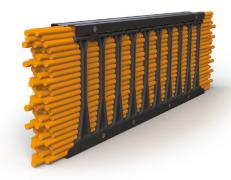


# HIGH DENSITY WIRE MANAGEMENT



High Density Wire Management (HDWM) helps to improve network performance and reliability (system under industrial trademark).

### MAIN ADVANTAGES

- Reduces risk of attenuation and substantially increases data transmission reliability
- > Solution for racks and open frames
- Innovative approach for backbone and patch cables allow better organization in accordance with industry standards and major cable manufacturer recommendations
- New design for 48 patch cords (Cat. 7A) in 1U position
- Unbeatable density of patch cords
- Bend radius control
- Allows installation of up to 2 016 patch cords in one rack
- Unique front panel latching system
- > Front or front/rear design layout available
- Wide range of sizes usable for typical applications

COLOR SAMPLER: RAL 9005

				Number	of cables		
Code	Description	Cable Details	CAT 6 UTP	CAT 6a UTP	CAT 7a PiMF	Own	
		Ø (mm)	5.870	7.239	7.620	8.000	
		Fill Factor		50	0 %		
Standard version							
HDWM-HM-1F	Horizontal HDWM, 1U×10 finger, front only 1U×19"×112 mm	50	33	30	27		
HDWM-VMR-42-12/10F	Vertical High Density Rack Wire Manager, 41 fingers, front only, 4	184	121	109	99		
HDWM-VMF-42-15/20F	Vertical High Density Frame Wire Manager, 41 fingers, front only,	507	333	301	273		
HDWM-VMF-42-25/20F	Vertical High Density Frame Wire Manager, 41 fingers, front only,	913	600	541	491		
HDWM-VMF-42-25/30F	Vertical High Density Frame Wire Manager, 41 fingers, front only,	1 411	928	837	760		
Finger Opening Standard	Capacity of finger opening—standard version	47	31	28	25		
Longer version							
HDWM-HML-1F	Horizontal HDWM, 1U×10 long finger, front only 1U×19"×182mm	92	60	54	49		
HDWM-VMR-42-19/10F	Vertical High Density Rack Wire Manager, 41 long fingers, front o	312	205	185	168		
HDWM-VMF-42-22/20F	Vertical High Density Frame Wire Manager, 41 long fingers, front	791	520	469	426		
HDWM-VMF-42-32/20F	Vertical High Density Frame Wire Manager, 41 long fingers, front	1197	787	710	644		
HDWM-VMF-42-32/30F	Vertical High Density Frame Wire Manager, 41 long fingers, front	ertical High Density Frame Wire Manager, 41 long fingers, front only, 42U×321×300 mm 1851 1217 109					
Finger Opening Long	Capacity of finger opening—longer version		92	92 60 54			

## **DESCRIPTION**

#### Front/rear design

- Dual pathway for managing cables within the same HDWM
- Horizontal and vertical orientations, vertical racks (VMR) for front only

### Front only design

- Simple pathway for cables
- Available in horizontal and vertical orientations

### Horizontal orientation

- Horizontal pathway for managing cables between installed equipment
- For mounting onto 19" extrusions

#### Vertical orientation

- Vertical pathway for managing cables into and through the rack or frame
- Velcro cable ties for optimum cable bundle management
- Vertical managers can be bolted together (front to back), customizing the HDWM to your requirements

#### Frame vertical panel (VMF)

- 3 mm thick aluminum ensures high rigidity and structural strength
- Easy installation onto RSG frames

#### Cable Troughs

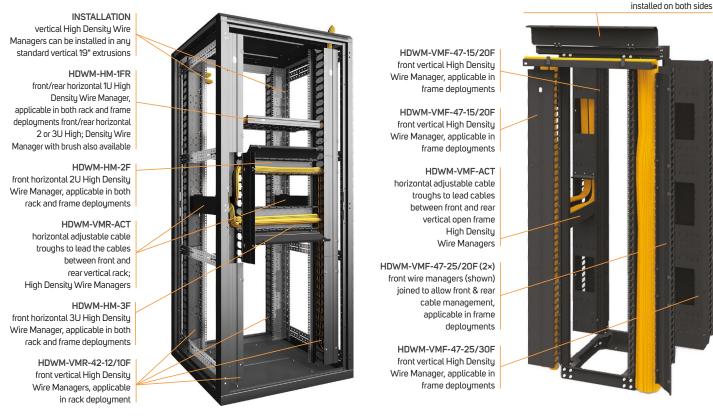
- Allows cable management of cables between vertical rack (VMR) or frame (VMF) HDWM
- Adjustable length

#### Sizes

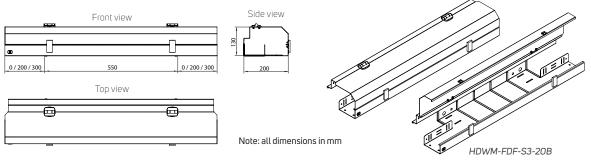
 Fingers come in two sizes standard and long

## HDWM—example of use

HDWM-FDF-S3-20B front duct system, compatible with HDWM-VMF-xx-yy/20F



# Front duct system compatible with vertical HDWM—RSG open frame installation



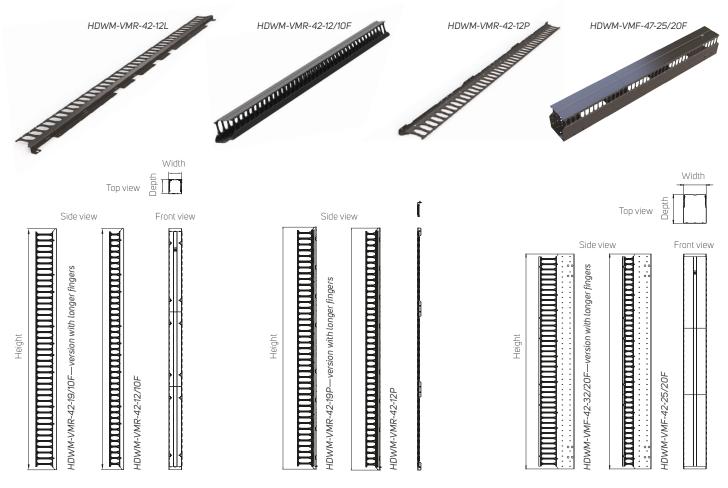
#### Package includes:

- Set 1: 1× HDWM front duct, 1× cable radius protector, 1× connecting module, 4× screws M5, 4× nuts M5, 4× washer M5
- Set 2: 1x HDWM front duct, 2x cable radius protector, 1x connecting module, 4x screws M5, 4x nuts M5, 4x washer M5

Code	Installation	Description	Package
HDWM-FDF-S3-20L	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/20F installed on the left-hand side	1 pc of set 1
HDWM-FDF-S3-20R	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/20F installed on the right-hand side	1 pc of set 1
HDWM-FDF-S3-20B	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/20F installed on both sides	1 pc of set 2
HDWM-FDF-S3-30L	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/30F installed on the left-hand side	1 pc of set 1
HDWM-FDF-S3-30R	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/30F installed on the right-hand side	1 pc of set 1
HDWM-FDF-S3-30B	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/30F installed on both sides	1 pc of set 2
HDWM-FDF-S3-20L30R	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/20F installed on the left-hand side and HDWM-VMF-xx-yy/30F installed on the right-hand side	1 pc of set 2
HDWM-FDF-S3-30L20R	Open frame	Front duct system, compatible with HDWM-VMF-xx-yy/30F installed on the left-hand side and HDWM-VMF-xx-yy/20F installed on the right-hand side	1 pc of set 2
HDWM-FDF-S3-EC	Open frame	End cap for front duct system	2 pcs

# Vertical high density wire managers

# Rack & RSG open frame installation



#### Package includes:

- Set 1: 1× HDWM manager, set of blanking panels, 8× screws M5, 8× nuts M5, 8× washer M5, 10× velcro ties HDWM-VCT
- Set 2: 1× HDWM manager, 4× screws M5, 4× nuts M5, 4× washer M5, 5× velcro ties HDWM-VCT
- Set 3: 1× HDWM manager, 4× screws M5, 4× nuts M5, 4× washer M5, 10× velcro ties HDWM-VCT

Code	Installation	Туре	No. of fingers		Dimensions			Extended version with longer fingers		Package
			Front	Rear	H (in U)	W (mm)	D (mm)	Code	D (mm)	
HDWM-VMR-42-12/10F	Rack	Front	41	х	42	100	112	HDWM-VMR-42-19/10F	182	
HDWM-VMR-45-12/10F	Rack	Front	44	Х	45	100	112	HDWM-VMR-45-19/10F	182	
HDWM-VMR-47-12/10F	Rack	Front	46	Х	47	100	112	Х	х	1 pc of set 1
HDWM-VMR-48-12/10F	Rack	Front	47	Х	48	100	112	HDWM-VMR-48-19/10F	182	013001
HDWM-VMR-52-12/10F	Rack	Front	51	Х	52	100	112	Х	х	
HDWM-VMR-42-12L	Rack	L-type 800 mm	41	Х	42	-	112	HDWM-VMR-42-19L	182	
HDWM-VMR-45-12L	Rack	extrusion and A-type RF1, 600 mm width,	44	Х	45	-	112	HDWM-VMR-45-19L	182	
HDWM-VMR-48-12L	Rack	one row	47	Х	48		112	HDWM-VMR-48-19L	182	1pc
HDWM-VMR-42-12P	Rack	P-tupe extrusion and	41	Х	42	-	112	HDWM-VMR-42-19P	182	of set 2
HDWM-VMR-45-12P	Rack	A-type RF1, 800 mm	44	Х	45	-	112	HDWM-VMR-45-19P	182	
HDWM-VMR-48-12P	Rack	width, one row	47	Х	48		112	HDWM-VMR-48-19P	182	
HDWM-VMF-42-15/20F	Open frame	Front 1	41	Х	42	200	151	HDWM-VMF-42-22/20F	221	
HDWM-VMF-45-15/20F	Open frame	Front <sup>1</sup>	44	Х	45	200	151	HDWM-VMF-45-22/20F	221	
HDWM-VMF-47-15/20F	Open frame	Front 1	46	Х	47	200	151	HDWM-VMF-47-22/20F	221	
HDWM-VMF-42-25/20F	Open frame	Front <sup>1</sup>	41	Х	42	200	251	HDWM-VMF-42-32/20F	321	
HDWM-VMF-45-25/20F	Open frame	Front <sup>1</sup>	44	Х	45	200	251	HDWM-VMF-45-32/20F	321	1 pc of set 3
HDWM-VMF-47-25/20F	Open frame	Front <sup>1</sup>	46	х	47	200	251	HDWM-VMF-47-32/20F	321	5. 56. 6
HDWM-VMF-42-25/30F	Open frame	Front <sup>1</sup>	41	Х	42	300	251	HDWM-VMF-42-32/30F	321	
HDWM-VMF-45-25/30F	Open frame	Front <sup>1</sup>	44	Х	45	300	251	HDWM-VMF-45-32/30F	321	
HDWM-VMF-47-25/30F	Open frame	Front <sup>1</sup>	46	Х	47	300	251	HDWM-VMF-47-32/30F	321	

<sup>&</sup>lt;sup>1</sup> For front/rear design, simply order respective front managers and install them easily at the installation site with enclosed hardware (standard). Both the standard and longer versions may be combined as well.

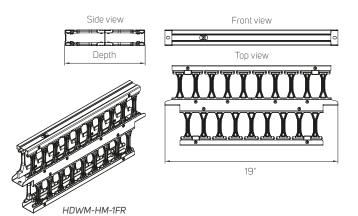
# Horizontal high density wire managers



# Front/rear design



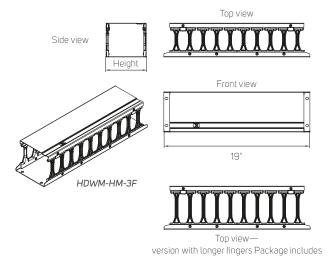
Front/rear design HDWM-HM-1FR





# Front only design





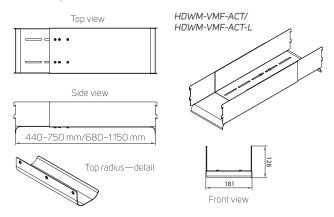
### Package includes:

• HDWM manager, 1× DP-MO-01

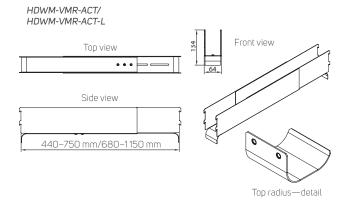
Code	Installation	Туре	No. of fingers		Dimensions			Extended version with longer fingers		Package
			Front	Rear	H (in U)	W	D (mm)	Code	D (mm)	
HDWM-HM-1F	Open frame/rack	Front	10	-	1	19"	112	HDWM-HML-1F	182	1 pc
HDWM-HM-1FR	Open frame/rack	Front/rear	10	9	1	19"	223	HDWM-HML-1FR	363	1 pc
HDWM-HM-2F	Open frame/rack	Front	10	-	2	19"	112	HDWM-HML-2F	182	1 pc
HDWM-HM-2FR	Open frame/rack	Front/rear	10	9	2	19"	223	HDWM-HML-2FR	363	1 pc
HDWM-HM-2FRB	Open frame/rack	Front/rear, brush	10	9	2	19"	223	HDWM-HML-2FRB	363	1 pc
HDWM-HM-3F	Open frame/rack	Front	10	-	3	19"	112	HDWM-HML-3F	182	1 pc
HDWM-HM-3FR	Open frame/rack	Front/rear	10	9	3	19"	223	HDWM-HML-3FR	363	1 pc
HDWM-HM-3FRB	Open frame/rack	Front/rear, brush	10	9	3	19"	223	HDWM-HML-3FRB	363	1 pc

# Adjustable cable trough for vertical HDWM

# RSG open frame installation



## Rack installation



### Package includes:

• HDWM-VMX-ACT-X: 1× duct, 2× radius control, 4× screws M5

ACCESSORIES FOR HIGH DENSITY WIRE MANAGERS						
Code	Description	Package				
HDWM-VMR-19	Bracket for attachment of HDWM-VMR-XX-XX/XXF to 19" profiles (not required for RF1 and iSEVEN)	1 set				
HDWM-VMR-ACT	Adjustable cable trough—for front-to-rear cable management between front and rear mounted VMR, top radius included, range 440 to 750 mm	1 set				
HDWM-VMF-ACT	Adjustable cable trough—for front-to-rear cable management between front and rear mounted VMF, top radius included, range 440 to 750 mm	1 set				
HDWM-VMR-ACT-L	Adjustable cable trough—long—for front-to-rear cable management between front and rear mounted VMR, top radius included, range 680 to 1150 mm	1 set				
HDWM-VMF-ACT-L	Adjustable cable trough—long—for front-to-rear cable management between front and rear mounted VMF, top radius included, range 680 to 1150 mm	1 set				
HDWM-VMF-B15	Bracket for attachment of HDWM-VMF-XX-15/XXF to back of open frame (not required for RSG)	2 pcs				
HDWM-VMF-B25	Bracket for attachment of HDWM-VMF-XX-25/XXFR to back of open frame (not required for RSG)	2 pcs				
HDWM-VMF-BLANK-42	Blank panel kit to close ACT holes for 42U VMF range of wire managers	3 pcs				
HDWM-VMF-BLANK-45	Blank panel kit to close ACT holes for 45/47U VMF range of wire managers	3 pcs				
HDWM-FSS-50	Fiber storage spools, 50 mm deep, including mounting hardware	1 pair				
HDWM-FSS-100	Fiber storage spools, 100 mm deep, including mounting hardware	1 pair				
HDWM-VCT	Velcro cable ties, 25×300 mm, black	10 pcs				
HDWM-VCT-B	Velcro cable belt, 13×5000 mm, black	1pc				
HDWM-VCT-B-RD	Velcro cable belt, 13×5000 mm, red	1pc				
HDWM-VCT-B-GN	Velcro cable belt, 13×5000 mm, green	1pc				
HDWM-VCT-B-YL	Velcro cable belt, 13×5000 mm, yellow	1pc				
HDWM-VCT-S	Velcro cable ties—small, 13×190 mm, black	25 pcs				
HDWM-VCT-S-BU	Velcro cable ties—small, 13×190 mm, blue	25 pcs				
HDWM-VCT-S-RD	Velcro cable ties—small, 13×190 mm, red	25 pcs				
HDWM-VCT-S-YL	Velcro cable ties—small, 13×190 mm, yellow	25 pcs				
HDWM-VCT-S-GN	Velcro cable ties—small, 13×190 mm, green	25 pcs				



HDWM-FSS-50



HDWM-VCT-S



HDWM-VCT-B



HDWM-VCT

# Differences between longer and standard version



HDWM-VMR-42-19/10F



HDWM-VMR-42-12/10F







Opening system right and left side

