VORLÄUFIG
PROVISOIRE
PROVISIONAL

8471

ECONOMIC REFRIGERATION PRESSURE TRANSMITTER ECTR/ECERV

(Substitute 8498: ECOSR/ECORV)

ANWENDUNG

- ◇ Schiffbau
- ◇ Motorenbau
- ◇ Schienenfahrzeuge
- ◇ Maschinenbau
- ◇ Hydraulik
- ◆ **HLK**
- ◆ **Kältetechnik**
- ◇ Prozess Techn.
- ◇ Wasseraufbereitung
- ◇ Autoindustrie
- ◇ Prüfstände
- ◇ Ex
- ◇ Lebensmittelindustrie

APPLICATIONS

- ◇ Construction navale
- ◇ Constr. de moteurs
- ◇ Véhicules sur rail
- ◇ Machines-outils
- ◇ Hydraulique
- ◆ **CVC**
- ◆ **Réfrigération**
- ◇ Techn. de procédés
- ◇ Traitement de l'eaux
- ◇ Industrie automobile
- ◇ Banc d'essai à frein
- ◇ Ex
- ◇ Industrie alimentaire

APPLICATIONS

- ◇ Shipbuilding
- ◇ Engine manufacturing
- ◇ Railways
- ◇ Machine tools
- ◇ Hydraulics
- ◆ **HVAC**
- ◆ **Refrigeration**
- ◇ Process technology
- ◇ Water treatment
- ◇ Automotive industry
- ◇ Test benches
- ◇ Ex
- ◇ Food Industry



HAUPTMERKMALE

◆ Sensor:	Dickschicht auf Keramik
◆ Messbereich:	-1...9 bis 0...40 bar
◆ Ausgangssignal:	4...20 mA
	0...5 VDC
	0...10 VDC
	0.5...4.5 VDC ratiometrisch
◆ NLH (BSL durch 0):	± 0.3 % d.S. typ.

CARACTÈRES DISTINCTIFS

◆ Capteur:	Film épais sur céramique
◆ Plage de mesure:	-1...9 à 0...40 bar
◆ Signal de sortie:	4...20 mA
	0...5 VDC
	0...10 VDC
	0.5...4.5 VDC ratiométrique
◆ NLH (BSL par 0):	± 0.3 % E.M. typ.

MAIN CHARACTERISTICS

◆ Sensor:	Thick film on ceramic
◆ Measuring range:	-1...9 to 0...40 bar
◆ Signal output:	4...20 mA
	0...5 VDC
	0...10 VDC
	0.5...4.5 VDC ratiometric
◆ NLH (BSL through 0):	± 0.3 % FS typ.

VORTEILE

- ◆ Wirtschaftlich
- ◆ Gute Medienverträglichkeit
- ◆ EMV-Schutz, IEC 61000
- ◆ Für OEM Anwendung
- ◆ Absolut- oder Relaiv-Druckmessung

AVANTAGES PRINCIPAUX

- ◆ Economique
- ◆ Bonne compatibilité des médias
- ◆ Protection CEM, CEI 61000
- ◆ Pour application OEM
- ◆ Mesurage de pression absolue ou relatif

MAIN FEATURES

- ◆ Economical
- ◆ Good media compatibility
- ◆ EMC Protection, IEC 61000
- ◆ For OEM use
- ◆ Absolute or relative pressure measurement

baugleiche Modelle für Industrie & mit Option erhöhter Spezifikationen:
version même construction pour industrie & avec specification élevée optional:
identical construction for industries & option for higher specifications :

DATA SHEET NO: **H72324**
www.trafag.com/H72324

BESTELLINFORMATION / INFORMATION POUR LA COMMANDE / ORDERING INFORMATION

Lager Code (kurze Lieferzeiten)**/ Numéro de stock** (delai de livraison bref)**/ Code for stock products** (short delivery time)**:** **ECTR/ECERV**

☛ siehe Katalog:/ regardez catalogue:/ see catalogue: „Standard Products“ (z.B./ Ex./e.g: ECTR25.0A)

Varianten Code/ Numéro de variantes/ Custom build code **8471** **XXXX.XX.XXXX.XX.XX.XX...**

Bereich	0 ...	1.0	**Überdruck**	max.	3.2	**Berstdruck**	4.8		**71**
Plage	0 ...	1.6	**Surpression**		3.2	**Pression d'éclatemenet**	4.8		**73**
Range	0 ...	2.5	**Over pressure**		5	**Burst pressure**	7.5		**75**
	0 ...	4.0			8		12		**76**
[bar]	0 ...	6.0	**[bar]**		12	**[bar]**	15		**77**
	0 ...	10.0			20		25		**78**
	0 ...	16.0			32		40		**79**
	0 ...	25.0			50		75		**80**
	0 ...	40.0			80		100		**81**
	-1 ...	9.0			20		25		**26**
	-1 ...	16.0			32		40		**27**
Sonderbereich nach Kundenwunsch, z. B.: Plage à spécifier par le client, p. ex.: Customized ranges on request, e.g.:					−1 ... +4 bar				**XX**

Sensor	relativ/ relatif /relative	Druckanschl./Racc. de pression/Pressure conn.: CuZn	(ECERx)	**58**
Capteur	relativ/ relatif /relative	Druckanschl./Racc. de pression/Pressure conn.: 1.4305	(ECTR)	**57**
Sensor	*absolut/ abslue/ absolute	Druckanschl./Racc. de pression/Pressure conn.: CuZn	(ECERx)	**88**
	*absolut/ abslue/ absolute	Druckanschl./Racc. de pression/Pressure conn.: 1.4305	(ECTR)	**87**

*Bereich max. 40 bar/ Plage max. 40 bar/ Range max. 40 bar

Druckanschluss	7/16-20UNF	aussen/ mâle/ male	DIN3866	**18**
Raccord de pression	7/16-20UNF	innen/ femelle/ female	DIN3866; Ventilöffner/ valve repos/ valve opener	**24**
Pressure connection	NPT 1/4“	aussen/ mâle/ male		**30**

Ausführung	Gerätestecker/ Embase mâle/ Male electrical plug:	EN175301-803-A	Mat.: PA	**05**
Exécution		M12,1, 5-pol.	Mat.: PA	**35**
Execution	Kabel/ Câble/ Cable:	l=1.5m	Mat.: PVC (cable gland: PA6-3)	**22**

Ausgangssignal	Output	Load resistance	I_{SUPPLY}	U_{SUPPLY}		
Signal de sortie	4 ... 20 mA	(U_{Supply}-9V)/ 20mA		9 ... 30 VDC		**19**
Output	0 ... 5 VDC	> 2.5 kΩ	<10 mA	10 ... 30 VDC		**14**
	0 ... 10 VDC	> 5.0 kΩ	<10 mA	15 ... 30 VDC		**17**
	0.5... 4.5 VDC	> 5.0 kΩ	<10 mA	5 VDC ±0.25 V	ratiometrisch/ ratiométrique/ ratiometric	**23**

Zubehör	O-Ring	FKM	**61**
Accessoires		CR	**62**
Accessories		EPDM	**63**
	Druckspitzendämpfung/ Elément d'amortissement à pointe de surpression/	ø 0.3 mm	**43**
	Pressure peak damping element: compatible for pressure connection No. 17&30	ø 0.5 mm	**45**
		ø 1.0 mm	**40**
	Kabeldose/ Fiche femelle/ Female electrical connector	EN175301-803-A (DIN43650-A)	**58**
		M12x1, 5-pol.	**33**

Anschlussbelegung spezial/ Raccordement électrique spécial/ Special electrical connection:
>Details siehe ‚Elektrischer Anschluss'/ details voir ‚Raccordement électrique'/ details see ‚electrical connection'
Ausführung/Execution No. 05 (EN175301-803-A) & Output No. 19 (4...20 mA) **92**
Outputs No. 14 (0...5 VDC), No.17 (0...10 VDC), No.23 (0.5...4.5 VDC) **98**

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SPEZIFIKATIONEN

HAUPTMERKMALE

Sensor:	Dickschicht auf Keramik (s. Material)
Messbereich:	-1...9 bis 0...40 bar
Ausgangssignal:	4...20 mA
	0...5 VDC
	0...10 VDC
	0.5...4.5 VDC ratiometrisch

GENAUIGKEIT

TFB @ -25...+85°C:	± 3.0 % d.S. typ.
Genauigkeit @ +25°C:	± 0.5 % d.S. typ.
NLH @ +25°C (BSL durch 0)	± 0.3 % d.S. typ.
TK Nullpunkt und Spanne:	± 0.03 % d.S./K typ.
Langzeitstabilität	
1 Jahr @ +25°C:	± 0.3 % d.S. typ.

ELEKTRISCHE DATEN

Ausgangssignal/ Speisespannung	
4...20 mA:	24 (9...30) VDC
0...5 VDC:	24 (10...30) VDC
0...10 VDC:	24 (15...30) VDC
0.5...4.5 VDC:	5 VDC ratiometrisch
Anstiegszeit:	typ. 1 ms/ 10...90% Nenndruck
Einschaltverzögerung:	max. 1.5 s

UMGEBUNGSBEDINGUNGEN

Betriebstemperatur:	-25 ...+85°C
Medientemperatur:	-25 ...+85°C
Schutzart:	[2] min. IP65
Feuchtigkeit:	max. 95% relativ
Vibration:	4g (10...2000 Hz)
Schock:	50g/ 8 ms

EMV-SCHUTZ

(Ausgangssignal: 4...20mA)

Emission:	EN/IEC 61000-6-3
Immunity:	EN/IEC 61000-6-2

MECHANISCHE DATEN

Material	
Sensor:	Keramik, Al_2O_3(96%)
Druckanschluss 58:	CuZn39Pb3
oder 57:	1.4305 (AISI303)
O-Ring (medienberührend):	FKM 70°Sh
	CR, EPDM
Gerätestecker:	siehe Bestellinformation
Anziehdrehmoment:	15...20 Nm
Gewicht:	~ 110 g

SPÉCIFICATIONS

CARACTÈRES DISTINCTIFS

Capteur:	Film épais sur céramique (voir matière)
Plage de mesure:	-1...9 à 0...40 bar
Signal de sortie:	4...20 mA
	0...5 VDC
	0...10 VDC
	0.5...4.5 VDC ratiométrique

PRÉCISION

TEB @ -25...+85°C:	± 3.0 % E.M. typ.
Précision @+25°C:	± 0.5 % E.M. typ.
NLH @ +25°C (BSL par 0)	± 0.3 % E.M. typ.
CT point zéro et écart:	± 0.03 % E.M./K typ.
Stabilité à long terme	
1 année @ +25°C:	± 0.3 % E.M. typ.

SPÉCIFICATIONS ÉLECTRIQUES

Signal de sortie/ Tension d'alimentation	
4...20 mA:	24 (9...30) VDC
0...5 VDC:	24 (10...30) VDC
0...10 VDC:	24 (15...30) VDC
0.5...4.5 VDC:	5 VDC ratiométrique
Sensibilité de réponse:	typ. 1 ms/ 10...90% pression nominale
Retard à l'enclenchement:	max. 1.5 s

CONDITIONS D'ENVIRONNEMENT

Température de service:	-25 ...+85°C
Température de médias:	-25 ...+85°C
Protection:	[2] min. IP65
Humidité:	95% max. relatif
Vibration:	4g (10...2000 Hz)
Choc:	50g/ 8 ms

CEM PROTECTION

(Signal de sortie: 4...20mA)

Emission:	EN/CEI 61000-6-3
Immunité:	EN/CEI 61000-6-2

SPÉCIFICATIONS MÉCANIQUES

Matière	
Capteur:	Céramique, Al_2O_3(96%)
Raccord de pression 58:	CuZn39Pb3
ou 57:	1.4305 (AISI303)
O-Ring (contact. de médias):	FKM 70°Sh
	CR, EPDM
Embase mâle: voir information pour la commande	
Couple de serrage:	15...20 Nm
Poids:	~ 110 g

SPECIFICATIONS

MAIN CHARACTERISTICS

Sensor:	Thick film on ceramic (see material)
Measuring range:	-1...9 to 0...40 bar
Signal output:	4...20 mA
	0...5 VDC
	0...10 VDC
	0.5...4.5 VDC ratiometric

ACCURACY

TEB @ -25...+85°C:	± 3.0 % FS typ.
Accuracy @ +25°C:	± 0.5 % FS typ.
NLH @ +25°C (BSL through 0)	± 0.3 % FS typ.
TC zero point and span:	± 0.03 % FS/K typ.
Long term stability	
1 year @ +25°C:	± 0.3 % FS typ.

ELECTRICAL DATA

Output/ Supply voltage	
4...20 mA:	24 (9...30) VDC
0...5 VDC:	24 (10...30) VDC
0...10 VDC:	24 (15...30) VDC
0.5...4.5 VDC:	5 VDC ratiometric
Rise time:	typ. 1 ms/ 10...90% nominal pressure
Switch-on delay:	max. 1.5 s

ENVIRONMENTAL CONDITIONS

Operating temperature:	-25 ...+85°C
Media temperature:	-25 ...+85°C
Protection:	[2] min. IP65
Humidity:	max. 95% relative
Vibration:	4g (10...2000 Hz)
Shock:	50g/ 8 ms

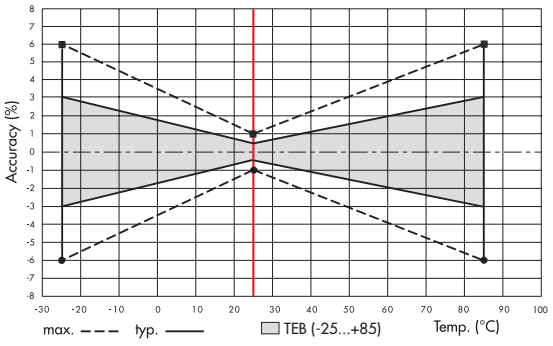
EMC PROTECTION

(Output: 4...20mA)

Emission:	EN/IEC 61000-6-3
Immunity:	EN/IEC 61000-6-2

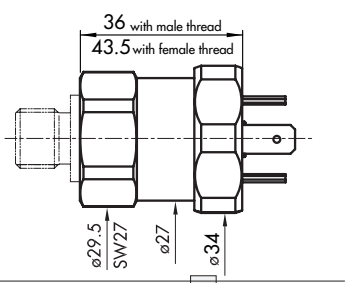
MECHANICAL DATA

Material	
Sensor:	Ceramic, Al_2O_3(96%)
Pressure connection 58:	CuZn39Pb3
or 57:	1.4305 (AISI303)
O-Ring (media contacting):	FKM 70°Sh
	CR, EPDM
Male electrical plug: see ordering information	
Mounting torque:	15...20 Nm
Weight:	~ 110 g

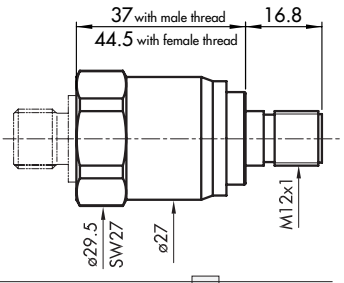


[2] nur mit vorschriftsmässig montierter Kabeldose gültig/ valable seulement avec fiche femelle montée selon instructions/ provided female connector is mounted according to instructions

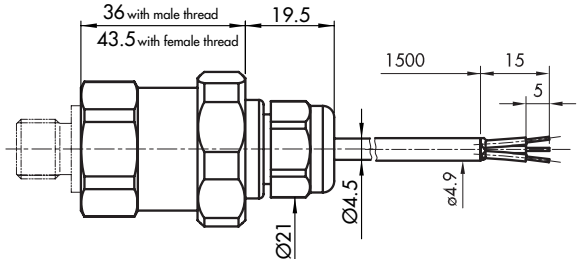
MASSBILDER / COTES D'ENCOMBREMENT / DIMENSIONS



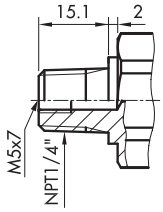
8471.XX.XXXX.**05**.XX.XX



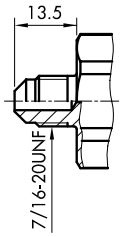
8471.XX.XXXX.**35**.XX.XX



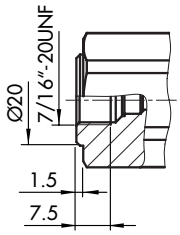
8471.XX.XXXX.**22**.XX.XX



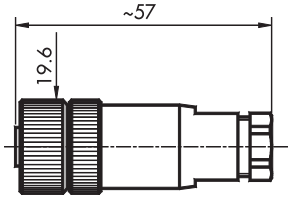
8471.XX.XX**30**.XX.XX.XX



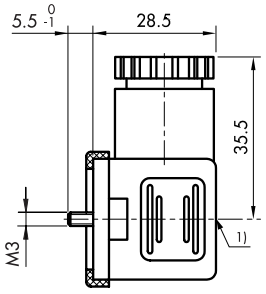
8471.XX.XX**18**.XX.XX.XX



8471.XX.XX**24**.XX.XX.XX

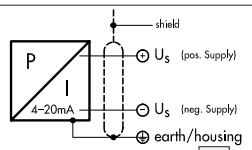
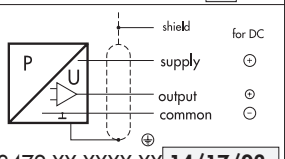


8471.XX.XXXX.XX.XX.**33**



8471.XX.XXXX.XX.XX.**58**

ELEKTRISCHER ANSCHLUSS / RACCORDEMENT ÉLECTRIQUE / ELECTRICAL CONNECTION

Schutzart / protection[2]	IP65[2]		IP65	IP67[2]
Ausführung / Exécution / Execution	EN175301-803A (DIN43650-A) **05**		Cable **22**	M12x1 5–pol. **35**
Ausgangssignal / Signal de sortie / Output				
 8472.XX.2XXX.XX.**19**	(Standard)	**92**		
shield				
P / I 4–20mA				
U_S (pos. Supply)	2	1	white	4
U_S (neg. Supply)	1	2	brown	1
earth/housing	⏚	⏚	⏚	5
 8472.XX.XXXX.XX.**14/17/23**	(Standard)	**98**		
shield for DC				
P / U				
supply ⊕	2	3	white	2
output ⊕	3	1	green	4
common ⊖	1	2	brown	3
	⏚	⏚	⏚	5

[2] nur mit vorschriftsmässig montierter Kabeldose gültig
valable seulement avec fiche femelle montée selon instructions
provided female connector is mounted according to instructions