT, MICROSWITCH

DNLF5

DXLW5



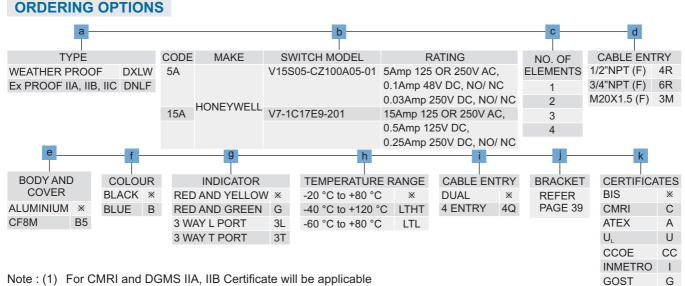






FEATURES

- Explosion proof enclosure Gr IIA, IIB and IIC is available as an option
- Honeywell/ Cherry Microwitch Sensors
- Up to Maximum 4 Sensor Elements
- Exproof to I, IIA, IIB, and IIC
- ATEX EX d IIC, T6
- Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- · Switch Box conforms to Ex d IIC, T6 Highest level of safety
- Cable Entry M20, 1/2" NPT or 3/4" NPT
- Special PCB eliminates all wiring from the switch element to the terminals. Complete protection against short circuit
- All fasteners are in Stainless Steel
- Customer can choose any DPDT switch
- Additional mounting hole to the UNC series
- ATEX, Certified by Baseefa United Kingdom, Certification no.Baseefa09ATEX0126
- UL Certified, conforms UL1203 and UI508, File no. 246615
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP07 . Water, Rain and Dust Prov
 IP68 : Upto 100m on request
- IP68 : Upto 100m on request



(2) CCOE Certificate with KLPL test report

ORDERING EXAMPLE

- DNLF-5A2-4R-B1
- Explosion proof to I, IIA and IIB and a weather proof box is provided with Honeywell 5 Amp switches 2 nos, each with 2 NO and 2 NC, 1/2" NPT cable gland entry. A Stainless Steel bracket, suitable for 80X30 tapping and for 20mm pinion height

DGMS

D

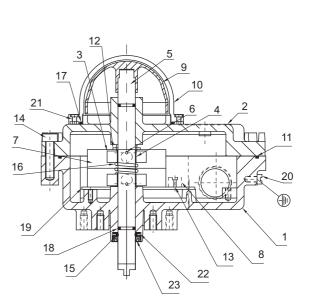
22



DNLF5/ DXLW5

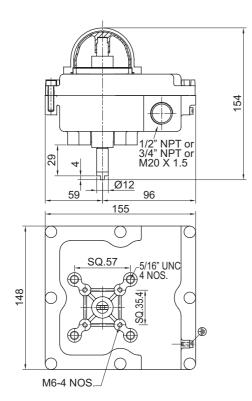
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	MICROSWITCH (DPDT)	2	HONEYWELL
8	CONNECTOR STRIP 6 WAY	1	POLYAMIDE
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR BRACKET	2	STAINLESS STEEL
13	SCREW FOR PCB	2	STAINLESS STEEL
14	NON FALLING SCREW	8	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
17	O-RING	1	NBR
18	O-RING	2	NBR
19	PRINTED CIRCUIT BOARD	1	-
20	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
22	WASHER	1	SS304
23	CUP SEAL	1	NBR



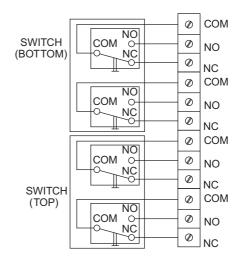
CROSS SECTION

DIMENSIONS (In mm)



1

WIRING DIAGRAM





Engineering For The Future

EXPLOSION PROOF, HERMETICALLY SEALED SWITCH

DNLF6

COBRA









FEATURES

- Explosion proof I, IIA, IIB, and IIC
- Maximum current permissible 2 Amp AC/ DC
- Aluminium Diecast, with powder coating, for superior corrosion resistance
- Shatterproof Polycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch box conforms to Ex d IIC, T6 Highest level of safety
- Cable Entry M20, 1/2" NPT or 3/4" NPT
- Special PCB eliminates all wiring from the switch element to the terminals. Complete protection against short circuit.
- All fasteners are in Stainless Steel
- Additional mounting holes to the UNC series
- ATEX, certified by Baseefa United Kingdom, Certification no. Baseefa09ATEX0126
- UL Certified, conforms to UL1203 and UL508, File no. 246615 Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

ORDERING OPTIONS



DNL TYPE CODE MAKE SWITCH MODEL RATING CABLE ENTRY NO. OF 4R Ex PROOF IIA, IIB, IIC F 6A R1 2Amps, 220V AC/ DC **ELEMENTS** 1/2"NPT (F) HERMETIC INC. 3/4"NPT (F) R2 6R 16A 0.2Amps, 24V DC 1 M20X1.5 (F) 3M 2 3 4 COLOUR INDICATOR **TEMPERATURE RANGE** CABLE ENTRY BRACKET CERTIFICATES BODY AND BIS COVER BLACK * **RED AND YELLOW** * -20 °C to +80 °C DUAL REFER Ж × Ж BLUE B 4 ENTRY 4Q PAGE 39 CMRI С RED AND GREEN G -40 °C to +120 °C LTHT ALUMINIUM * 3 WAY L PORT 3L -60 °C to +80 °C LTL ATEX А CF8M B5 U 3 WAY T PORT 3T U, CCOE CC INMETRO Т GOST G Note : (1) The range is not limited to ones listed above. DGMS D

Other versions can be offered as per the requirement

- DNLF-6A2-4R-B1-U-D
- UL approved, Explosion proof to UL1203 and UL528, and a weather proof box is provided with 2 nos of Hermetically sealed switch 2Amps 1/2" cable gland entry. A Stainless Steel bracket suitable for 80X30 tapping and for 20mm pinion height with DGMS certificate

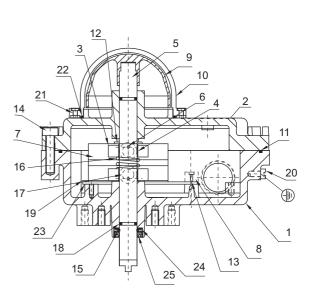


DNLF6

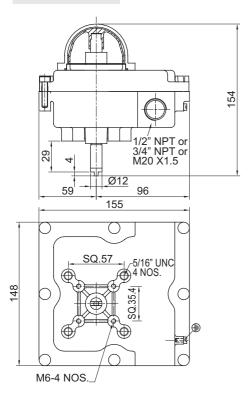
MATERIAL OF CONSTRUCTION

S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	CAM	2	POLYAMIDE
4	CAM-LOCK	2	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	2	SPRING STEEL
7	HERMETICALY SEALED SWITCH	2	HERMATIC INC.
8	CONNECTOR STRIP 6 WAY	1	POLYMIDE
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR REEDSWITCH	2	STAINLESS STEEL
13	SCREW FOR CONN. STRIP	2	STAINLESS STEEL
14	NON FALLING SCREW	8	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
17	CAP FOR CAM	2	POLYAMIDE
18	O-RING	2	NBR
19	MOUNTING PLATE	1	M.S.
20	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
21	PHILIPS HEAD SCREW	4	STAINLESS STEEL
22	O-RING	1	NBR
23	PRINTED CIRCUIT BOARD	1	-
24	WASHER	1	SS304
25	CUP SEAL	1	NBR

CROSS SECTION



DIMENSIONS (In mm)



1

WIRING DIAGRAM

	P N GNI	- 0 - 0 - 0 - 0	
	SOI	SOLENOID CONTROL SIGNAL	
Valve open Yellow cam Valve closed Red cam	BOTTOM SWITCH TOP SWITCH		Ø COM Ø NO Ø NC Ø COM Ø NO Ø NO Ø NO Ø NO Ø NC
Yellow cam Valve closed	SWITCH TOP		



POSITION TRANSMITTER

PTR01/ PTR02



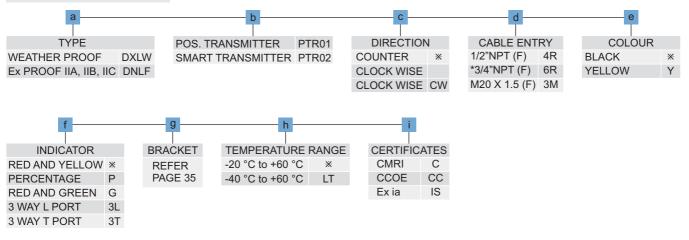
- Weather Proof
- Explosion Proof

FEATURES

- · Explosion proof and weather proof position transmitter
- Accuracy 0.3% FS
- Repeatability 0.2% FS
- Hysteresis 0.3% FS
- Field adjustment available
- Zero and span adjustable
- 2 wire system
- Spring loaded resistive feed back
- Visual percentage indicator provided
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- NAMUR mounting dimensions



ORDERING OPTIONS



Note : (1) The range is not limited to ones listed above. Other versions can be offered as per the requirement (2) Does not require an Exproof enclosure as a standard

*(3) For DXLW-PTR-3/4" NPT (F) not possible

ORDERING EXAMPLE

• DXLW-PTR01-C-4R-Y-M1

• Weather proof position transmitter giving 4-20 mA output, with increase in current when rotated clockwise, 1/2" NPT cable gland entry, with black colour box having a steel bracket. 80X30 mounting holes for 20 mm pinion height

PTR/ 01 PTR/ 02

MATERIAL OF CONSTRUCTION

DNLF-PTR

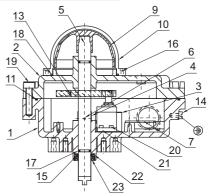
S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	POTENTIOMETER	1	-
4	CAM-LOCK	1	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	1	SPRING STEEL
7	LINEAR TRANSMITTER CARD	1	-
8	CAM-1	1	ALUMINIUM
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	CAM-2	1	ALUMINIUM
13	HEX SOC. SET SCREW	2	STAINLESS STEEL
14	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	PHILIPS HEAD SCREW	4	STAINLESS STEEL
17	O-RING	2	NBR
18	O-RING	1	NBR
19	NON FALLING SCREW	8	STAINLESS STEEL
20	SLOTTED CHEESE HEAD SCREW	2	STAINLESS STEEL
21	BRACKET	1	M.S.
22	WASHER	1	SS304
23	CUP SEAL	1	NBR

DXLW-PTR

1

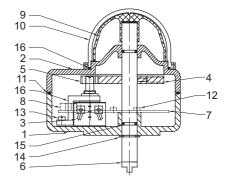
	DESCRIPTION	QTY.	MATERIAL
1 F	HOUSING	1	ALUMINIUM ALLOY
2 0	COVER	1	ALUMINIUM ALLOY
3 F	POTENTIOMETER	1	-
4 (GEAR CAM-1	2	ALUMINIUM
5 (GEAR CAM-2	1	ALUMINIUM
6 5	SHAFT	2	STAINLESS STEEL
7 L	LINEAR TRANSMITTER CARD	2	-
8 3	3 WAY TERMINAL BLOCK	4	-
9 I	NDICATOR	1	ABS PLASTIC
10 I	NDICATOR COVER	1	POLYCARBONATE
11 (GASKET	1	NBR
12 5	SLOTTED CHEESE HEAD SCREW	2	STAINLESS STEEL
13 5	SLOTTED CHEESE HEAD SCREW	1	STAINLESS STEEL
14 '	E' TYPE CIRCLIP	1	SPRING STEEL
15 0	D-RING	2	NBR
16 0	O-RING	1	NBR

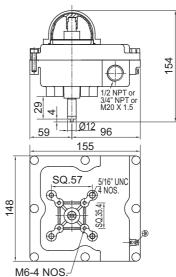
CROSS SECTION



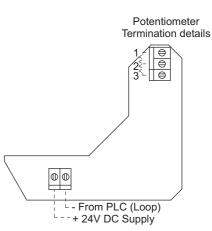
ROTEX

Engineering For The Future





LINEAR TRANSMITER CARD



27



VALVE CONTROL BOX

VALVE CONTROL BOX WITH 3/2 & 5/2 SOV CONTROL

FEATURES

- Explosion proof I, IIA, IIB and IIC
- Maximum current permissible 2 Amp AC/ DC resistance
- Shatterproof Ploycarbonate Dome
- · Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety
- Cable Entry M20, 1/2" NPT, or 3/4" NPT
- Special PCB eliminates all wiring from the switch element to the terminals. Complete protection against short circuit
- All fasteners are in Stainless Steel
- · Additional mounting hole to the UNC series
- ATEX, certified by Baseefa United Kingdom,
- The Valve Automation System is suitable for ON/ OFF application
- Solenoid valve is designed with the threaded cover to suit the limit switch box tapping
- Manual override on SOV are available as an option



VALVE CONTROL BOX WITH DRIBBLE CONTROL

- The Actuator is suitable for coarse-fine adjustment, typically for batching operations or processes
- The Actuator has to be spring return
- The operation sequences fixed from full open, partial open to full close
- Infinite intermediate positions are possible with the limitswitch
- It can be fine tuned to the application easily
- The settings can be changed at site with ease, by simply adjusting the third cam provided
- It is applicable for 90° or 180° any ROTEX spring return Actuator can be converted into this arrangement by adding ROTEX valve Control Box with Dribble control



VALVE CONTROL BOX

DNLF

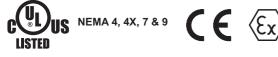


FEATURES

- Valve control box with 3/2 solenoid valve
- Solenoid valve is designed with the threaded cover to suit the limit switch box tapping
- Explosion proof to I, IIA, IIB, and IIC
- As per UL1203 and UL508, File no. E246615
- Shatterproof Ploycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety
- Cable entries M20, 1/2" NPT, or 3/4" NPT
- All fasteners are in Stainless Steel
- Additional mounting hole is threaded as per the UNC series
- The customer can choose any other V3 mounting micro switch. Current above 10 Amp PCB will not be provided
- ATEX, certified by Baseefa United Kingdom,
- Certification no. Baseefa09ATEX0126 UL Certified, conforms to UL1203 and UL508, File no. 246615
- Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry Optional 4 cable entry IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

VALVE CONTROL BOX DRIBBLE

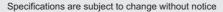
DNLF



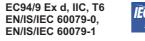
FEATURES

- Valve control box with Dribble control
- Dribble control valve is designed with the threaded cover to suit the limit switch box tapping
- Explosion proof to I, IIA, IIB, and IIC
- As per UL1203 and UL508, File no. E246615
- Shatterproof Ploycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety Cable entries M20, 1/2" NPT, or 3/4" NPT
- All fasteners are in Stainless Steel
- Additional mounting hole is threaded as per the UNC series ٠
- The customer can choose any other V3 mounting micro switch.
- Current above 10 Amp PCB will not be provided ATEX, certified by Baseefa United Kingdom,
- Certification no. Baseefa09ATEX0126
- UL Certified, conforms to UL1203 and UI508, File no. 246615
- Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C Cable entry
- Dual cable entry Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request









EN/IS/IEC 60079-1



Engineering for The Future

VALVE CONTROL BOXES-5/2 SOLENOID VALVES

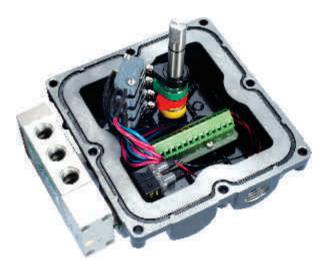
VALVE CONTROL BOX WITH 5/2 SINGLE SOLENOID VALVE

FEATURES

- Valve control box with 5/2 single solenoid valve
- Solenoid valve is designed with the threaded cover to suit the limit switch box tapping
- Explosion proof to I, IIA, IIB, and IIC As per UL1203 and UL508, File no. E246615
- Shatterproof Ploycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety Cable entries M20, 1/2" NPT, or 3/4" NPT
- All fasteners are in Stainless Steel
- Additional mounting hole is threaded as per the UNC series
- The customer can choose any other V3 mounting micro switch. Current above 10 Amp PCB will not be provided
- ATEX, certified by Baseefa United Kingdom, Certification no. Baseefa09ATEX0126
- UL Certified, conforms to UL1203 and UL508, File no. 246615
- Temperature range -20 °C to +80 °C
- On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request

VALVE CONTROL BOX WITH 5/2 DOUBLE SOLENOID VALVE

- Valve control box with 5/2 Double solenoid valve
- Solenoid valve is designed with the threaded cover to suit the limit switch box tapping
- Valve control box with 5/2 single solenoid valve
- Solenoid valve is designed with the threaded cover to suit the limit switch box tapping Explosion proof to I, IIA, IIB, and IIC
- As per UL1203 and UL508, File no. E246615
- Shatterproof Ploycarbonate Dome
- Easily settable colour coded cam
- The locked serrated cams, ensures the secured settings against any vibration
- Switch Box conforms to Ex d IIC, T6 Highest level of safety
- Cable entries M20, 1/2" NPT, or 3/4" NPT
- All fasteners are in Stainless Steel
- Additional mounting hole is threaded as per the UNC series
- The customer can choose any other V3 mounting micro switch. Current above 10 Amp PCB will not be provided
- ATEX, certified by Baseefa United Kingdom, Certification no. Baseefa09ATEX0126
- UL Certified, conforms to UL1203 and UL508, File no. 246615
- Temperature range -20 °C to +80 °C On request -40 °C to +120 °C, -60 °C to +80 °C
- Cable entry Dual cable entry Optional 4 cable entry
- IP67 : Water, Rain and Dust Proof
- IP68 : Upto 100m on request





DAK 213/ VAK 213

ORDERING OPTIONS

DNLF -	_ a				I	o				— c		d	e	I
	TYPE			SW	ITCH S	ELECTION			CAE		RY	BODYAND	COLO	JUR
Ex PROO	F	*	CODE*	TYPE			PAG	E NO	1/2"N	PT (F)	4R	COVER	BLACK	*
INTRINSC	CALLY SAFE	E 67	1A2	MICRO	SWITC	H	8		3/4" №	NPT (F)	6R A	LUMINIUM *	BLUE	В
INTRINSC	CALLY SAFE	E 63	2A2	CYLINE	RICAL	PROXIMITY	12		M20X	(1.5 (F)	3M C	F8M B5		
WITH CIR	CUIT		3A2	FLAT T	YPE PR	OXIMITY	16							
			4A2	SLOT T	YPE PF	ROXIMITY	18							
			5A2	DPDT			20							
			6A2	HERME	TICALL	Y SEALED	22							
	_			_				_	_	_	_		_	
	f			_ g		h		_	i ——		j		— <u>k</u>	
IND	ICATOR		TEMPER	ATURE F	ANGE	CABLE EN	TRY	BRA	CKET	CERTIF	ICATES	SOL	ENOID VALVE	E
RED AND	YELLOW	* •	-20 °C to	+80 °C	*	SINGLE	*	REF	ER	CMRI	*	MODEL		CODE
RED AND	GREEN	G.	-40 °C to	+120 °C	LTHT	2 ENTRY	2Q	PAG	SE 39	ATEX	А	3/2 SINGLE	COIL-1/4"	DAK213
3 WAY L F	÷		-60 °C to	+80 °C	LTL	3 ENTRY	3Q			CCOE	CC	3/2 SINGLE	COIL-3/8"	DAK313
3 WAY T F	PORT	3T								Ex ia	IS	3/2 DOUBLE	E COIL-1/4"	DAK214
												3/2 DOUBLE	E COIL-3/8"	DAK314
													ONTROL-1/4"	
												DRIBBLE C	ONTROL-3/8"	DB313
			r	n								5/2 SINGLE	COIL-1/4"	VAK213
			1									5/2 SINGLE		VAK313
SOV. POR	T CONN		COIL V									5/2 DOUBLE	E COIL-1/4"	VAK214
MODEL	CODE	MOE		CODE								5/2 DOUBLE	E COIL-3/8"	VAK314
BSP	G"	12V[12										
NPT	R"	24VI		24										
			DC Ex ia	24Exia										
		110		110										
		220\		220										

Note : (1) The range is not limited to ones listed above. Other versions can be offered as per the requirement

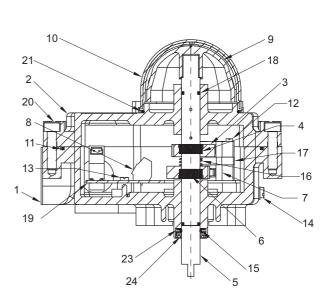
- * Select complete code from respective pages choosing ordering option (B) (C) e.g. page 8, 2 nos. Honeywell Microswitch choose 1A2
- DNLF-67-3A2-4R-M1-A-VAK214-G-24Ex ia
- Intrinsically safe box with NJ2-V3-N 2 Nos switch with Double solenoid valve 1/4"BSP, 24VDC Ex ia type, 1/2"NPT 2 Nos
 ports (One will be used for solenoid valve and one available to customer)



VALVE CONTROL BOX

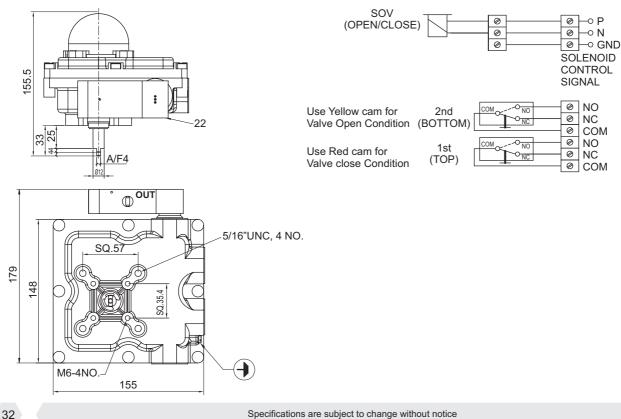
MATERIAL OF CONSTRUCTION

1 HOUSING 1 ALUMINIUM ALLOY L 2 COVER 1 ALUMINIUM ALLOY L	
2 COVER 1 ALLIMINIUM ALLOY I	M-6
3 CAM 2 POLYAMIDE	
4 CAM-LOCK 2 DELRIN	
5 SHAFT 1 STAINLESS STEEL	
6 SPRING DOWEL 2 SPRING STEEL	
7 MICROSWITCH (SPDT) 2 HONEYWELL	
8 THREE WAY TERMINAL BLOCK 4 POLYAMIDE	
9 INDICATOR 1 ABS PLASTIC	
10 INDICATOR COVER 1 POLYCARBONATE	
11 GASKET 1 NBR	
12 SCREW FOR MICROSWITCH 2 STAINLESS STEEL	
13SCREW FOR PCB2STAINLESS STEEL	
14SCREW FOR EARTH CONN.2STAINLESS STEEL	
15 EXTERNAL CIRCLIP 1 STAINLESS STEEL	
16 SPRING 1 STAINLESS STEEL	
17 PAD 1 POLYAMIDE	
18 O-RING 2 NBR	
19 PRINTED CIRCUIT BOARD 1 -	
20 NON FALLING SCREW 8 STAINLESS STEEL	
21 O-RING 1 NBR	
22 3/2 SOLENOID VALVE 1 -	
23 WASHER 1 SS304	
24 CUP SEAL 1 NBR	



CROSS SECTION

DIMENSIONS (In mm)



WIRING DIAGRAM

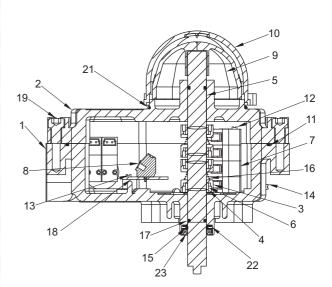
VALVE CONTROL BOX DRIBBLE

MATERIAL OF CONSTRUCTION

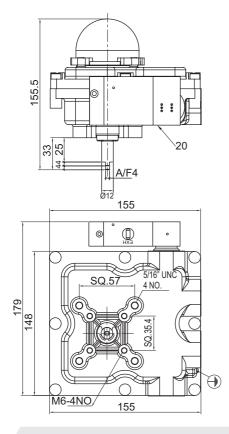
S.NO.	DESCRIPTION	QTY.	MATERIAL
1	HOUSING	1	ALUMINIUM ALLOY LM-6
2	COVER	1	ALUMINIUM ALLOY LM-6
3	CAM	4	POLYAMIDE
4	CAM-LOCK	4	DELRIN
5	SHAFT	1	STAINLESS STEEL
6	SPRING DOWEL	4	SPRING STEEL
7	MICROSWITCH (SPDT)	4	HONEYWELL
8	CONNECTOR STRIP-6 WAY	1	POLYAMIDE
9	INDICATOR	1	ABS PLASTIC
10	INDICATOR COVER	1	POLYCARBONATE
11	GASKET	1	NBR
12	SCREW FOR MICROSWITCH	2	STAINLESS STEEL
13	SCREW FOR CONN. STRIP	2	STAINLESS STEEL
14	SCREW FOR EARTH CONN.	2	STAINLESS STEEL
15	EXTERNAL CIRCLIP	1	STAINLESS STEEL
16	SPRING	1	STAINLESS STEEL
17	O-RING	2	NBR
18	PRINTED CIRCUIT BOARD	1	-
19	NON FALLING SCREW	8	STAINLESS STEEL
20	DRIBBLE CONTROL VALVE	1	-
21	O-RING	1	NBR
22	WASHER	1	SS304
23	CUP SEAL	1	NBR

CROSS SECTION

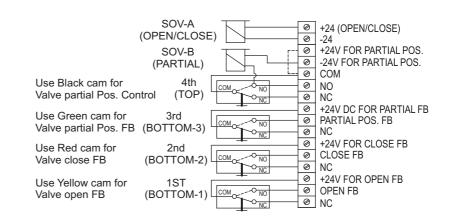
Engineering for The Future



DIMENSIONS (In mm)



WIRING DIAGRAM





FIELDBUS

CATEGORY 1 AS-interface

The first category is at a relatively simple level where the requirement is to distribute digital I/O (inputs and outputs) to monitor inputs from switches or sensors (level, travel limit, fault alarms etc.) and or control outputs to ON/OFF devices such as solenoid valves or relays. In such applications, the requirement for high speed data transmission is not critical and the need to process significant amounts of data at the node does not exist. Generally, the control function is ON/OFF and the speed at which the related equipment operates, is far slower than the electronic data transfer rate. Electronic hardware cost, is an important factor, and local nodes need to be relatively simple, generally, with a maximum I/O count of 4 DO/DI for AS-interface is a typical system in this category

CATEGORY 3 PROFIBUS or FOUNDATION fieldbus

The third category is by far the largest with systems transmitting process control data at high speed to a potentially large number of nodes. The functionality of nodes can range from distributing discrete digital and analogue I/O, providing gateway to lower level systems (like AS-interface), through remote processing and local loop control. Systems in this third category are full function fieldbus capable of handling cyclic data, events and messages. Examples include PROFIBUS or FOUNDATION fieldbus (FF)

NETWORKING





PROFIBUS-DP/ PA, DEVICENET, CANOPEN

TYPE 'F' LIMITSWITCH BOX WITH PROFIBUS-DP/PA

- The 'F' limitswitch box, has been designed, to overcome lengthy wiring. It is easy to operate, maintain and control
- The box is configured to exchange data through field bus using PROFIBUS-DP protocol
- The Field bus connectivity is achieved, by using RS 485 interface with 5 core cable

COMMUNICATION CHARACTERISTICS

Protocol	Profibus-DP (Device Bus)	Profibus - PA (Process Control Network)
Transmission	Shielded and Twisted pair	Twisted pair, Fiber
Bus Structure	Line or tree, Using repeaters	Bus, Ring, Star
Maximum No of slaves	126	32 Nodes/ Segment 4-6 per repeated segment
		depending on power requirements of devices and the
		type of IS Barrier used
Input/ Output per Box	2 Inputs/ 2 Outputs	2 Inputs/ 2 Outputs
	4 Inputs/ 4 Outputs optional	4 Inputs/ 4 Outputs optional
Bus cable length	1200m at 9.6 kbps	1900M Maximum
	100m at 12 mbps	Distance 9500m with Repeater
		(Maximum 9 Repeaters)
Slave addressing	Rotary Switch/ Dip switch	Dip switch/ Handheld/ Software

ELECTRICAL CHARACTERISTICS

•	Supply voltage	:	24V DC+/- 10% with max 15% ripple
•	Bus consumption	:	< 150 mA
•	Solenoid consumption	:	Up to 8W
٠	Protection	:	IP55
٠	Supply connection (24V)	:	M8 Socket 4 pin male
•	Bus connection	:	IN 5 pin M12-B male
•	Earthing	:	On the box

Electromagnetic compatibility : CE, directive EMC 89/ 336/ EEC

STANDARD INPUTS/ OUTPUT

- MicroswitchProximity
- : V15S05-CZ100A05-01 (5A) Honeywell
- : NJ2-V3-N (NAMUR sensor for Intrinsically safe application) P & F
- Solenoid valves
- NBB3-V3-Ż4 (24V, 100 mA) P & F : 24V DC, 300 mA (8W max)





Engineering For The Future

PROFIBUS-DP/ PA, DEVICENET, CANOPEN

TYPE 'F' LIMITSWITCH BOX WITH DEVICENET AND CANOPEN

- The type "F" limitswitch box has been designed to overcome lengthy wiring. It is easy to operate, maintain and control
- The Limitswitch box is configured to exchange data through the fieldbus using DEVICENET or CANOPEN protocol
- The fieldbus connectivity is achieved by using 2(signal) X 2(data) with shield, 5 core cable

COMMUNICATION CHARACTERISTICS

- Protocol
- : DEVICENET or CANOPEN
- Transmission 2X2 twisted and shielded cable

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- **Bus Structure** Line or tree Structure :
- Max. no. of slaves
- - 2 Inputs/2 Outputs (4 Inputs/ 4 Outputs optional) Input/ Output per box : 500m at 125k bit/s and 100m at 500k bit/s
- Bus cable length Slave addressing
- : Rotary or DIP switch :

ELECTRICAL CHARACTERISTICS

- Supply voltage
- : 24V DC +/- 10% with max 15% ripple (Condition power supply to protect the Digital communication) < 100 mA
- Bus consumption Solenoid consumption
- Protection
- IP55
- Supply connection (24 V) M8 Socket 3/4 pin male : Bus connection
 - 5 Pin M12-A male

Up to 8W

- Electromagnetic Compatibility
- : CE, directive EMC 89/ 336/ EEC

STANDARD INPUTS/ OUTPUT

- Microswitch Proximity
- : V15S05-CZ100A05-01 (5A) Honeywell
- NJ2-V3-N (NAMUR sensor for Intrinsically safe application) P & F
- NBB3-V3-Z4 (24V DC, 100mA) P & F 24V DC, 300mA (8W max)
- · Solenoid valves

Specifications are subject to change without notice



PROFIBUS-DP/ PA, DEVICENET, CANOPEN

TYPE 'F' LIMITSWITCH BOX WITH AS-Interface

- The 'F' limitswitch box has been designed to overcome lengthy wiring. It is easy to operate, maintain and control .
- The limitswitch is configured to exchange data through the fieldbus using Actuator Sensor Interface
- The fieldbus connectivity is achieved by using 2-wire interface depending upon network topology

COMMUNICATION CHARACTERISTICS

- : AS-Interface using V2.1/3.0 profile insert : 4I/4O simple addressing Protocol •
- Transmission ASI flat cable/ Unshield 2-wire
- Line/ Star/ tree using repeaters **Bus Structure**
- Max. No. of slaves
- 31 Input/ output per box : 2 Inputs/ 2 Outputs (4 Inputs/ 4 Outputs optional)
- . Bus cable length
- : 100m/ 300m with repeaters Slave addressing : Hand held addressing unit .

ELECTRICAL CHARACTERISTICS

- Supply voltage
- Bus consumption .
- < 250 mA Up to 1W
- Solenoid consumption
- Protection
- IP55
- . Supply connection (24V)
- Earthing

.

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On the box Electromagnetic compatibility : CE, directive EMC 89/ 336/EEC

24V DC+/ - 10% with max 15% ripple

Flat with vampire type connector 5 pin male

STANDARD INPUTS/ OUTPUT

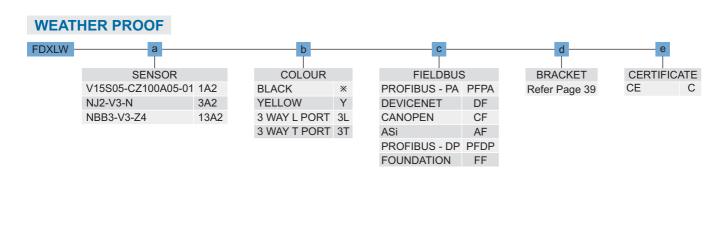
- Microswitch Solenoid valves
- : V15S05-CZ100A05-01 (5A) Honeywell : 24V DC, 40 mA (1W max)



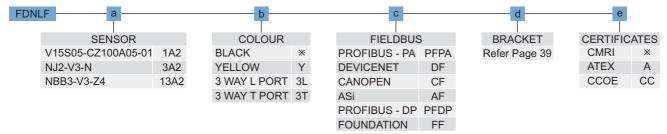


PROFIBUS-DP/ PA, DEVICENET, CANOPEN

ORDERING EXAMPLE



EXPLOSION PROOF



ORDERING EXAMPLE

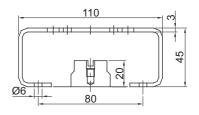
MODEL : FDNLF13A2 - Y - PFDP - B1 Explosion proof housing with profibus-DP interface Digital input with PEPPERL+FUCHS Proximity, Sensor NBB3-V3-Z4 200 mAmp, 24V DC with 2 built in Solenoid Driver 24V DC, max 300 mA

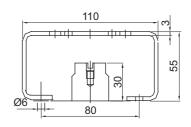
ORDERING CODE FOR INDICATOR

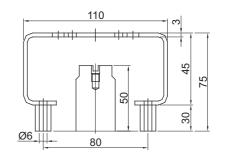


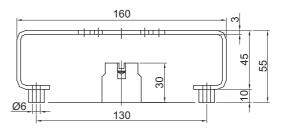
MOUNTING BRACKET

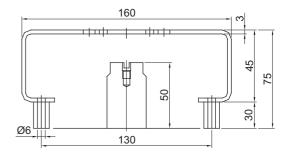
	-	SQ 4SQ		4NOS. S-4NOS
↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓<			24 30 78	<u>1</u>











ACCESSORY
M5 X 10 - HEXAGON BOLT
M6 X 12 - HEXAGON BOLT

ACCESSORY

ACCESSORY

MS/ ALUMINIUM BUSH 30mm HEIGHT

M5 X 10 - HEXAGON BOLT

M6 X 12 - HEXAGON BOLT

M5 X 40 - HEXAGON BOLT

M6 X 12 - HEXAGON BOLT

ORDERING CODE		
MATERIAL OF BR	ACKET	
SS 304	MS	
B1	M1	

ORDERING CODE		
MATERIAL OF BRACKET		
SS 304	MS	
B21 M21		

ORDERING CODE		
MATERIAL OF BR	ACKET	
SS 304	MS	
B3	M3	

ORDERING CODE		
MATERIAL OF BR	ACKET	
SS 304	MS	
B132	M132	

ORDERING CODE		
MATERIAL OF BRA	ACKET	
SS 304	MS	
B133	M133	

ACCESSORY
M5 X 20 - HEXAGON HEAD BOLT
M6 X 12 - HEXAGON HEAD BOLT
MS/ ALUMINIUM BUSH 10mm HEIGHT

ACCESSORY
M5 X 40 - HEXAGON HEAD BOLT
M6 X 12 - HEXAGON HEAD BOLT
MS/ ALUMINIUM BUSH 30mm HEIGHT



ROTEX MANUFACTURERS & ENGINEERS PRIVATE LIMITED

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